



SOUTHCENTRAL ALASKA
SUBSISTENCE REGIONAL
ADVISORY COUNCIL
Meeting Materials

November 6-7, 2017
Homer



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On the cover...

A bull moose enjoys lush foliage and sun in Denali National Park



NPS photo by Kent Miller

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SOUTHCENTRAL ALASKA SUBSISTENCE REGIONAL ADVISORY COUNCIL

Alaska Islands and Ocean Visitor Center
95 Sterling Highway, #1
Homer, AK

November 6 – 7, 2017
8:30 a.m. – 5:00 p.m. daily

TELECONFERENCE: call the toll free number: 1-866-916-7020, then when prompted enter the passcode: 37311548.

PUBLIC COMMENTS: Public comments are welcome for each agenda item and for regional concerns not included on the agenda. The Council appreciates hearing your concerns and knowledge. Please fill out a comment form to be recognized by the Council chair. Time limits may be set to provide opportunity for all to testify and keep the meeting on schedule.

PLEASE NOTE: These are estimated times and the agenda is subject to change. Contact staff for the current schedule. Evening sessions are at the call of the chair.

AGENDA

*Asterisk identifies action item.

- 1. Invocation**
- 2. Call to Order** (*Chair*)
- 3. Roll Call and Establish Quorum** (*Secretary*)..... 4
- 4. Welcome and Introductions** (*Chair*)
- 5. Review and Adopt Agenda*** (*Chair*) 1
- 6. Review and Approve Previous Meeting Minutes*** (*Chair*) 5
- 7. Reports**
 - Council Members’ Reports
 - Chair’s Report
 - Coordinator’s Report
- 8. Public and Tribal Comment on Non-Agenda Items** (available each morning)
- 9. Old Business** (*Chair*)
 - a. Delegation of Authority Review for Southcentral Region
 - b. Cook Inlet Fisheries Regulatory Revisions (*Scott Ayers*)

10. New Business (Chair)

a. Wildlife Proposals* (*OSM Wildlife/Anthropology*) 11

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b. 2018 Fisheries Resource Monitoring Program (*OSM Fisheries/Anthropology*) 214

c. Identify Issues for FY2017 Annual Report* (*Council Coordinator*) 243

d. Review and Comment on Draft Revised Fishery Delegation of Authority Letter - Cook
Inlet Area* 254

12. Agency Reports

(Time limit of 15 minutes unless approved in advance)

Tribal Governments

- 1. Ninilchik Traditional Council (NTC)

Native Organizations

- 1. Ahtna InterTribal Resource Commission

USFWS

- 1. Kenai National Wildlife Refuge
- 2. Kenai Field Office

USFS

- 1. Cordova District

NPS

- 1. Wrangell-St. Elias National Park and Preserve

- i. Wrangell-St. Elias Subsistence Resource Commission membership – SCRAC appointment*
- ii. Denali National Park and Preserve Wildlife Update258

BLM

- 1. Glennallen Field Office

ADF&G

OSM

13. Future Meeting Dates*

- Confirm Winter 2018 meeting date and location265
- Select Fall 2018 meeting date and location266

14. Closing Comments

15. Adjourn (Chair)

To teleconference into the meeting, call the toll free number: 1-866-916-7020, then when prompted enter the passcode: 37311548.

Reasonable Accommodations

The Federal Subsistence Board is committed to providing access to this meeting for all participants. Please direct all requests for sign language interpreting services, closed captioning, or other accommodation needs to Donald Mike, 907-786-3629, donald_mike@fws.gov, or 800-877-8339 (TTY), by close of business on October 23, 2017.

REGION 2

Southcentral Alaska Subsistence Regional Advisory Council

Seat	Year Appointed <i>Term Expires</i>	Member Name and Community
1	2016 2019	Edward H. Holston Cooper Landing
2	2014 2019	Eleanor Dementi Cantwell
3	2003 2019	Richard Greg Encelewski Chair Ninilchik
4	2016 2019	Diane A. Selanoff Valdez
5	2016 2019	Daniel E. Stevens Chitina
6	2003 2017	Gloria Stickwan Vice Chair Tazlina
7	2003 2017	James R. Showalter Soldotna
8	2011 2017	Michael V. Opheim Seldovia
9	2011 2017	Andrew T. McLaughlin Chenega Bay
10	2009 2018	Judith C. Caminer Secretary Anchorage
11	2015 2018	Ingrid B. Peterson Homer
12	2003 2018	Thomas M. Carpenter Cordova
13	2009 2018	Ricky J. Gease Kenai

SOUTHCENTRAL ALASKA SUBSISTENCE REGIONAL ADVISORY COUNCIL

Aleutian Pribilof Islands Association
1131 East International Airport Rd.
Anchorage, Ak
February 13-14, 2017
Meeting Minutes

Meeting Called to order by Chair Greg Encelewski

Roll Call by Secretary Caminer

Invocation

SCRAC Members Present

Ed Holston	Cooper Landing
Ricky Gease	Kenai
Greg Encelewski	Ninilchik
Daniel Stevens	Chitina
Eleanor Dementi	Cantwell
Judy Caminer	Anchorage
Gloria Stickwan	Tazlina
Andy McLaughlin	Chenega Bay
Michael Opheim	Seldovia
Tom Carpenter	Cordova
Diane Selanoff	Valdez – Present via teleconference

Quorum established. Eleven members present. One member present via teleconference.

Absent: James Showalter Sterling
Ingrid Peterson Homer

Introductions of Council and public members in attendance.

Agency

Joshua Ream	USFWS OSM
Tom Evans	USFWS OSM
Marnie Graham	BLM Glennallen
Barbara Cellarius	NPS Copper Center
Tom Whitford	USFS Anchorage
DeAnne Perry	USFS Juneau
Jesse Hankins	BLM Glennallen
Pat Petrivelli	BIA Anchorage
Gene Peltola	USFWS OSM
Orville Lind	USFWS OSM
Robert Skorkowsky	USFS
Amy Craver	NPS Denali

Dan Sharp	BLM Anchorage
David Pearson	USFS
Srinath Doraiswamy	USFWS OSM
Carl Johnson	USFWS OSM
Robbin LaVine	USFWS OSM
Scott Ayers	USFWS OSM
Stewart Cogswell	USFWS OSM
Scott Harris	USFWS OSM

Public/NGO

Shirley Smelcher	Ahtna InterTribal Resource Commission (AITRC)
Karen Linnell	AITRC
Christopher Gene	AITRC
Ivan Encelewski	Ninilchik Traditional Council (NTC)
Neil DeWitt	

Teleconference Participants

Jeff Anderson	USFWS Kenai
Patricia Phillips	Pelican, Ak
Steve Miller	USFWS Kenai

Review/Adoption of Meeting Agenda

- add under item number 8, Coordinators report
- litem number 10 Old Business, Draft MOU with the State of Alaska, move to OSM agency reports
- add fishery presentation FSA-17-01 under item C, Fishery Update

Mr. Carpenter move to adopt meeting agenda as modified. Second called by Mr. McLaughlin. Meeting agenda adopted.

Election of Officers

Chair – Greg Encelewski
Vice Chair – Judy Caminer
Secretary – Gloria Stickwan

Review/Adoption of October 17-18, 2016 Meeting Minutes

Clarification on page 11 of the meeting minutes under item FRMP. Priority Information Needs (PINs) working group of the SCRAC, should include workgroup members; Ricky Gease and Gloria Stickwan. Discussions led by Scott Ayers of OSM to develop the SCRAC PINs.

Mr. Carpenter moved to adopted meeting minutes as corrected and seconded by Mr. McLaughlin. Minutes adopted.

RAC Reports

RAC members: Mr. Gease provided a status on the Alaska DOT preferred alternative for the realignment of the Sterling Highway in the Cooper Landing area.

Ms. Stickwan reported the outlook for Copper River of Chinook returns is about 29,500. The low return is possibly going to restrict fishwheel operations for subsistence or closure. If a restriction is implemented to require live box on fishwheels, this will in turn cause hardship for subsistence fishers.

Ms. Dementi reported the Denali National Park held a workshop for place names by Nikolai and Nondalton residents. She also noted that the AITRC signed a MOA with the Department of the Interior. The effort was many years of work by the Ahtna people to develop the AITRC.

Ms. Selanoff brought concerns forward of the herring population declining in the Prince William Sound after 1989, herring industry is not there, and the subsistence opportunity for herring is in significant decline.

Mr. Opheim reported the Seldovia Advisory Committee, serving as the Chair, submitted a proposal to the Board of Fish for additional fishing areas and time in the Seldovia area due to Salmon returning later in the season. Proposal for additional time and expanded area was not passed by the BOF. The Committee will try and meet and work with the local area manager to help meet their needs.

Mr. Encelewski reported on winter fishery in Cook Inlet. The fishery is growing in popularity and genetic studies found the winter Chinook are stocks from the Pacific Northwest. Chinook sport fishing in the Ninilchik and Deep Creek area are being liberalized and returns for the stock has not been fully assessed is a concern. Subsistence moose harvest has been improving.

Chairs Report: Mr. Encelewski attending the Federal Subsistence Board meeting on fishery proposal. The Board did not vote to make the Kasilof fishery regulations permanent which the RAC unanimously supported. An agreement was reached on the Kenai subsistence fishery between Ninilchik Traditional Council and the Board. (Details on the ANILCA S. 805c letter)

Coordinators Report: Mr. Mike introduced Ms. DeAnna Perry to the Council. She is a USFS employee and will coordinate the Southeast RAC when Mr. Bob Larson retires. Ms. Perry was recently given an additional assignment to coordinate the Southcentral RAC. She will be attending the next several SCRAC public meetings and take coordinator duties and transition to the Council during the winter of 2018. Mr. Mike will be assigned to the AITRC committee when it is authorized to be formed under the Federal Advisory Committee Act.

Public and Tribal Comments: Opportunity is given to the public and Tribal entities for testimony on non-agenda items on subsistence related issues and concerns on each day.

Mr. Ivan Encelewski, Executive Director NTC, commented on the Delegation of Authority needed specific framework from the FSB to the in-season managers.

OLD BUSINESS

Delegation of Authority

The Council voted to conduct a six-year review of both wildlife and fisheries delegated authorities, to coincide with regulatory years. The first fisheries review will be in 2018, the first wildlife review in 2019.

Fisheries Update

Mr. Mike provided an update to the recent FSB action on the Kenai Subsistence fishery proposals. The Council was presented the gillnet subsistence fishery in the Moose Range Meadows within the Kenai National Wildlife Refuge. The Board approved a strategy to move forward with the gillnet fishery on the Kenai River.

- The Kenai River annual total harvest limits for late-run Chinook Salmon, Sockeye Salmon, Coho Salmon, and Pink Salmon will no longer apply to this fishery, and it will instead be managed by household limits and other caps set forth in by this special action.
- An early-run Chinook Salmon season, specific to this community gillnet fishery, will be established from July 1 to July 15.
- An early-run Chinook Salmon household limit will be established, specific to this community gillnet fishery, of two fish per household and one additional fish for each household member.
- Up to 50 early-run Chinook Salmon (less than 46 inches in length or greater than 55 inches in length) may be retained if the ADF&G Optimal Escapement Goal has been met, otherwise those fish must be released alive.
- The community gillnet fishery will close until July 16 once 50 early-run Chinook Salmon have been retained or released.
- Up to 200 late-run Chinook Salmon may be retained in the community gillnet fishery between July 16 and August 15.
- The community gillnet fishery will close prior to August 15 if 200 late-run Chinook Salmon are retained or released prior to then. The fishery will reopen September 10-30.
- Rainbow Trout and Dolly Varden caught in the net must be released alive, except that those that have died in the net may be retained.
- The community gillnet fishery will close for the season once 100 Rainbow Trout or 150 Dolly Varden have been released or retained.
- All incidental fish mortalities, regardless of species or length, may be retained; however, retention counts towards released or retained totals specified in this special action except for Chinook Salmon less than 20 inches in length.
- Alaska Department of Fish and Game sport fishing seasonal river bank closures, as adopted into Federal Subsistence Regulations, will not apply to the community gillnet fishery.

NEW BUSINESS

Call for Wildlife Proposals

Mr. Tom Evans presented the Call for Wildlife Proposals. The call for proposals opens in January and closes in March. Due to new administration in Washington DC, the Federal register has not been published to accept proposals. But, the Council can discuss wildlife proposals on record to identify for submission when the call for proposals is published.

The Council discussed the impacts of the NPS and USFWS final rule prohibiting application of State sport hunting regulations on predators on the ability of Federal subsistence users to hunt. Steve Miller, Deputy Refuge Manager for Kenai NWR, answered some questions from the Council on that topic. The Council did not elect to submit any wildlife proposals.

2016 Annual Report

The Council adopted its 2016 Annual Report with some clarifying language to the annual report on some of the existing items. For the ocean acidification, the Council added reference to impacts from East Asia industrial nations that may be producing acid rain. Delegation of authority; the Council added language stating a desire for better consistency in application, that the rural subsistence priority should be absolute regardless of what land manager is implementing. The Council also added a discussion on concern over Chinook Salmon declines on the Copper River.

U.S. Fish & Wildlife Service Alaska Native Relations Policy

The Council was briefed on the Services Alaska Native Relations Policy. The Policy is now open for public comments. The Native American Policy was signed in January of 2016 and is applicable nationwide. The Alaska Native Relations Policy is a supplement to the Native American Policy. The Policy will serve as a guide the relationships between the Service and all federally recognized Tribes in Alaska. It provides a framework for government-to-government relationship.

Memorandum of Agreement Between Ahtna and DOI

Ms. Karen Linnell, Executive Director for the Ahtna InterTribal Resource Commission, briefed the Council on the subsistence history of the Ahtna people and background information on how the MOA came to existence. The next step for the Ahtna Customary and Traditional Local Advisory Committee (LAC) is finalizing the Charter.

The Council voted to support the formation of the Ahtna Customary and Traditional Subsistence Local Advisory Committee. The Council commented that clear guidelines be established prior to the Committee conducting business to identify when the LAC would make recommendations directly to the FSB, or when it would make recommendations to the RACs or the SRCs.

Kodiak/Aleutians RAC

The Kodiak/Aleutians RAC circulated a letter to the FSB regarding the *Published Federal Regulations for Alaska National Wildlife Refuges: Non-Subsistence Take of Wildlife*. The Kodiak/Aleutians RAC is seeking endorsement of the letter from the nine other RACs, requesting the Secretary to withdraw the regulations.

The Council voted to endorse the Kodiak/Aleutians RAC letter requesting the Secretary of Interior to rescind the final rule on hunting of predators under state regulations. The Council separately voted to send its own letter to the Board asking the Secretary to rescind the similar rule adopted for NPS lands.

Agency Reports

Reports from Tribal and Federal land managing agencies provided a summary of resource management activities occurring within their respective Federal public lands or Tribal activities

Future Meeting Dates

The Council confirmed its fall 2017 meeting date of November 6-7, 2017 in Seldovia and Homer as the alternate location. The Council set the winter 2018 meeting for March 6-7 in Anchorage.

Adjournment

"I hereby certify that, to the best of my knowledge, the foregoing minutes are accurate and complete.

Donald Mike, DFO
USFWS Office of Subsistence Management

Richard Greg Encelewski, Chair
Southcentral Subsistence Regional Advisory Council

These minutes will be formally considered by the Southcentral Subsistence Regional Advisory Council at its next meeting, and any corrections or notations will be incorporated in the minutes of that meeting."

For a more detailed report of this meeting, copies of the transcript and meeting handouts are available upon request. Call Donald Mike at 1-800-478-1456 or 786-3629, email donald_mike@fws.gov

Presentation Procedure for Proposals

- 1. Introduction and presentation of analysis**
- 2. Report on Board Consultations:**
 - a. Tribes;
 - b. ANCSA Corporations
- 3. Agency Comments:**
 - a. ADF&G;
 - b. Federal;
 - c. Tribal
- 4. Advisory Group Comments:**
 - a. Other Regional Council(s);
 - b. Fish and Game Advisory Committees;
 - c. Subsistence Resource Commissions
- 5. Summary of written public comments**
- 6. Public testimony**
- 7. Regional Council recommendation** (motion to adopt)
- 8. Discussion/Justification**
 - Is the recommendation consistent with established fish or wildlife management principles?
 - Is the recommendation supported by substantial evidence such as biological and traditional ecological knowledge?
 - Will the recommendation be beneficial or detrimental to subsistence needs and uses?
 - If a closure is involved, is closure necessary for conservation of healthy fish or wildlife populations, or is closure necessary to ensure continued subsistence uses?
 - Discuss what other relevant factors are mentioned in OSM analysis
- 9. Restate final motion for the record, vote**

WP18–14 Executive Summary	
General Description	<p>Proposal WP18-14 requests an extension of the wolverine hunting and trapping seasons in Unit 13 and the hunting season in Unit 11. The proposed hunting seasons in Units 11 and 13 would change from Sept. 1 – Jan. 31 to Sept. 1 – Feb. 28. The proposed Unit 13 trapping season would change from Nov. 10 – Jan. 31 to Nov. 10 – Feb. 28, which would match the existing trapping season in Unit 11. <i>Submitted by: Wrangell-St. Elias National Park Subsistence Resource Commission.</i></p>
Proposed Regulation	<p>Hunting</p> <p style="text-align: center;">Units 11 and 13—Wolverine</p> <p style="text-align: center;"><i>1 wolverine</i> <i>Sept. 1 – Jan. 31 Feb. 28</i></p> <p>Trapping</p> <p style="text-align: center;">Unit 11—Wolverine</p> <p style="text-align: center;"><i>No limit</i> <i>Nov. 10 – Feb. 28</i></p> <p style="text-align: center;">Unit 13—Wolverine</p> <p style="text-align: center;"><i>No limit</i> <i>Nov. 10 – Jan. 31 Feb. 28</i></p>
OSM Preliminary Conclusion	Support
Southeast Alaska Subsistence Regional Advisory Council Recommendation	
Southcentral Alaska Subsistence Regional Advisory Council	

WP18–14 Executive Summary	
Recommendation	
Kodiak/Aleutians Subsistence Regional Advisory Council Recommendation	
Bristol Bay Subsistence Regional Advisory Council Recommendation	
Yukon-Kuskokwi m Delta Subsistence Regional Advisory Council Recommendation	
Western Interior Alaska Subsistence Regional Advisory Council Recommendation	
Seward Peninsula Subsistence Regional Advisory Council Recommendation	
Northwest Arctic Subsistence Regional Advisory Council	

WP18–14 Executive Summary	
Recommendation	
Eastern Interior Alaska Subsistence Regional Advisory Council Recommendation	
North Slope Subsistence Regional Advisory Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	1 Support

**DRAFT STAFF ANALYSIS
WP18-14**

ISSUES

Proposal WP18-14, submitted by the Wrangell-St. Elias National Park Subsistence Resource Commission, requests an extension of the wolverine hunting and trapping seasons in Unit 13 and the hunting season in Unit 11. The proposed hunting seasons in Units 11 and 13 would change from Sept. 1 – Jan. 31 to Sept. 1 – Feb. 28. The proposed Unit 13 trapping season would change from Nov. 10 – Jan. 31 to Nov. 10 – Feb. 28, which would match the existing trapping season in Unit 11.

DISCUSSION

The proponent would like to have the same opportunities for harvesting wolverines in Units 11 and 13. In addition, alignment of the wolverine and lynx trapping seasons would allow trappers to keep a wolverine incidentally caught in a lynx set in February in Unit 13.

Existing Federal Regulation

Hunting

Units 11 and 13—Wolverine

1 wolverine

Sept. 1 – Jan. 31

Trapping

Unit 11—Wolverine

No limit

Nov. 10 – Feb. 28

Unit 13—Wolverine

No limit

Nov. 10 – Jan. 31

Proposed Federal Regulation

Hunting

Units 11 and 13—Wolverine

1 wolverine

*Sept. 1 – ~~Jan. 31~~ Feb.
28*

Trapping

Unit 11—Wolverine

No limit

Nov. 10 – Feb. 28

Unit 13—Wolverine

No limit

*Nov. 10 – ~~Jan. 31~~ Feb.
28*

Existing State Regulation

Hunting

Units 11 and 13—Wolverine

One wolverine

Sept. 1 – Jan. 31

Units 11 and 13—Wolverine

Trapping

No limit

Nov. 10 – Jan. 31

Extent of Federal Public Lands

Federal public lands comprise approximately 87% of Unit 11 and consist of approximately 84% National Park Service (NPS) managed lands, 3% U.S. Forest Service (USFS) managed lands, and 0.1% Bureau of Land Management (BLM) managed lands (See **Unit 11 Map**).

Federal public lands comprise approximately 12% of Unit 13 and consist of approximately 6% National Park Service (NPS) managed lands, 2% U.S. Forest Service (USFS) managed lands, and 4% Bureau of Land Management (BLM) managed lands (See **Unit 13 Map**). Federal public lands within Denali National Park as it existed prior to ANILCA (December 1980) are closed to all hunting and trapping.

Customary and Traditional Use Determinations

The Federal Subsistence Board (Board) has not made a customary and traditional use determination for wolverine in Units 11 and 13. Therefore, all Federally qualified subsistence users may harvest this species in this unit.

Under the guidelines of the Alaska National Interest Lands Conservation Act (ANILCA), National Park Service regulations identify qualified local rural subsistence users in National Parks and Monuments by: 1) identifying resident zone communities which include a significant concentration of people who have customarily and traditionally used subsistence resources on park lands; and 2) identifying and issuing subsistence use (13.440) permits to individuals residing outside of the resident zone communities who have a personal or family history of subsistence use. In order to engage in subsistence on National Park lands in Wrangell St. Elias National Park (WRST) or Denali National Park (DENA) ANILCA additions, the National Park Service requires that subsistence users either live within the park's resident zone (36 CFR 13.430, 36 CFR 13.902) or have a subsistence permit (36 CFR 13.440) issued by the park superintendent.

Regulatory History

Wolverine harvests declined throughout the 1970s and 1980s following the mandatory sealing requirement implemented by the State in 1971. Before sealing began, fur buyer reports and bounty records were the primary source of wolverine harvest data. In 1990 the Federal Subsistence Board (Board) adopted the State's hunting and trapping regulations for wolverines. In 1987 the State wolverine trapping season was shortened in Units 11 and 13 from Nov. 10 -Mar. 31 to Nov. 10-Feb. 28 to help the wolverine populations recover. However, this did not occur and by 1992 wolverines could only be found in the remote mountains of Unit 13. In 1992, the Board adopted Proposal P92-031 to reduce the harvest limits under the trapping regulations from "No limit" to "two wolverines" and to retain the Feb. 28 closure date for the trapping season as wolverines are more vulnerable to harvest in late winter and early spring (OSM 1992a). In 1992, the Board also closed Federal public lands in Unit 11 and Unit 13 to wolverine hunting except by Federally qualified subsistence users (P92-031) (OSM 1992a). The Board also adopted Proposal P92-032 which reduced the hunting season from Sept. 1- Mar. 31 to Sept. 1 – Jan. 31 (OSM 1992b). The State also shortened the wolverine hunting and trapping seasons to January 31 and the hunting harvest limit to 1 wolverine on State lands in the 1992-1993 regulations. The trapping harvest limit remained at 2 wolverines during 1992-1993.

In 1994, the Board rejected Proposal P94-21 which sought to allow non-Federally qualified users to take wolverines on Federal public lands in Units 11 and 13. The Board supported the Southcentral Alaska Subsistence Regional Advisory Council's (Council) recommendation to oppose the proposal due to concerns that the wolverine populations in Units 11 and 13 had not recovered sufficiently (OSM 1994).

In 1997, the Board adopted Proposal WP97-32 opening Federal public lands for Federally qualified users to wolverine trapping in Units 11 and 13 and increased the harvest limit from “two wolverines” to “No limit”. The State also dropped the harvest limit that restricted trappers to two wolverines. These actions were based on density estimates that suggested wolverine densities were within the range of densities found in typical wolverine habitat in other areas. In addition, there was no significant difference in the harvest before and after the two wolverine harvest limit and the restriction on non-Federally qualified users (OSM 1997).

At the spring 2008 Board meeting, the Alaska Department of Fish and Game (ADF&G) opposed proposal WP08-03/04 to align the lynx and wolverine trapping season, but noted that it “...can support in-season authority being delegated to either the National Park Service or to the Office of Subsistence Management to adjust the wolverine trapping season so that it matches the lynx trapping season” (FSB 2008). Council Chair Ralph Lohse explained to the Board, “There’s no way you can trap lynx without catching wolverines but there’s no way you can trap wolverines without catching lynx.” Chairman Lohse also noted that the idea of WP08-03/04 “...was to align the lynx and wolverine season so that somebody’s not tempted to keep a wolverine after the lynx season is closed, or to keep lynx after the wolverine season’s closed”(FSB 2008). On April 30, 2008, the Board adopted Proposal WP08-03/04 to align the Unit 11 wolverine trapping season with the Unit 11 lynx season and extend the trapping season from Nov. 10–Jan. 31 to Nov. 10–Feb. 28 and delegated its authority to do so to the Assistant Regional Director, Office of Subsistence Management in coordination with the State of Alaska regulations based on health of the lynx population in Unit 11. The wolverine populations in Unit 11 were considered healthy enough to sustain the additional harvest and the season extension would allow trappers to keep wolverines incidentally taken in lynx sets in February (OSM 2008).

In March 2010 the Council supported Proposal WP10-34, which requested the wolverine season be managed independently from the lynx season in Unit 11. Chairman Lohse and other Council members did not feel that there were associated wolverine conservation issues. In 2010, the Board adopted the proposal. Because lynx populations are cyclic and wolverine populations are not, the Board decided to manage the species separately (OSM 2010).

Biological Background

State management goals and objectives for wolverines in Units 11 and 13 are as follows (Robbins 2013):

- Provide for and optimal harvest of furbearers consistent with sustained yield principles.
- Manage accurate annual harvest records based on sealing documents
- Maintain indices of population trends using trapper questionnaires and track surveys.

Relatively little research on wolverines has been done in Units 11 and 13 and thus the biology is based in part on studies from other parts of Alaska, North America, and Scandinavia. Wolverines are distributed across Alaska and are most abundant in the mountains of the Chugach, Talkeetna, and Alaska ranges in Unit 13 and in the Chugach and Wrangell ranges in Unit 11. Male wolverines have exceptionally large home ranges that range from 230-1579 km² (89 to 610 mi²); resident female home ranges average 100-400 km² (39-154 mi²), and the home range of transient and subordinate individuals is between the two

(Hornocker and Hash 1981, Magoun 1985, Whitman et al. 1986, Banci and Harestad 1990, Gardner et al. 2010). Wolverines are opportunistic predators and scavengers, eating just about anything they can find or kill. They have a seasonal pattern to primarily scavenge in winter and use a variety of prey in summer, e.g. rodents, snowshoe hares, birds, and carrion. In a Yukon Territory study, snowshoe hare contributed the highest proportion of any single prey species to the wolverine's diet (Banci 1987). Range size may be related to habitat, topography, and food availability (Gardner 1985)

Wolverines are generally solitary outside of the breeding season (May et al. 2006). Breeding season occurs between May and August; however, the species is polygamous and exhibits delayed implantation, occurring between December and February, followed by a gestation period of 30-50 days (Rausch & Pearson 1972, Inman et al. 2012). Use of reproductive dens begins from early February to late March (Copeland and Whitman 2003). In Unit 11 pregnant female wolverines den mostly in the inaccessible higher mountainous areas (FSB 2008). Females utilize two different dens prior to weaning their young: a natal den (birth location) and a maternal den (used after birthing but before weaning). Female wolverines usually give birth to 1-2 young between February and April (Inman et al. 2012). Females vacate dens in late April to mid-May, moving to rendezvous sites where mothers leave their young while acquiring food (Inman et al. 2012). In Alaska and the Yukon Territory, wolverine kits are born predominantly from mid-February through March (Rausch and Pearson 1972). Juveniles are weaned in 9 to 10 weeks, begin to travel with their mothers in early summer, and are independent by late summer.

The reproductive capacity of wolverines is limited; the abundance of food determines whether pregnancy will be maintained, and the number of young that will be born. Wolverine research in North America and Scandinavia found that only 38-57% of the females reproduced each year, and that the annual birth rate was only 0.4-0.9 kits/female (Magoun 1985, Copeland 1996, Persson 2003, and Krebs and Lewis 1999). Wolverines have low reproductive rates, averaging <1 weaned kit/adult female annually (Krebs et al. 2004). Female wolverines are capable of aborting or reabsorbing fetuses if food availability is too low to support pregnancy and lactation. Persson (2003) found that the annual recruitment of juveniles to one year of age was 0.5 kits/female. The size of winter food caches likely influences the outcome of wolverine pregnancies (Inman et al. 2012).

Wolverine population estimates are difficult to determine as the species' large home ranges cause them to naturally occur at low densities. Between 1987 and 1995 density estimates in good habitat at high elevations in Units 13A and 13D were 4.7-5.2/1000 km² (Becker and Van Daele 1988, Gardner and Becker 1991, Golden 2007). Densities in the Talkeetna mountains were estimated to be 1/213 km² (4.7/1000km²) (Gardner and Becker 1991).

Gardner et al. (2010) conducted a coarse (large)-scale aerial survey of Interior Alaska in 2006 to estimate wolverine occurrence and distribution. The survey covered an estimated 180,000 km² (69,500 mi²) which included all of the Eastern Interior region as well as portions of Units 24 and 21. They observed wolverine tracks in 66% of the units sampled and occupancy modelling indicated 83% of the study area as core wolverine habitat, illustrating that wolverines are widely distributed throughout Interior Alaska (Gardner et al. 2010). Gardner (1985) found that movements of radio collared wolverines in Unit 13 declined during

the fall but increased again in February with the dispersal of juveniles into vacant habitat. This suggests that wolverine harvest is not just a function of trapping effort and that extending the season into February may increase the take of dispersing juveniles. Long distance dispersal of wolverines has been documented in Unit 13 (Golden 1997) and is a potential source of population redistribution into vacant habitat. Krebs et al. (2004) found trapped wolverine populations to likely be maintained by immigration of wolverines from untrapped areas, termed refugia. Krebs et al. (2004) asserted the establishment and/or preservation of refugia twice the size of trapped areas may be necessary to ensure long-term viability of trapped wolverine populations.

Human caused mortality is an important source of adult wolverines mortality according to many North American studies (Hornocker and Hash 1981, Whitman and Ballard 1983, Magoun 1985, Banci 1987). Banci (1994) and Copeland (1996) reported that starvation and predation are the most common natural causes of wolverine mortality. Persson (2003) found that predation by adult wolverines was the most important cause of juvenile wolverine mortality during their first summer. It appears that few wolverines live longer than 5 to 7 years in the wild, however some do survive to 13 years of age (Rausch and Pearson 1972, Liskop et al. 1981, Banci 1987).

Little research on wolverine population dynamics has been conducted in Units 11 or 13 and thus populations, distribution, habitat use, and movements is limited. Reports by hunters and trappers, harvest records, and field observations by ADF&G biologists are the main source of wolverine abundance information for Unit 11 (Schwanke and Tobey 2007).

Harvest from Units 11 and 13 occur primarily in the foothills of the mountains in the Chugach, Talkeetna, Alaska, and Wrangell ranges. Robbins (2013) states there are large areas that could be used for refuge between harvest locations, particularly in Unit 11. Much of this area is difficult to access, and thus some areas may not be trapped and essentially serve as refugia (Robbins 2013).

Since regulatory year 1996/97, ADF&G trapper questionnaires have provided furbearer abundance and population trends based on responses from area trappers. While qualitative, this information is used for tracking population changes over time and is the best available data for many furbearer populations, including wolverines in Units 11 and 13 (ADF&G 2006, 2007, 2010a, 2010b, 2010c, 2012, 2013a, 2013b, Parr 2016). However, harvest records were not found to be a good indicator of wolverine distribution (Gardner et al. 2010). Low reproductive rates, inherently low population densities, and susceptibility to harvest pressure indicate that conservative harvest strategies are warranted for wolverines (Krebs et al. 2004).

Habitat

Wolverine presence is also positively correlated with elevation and negatively associated with human infrastructure and disturbance (Gardner et al. 2010, May et al. 2006). Wolverines in Interior Alaska may occupy lowland habitats where harvest pressure and human influences are limited (Gardner et al. 2010). Wolverines utilize subalpine, high-elevation habitats (Magoun and Copeland 1998, Gardener et al. 2010, Copeland et al. 2007) and are considered common in the more remote mountainous regions of Units 11 and

13 and relatively scarce at lowland elevations (Schwanke 2010). In southcentral Alaska, wolverines prefer spruce habitats during winter and rocky areas during summer (Gardner 1985, Whitman et al. 1986).

Wolverine populations are demographically vulnerable and susceptible to impacts from climate change (Inman et al. 2012). Copeland et al. (2010) found a positive correlation between wolverine distribution and persistent spring snow cover. This association can be explained by several factors: wolverines den beneath the snow; large feet give wolverines a morphological advantage over ungulates in deep snow, improving food availability; food caches are more secure from competitors and less prone to spoilage; and human influences are generally absent (Inman et al. 2012, Gardener et al. 2010, Copeland et al. 2010). Thermoregulatory needs (Hornocker and Hash 1981), protection from predators (e.g. wolves), suitability of the site during the spring thaw, and proximity to rearing habitat are some factors influencing den site selection (Copeland and Whitman 2003). Information from trapper reports and general observations suggest wolverine numbers are low in forested areas but relatively common in the mountainous areas of Units 11 and 13 (Robbins 2013).

Cultural Knowledge and Traditional Practices

At least five Alaska Native groups, including the Dena'ina, Tanana, Ahtna, Tanacross, and Upper Tanana, historically held territories within present day Units 11 and 13 (Krauss et al. 2011). Much of the land in these units was the territory of the Ahtna Athapaskans with the northeastern portion of Unit 13 belonging to the Dena'ina. The Copper River Basin has been occupied by Ahtna Athapaskans for centuries (Stratton & Georgette 1984, VanStone 1974). Wolverines were found throughout the region and were one of several furbearing species of importance to the local people (VanStone 1974, de Laguna et al. 1981). De Laguna and McClellan (1981) noted that the pelts from lynx, wolverine, marten, fox, beaver, and otter were valuable and were kept separated until they were dried.

The fur trade was in full swing by the beginning of the nineteenth century, and the Dena'ina incorporated furs into their existing trade system. Some Dena'ina men acted as middlemen for the Russians trade of furs with the more interior native groups (Townsend 1981). Furbearers (i.e. wolverines) were snared and were an important resource to the Ahtna for making clothes, blankets, packs, tents, and bags with some furbearer bones utilized in creating tools or pieces of equipment (de Laguna et al. 1981, Reckord 1983).

The nineteenth and twentieth centuries brought about many changes to the eastern interior of Alaska. Trading posts, roads, mining camps, roadhouses, schools, missions, and the Trans-Alaska pipeline were examples of many such changes. Population increased in the Copper River Basin, especially in the 1940s with an influx of military personal coming into Alaska to serve in the Pacific Theater during World War II (Townsend 1981). Those living in the Copper River Basin today are of diverse backgrounds (Holen et al. 2015, La Vine et al. 2013, La Vine & Zimpelman 2014).

In recent comprehensive subsistence surveys conducted by ADF&G, it was noted that although wolverines do not compose a majority of the harvest for communities of the region they are an important subsistence resource. The total attempted harvest of wolverines by households within the surveyed communities

ranged between 0% and 44% (Holen et al. 2015, Kukkonen and Zimpelman 2012, La Vine et al. 2013; La Vine & Zimpelman 2014).

During each study year, communities within the Copper River Basin harvested or attempted to harvest wolverine in Units 11, 12, and 13. Harvest and search areas specific to Units 11 and 13 described locations along Dan, Drop, and May Creeks; Indian, Chitistone, and Sanford Rivers; Crosswind and Paxson Lakes; the area around the community of Chitina; Nabesna and McCarthy Roads; and the Denali, Parks, Glenn, Richardson, and Edgerton Highways (Holen et al. 2015; La Vine et al. 2013; La Vine & Zimpelman 2014). The community of Mentasta Pass, which had the highest attempted, harvested, and use rates of wolverine in the area, also had the largest search range. This community utilizes all of Unit 13C, most of the northwestern portion of Unit 12, and road systems along Units 11, 13A, and 13B (La Vine et al. 2013).

Harvest History

All harvested wolverines are required to be sealed by the State. Wolverine harvest in Unit 11 remains relatively low given the amount of potential wolverine habitat that is available. Between 2000/2001 and 2011/2012, an average of 11 and 41 wolverines/year were reported harvested in Units 11 and 13, respectively (**Figure 1**) (ADF&G 2017). The opening dates for the wolverine trapping season typically has been Nov. 10 and prior to 1985 closed on March 31. During the period between 1971 and 1984 the average annual harvest was 28 animals in Unit 11. During the period from 1985 to 1991, when the harvest season was shortened to Nov. 10 to Feb. 28, the annual wolverine harvest dropped to 10 animals in Unit 11. The annual wolverine harvest remained at about 10 animals between 1992 and 2007 despite a shorter trapping harvest season in Unit 11 from Nov. 10 to Jan. 31. The wolverine Federal trapping season was lengthened in Unit 11 to Feb. 28 in 2008. From 2007-2011 an average of 11 wolverines (range 8-14) were harvested annually in Unit 11. From 2007 to 2011 approximately 36% of the harvest was female and 64% male (Robbins 2013). The lack of easy access, low harvest, and the high percentage of males and relatively few trappers suggests that the longer Federal trapping season in Unit 11 is sustainable.

Unit 13 is more accessible than Unit 11 due to the proximity to the Glenn, Richardson, Parks, and Denali highways and this may account for the greater harvest pressure. This may be one of the factors why the wolverine trapping season on Federal public lands in Unit 13 has been a month shorter (Robbins 2015, pers. comm.). Most of the wolverine harvest occurs in Unit 13B, north of the Denali Highway, and averages about 12 animals per year (Robbins 2015, pers. comm.). The annual wolverine harvest in Unit 13 from 2007-2011, averaged 45 (range 37-63) (Robbins 2013). The percentage of females in the harvest was 37% from 2007-2011 (Robbins 2013).

Changes in harvest may or may not accurately reflect the effects of harvest on the wolverine population dynamics. Harvest fluctuations which can vary as much as 100% between years (**Figure 2, Figure 3**) can be the result of population fluctuations, changes in the hunter/trapper success rates, hunter effort, fur prices, and accessibility. Wolverine populations occur in low densities and thus are susceptible to overharvest.

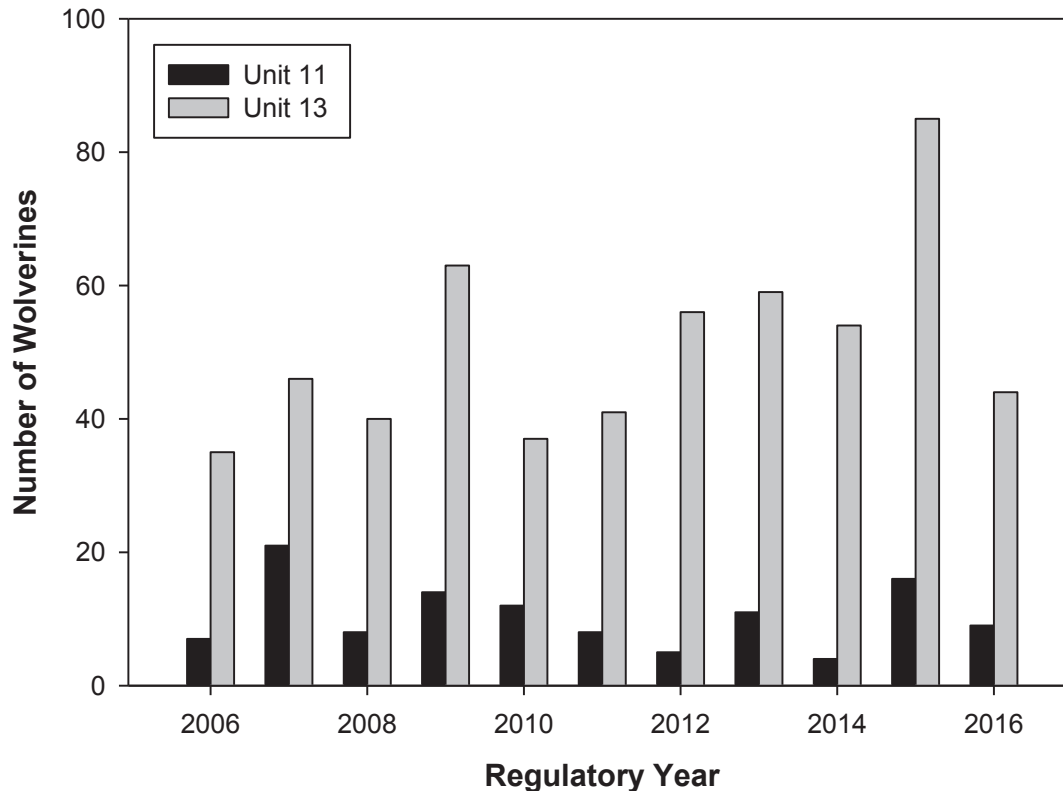


Figure 1. Wolverine harvest in Units 11 and 13, 2006-2016 (Schwanke 2010, Robbins 2013, ADF&G 2017)

Since male wolverines range widely over greater distances than females, males seem to be more susceptible to trapping and hunting. Hollis (2010) determined that if the percent of males harvested consistently falls below 50%, overharvesting may be occurring. The average percentage of males in the annual harvest in Units 11 and 13 from 2000/2001 and 2011/2012 was 65% and 60%, respectively (**Figures 2, 3**) (Schwanke 2010, Robbins 2013, Hatcher 2017 pers. comm.). Although most of the wolverines harvested from 2007-2011 in Units 11 and 13 were taken by trapping, up to 4 wolverines were shot each year in Unit 13. The high percentage of males in the harvest suggests that the wolverine populations in Units 11 and 13 are likely not being overharvested (**Figures 2, 3**) (Schwanke 2010, Robbins 2013, Hatcher 2017 pers. comm.).

In Unit 11, wolverine harvest occurred from November to February with the peak months being December through February during the period 2007-2011. In Unit 13 wolverine harvest occurred from September to February with the peak months being December and January during 2007-2011.

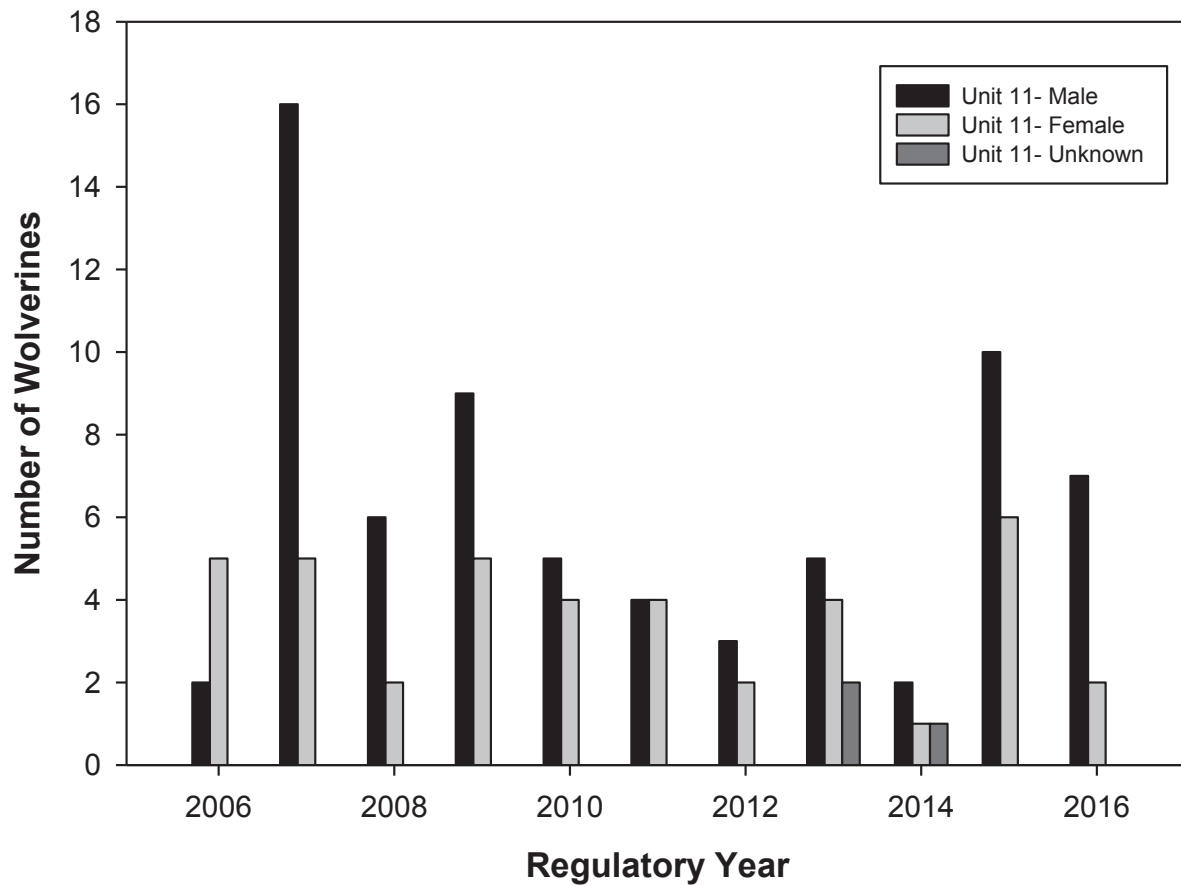


Figure 2. Unit 11 wolverine harvest by sex, 2006-2016 (Schwanke 2010, Robbins 2013, ADF&G 2017)

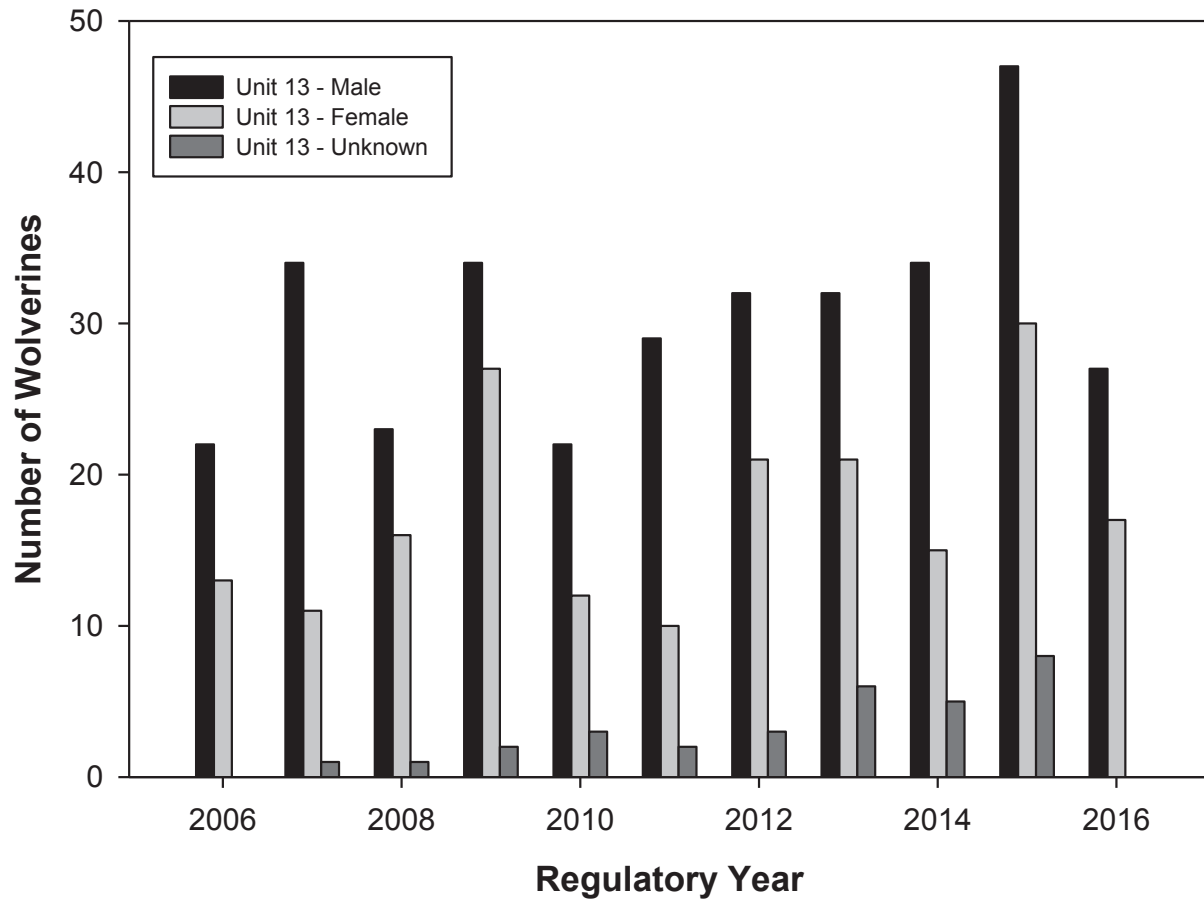


Figure 3. Unit 13 wolverine harvest by sex, 2006-2016 (Schwanke 2010, Robbins 2013, ADF&G 2017)

Other Alternatives Considered

One alternative considered was to extend the hunting season in Unit 11 and Unit 13 but not the trapping season in Unit 13 because of greater harvest rate and access in Unit 13 than Unit 11. In addition, the harvest opportunity is already being met in Unit 13 and seems to be currently sustainable with the hunting and trapping season closing on Jan 31. Combined with the lack of biological data on wolverine populations in Unit 13, it is difficult for managers to monitor the impacts from a trapping harvest season extension. In the past this was one of the factors why the wolverine season was a month shorter in Unit 13 than Unit 11. This alternative was not chosen because the original proposal provides more opportunity for FQSU.

Effects of the Proposal

If adopted, this proposal would add an additional 28 days to the wolverine hunting season in Units 11 and 13 and the hunting and trapping seasons in Unit 13. Extension of harvest and trapping seasons would allow more opportunities for Federally qualified subsistence users. It would also allow trappers to keep a wolverine incidentally caught in a lynx set.

If this proposal is adopted, the total annual harvest of wolverines in Units 11 and 13 is expected to increase. However, as only Federally qualified subsistence users would be able to hunt or trap during the extended season in February, trapping pressure may be less than during months when there are both Federal and State seasons. In addition, Federal public lands make up only 12% of Unit 13, so the proposed changes would be limited in scope if adopted.

Lynx and wolverines are often trapped in the same types of sets. If adopted, the Federal subsistence lynx and wolverine trapping seasons in Units 11 and 13 would be aligned, which would reduce incidental take issues (i.e. trapping a wolverine out of season when targeting lynx). However, incidental take is rarely reported, so it is difficult to determine how much incidental take actually occurs (Robbins 2015, pers. comm.). It is safe to assume, however, that such incidental take does occur with some regularity given the explanation provided by the proponent and previously-cited testimony of Ralph Lohse, former Chair of the Southcentral Alaska Subsistence Regional Advisory Council. Aligning the lynx and wolverine seasons may result in more accurate harvest reporting of wolverines and protect Federally qualified users from adverse law enforcement action for what is potentially unavoidable incidental take of wolverines during the lynx trapping season.

The biological impact of adopting this proposal to the wolverine population is uncertain. Wolverine populations are not known and they occur at low densities throughout Units 11 and 13 and thus are susceptible to overharvest. The best available information (trapper questionnaires) suggests that wolverine harvest in Unit 13 has been stable and appears sustainable. Changes in the harvest may or may not accurately reflect the effects of harvest pressure on the wolverine population dynamics. The extension of the trapping season in Unit 11 from January 31 to February 28 since 2008 has not resulted in a significant increase in the overall harvest (11 vs 10) when the harvest season was shorter. Accurate monitoring of the harvest is essential to determine the effects the extension to the harvest season would have on wolverines which occur in low densities in Units 11 and 13.

Adoption of this proposal would extend harvest into the denning period. While females likely only leave dens for short periods of time to access food caches or for other feeding opportunities, the risk of litter loss is slightly increased. In addition young wolverines would be more susceptible to being taken as they disperse.

OSM PRELIMINARY CONCLUSION

Support Proposal WP18-14.

Justification

Extending the wolverine trapping and hunting seasons on Federal public lands in Units 11 and 13 provides Federally qualified subsistence users with additional harvest opportunity and reduces the Federal regulatory complexity between the lynx and wolverine seasons. Aligning the lynx and wolverine seasons may result in more accurate harvest reporting of wolverines since they are occasionally caught in the same trap sets. Since the extended wolverine seasons are open only to Federally qualified subsistence users, and because Federal public lands in Unit 13 are limited, the increase in the harvest and trapping pressure should be minimal.

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Written Public Comments



Ahtna Intertribal Resource Commission

dba/Copper River-Ahtna Inter-Tribal
Resource Conservation District
PO Box 613
Glennallen, Alaska 99588
907-822-8154
contact@ahtnatribal.org

July 26, 2017

Chairperson of Federal Subsistence
Board or his Designated Field Officer
Office of Subsistence Management
1011 E. Tudor Road, MS-121
Anchorage, Alaska 99503-6199

Dear Mr. Christensen or Designated Field Officer:

Enclosed are Ahtna Inter-Tribal Resource Commission's (AITRC) comments on 2018-2020 Federal Wildlife proposals. Please consider our viewpoint on wildlife proposals, when decisions are made on federal wildlife regulations.

Sincerely,



Shirley Smelcer, Chairperson of CRITR

Comments on 2018-2020 Federal Wildlife Proposals

Southcentral Subsistence Regional Advisory Council

WP18-14 Change season dates for wolverine hunting and trapping

We support Proposal WP18-14 to extending Unit 11 Wolverine hunting season to February 28th, and extending Unit 13 Wolverine hunting and trapping seasons to February 28th.

Wolverine population in Unit 11 and Unit 13 is considered to be healthy and abundant. There isn't a conservation concern for wolverine in these two game management units.

Other Federally qualified subsistence users and Ahtna People will be able to hunt and trap longer in these two GMUs, allowing more opportunity to harvest a wolverine for personal use or to sell for extra income.

Wolverine is commonly used for clothing, ruff, or for moccasins, coats or jackets. Wolverine fur is also sold to acquire extra income, which supplements cash, food cost and bills.

WP18-16 Extend winter season [Unit 11 moose]

We do not support WP18-16. See comments under WP18-17.

WP18-17 Extend season [Unit 11 moose] (CRITR)

We support Proposal WP18-17 to extend moose hunting season and to allow Ahtna Intertribal Resource Commission to distribute moose permits on federal public lands in Unit 11.

Moose population in Unit 11 can sustain a moose hunt from August 1 to March 31. Moose population will not be depleted or over harvested by Ahtna tribal members who are federally qualified hunters. An increase of moose harvest on federal public lands will not occur with the newly established tribal moose hunt.

AITRC has management capability to distribute Unit 11 moose federal permits to Ahtna tribal members. A permitting system will be set up to allow proof of residency within the Copper Basin and Cantwell communities before moose permits are distributed to federally qualified tribal members. AITRC staff will monitor moose permit and hunting by tribal members. AITRC has a wildlife biologist on staff to help with moose hunt. AITRC has management capability to distribute Unit 11 moose permits to tribal members. Ahtna, Inc. staff, who are on loan to AITRC has coordinated the Copper Basin Community Subsistence Hunt since 2009. AITRC has experienced staff to distribute moose permits and ensure tribal hunters will return moose permits.

WP18-18 Extend season [Unit 13 moose] (CRITR)

We support WP18-18 to extend moose season and to allow AITRC to distribute moose permits. Moose population in Unit 13 can sustain a moose hunt from August 1 to March 31. Moose population will not be depleted or over harvested by Ahtna tribal members who are federally qualified hunters. Bureau of Land Management Biologist reported in 2016 1,384 moose permits were distributed, 681 moose permits were used and 99 moose were harvested by federally qualified subsistence hunters. An increase of moose harvest on federal public lands will not occur with the newly established tribal moose hunt.

AITRC has management capability to distribute Unit 13 moose federal permits to Ahtna tribal members. A permitting system will be set up to allow proof of residency within the Copper Basin and Cantwell communities before moose permits are distributed to federally qualified tribal members. AITRC staff will monitor moose permit and hunting by tribal members. AITRC has a wildlife biologist on staff to help with moose hunt. AITRC has management capability to distribute Unit 13 moose permits to tribal members. Ahtna, Inc. staff, who are on loan to AITRC has coordinated the Copper Basin Community Subsistence Hunt since 2009. AITRC has experienced staff to distribute moose permits and ensure tribal hunters will return moose permits.

WP18-19 Caribou – Revise permitting system [Unit 13 caribou] (CRITR)

We support WP18-19 to allow AITRC to distribute Unit 13 Nelchina Caribou hunting permits to Ahtna tribal members, who are federally qualified customary and traditional use hunters.

AITRC has management capability to distribute Unit 13 Nelchina Caribou permits to tribal members. Ahtna, Inc. staff, who are on loan to AITRC has coordinated the Copper Basin Community Subsistence Hunt since the year 2009. AITRC has experienced staff to distribute Nelchina Caribou permits and ensure tribal hunters return caribou permits.

Eastern Interior Subsistence Regional Advisory Council

WP18-50 Extend season [Unit 11 moose]

We do not support WP18-50, we support WP18-17. See comments under WP18-17.

WP18-51 Statewide – Modify baiting restrictions to align State regulations

We support WP18-51 to modify bait regulations to align with State regulations. Federal regulations are more restrictive than State regulations. Adding skinned carcasses of furbearers and fur animals, small game, with the exception of the meat of birds, to bait bear regulations will align State and Federal regulations, provide more opportunities for federal subsistence hunters who use bait stations to harvest bears.

Traditional use of grease, parts of wild game, and other methods of harvesting bears at bait stations would occur, hunters who use bait stations would have an improved chance of harvesting a bear with more options to choose from to use as bait.

WP18-54 – Increase harvest limit and Delegate Authority to set harvest limit for [Unit 12 caribou] to be announced winter season

We do not support WP18-54 to change Unit 12 Caribou regulations to “up to 3 caribou” may be taken with a federal registration permit. This will increase the take of caribou beyond sustainable limits and will stress the herd in its winter range. We have seen overharvest of caribou in the past with liberal bag limit that has taken decades to recover. This is not a wise proposal and we oppose it..

WP18-55 Extend Winter and fall season [Unit 12 moose]

Unit 12 Moose

That portion within Tetlin National Wildlife Refuge Aug. ~~24~~ 20 - Sept. ~~29~~ 30

and those lands within the Wrangell-St. Elias National

Preserve north and east of a line formed by the

Pickeral Lake Winter Trail from the Canadian border

to Pickerel Lake – 1 antlered bull by Federal registration Nov. 1 - ~~Feb. 28~~ Apr. 30

permit (FM1203)

We are neutral on WP18-55 to extend Unit 12 Moose season to allow longer hunting opportunity.

WP18–15 Executive Summary	
General Description	Proposal WP18-15 requests that residents receiving a State or Federal Unit 6C moose permit be ineligible to receive a Federal Unit 6C moose permit the following regulatory year. <i>Submitted by: Tom Carpenter of Cordova.</i>
Proposed Regulation	<p>Unit 6C—Moose</p> <p><i>1 bull by Federal drawing permit only. Sept. 1 – Dec. 31</i></p> <p><i>In Unit 6C, only one moose permit may be issued per household. A household receiving a State permit for Unit 6C moose permit may not receive a Federal permit. A person receiving a State or Federal Unit 6C moose permit is ineligible to receive a Unit 6C Federal moose permit the following regulatory year. The annual harvest quota will be announced by the U.S. Forest Service, Cordova Office, in consultation with ADF&G. The Federal harvest allocation will be 100% of the antlerless moose permits and 75% of the bull permit. Federal public lands are closed to the harvest of moose except by Federally qualified users with a Federal permit for Unit 6C moose, Nov. 1- Dec.31.</i></p>
OSM Preliminary Conclusion	Oppose
Southeast Alaska Subsistence Regional Advisory Council Recommendation	
Southcentral Alaska Subsistence Regional Advisory Council Recommendation	

WP18–15 Executive Summary	
Kodiak/Aleutians Subsistence Regional Advisory Council Recommendation	
Bristol Bay Subsistence Regional Advisory Council Recommendation	
Yukon-Kuskokwim Delta Subsistence Regional Advisory Council Recommendation	
Western Interior Alaska Subsistence Regional Advisory Council Recommendation	
Seward Peninsula Subsistence Regional Advisory Council Recommendation	
Northwest Arctic Subsistence Regional Advisory Council Recommendation	
Eastern Interior Alaska Subsistence Regional Advisory Council Recommendation	
North Slope Subsistence Regional Advisory Council Recommendation	
Interagency Staff Committee	

WP18–15 Executive Summary	
Comments	
ADF&G Comments	
Written Public Comments	None

DRAFT STAFF ANALYSIS WP18-15

ISSUE

Proposal WP18-15, submitted by Tom Carpenter of Cordova, requests that residents receiving a State or Federal Unit 6C moose permit be ineligible to receive a Federal Unit 6C moose permit the following regulatory year.

DISCUSSION

The proponent states that the Unit 6C moose hunt is very popular with Cordova residents and claims that over 1,000 applicants have applied in recent years. The hunt is administered by the U.S. Forest Service office in Cordova through a permit drawing and while the process is random there are residents that may receive permits for consecutive years while others are not so lucky. The proponent states that meat from the harvest is shared broadly throughout the community of Cordova. The proponent requests that regulations be changed to ensure distribution of opportunity among Federally qualified subsistence users by requiring successful applicants to be ineligible to receive a Federal Unit 6C moose permit, the regulatory year following their success.

Existing Federal Regulation

Unit 6C—Moose

1 antlerless moose by Federal drawing permit only.

Sept. 1 – Oct. 31

Permits for the portion of the antlerless moose quota not harvested in the Sept. 1-Oct. 31 hunt may be available for redistribution for a Nov. 1-Dec. 31 hunt.

1 bull by Federal drawing permit only.

Sept. 1 – Dec. 31

In Unit 6C, only one moose permit may be issued per household. A household receiving a State permit for Unit 6C moose permit may not receive a Federal permit. The annual harvest quota will be announced by the U.S. Forest Service, Cordova Office, in consultation with ADF&G. The Federal harvest allocation will be 100% of the antlerless moose permits and 75% of the bull permits. Federal public lands are closed to the harvest of moose except by Federally qualified users with a Federal permit for Unit 6C moose, Nov. 1-Dec.31.

Proposed Federal Regulation

Unit 6C—Moose

1 antlerless moose by Federal drawing permit only. Sept. 1 – Oct. 31

Permits for the portion of the antlerless moose quota not harvested in the Sept. 1-Oct. 31 hunt may be available for redistribution for a Nov. 1-Dec. 31 hunt.

1 bull by Federal drawing permit only. Sept. 1 – Dec. 31

*In Unit 6C, only one moose permit may be issued per household. A household receiving a State permit for Unit 6C moose permit may not receive a Federal permit. **A person receiving a State or Federal Unit 6C moose permit is ineligible to receive a Unit 6C Federal moose permit the following regulatory year.** The annual harvest quota will be announced by the U.S. Forest Service, Cordova Office, in consultation with ADF&G. The Federal harvest allocation will be 100% of the antlerless moose permits and 75% of the bull permit. Federal public lands are closed to the harvest of moose except by Federally qualified users with a Federal permit for Unit 6C moose, Nov. 1-Dec.31.*

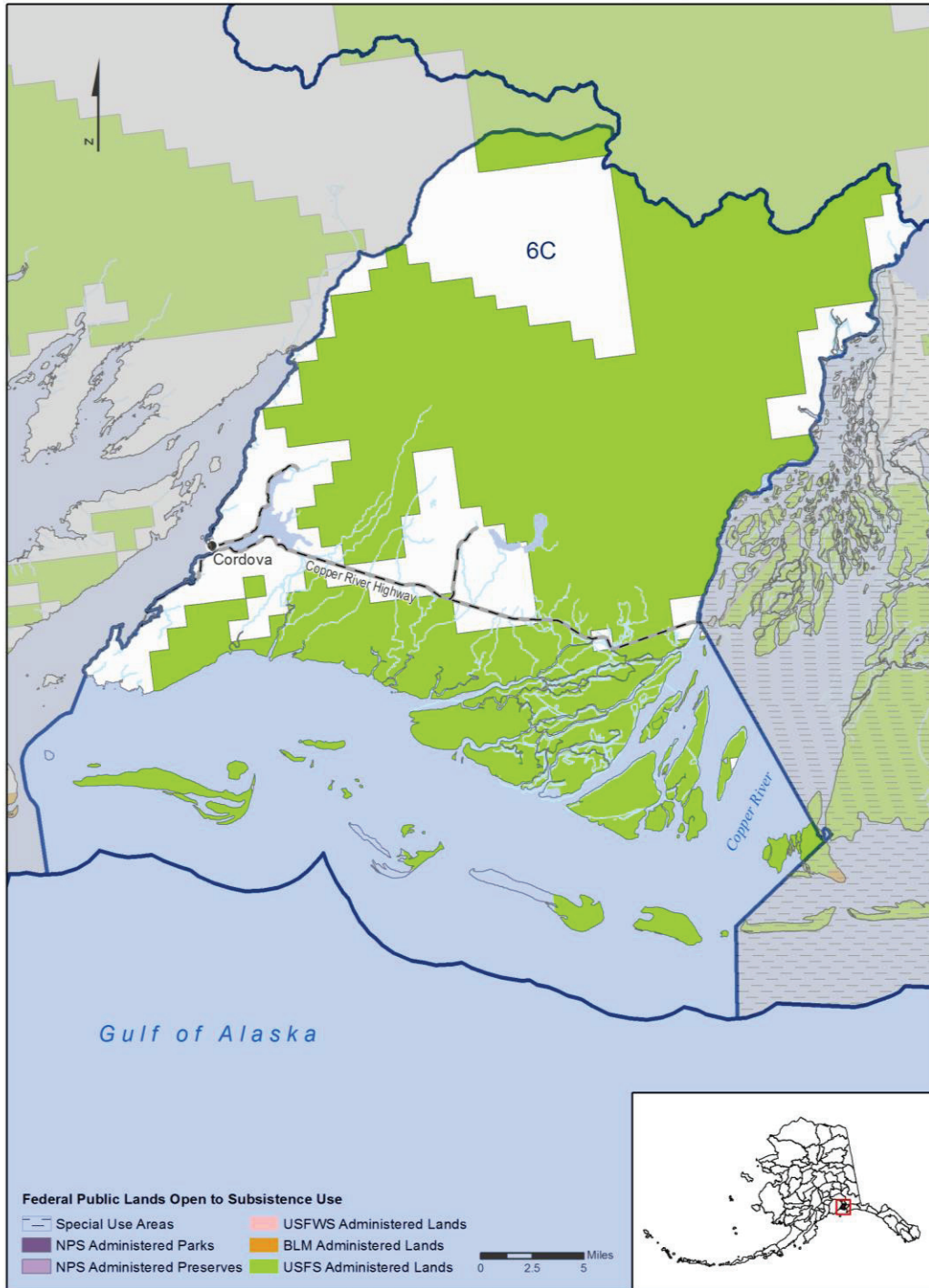
Existing State Regulation

Unit 6C—Moose

One bull by permit Sept 1 – Oct 31

Extent of Federal Public Lands

Federal public lands comprise approximately 72% of Unit 6C and consists of 71.87% U.S. Forest Service (USFS) managed lands and 0.56% Bureau of Land Management (BLM) managed lands (**Map 1**).



Map 1. Federal and State Lands in Unit 6C.

Customary and Traditional Use Determinations

Rural residents of Units 6A, 6B, and 6C have a customary and traditional use determination for moose in Unit 6C.

Regulatory History

Prior to 2000, State residents could take one moose by drawing permit in Unit 6C from Sept. 1-Oct. 31, under State regulation. In 2000, the Native Village of Eyak submitted Proposal P00-17 to establish a Federal subsistence hunt for moose in both Units 6B and 6C. The Federal Subsistence Board (Board) adopted the modified proposal, allowing drawing permits to be issued for 5 cow moose in Unit 6C under the Federal subsistence management program (the total allowable cow moose harvest at that time), but left the rest of the State-managed moose harvest in place for both Units 6B and 6C.

In 2002 the Board received Proposal WP02-48, this time requesting that 100% of the bull moose harvest in Unit 6C come from Federal subsistence draw permits and a change in season start date from August 15 to September 1. The Board adopted the proposal with modification, allocating 75% of the allowable bull moose harvest for Unit 6C, and 100% of the allowable cow moose harvest for Unit 6C, to the Federally qualified subsistence users. Additionally, the cow moose season closing date was changed from December 31 to October 31. The Board's decision to split the bull moose harvest allocation in Unit 6C with the State (75% and 25% of allowable harvest in Federal and State management programs, respectively) was, in part, in recognition of the presence of non-Federal lands within the unit.

In 2007 the Board received Proposal WP07-19, requesting that the harvest limit for the Unit 6C Federal draw permit hunt be changed from 1 cow moose to 1 antlerless moose. The Cordova Ranger District submitted the proposal in order to allow Federal hunters to continue to target female moose without the possibility of unintentional violation should an antlerless bull be harvested. The Board adopted the proposal.

At its Southcentral Regional meeting in Kenai, March 15-19, 2013, the Alaska Board of Game adopted amended Proposal 129 to authorize a State registration hunt for moose in Unit 6C, with a bag limit of 1 moose, Nov. 1 – Dec. 31, at the request of the Alaska Department of Fish and Game (ADF&G). This amendment to Proposal 129 was unanimously rejected by the Copper River/Prince William Sound State Advisory Committee on February 1, 2013. The State's proposal was intended to allow the harvest of moose allocated to the Federal quota that may not be taken during the Federal subsistence hunt.

In 2014 the Board received proposal WP14-18, requesting Federal public lands be closed to the harvest of moose except by Federally qualified subsistence users with a Federal permit, and to allow for an extension of the antlerless moose harvest from Nov. 1 – Dec. 31. The Board adopted WP14-18 as recommended by the Council.

At the Interior/Northeast Arctic Regional meeting in Fairbanks, February 17-25, 2017, the Alaska Board of Game adopted Proposal 145 to authorize the State to reauthorize the antlerless moose season in Unit 6C.

In Unit 6C, hunters currently have the opportunity to harvest moose on Federal public lands under either the State or Federal seasons and on private and other non-Federal ownership under the State season.

Biological Background

The moose population in Unit 6 originated from 24 moose calves that were transplanted to the west Copper River Delta from 1949 through 1958, as a cooperative effort of the Cordova Chapter of the Isaac Walton League, other local citizens, and the U.S. Fish and Wildlife Service (Nowlin 1998). This introduced population rapidly expanded eastward, reaching a high of 1,600 moose in 1988 (Griese 1990). In addition, there has probably been immigration of moose from surrounding areas as habitat became more suitable following the 1964 earthquake. The first moose hunt was held in 1960 and has occurred yearly since 1962. The Unit 6C moose hunt became a State drawing permit in 1984 (Stratton 1989).

During the 1990s, the Copper River-Prince William Sound Advisory Committee, local residents, and ADF&G developed a cooperative moose management plan. The resulting plan encompassed the long-term needs of the community (Cordova), population biology, maximizing hunting opportunity, and the variable access in Unit 6. The current management strategies in Unit 6 are a direct result of this moose management plan. Current cooperative moose management objectives in Unit 6C are to maintain a post-hunting population of 600-800 moose with a minimum bull:cow ratio of 25:100 (Westing 2017).

Population surveys, which are dependent on snow cover and weather conditions for flying, are usually conducted between mid-January and mid-March. From 1991-2012 the study design was based on stratified random sampling using the Gasaway technique. Since 2013 the sampling design used the Geospatial Population Estimate (GSPE). Moose population estimates have ranged between 296 and 609 moose from 2005 to 2013 (**Table 1**). In 2013, the moose population in Unit 6C was above the State management objective of 400-500 moose. There is little or no indication of nutritional stress due to habitat loss despite a relatively high moose density of 1,250 to 1,900/1000 km² since 2005 (Westing 2014).

Composition surveys to determine the potential effects of selective hunting pressure are conducted during the fall. Similar to the population estimates survey methods, the composition surveys are dependent on adequate snow cover and weather conditions for flying. The survey method used prior to 2013 focused on maximizing the number of moose observations but was not standardized (Crowley 2010, Westing 2014). In 2013, the GPSE survey protocol was adopted. The GPSE survey protocol, which uses a random sample of units is less biased but can also be less efficient (Westing 2014). From 2006-2008, the number of bulls, including large bulls, declined due to heavy harvest (Crowley 2012). Harvest adjustments implemented in 2009 have resulted in an increase in adult bulls and the number of large bulls in the population. The bull:cow ratio, calf:cow ratio, and % of calves observed increased in 2013 with the increasing moose population (**Table 2**).

Table 1. Moose population estimates in Unit 6C from 2005-2013 (Crowley 2006, 2010, 2012, Westing 2014).

Year	Calves (%)	Adult Estimate	Moose Observed	Population Estimate	90% CI
2005/06	10	438	361	488	423-553
2006/07	20	310	409	560	453-667
2007/08	15	273	361	430	389-471
2008/09	19	314	269	388	334-443
2009/10	17	200	251	296	164-426
2010/11	17	248	308	398	324-471
2011/12	22	361	535	601	536-666
2012/13	-	-	-	-	-
2013/14	25	232	291	609	483-734

Table 2. Moose composition estimates in Unit 6C from 2005-2013 (Crowley 2006, 2010, 2012, Westing 2014).

Year	Bulls	Cows	Calves	Total Moose	Bulls:100 Cows	Calves: 100 Cows	Calves (%)
2005/06	32	151	44	240	30	29	18
2006/07							
2007/08	16	83	14	129	36	17	11
2008/09							
2009/10	15	230	34	298	14	15	11
2010/11	12	183	35	258	22	19	14
2011/12	-	-	-	-	-	-	-
2012/13	-	-	-	-	-	-	-
2013/14	50	129	63	255	49	49	25

Customary Knowledge and Traditional Practices

The community of Cordova is situated on the eastern shores of Prince William Sound just west of the Copper River Delta. Travel to and from the community takes place by airplane via multiple daily flights, by ferry, or by private craft. The Copper River Highway is the only road out of the community and

transects the entirety of Unit 6C. While its terminus is Miles Lake approximately 50 miles from Cordova, a portion of the road washed out at Bridge No. 339 in 2011 and is now closed at Mile 36. The community of Cordova includes residents living within the city limits and extending out to the Merle K Smith Airport, along Power Creek Road on the northwest shore of Eyak Lake, and those residences along Whitshed Road to its terminus at Whitshed Point. According to the 2010 Federal Census, Cordova had a total population of 2,239 residents (U.S. Census 2010).

ADF&G recently conducted a comprehensive subsistence survey in Cordova for 2014 (Fall and Zimpleman 2016). During the study year, the community harvested a total of 302,404 lb of wild food, or approximately 116 lb per capita. Salmon made up the majority of the harvest (38% or 44 lb per capita), large land mammals were the second (35% or 40 lb per capita) and non-salmon fish was the third largest category contributing to the total community harvest (15% or 18 lb per capita). Other resource categories contributing to the community harvest included vegetation, marine invertebrates, and birds and eggs. Salmon was the most widely used resource category in 2014, but moose contributed the most weight to the community harvest as a single resource (30 lb per capita) in comparison to Sockeye Salmon (19 lb per capita), Coho Salmon (16 lb per capita), or Chinook Salmon (8 lb per capita). Moose is also widely shared throughout the community. About 67% of households reported using moose while only 15% reported actually harvesting moose, 22% of the households reported giving moose and a large number of households (54%) reported receiving moose. All moose harvested by Cordova residents during 2014 was reported to take place locally in Units 6C, 6B, and 6A.

Harvest History

Because of relatively easy access to Unit 6C, especially by road and airboat, hunter success often approaches 100% for moose permit holders. Between 25 and 122 moose permits were issued each season between 2001 and 2012, depending on the relationship of the estimated moose population to the management objective. Beginning in 2006, the number of harvest permits was increased to account for the growing population. However, this appears to have resulted in overharvest of the population by 2010, especially the bull moose component (**Table 3**). Reduced permit numbers, beginning in 2008 have allowed the population to grow to current levels (**Tables 1 and 3**). Over 90% of the moose taken in Unit 6C are by residents of Cordova (Crowley 2012).

Table 3. State and Federal Moose harvest in Unit 6C from 2011-2012 (Crowley 2006, 2008, 2010, 2012, Westing 2014, 2017, FWS 2017, WinfoNet 2017).

Regulatory Year	Permits Issued				Harvest			
	Bull		Antlerless		Bull		Antlerless	
	Federal	State	Federal	State	Federal	State	Federal	State
2001	0	20	5	0	0	19	5	0
2002	16	5	5	0	16	5	4	0
2003	15	5	5	0	15	5	5	0
2004	26	9	5	0	26	8	5	0
2005	26	9	5	0	25	9	4	0
2006	26	9	40	0	24	9	40	0
2007	54	18	50	0	52	13	45	0
2008	38	13	25	0	35	12	22	0
2009	40	13	10	0	31	11	10	0
2010	18	6	39	0	13	4	13	0
2011	15	13	50	0	9	6	10	0
2012	21	7	35	0	16	6	33	0
2013	23	7	35	0	22	7	45	0
2014	36	12	35	0	35	10	33	0
2015	36	12	35	0	33	11	29	0
2016	36	12	35	0	31	10	31	0
2017	45	15	35	0	na	na	na	na

^a na=not applicable

Effects of the Proposal

If this proposal is adopted, Federally qualified subsistence users would be considered ineligible to enter into the drawing for or receive a Federal permit to harvest moose in Unit 6C if they successfully obtained a permit under either State or Federal regulations the previous year. Such an action would constitute an allocation of a subsistence resource among Federally qualified subsistence users. Allocation cannot occur without first determining if there is a conservation concern or a threat to the continuation of subsistence uses based on the number of people eligible to harvest the resource. Section 804 of ANILCA is then implemented to prioritize among eligible subsistence users.

If this proposal is not adopted, the random drawing administered by the U.S. Forest Service in Cordova

will continue as is. Some Federally qualified subsistence users may receive permits over consecutive years. Some Federally qualified subsistence users may not have their application drawn for many years.

OSM PRELIMINARY CONCLUSION

Oppose Proposal WP18-15.

Justification

Eliminating sequential application opportunities to harvest moose in Unit 6C would constitute an allocative action which cannot take place without implementing Section 804 of ANILCA. Currently there is no indication of the need to prioritize further among Federally qualified subsistence users.

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WP18–16/50 Executive Summary	
General Description	<p>Proposal WP18-16 requests a one month extension of the winter moose season in the southern portion of Unit 11 (FM1107) from Nov. 20 – Dec. 20 to Nov. 20 - Jan. 20. <i>Submitted by: Keith Rowland of McCarthy.</i></p> <p>Proposal WP18-50 requests a one month extension of the winter moose season in the southern portion of Unit 11 (FM1107) from Nov. 20 – Dec. 20 to Nov. 20 - Jan. 20. <i>Submitted by: Eastern Interior Alaska Subsistence Regional Advisory Council.</i></p>
Proposed Regulation	<p>Unit 11—Moose</p> <p><i>Unit 11—that portion draining into the east bank of the Copper River upstream from and including the Slana River drainage—1 antlered bull by joint State/Federal registration permit. Aug. 20–Sept. 20</i></p> <p><i>Unit 11—that portion south and east of a line running along the north bank of the Chitina River, the north and west banks of the Nizina River, and the west bank of West Fork of the Nizina River, continuing along the western edge of the West Fork Glacier to the summit of Regal Mountain – 1 bull by Federal registration permit. However, during the period Aug. 20-Sept. 20, only an antlered bull may be taken. Aug. 20–Sept. 20 Nov. 20–Dec. 20 Jan. 20</i></p> <p><i>Unit 11 remainder—1 antlered bull by Federal registration permit only Aug. 20–Sept. 20</i></p>
OSM Preliminary Conclusion	Support
Southeast Alaska Subsistence Regional Advisory Council Recommendation	
Southcentral Alaska Subsistence Regional	

WP18–16/50 Executive Summary	
Advisory Council Recommendation	
Kodiak/Aleutians Subsistence Regional Advisory Council Recommendation	
Bristol Bay Subsistence Regional Advisory Council Recommendation	
Yukon-Kuskokwim Delta Subsistence Regional Advisory Council Recommendation	
Western Interior Alaska Subsistence Regional Advisory Council Recommendation	
Seward Peninsula Subsistence Regional Advisory Council Recommendation	
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**DRAFT STAFF ANALYSIS
WP18-16/50**

ISSUES

Proposal WP18-16, submitted by Keith Rowland of McCarthy, and Proposal WP18-50, submitted by the Eastern Interior Alaska Subsistence Regional Advisory Council, requests a one month extension of the winter moose season in the southern portion of Unit 11 (FM1107) from Nov. 20 – Dec. 20 to Nov. 20 - Jan. 20. Since these proposals are identical they will be combined into one analysis WP18-16/50.

DISCUSSION

The proponents state that the winter moose season has been in effect from 2014 to 2016 and that access to this area is difficult. Most of the hunt area is within Wrangell-St. Elias National Park and Preserve (WRST) is designated as national park lands, and therefore, the use of aircraft for hunting access is not permitted (36 CFR 13.450). Due to warm winters and climate change, ice has been forming later on rivers and there is insufficient snow cover by December 20 for travel. The proponents state that extending the hunt by one month will allow more time for conditions to become suitable for cross-country travel to the hunt area, and that moose harvest during the past three seasons has been very limited, so there is no potential conservation concern associated with the proposed season change.

Existing Federal Regulation

Unit 11—Moose

Unit 11—that portion draining into the east bank of the Copper River upstream from and including the Slana River drainage—1 antlered bull by joint State/Federal registration permit. Aug. 20–Sept. 20

Unit 11—that portion south and east of a line running along the north bank of the Chitina River, the north and west banks of the Nizina River, and the west bank of West Fork of the Nizina River, continuing along the western edge of the West Fork Glacier to the summit of Regal Mountain – 1 bull by Federal registration permit. However, during the period Aug. 20-Sept. 20, only an antlered bull may be taken. Aug. 20–Sept. 20
Nov. 20–Dec. 20

Unit 11 remainder—1 antlered bull by Federal registration permit only Aug. 20–Sept. 20

Proposed Federal Regulation**Unit 11—Moose**

Unit 11—that portion draining into the east bank of the Copper River upstream from and including the Slana River drainage—1 antlered bull by joint State/Federal registration permit. Aug. 20–Sept. 20

Unit 11—that portion south and east of a line running along the north bank of the Chitina River, the north and west banks of the Nizina River, and the west bank of West Fork of the Nizina River, continuing along the western edge of the West Fork Glacier to the summit of Regal Mountain – 1 bull by Federal registration permit. However, during the period Aug. 20–Sept. 20, only an antlered bull may be taken. Aug. 20–Sept. 20
Nov. 20–~~Dec 20~~
Jan. 20

Unit 11 remainder—1 antlered bull by Federal registration permit only Aug. 20–Sept. 20

Existing State Regulation**Unit 11 – Moose**

<i>Unit 11– that portion east of the east bank of the Copper River upstream from and east of the east bank of the Slana River</i>	<i>Residents: One bull by permit per household, available only by application. See Subsistence Permit Hunt Supplement for details</i>	CM300	Aug. 10–Sept. 20
	OR		
	<i>Residents: One bull with spike-fork antlers or 50-inch antlers or antlers with 3 or more brow tines on at least one side by permit in person in Anchorage, Fairbanks, Glennallen, Palmer, Slana Ranger Station and Tok beginning Aug. 3</i>	RM291	Aug. 20–Sept. 17

	<i>Nonresidents: One bull with 50-inch antlers or antlers with 3 or more brow tines on at least one side by permit available in person in Anchorage, Fairbanks, Glennallen, Palmer, Slana Ranger Station and Tok beginning Aug. 3</i>	RM291	Aug. 20–Sept. 17
Unit 11– remainder	<i>Residents: One bull by permit per household, available only by application. See Subsistence permit Hunt Supplement for details</i>	CM300	Aug. 10–Sept. 20
	<i>Residents and nonresidents: One bull with spike-fork antlers or 50-inch antlers or antlers with 3 or more brow tines on at least one side</i>	HT	Aug. 20–Sept. 20

Extent of Federal Public Lands

Federal public lands comprise approximately 87% of Unit 11 and consist of approximately 84% National Park Service (NPS) managed lands, 3% U.S. Forest Service (USFS) managed lands, and 0.1% Bureau of Land Management (BLM) managed lands (See **Unit Map**).

Customary and Traditional Use Determinations

Residents of Units 11, 13A-D, and Chickaloon have a customary and traditional use determination for moose in Unit 11 remainder.

Under the guidelines of the Alaska National Interest Lands Conservation Act, National Park Service regulations identify qualified local rural residents in National Parks and Monuments by: 1) identifying resident zone communities which include a significant concentration of people who have customarily and traditionally used subsistence resources on park lands; and 2) identifying and issuing subsistence use (13.440) permits to individuals residing outside of the resident zone communities who have a personal or family history of subsistence use. In order to engage in subsistence in Wrangell-St. Elias National Park, the National Park Service requires that subsistence users either live within the Park’s resident zone (36 CFR 13.430, 36 CFR 13.1902) or have a subsistence permit (36 CFR 13.440) issued by the Park Superintendent.

Regulatory History

In 1992, the Federal Subsistence Board (Board) added 10 days to the moose season in Unit 11, aligning it with seasons Aug. 25-Sept. 20 seasons in adjoining Units 6, 12, and 13 (OSM 1992). In 1999, Healy Lake was added to communities having a customary and traditional use determination for moose in the portion of Unit 11 north of the Sanford River (OSM 1999a). In 1999, the Board adopted Proposal P99-16 with modification to allow five day extension to the Unit 11 moose season at the beginning of the season to provide additional opportunity for subsistence harvest while protecting the moose population from disruption during the breeding season, and to align Federal and State seasons (OSM 1999b).

In 2000, the Board rejected Proposal P00-19/21 to include the residents in Unit 6C to those with customary and traditional use for moose (P00-19) and sheep (P00-21) in the portion of Unit 11 remainder because Cordova previously failed to qualify as a resident zone community for WRST, based on percentage of qualifying individuals (OSM 2000a).

In 2000, the Board adopted Proposal P00-20 modifying general regulations requiring evidence of sex. The regulation was modified to allow hunters in Units 11 and 13 to possess either sufficient portions of the external sex organs, still attached to a portion of the carcass, or the head (with or without the antlers attached) to indicate the sex of the harvested moose, however this did not apply to the carcass of an ungulate that has been butchered and placed in storage or otherwise prepared for consumption upon arrival at the location where it is to be consumed (OSM 2000b).

In 2002, the Board adopted Proposal WP02-19 to allow for the harvest of a moose without a calf in either Unit 11 or Unit 12 for the annual Batzulnetas Culture Camp by two hunters designated by the Mt. Sanford Tribal Consortium (OSM 2002). The Board adopted this proposal because it was an established, well-known culture camp and the change streamlined the process for issuing permits to the Mt. Sanford Tribal Consortium.

In 2007, the Board rejected Proposal WP07-20 to change the season dates from Aug. 20-Sept. 20 to Sept. 1–Sept. 30 to reduce spoilage due to warm weather, because the moose population was low and shifting the season had the potential to increase moose harvest, which would have detrimental effects for the conservation of the population (OSM 2007).

In 2012, the Board adopted Proposal WP12-70 with modification, dividing Unit 11 into two hunt areas and creating a single, joint State/Federal registration permit to administer the hunt area in Units 11 and 12 along the Nabesna Road, and a Federal registration permit for Unit 11 remainder. The season dates for Unit 12 remainder were also modified. These changes aligned the Federal seasons within the area of the joint State/Federal registration permit and helped to improve harvest reporting. In addition, the moose population was healthy enough to allow for the potential increase in bull harvest (OSM 2012).

In 2014, the Board adopted Proposal WP14-16 with modification to establish a winter moose season from Nov. 20 to Dec. 20 in Unit 11, south and east of a line running along the north bank of the Chitina River, the north and west banks of the Nizina River, and the west bank of West Fork of the Nizina River, continuing along the western edge of the West Fork Glacier to the summit of Regal Mountain. The board also

delegated authority to the WRST Superintendent to open and close any portion of the winter season and to establish a harvest quota (OSM 2014). Moose in the area south of the Chitina River (**Map 1**) typically stay at higher elevations during the fall where they are largely inaccessible to subsistence users. In addition, there is limited access during the fall moose season due, in part, to having to cross the Chitina River. The winter hunt provides subsistence hunters more opportunity to hunt moose when they are more accessible by snowmachine and allows them to store meat without freezers.

Current Events

The Ahtna Intertribal Resource Commission submitted two proposals for the 2018-2020 wildlife regulatory cycle that pertains to moose in this area. Proposal WP18-17, requests that the moose season on Federal public lands in Unit 11, that portion draining into the east bank of the Copper River upstream from and including the Slana River drainage, and Unit 11-remainder be changed from Aug. 20-Sept. 20 to Aug. 20-Mar. 31. Proposal WP18-18 similarly requests that the moose season on Federal public lands in Unit 13 be changed from Aug. 1-Sept. 20 to Aug. 1 to Mar. 31.

Biological Background

The moose population in Unit 11, which initially increased in the 1950s, has experienced two peaks, one in the early 1960s and the other in 1987, and two lows in 1979 and 2001 (Tobey 2010). Predation on moose calves by bears and wolves has been shown to be an important limiting factor in moose populations (Tobey 2010). High brown bear and wolf numbers in Unit 11 may be contributing to the low calf:cow ratios observed in this unit, as well as the overall low, but stable density moose population (Tobey 2008).

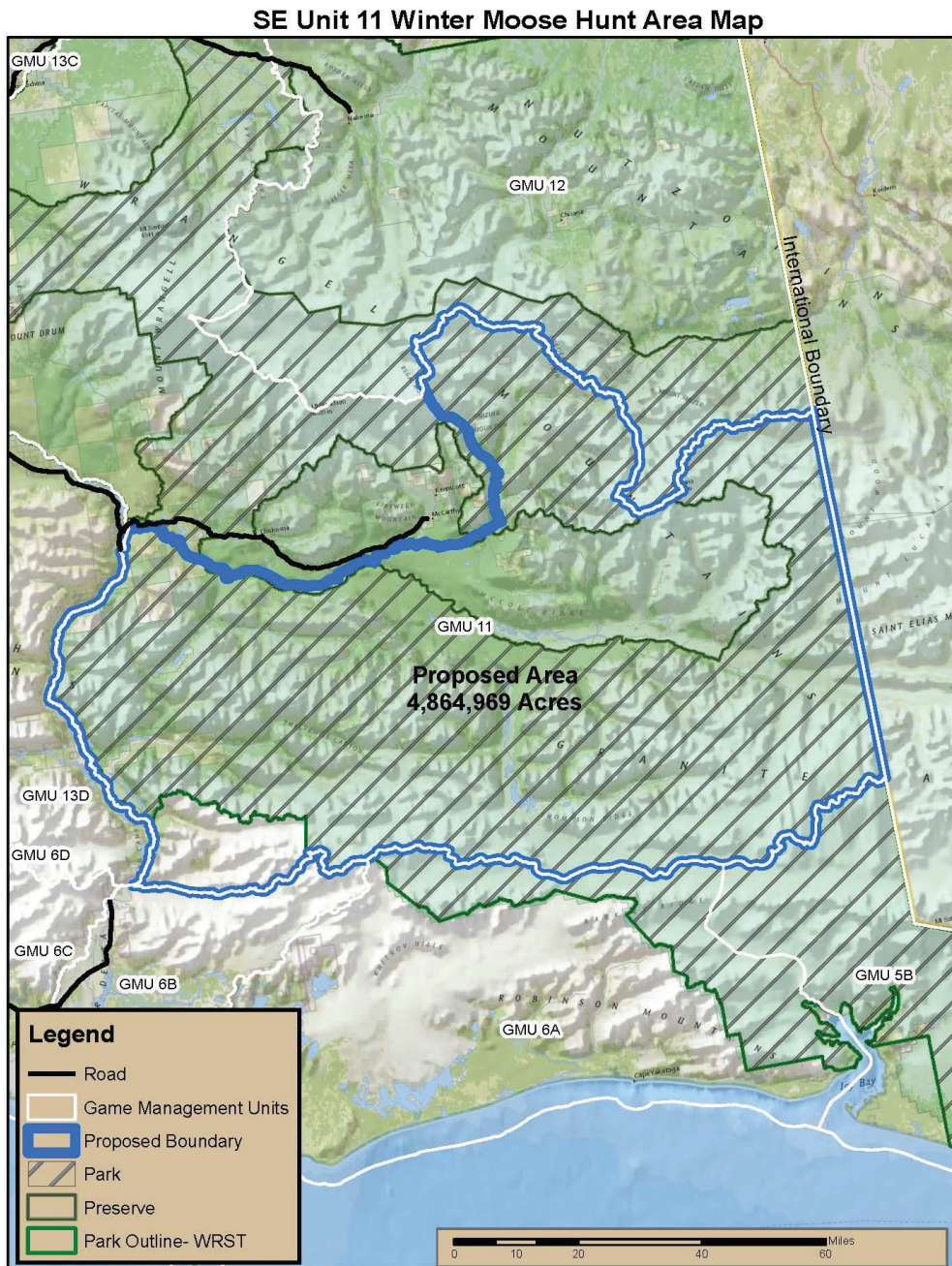
State management goals for moose in Unit 11 are (Tobey 2010):

- To allow the populations to fluctuate based on the available habitat and predation rates.
- Maintain a population with a post hunt age/sex composition of 30 bulls (of which 10-15 are adult bulls) per 100 cows

Three main moose survey efforts have been conducted in Unit 11. The first are ongoing surveys conducted by the Alaska Department of Fish and Game (ADF&G) in the Mount Drum area, the second were surveys conducted by WRST in the north end of Unit 11 from 2003 – 2008, and the third were Geospatial Population Estimator (GSPE) surveys conducted in 2007, 2010, 2011, and 2013 by WRST staff throughout Unit 11 (**Map 2**). The scheduled moose survey for 2016 was not conducted due to inadequate snow conditions (Putera et al. 2017). No moose surveys have been conducted in the winter hunt area in Unit 11.

Aerial population and composition trend surveys are usually conducted by ADF&G every other year during late fall along the western slopes of Mount Drum (Count Area CA11). The survey indicator area on Mt. Drum includes 212 mi² which is approximately 1.7% of Unit 11 (12,470 mi²). The total number of moose counted in CA11 averaged 170 moose per regulatory year between 1998 and 2015 (**Table 1**). Density estimates from 1999 to 2012 ranged from 0.3 to 1.0 moose/mi² in CA11 (**Table 1**) (Tobey 2004, 2010). The bull:cow ratio averaged 95 bulls:100 cows from 1998 through 2015 (Tobey 2010, Schwanke 2013,

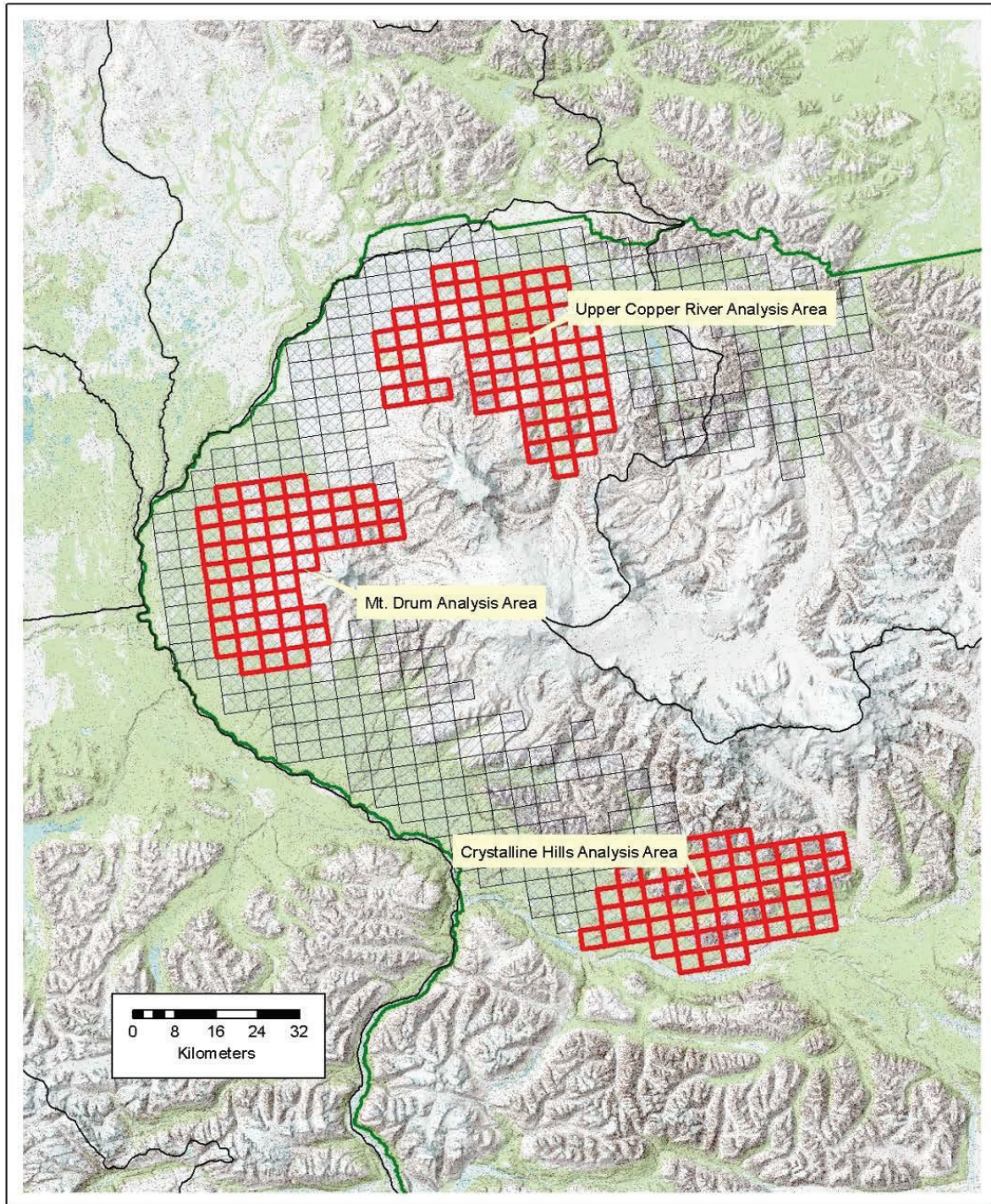
pers. comm., Hatcher 2014, Robbins 2017, pers. comm.), which exceeds current State management goals. The average number of calves:100 cows in Unit 11 between 1998 and 2015 was 21 (range 9-48) (Tobey 2010, Schwanke 2013, pers. comm., Hatcher 2014, Robbins 2017, pers. comm.).



Map 1. Location of the winter moose hunt area in Unit 11 (Putera 2013, pers. comm.). The proposed area on this map was accepted by the Federal Subsistence Board in 2014.

Moose population information was also collected by WRST staff near the north end of Unit 11 in the Upper Copper River (UCR) moose survey area, which covers the Boulder Creek drainage east to Copper Lake (**Table 2**). Although a portion of this survey area is accessible using all-terrain vehicles from the Nabesna Road, the western portion of the survey area is accessible only by aircraft. Between 2003 and 2008 (excluding 2007), an average of 297 moose were counted annually in the UCR moose survey area (**Table 2**) (Reid 2007, pers. comm.). Results from the sex and age composition counts found that the calf:cow ratio was fairly stable, averaging 12 calves:100 cows with calves accounting for about 7% of the population. Bull:cow ratios remained fairly stable as well, averaging 46 bulls:100 cows; well above the management objective.

Although a moose population census for all of Unit 11 has never been conducted, population estimates from GSPE surveys conducted in 2007, 2010, 2011, and 2013 by WRST staff represent the most comprehensive moose population data for Unit 11 (Putera 2013, pers. comm.). GSPE, developed by ADF&G is an accepted method for estimating moose populations in large areas such as Unit 11 (Ver Hoef 2001). Population estimates for the total survey area, bull:cow ratios, and calf:cow ratios increased slightly from 2007 to 2013 (**Table 3**) (Reid 2008, Putera 2010, Putera 2013, pers. comm.). Separate population estimates were also determined for three analysis areas that cover previous trend count survey areas. For the Mt. Drum area, bull:cow ratios continued to remain high at 118:100 in 2007, 55:100 in 2010, and 79:100 in 2013 (**Table 3**). Moose density increased slightly in 2013 from the 2010 survey. Results of the 2007 and 2010 GSPE surveys for the UCR area are consistent with previous trend surveys, with 2-3 times more moose observed than in the Mt. Drum and Crystalline Hills survey areas. Calf:cow ratios were slightly higher in 2013 (**Table 3**) than ratios from surveys conducted in 2012 (**Table 1**). The Crystalline Hills and Mt Drum count areas had the greatest increase between 2010 and 2013 (**Table 3**). In cooperation with ADF&G, WRST staff conducted a GSPE survey in 2011 along the Nabesna Road corridor, an area that receives relatively high hunting pressure. The population estimate was 1272 moose with an estimated density of 0.79 moose/mi², a bull:cow ratio of 34:100 and a calf:cow ratio of 27:100. The bull:cow ratio along the Nabesna Road corridor (34:100cows) in 2011 was lower than bull:cow ratios from the 2007 and 2010 GSPE surveys in the UCR area (**Table 3**).



Map 2. Analysis areas within the count area. These areas were selected to allow comparisons with historical survey areas (Putera 2010).

Table 1. Unit 11 moose population demographics on the western slopes of Mount Drum, Wrangell-St Elias National Park and Preserve, AK, 1998-2015 – a lightly hunted population (Tobey 2004, 2008; Schwanke 2013, Hatcher 2014, Robbins 2017, pers comm.).

Year	Number of Bulls	Number of Cows	Number of Calves	Total Moose	Bulls:100 Cows	Calves/100 Cows	% Calves	Moose /hour	Density Moose/ mi ²
1998-99	51	46	7	104	111	15	7	24	0.4
1999-00	58	53	11	122	109	21	9	28	0.4
2000-01	58	37	9	104	157	24	9	23	0.4
2001-02	43	46	4	93	94	9	4	19	0.3
2002-03	----	----	----	----	----	---	--	---	----
2003-04	69	60	9	138	115	15	7	30	0.5
2004-05	----	----	----	----	----	----	----	----	----
2005-06	----	----	----	----	----	----	----	----	----
2006-07	57	62	30	149	92	48	20	32	0.5
2007-08	----	----	----	----	----	----	----	----	----
2008-09	63	86	15	164	73	17	9	38	0.6
2009-10	----	----	----	----	----	----	----	----	----
2011-12	98	138	29	265	71	21	11	46	0.9
2012-13	120	143	19	282	84	13	7	46	1.0
2013-14	91	103	27	221	88	26	12	45	0.8
2015-16	67	133	30	230	50	23	13	45	0.8
Mean	70	82	17	170	95	21	10	32	0.56

Table 2. Unit 11 moose population demographics in the Upper Copper River survey area, Boulder Creek to Copper Lake, Wrangell – St. Elias National Park and Preserve, AK, 2003-2008 – a relatively heavily hunted population accessible by aircraft and all-terrain vehicles (Reid 2007, pers. comm. 2007; Reid 2008, Putera 2010).

Year	Number of Bulls	Number of Cows	Number of Calves	Total Moose	Bulls:100 Cows	Calves/100 Cows	% Calves
2003	97	215	21	333	45	10	6
2004	78	142	25	245	55	18	10
2005	92	183	11	286	50	6	4
2006	86	218	31	335	39	14	9
2008	77	186	22	285	41	12	8
Total	430	944	110	1,484			
Mean	86	189	22	297	46	12	7

Table 3. Moose Population Estimates for selected areas of Unit 11, from GSPE surveys conducted in 2007, 2010, and 2011 (Reid 2008, Putera 2010, Putera 2013, pers. comm.).

Area	Year	Population Estimate	Moose Observed	Calf:100 Cows	Bull:100 Cows	No. Units Surveyed	Density (mi ²)
Total Survey 3170 mi ²	2007	1576 ± 244	500	19	52	87	0.49
	2010	1584 ± 214	623	17	50	94	0.50
	2013	2107 ± 307	725	18	64	83	0.70
Upper Cop- per 524 mi ²	2007	403 ± 70	170	16	38	25	0.76
	2010	539 ± 106	220	14	49	19	1.02
	2013	515 ± 121	155	16	61	16	1.0
Mt. Drum 349 mi ²	2007	232 ± 65	82	11	118	8	0.66
	2010	186 ± 51	66	35	55	11	0.53
	2013	225 ± 56	94	25	79	9	0.70
Crystalline Hills 349 mi ²	2007	260 ± 93	63	29	42	9	0.74
	2010	259 ± 55	134	17	50	16	0.74
	2013	380 ± 78	179	19	70	13	1.10
Nabesna 1602 mi ²	2011	1272 ± 134	551	27	34	107	0.79

Habitat

In 2009, the Chakina fire burned approximately 56,000 acres in the accessible portion of Unit 11 south of the Chitina River. A portion of that area (approximately 20,000 acres) re-burned in the Steamboat Creek fire in 2016 (WRST 2016). Typically within 10 –15 years following fires or disturbance (Loranger et al. 1991), early seral forest habitat becomes the most productive area for moose because it supports high density of forage species such as paper birch (*Betula papyrifera*), aspen (*Populus tremuloides*), and willow (*Salix sp.*). The severity and frequency of fires will determine how productive an area becomes for moose (Loranger et al. 1991; Johnstone and Kasischke 2005; Brown and Johnstone 2012). For instance, peak moose density during winter occurred approximately 15 years after the 1947 fire on the Kenai Peninsula (Loranger et al. 1991).

Cultural Knowledge and Traditional Practices

Reference to the harvest and use of moose by the people of the Eastern Interior and the Copper River Basin begin as early as the 1800s and continue to the present day (Simeone 2006). Archeological evidence and historical accounts suggest that large land mammals were an important subsistence resource for the Ahtna Athabascans of the upper Copper River watershed (Simeone 2006). Russian explorer, Rufus Sereberinikoff, noted that Ahtna families along the Tazlina River had fresh moose meat when he visited the

Copper Basin in May of 1848. De Laguna and McClennan (1981) reported that, "caribou and moose were caught either in drag-pole snares or in snares set 200-300 feet apart in long brush fences." Winter moose hunting took place on foot with the use of snowshoes and the aid of bow and arrows (Reckord 1983; Simeone 2006; Haynes & Simeone 2007). The traditional practices of drying and freezing meat, as well as the proper and respectful treatment of harvested resources such as moose, are described in several ethnographic accounts of the Ahtna and people of the upper Tanana (de Laguna & McClellan 1981; Haynes & Simeone 2007; Reckord 1983; Simeone 2006).

In recent comprehensive subsistence surveys conducted by the ADF&G, reported large land mammal harvest is high and ranged between 21% and 88% of the total harvest by weight in the communities surveyed (Holen, et al. 2015; Kukkonen & Zimpleman 2012; La Vine et al. 2013; La Vine & Zimpleman 2014). In the communities with the closest proximity to the southern portion of Unit 11 moose was harvested at 13 lb per capita in McCarthy and 8 lb per capita in Chitina. Additionally, use was high with 67% of households reporting use in Chitina and 62% households reporting use in McCarthy (La Vine and Zimpleman 2014).

During each study year, communities within the Copper River Basin harvested or hunted for moose in Units 11, 12, and 13. While many communities documented harvest and search areas for moose in Unit 11 in general, Chitina, Copper Center, Glennallen, Kenny Lake/Willow Creek, and McCarthy reported harvest and search areas in the southern portion specifically (Holen et al. 2015, La Vine and Zimpleman 2014, La Vine et al. 2013). Harvest and search areas documented in the southern portion of Unit 11 include the 60 mile stretch of McCarthy Road, and Dan Creek across the Nizina River from McCarthy (Holen, et al. 2015; La Vine, et al. 2013; La Vine & Zimpleman 2014).

Harvest History

Moose harvest from 1963 to 1974 averaged 164 moose per year in Unit 11. During this time there was both a fall and winter season and cows made up as much as 50% of the harvest (Tobey 2010). In response to declining moose numbers, seasons were shortened, the winter season was eliminated, and harvest was restricted to bulls only from 1975 to 1989. The average annual bull harvest was 45 (range 21-58) between 1975 and 1989. In 1990 the State season was shortened to Sept. 5 - Sept. 9 to align the season with adjacent Unit 13 and because of population declines due to increased mortality during the severe winter of 1989/1990 (Tobey 1993, 2010). During the 1990s, the average harvest was 34 bulls (range 22-42). Since 2000, the mean harvest has been 58 bulls, which includes an estimated 10 unreported moose being harvested each year (**Table 4**) (Tobey 2010, FWS 2017). One moose was harvested in Unit 11 under the Copper Basin Community Permit Hunt (CM300) in 2009 (FWS 2017). Sixty nine permits were issued between 2014 and 2016. During that period 10 individuals hunted and one moose was reported harvested in the winter hunt area largely south of the Chitina River (Putera et al. 2017).

Table 4. State and Federal Moose harvest in Unit 11 from 2000-2015 (Tobey 2010, Hatcher 2014, FWS 2017, ADF&G 2017).

Year	M	F	Unk	Estimate of Unreported Kill	Federal Total	State Total	Total
2000/2001	52	0	1	10	23	30	63
2001/2002	43	1	1	10	14	31	55
2002/2003	40	0	1	10	8	33	51
2003/2004	45	0	0	10	15	30	55
2004/2005	56	0	1	10	27	30	67
2005/2006	47	1	0	10	24	24	58
2006/2007	41	0	1	10	20	22	52
2007/2008	47	2	0	10	25	24	59
2008/2009	53	0	0	10	28	25	63
2009/2010	64	0	2	10	20	36	66
2010/2011	38	0	0	10	20	18	48
2011/2012	74	0	0	10	27	37	74
2012/2013	48	0	0	10	9 ^a	39	58
2013/2014	61	0	0	10	12 ^a	39	61
2014/2015	39	0	0	10	10 ^a	30	49
2015/2016	47	0	0	10	13 ^a	34	57
2016/2017	62	0	0	10	17 ^a	45	72

^a Harvests by Federally qualified subsistence users under the joint State/Federal permit established in 2012 are included in the "Total State" column

Effects of the Proposal

If this proposal is adopted, it would extend the winter moose season from Dec. 20 to Jan. 20 in a portion of Unit 11 south of the Chitina River. This season would provide Federally qualified subsistence users with an additional 31 days of harvest opportunity in areas that are difficult to access during the fall season. The two-month season would allow hunters to take advantage of periods of good weather and ice conditions that would allow them to safely cross the Nizina and/or the Chitina River.

Although no moose population surveys have been conducted in the area south of the Chitina River, moose populations in other areas of Unit 11 have remained stable to slightly increasing through 2012/2013. Even

though the hunt season is restricted to bulls, many of the bulls will have shed their antlers by January so the potential of inadvertently harvesting a cow would increase. In addition, WRST has delegated authority to open and close the winter moose season and establish quotas in Unit 11. Conducting GSPE surveys in the winter hunt area in Unit 11 would provide additional information for biologists and managers to determine a quota that is biologically sustainable.

OSM CONCLUSION

Support Proposal WP18-16/50.

Justification

Extension of the winter moose season in Unit 11 will allow Federally qualified subsistence hunters to be able to cross the Chitina and Nizinia Rivers when the rivers are frozen thus providing access and more opportunity to harvest a moose. The hunt would also occur later in the winter when the temperatures are expected to be colder, thus making it easier for subsistence users, who live off the electrical grid and do not have freezers, to keep the meat from spoiling.

Moose populations in surveyed areas of Unit 11 have remained relatively stable to slightly increasing through 2012/2013. The population should be able to sustain an additional harvest of bulls during the proposed one month winter harvest season extension. Winter moose harvest is likely to be low and will be controlled by quotas set by the WRST.

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Written Public Comments



Ahtna Intertribal Resource Commission

dba/Copper River-Ahtna Inter-Tribal
Resource Conservation District
PO Box 613
Glennallen, Alaska 99588
907-822-8154
contact@ahtnatribal.org

July 26, 2017

Chairperson of Federal Subsistence
Board or his Designated Field Officer
Office of Subsistence Management
1011 E. Tudor Road, MS-121
Anchorage, Alaska 99503-6199

Dear Mr. Christensen or Designated Field Officer:

Enclosed are Ahtna Inter-Tribal Resource Commission's (AITRC) comments on 2018-2020 Federal Wildlife proposals. Please consider our viewpoint on wildlife proposals, when decisions are made on federal wildlife regulations.

Sincerely,

A handwritten signature in black ink that reads "Shirley Smelcer". The signature is written in a cursive, flowing style.

Shirley Smelcer, Chairperson of CRITR

Comments on 2018-2020 Federal Wildlife Proposals

Southcentral Subsistence Regional Advisory Council

WP18-14 Change season dates for wolverine hunting and trapping

We support Proposal WP18-14 to extending Unit 11 Wolverine hunting season to February 28th, and extending Unit 13 Wolverine hunting and trapping seasons to February 28th.

Wolverine population in Unit 11 and Unit 13 is considered to be healthy and abundant. There isn't a conservation concern for wolverine in these two game management units.

Other Federally qualified subsistence users and Ahtna People will be able to hunt and trap longer in these two GMUs, allowing more opportunity to harvest a wolverine for personal use or to sell for extra income.

Wolverine is commonly used for clothing, ruff, or for moccasins, coats or jackets. Wolverine fur is also sold to acquire extra income, which supplements cash, food cost and bills.

WP18-16 Extend winter season [Unit 11 moose]

We do not support WP18-16. See comments under WP18-17.

WP18-17 Extend season [Unit 11 moose] (CRITR)

We support Proposal WP18-17 to extend moose hunting season and to allow Ahtna Intertribal Resource Commission to distribute moose permits on federal public lands in Unit 11.

Moose population in Unit 11 can sustain a moose hunt from August 1 to March 31. Moose population will not be depleted or over harvested by Ahtna tribal members who are federally qualified hunters. An increase of moose harvest on federal public lands will not occur with the newly established tribal moose hunt.

AITRC has management capability to distribute Unit 11 moose federal permits to Ahtna tribal members. A permitting system will be set up to allow proof of residency within the Copper Basin and Cantwell communities before moose permits are distributed to federally qualified tribal members. AITRC staff will monitor moose permit and hunting by tribal members. AITRC has a wildlife biologist on staff to help with moose hunt. AITRC has management capability to distribute Unit 11 moose permits to tribal members. Ahtna, Inc. staff, who are on loan to AITRC has coordinated the Copper Basin Community Subsistence Hunt since 2009. AITRC has experienced staff to distribute moose permits and ensure tribal hunters will return moose permits.

WP18-18 Extend season [Unit 13 moose] (CRITR)

We support WP18-18 to extend moose season and to allow AITRC to distribute moose permits. Moose population in Unit 13 can sustain a moose hunt from August 1 to March 31. Moose population will not be depleted or over harvested by Ahtna tribal members who are federally qualified hunters. Bureau of Land Management Biologist reported in 2016 1,384 moose permits were distributed, 681 moose permits were used and 99 moose were harvested by federally qualified subsistence hunters. An increase of moose harvest on federal public lands will not occur with the newly established tribal moose hunt.

AITRC has management capability to distribute Unit 13 moose federal permits to Ahtna tribal members. A permitting system will be set up to allow proof of residency within the Copper Basin and Cantwell communities before moose permits are distributed to federally qualified tribal members. AITRC staff will monitor moose permit and hunting by tribal members. AITRC has a wildlife biologist on staff to help with moose hunt. AITRC has management capability to distribute Unit 13 moose permits to tribal members. Ahtna, Inc. staff, who are on loan to AITRC has coordinated the Copper Basin Community Subsistence Hunt since 2009. AITRC has experienced staff to distribute moose permits and ensure tribal hunters will return moose permits.

WP18-19 Caribou – Revise permitting system [Unit 13 caribou] (CRITR)

We support WP18-19 to allow AITRC to distribute Unit 13 Nelchina Caribou hunting permits to Ahtna tribal members, who are federally qualified customary and traditional use hunters.

AITRC has management capability to distribute Unit 13 Nelchina Caribou permits to tribal members. Ahtna, Inc. staff, who are on loan to AITRC has coordinated the Copper Basin Community Subsistence Hunt since the year 2009. AITRC has experienced staff to distribute Nelchina Caribou permits and ensure tribal hunters return caribou permits.

Eastern Interior Subsistence Regional Advisory Council

WP18-50 Extend season [Unit 11 moose]

We do not support WP18-50, we support WP18-17. See comments under WP18-17.

WP18-51 Statewide – Modify baiting restrictions to align State regulations

We support WP18-51 to modify bait regulations to align with State regulations. Federal regulations are more restrictive than State regulations. Adding skinned carcasses of furbearers and fur animals, small game, with the exception of the meat of birds, to bait bear regulations will align State and Federal regulations, provide more opportunities for federal subsistence hunters who use bait stations to harvest bears.

Traditional use of grease, parts of wild game, and other methods of harvesting bears at bait stations would occur, hunters who use bait stations would have an improved chance of harvesting a bear with more options to choose from to use as bait.

WP18-54 – Increase harvest limit and Delegate Authority to set harvest limit for [Unit 12 caribou] to be announced winter season

We do not support WP18-54 to change Unit 12 Caribou regulations to “up to 3 caribou” may be taken with a federal registration permit. This will increase the take of caribou beyond sustainable limits and will stress the herd in its winter range. We have seen overharvest of caribou in the past with liberal bag limit that has taken decades to recover. This is not a wise proposal and we oppose it..

WP18-55 Extend Winter and fall season [Unit 12 moose]

Unit 12 Moose

That portion within Tetlin National Wildlife Refuge Aug. ~~24~~ 20 - Sept. ~~29~~ 30

and those lands within the Wrangell-St. Elias National

Preserve north and east of a line formed by the

Pickeral Lake Winter Trail from the Canadian border

to Pickerel Lake – 1 antlered bull by Federal registration Nov. 1 - ~~Feb-28~~ Apr. 30

permit (FM1203)

We are neutral on WP18-55 to extend Unit 12 Moose season to allow longer hunting opportunity.

WP18–17 Executive Summary

General Description	Proposal WP18–17 requests that the moose season on Federal public lands in Unit 11, that portion draining into the east bank of the Copper River upstream from and including the Slana River drainage, and Unit 11 remainder be changed from Aug. 20-Sept. 20 to Aug. 20-Mar. 31. <i>Submitted by: Ahtna Intertribal Resource Commission.</i>
Proposed Regulation	<p>Unit 11—Moose</p> <p><i>Unit 11—that portion draining into the east bank of the Copper River upstream from and including the Slana River drainage—1 antlered bull by joint State/Federal registration permit. Aug. 20–Sept. 20 Mar. 31</i></p> <p><i>Unit 11— that portion south and east of a line running along the north bank of the Chitina River, the north and west banks of the Nizina River, and the west bank of West Fork of the Nizina River, continuing along the western edge of the West Fork Glacier to the summit of Regal Mountain – 1 bull by Federal registration permit. Aug. 20–Sept. 20 Nov. 20–Dec 20</i></p> <p><i>Unit 11 remainder—1 antlered bull by Federal registration permit Aug. 20–Sept. 20 Mar. 31</i></p>
OSM Preliminary Conclusion	Oppose
Southcentral Alaska Subsistence Regional Advisory Council Recommendation	
Southcentral Alaska Subsistence Regional Advisory Council Recommendation	
Kodiak/Aleutians Subsistence Regional Advisory Council	

WP18–17 Executive Summary

Recommendation	
Bristol Bay Subsistence Regional Advisory Council Recommendation	
Yukon-Kuskokwim Delta Subsistence Regional Advisory Council Recommendation	
Western Interior Alaska Subsistence Regional Advisory Council Recommendation	
Seward Peninsula Subsistence Regional Advisory Council Recommendation	
Northwest Arctic Subsistence Regional Advisory Council Recommendation	
Eastern Interior Alaska Subsistence Regional Advisory Council Recommendation	
North Slope Subsistence Regional Advisory Council Recommendation	

WP18–17 Executive Summary

Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	1 Support

**DRAFT STAFF ANALYSIS
WP18-17**

ISSUES

Proposal WP18–17, submitted by the Ahtna Intertribal Resource Commission (AITRC), requests that the moose season on Federal public lands in Unit 11, that portion draining into the east bank of the Copper River upstream from and including the Slana River drainage, and Unit 11 remainder be changed from Aug. 20–Sept. 20 to Aug. 20–Mar. 31. In addition AITRC requests authorization to distribute (FM1301) permits to Federally qualified tribal members only. Bureau of Land Management (BLM) and Denali National Park and Preserve (DNP) will distribute (FM1301) permits to other Federally qualified subsistence hunters.

DISCUSSION

The proponent requests the extension of the moose season to provide more opportunity for Ahtna Tribal members to harvest a moose during the fall and winter months according to customary and traditional practices. In explaining why the regulatory change should be made, the proponent states that per the Memorandum of Agreement between the United States Department of Interior and the AITRC, Federal wildlife proposals are to be written to accommodate Ahtna customary and traditional ways of harvesting large wild game.

The Office of Subsistence Management (OSM) is only evaluating the season extension aspects of this proposal. Discussion/evaluation of permit issuance is deferred until further review and guidance is received from the Solicitors Office and Department of Interior.

Existing Federal Regulation

Unit 11—Moose

Unit 11—that portion draining into the east bank of the Copper River upstream from and including the Slana River drainage—1 antlered bull by joint State/Federal registration permit. Aug. 20–Sept. 20

Unit 11— that portion south and east of a line running along the north bank of the Chitina River, the north and west banks of the Nizina River, and the west bank of West Fork of the Nizina River, continuing along the western edge of the West Fork Glacier to the summit of Regal Mountain – 1 bull by Federal registration permit. However, during the period Aug. 20–Sept. 20, only an antlered bull may be taken. Aug. 20–Sept. 20
Nov. 20–Dec. 20

Unit 11 remainder—1 antlered bull by Federal registration permit only Aug. 20–Sept. 20

Proposed Federal Regulation

Unit 11—Moose

Unit 11—that portion draining into the east bank of the Copper River upstream from and including the Slana River drainage—1 antlered bull by joint State/Federal registration permit. ~~Aug. 20–Sept. 20~~
Mar. 31

Unit 11— that portion south and east of a line running along the north bank of the Chitina River, the north and west banks of the Nizina River, and the west bank of West Fork of the Nizina River, continuing along the western edge of the West Fork Glacier to the summit of Regal Mountain – 1 bull by Federal registration permit. However, during the period Aug. 20-Sept. 20, only an antlered bull may be taken. Aug. 20–Sept. 20
Nov. 20–Dec 20

Unit 11 remainder—1 antlered bull by Federal registration permit only ~~Aug. 20–Sept. 20~~
Mar. 31

Existing State Regulation (Effective on or after July 1, 2018)

Unit 11 – Moose

<i>Unit 11– that portion east of the east bank of the Copper River upstream from and including the Slana River drainage</i>	<i>Residents: 1 bull per harvest report by community harvest permit only; however, no more than 100 bulls that do not meet antler restrictions for other resident hunts in the same area may be taken by Tier II permit in the entire community harvest area during the Aug. 20 – Sept. 20 season, up to 350 Tier II permits may be issued;</i>	<i>CM300</i>	<i>Aug. 20–Sept.20</i>
			<i>Dec. 1-Dec. 31 (Subsistence hunt only)</i>

OR

	<i>Residents: 1 bull with spike-fork antlers or 50-inch antlers or antlers with 3 or more brow tines on at least one side by registration permit only</i>	<i>RM291</i>	<i>Aug. 20–Sept. 17</i>
	<i>Nonresidents: 1 bull with 50-inch antlers or antlers with 3 or more brow tines on at least one side by registration permit only</i>	<i>RM291</i>	<i>Aug. 20–Sept. 17</i>
<i>Remainder of Unit 11</i>	<i>Residents: 1 bull per harvest report by community harvest permit only; however, no more than 100 bulls that do not meet antler restrictions for other resident hunts in the same area may be taken by Tier II permit in the entire community harvest area during the Aug. 20–Sept. 20 season, up to 350 Tier II permits may be issued;</i>	<i>CM300</i>	<i>Aug. 20–Sept. 20</i>
	<i>OR</i>		
	<i>Residents and nonresidents: 1 bull with spike-fork antlers or 50-inch antlers or antlers with 3 or more brow tines on at least one side</i>	<i>HT</i>	<i>Aug. 20–Sept. 20</i>

Extent of Federal Public Lands

Federal public lands comprise approximately 87% of Unit 11 and consist of approximately 84% National Park Service (NPS) managed lands, 3% U.S. Forest Service (USFS) managed lands, and 0.1% Bureau of Land Management (BLM) managed lands (See **Unit Map**).

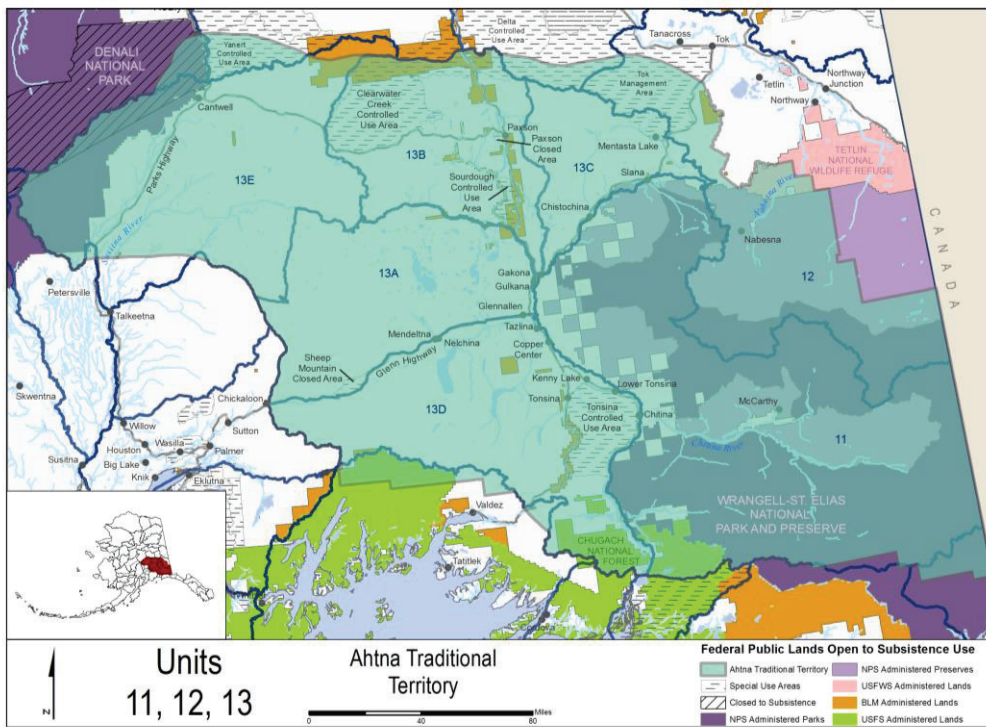
Lands customarily and traditionally used by the Ahtna people extend from the Canadian border in the east to Denali National Park in the west and encompass most of Units 11, 12, and 13 (**Map 1**).

Customary and Traditional Use Determinations

Residents of Units 11, 12, 13A-D, Chickaloon, Healy Lake, and Dot Lake have a customary and traditional use determination for moose in Unit 11 north of the Sanford River.

Residents of Units 11, 13A-D, and Chickaloon have a customary and traditional use determination for moose in Unit 11 remainder.

Under the guidelines of ANILCA, National Park Service regulations identify qualified local rural subsistence users in National Parks and Monuments by: 1) identifying resident zone communities, which include a significant concentration of people who have customarily and traditionally used subsistence resources on park lands; and 2) identifying and issuing subsistence use (13.440) permits to individuals residing outside of the resident zone communities who have a personal or family history of subsistence use. In order to engage in subsistence in Wrangell St. Elias National Park, the National Park Service requires that subsistence users either live within the park’s resident zone (36 CFR 13.430, 36 CFR 13.1902) or have a subsistence permit (36 CFR 13.440) issued by the park superintendent.



Map 1. Location of areas customarily and traditionally used for subsistence by the Ahtna people.

Regulatory History

In 1992, the Federal Subsistence Board (Board) added 10 days to the moose season in Unit 11, aligning it with seasons in adjoining subunits in Units 6, 12, and 13 (OSM 1992). In 1999, Healy Lake was added to communities having a customary and traditional use determination for moose in the portion of Unit 11 north

of the Sanford River (OSM 1999a). In 1999, the Board adopted Proposal P99-16 with modification to allow a five day extension to the starting date in Unit 11 moose season to provide additional opportunity for subsistence harvest while protecting the moose population from disruption during the breeding season, and to align Federal and State seasons (OSM 1999b).

In 2000, the Board rejected Proposal P00-19/21 to include the residents in Unit 6C into those with customary and traditional use for moose (P00-19) and sheep (P00-21) in the portion of Unit 11 remainder because Cordova previously failed to qualify as a resident zone community for Wrangell-St Elias National Park (WRST), based on percentage of qualifying individuals (OSM 2000a).

In 2000, the Board adopted Proposal P00-20 modifying general regulations requiring evidence of sex. The regulation was modified to allow hunters in Units 11 and 13 to possess either sufficient portions of the external sex organs, still attached to a portion of the carcass, or the head (with or without the antlers attached) to indicate the sex of the harvested moose; however this does not apply to the carcass of an ungulate that has been butchered and placed in storage or otherwise prepared for consumption upon arrival at the location where it is to be consumed (OSM 2000b).

In 2002, the Board adopted Proposal WP02-19 to allow for the harvest of a moose without a calf in either Unit 11 or Unit 12 for the annual Batzulnetas Culture Camp by two hunters designated by the Mt. Sanford Tribal Consortium (OSM 2002). The Board adopted this proposal because it was an established, well known culture camp and the change streamlined the process for issuing permits.

In 2007, the Board rejected Proposal WP07-20 to change the season dates from Aug. 20-Sept. 20 to Sept. 1–Sept. 30 to reduce spoilage due to warm weather, because the moose population was low and shifting the season had the potential to increase moose harvest, which would have detrimental effects for the conservation of the population (OSM 2007).

In 2012, the Board adopted Proposal WP12-70 with modification, dividing Unit 11 into two hunt areas and creating a single, joint Federal/State registration permit to administer the hunt area in Units 11 and 12 along the Nabesna Road, and a Federal registration permit for Unit 11 remainder. The season dates for Unit 12 remainder were also modified. These changes aligned the Federal seasons within the area of the joint State/Federal registration permit and helped to improve harvest reporting. In addition, the moose population was healthy enough to allow for the potential increase in bull harvest (OSM 2012).

In 2014, the Board adopted Proposal WP14-16 with modification to establish a winter moose season from Nov. 20 to Dec. 20 in Unit 11, south and east of a line running along the north bank of the Chitina River, the north and west banks of the Nizina River, and the west bank of West Fork of the Nizina River, continuing along the western edge of the West Fork Glacier to the summit of Regal Mountain. The Board also delegated authority to the WRST Superintendent to open and close any portion of the winter season and to establish a harvest quota (OSM 2014). Moose in the area south of the Chitina River (**Map 2**) typically stay at higher elevations during the fall where they are largely inaccessible to subsistence users. In addition, there is limited access during the fall moose season due, in part, to having to cross the Chitina River. The winter hunt provides subsistence hunters with more opportunity to hunt moose when they are more accessible by snowmachine and allows them to store meat without freezers.

Current Events

Two identical proposals WP18-16 and WP18-50, submitted for the 2018-2020 regulatory cycle, requested a one month extension of the winter moose season in the southern portion of Unit 11 (FM1107) from Nov. 20 – Dec. 20 to Nov. 20 - Jan. 20.

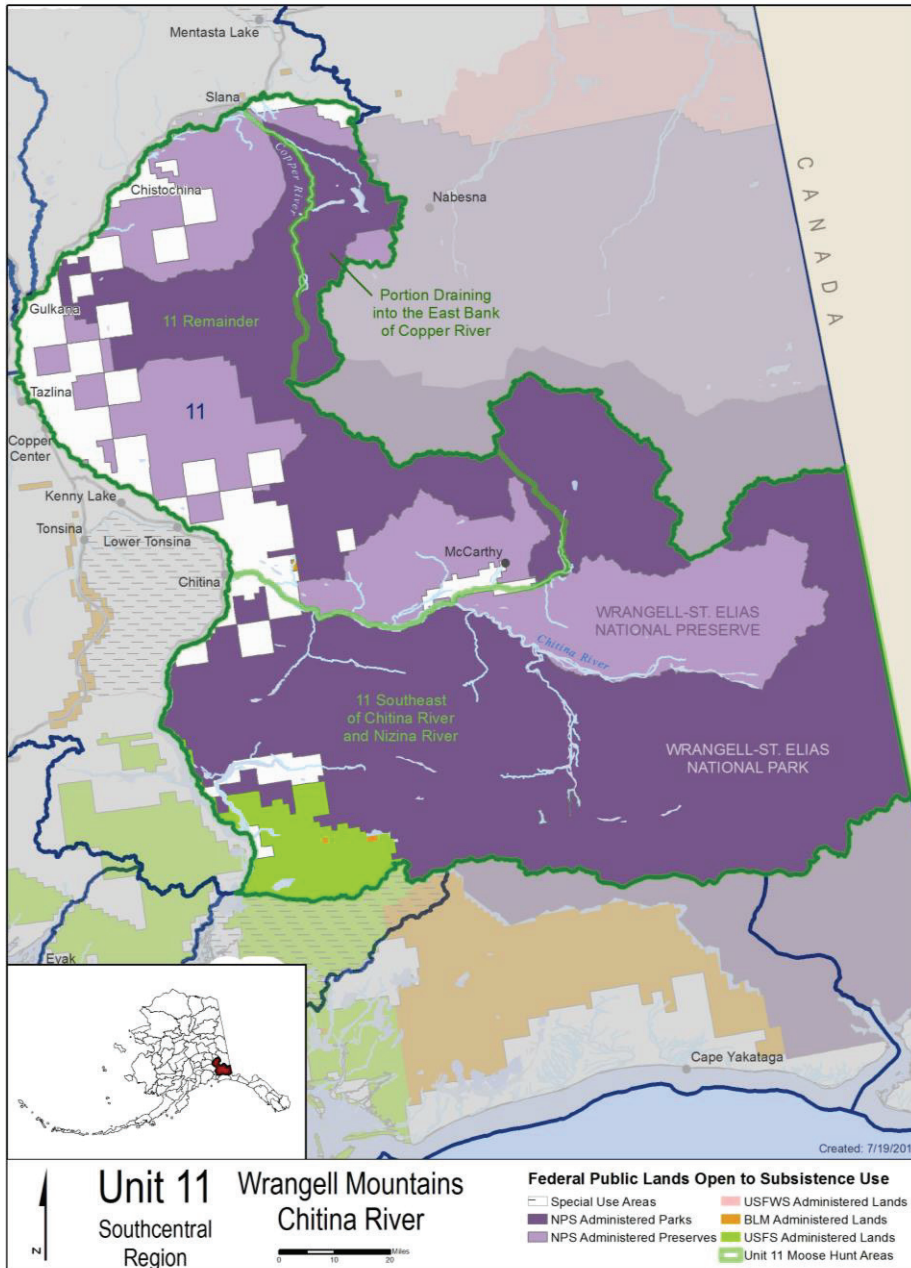
Biological Background

The moose population in Unit 11, which initially increased in the 1950s, has experienced two peaks, one in the early 1960s and the other in 1987, and two lows in 1979 and 2001 (Tobey 2010). Predation on moose calves by bears and wolves has been shown to be an important limiting factor in some moose populations (Tobey 2010). High brown bear and wolf numbers in Unit 11 may be contributing to the low calf:cow ratios observed in this unit, as well as the overall low, but stable density moose population (Tobey 2008).

State management goals for moose in Unit 11 are (Tobey 2010):

- To allow the populations to fluctuate based on the available habitat and predation rates.
- Maintain a population with a post hunt age/sex composition of 30 bulls (of which 10-15 are adult bulls) per 100 cows

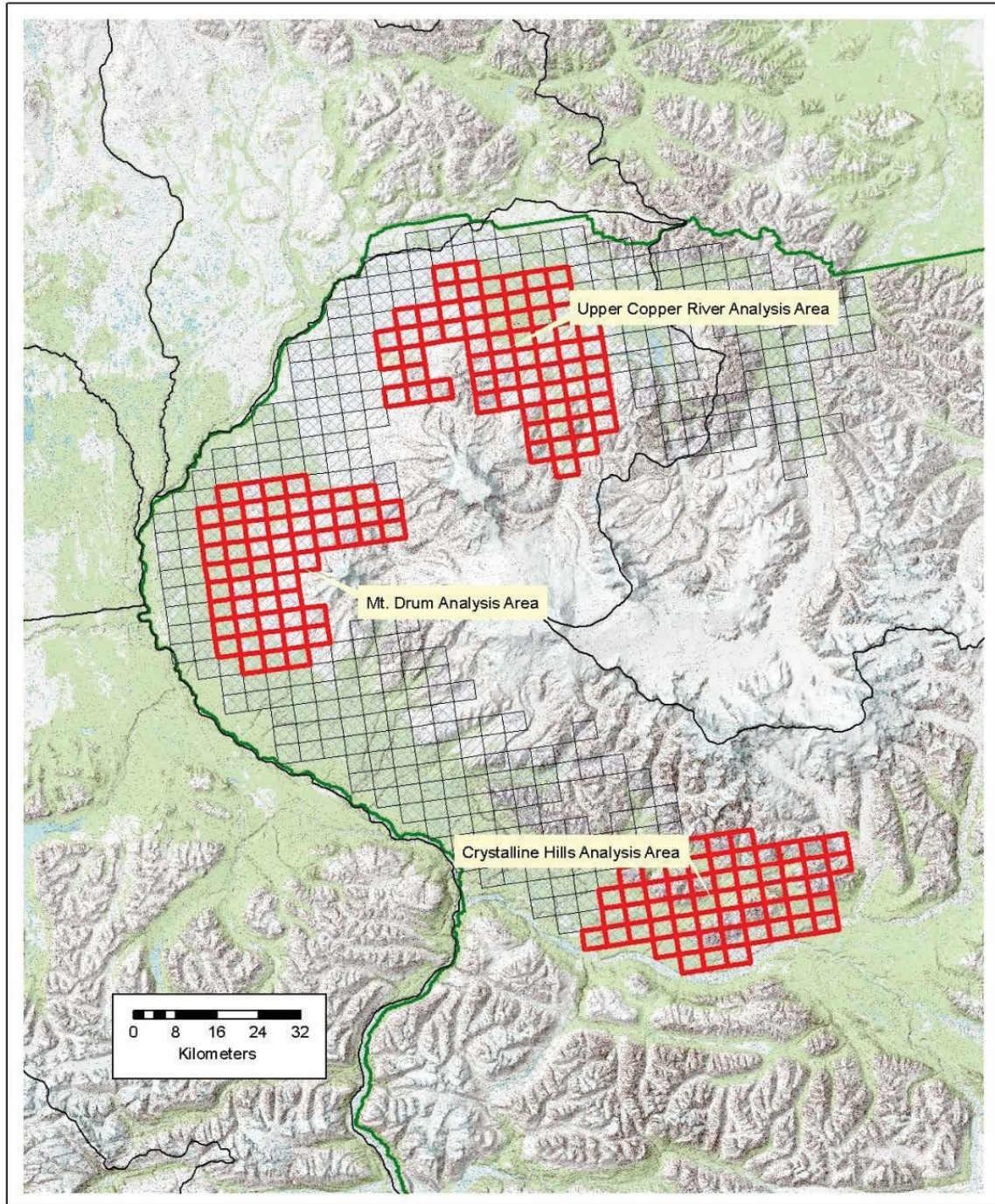
Three main moose survey efforts have been conducted in Unit 11. The first are ongoing surveys conducted by the Alaska Department of Fish and Game (ADF&G) in the Mount Drum area, the second were surveys conducted by WRST in the north end of Unit 11 from 2003 – 2008, and the third were Geospatial Population Estimator (GSPE) surveys conducted in 2007, 2010, 2011, and 2013 by WRST staff throughout Unit 11 (**Map 3**). The scheduled moose survey for 2016 was not conducted due to inadequate snow conditions (Putera et al. 2017). No moose surveys have been conducted in the winter hunt area in Unit 11. Aerial population and composition trend surveys are usually conducted by the Alaska Department of the Fish and Game (ADF&G) every other year during late fall along the western slopes of Mount Drum (Count Area CA11). The survey indicator area on Mt. Drum includes 212 mi² which is approximately 1.7% of Unit 11 (12470 mi²). The total number of moose counted in CA11 averaged 170 moose per regulatory year between 1998 and 2015 (**Table 1**). Density estimates from 1999 to 2015 ranged from 0.3 to 1.0 moose/mi² in CA11 (**Table 1**) (Tobey 2004, 2010). The bull:cow ratio averaged 95 bulls:100 cows from 1998 through 2015 (Tobey 2010, Schwanke 2013, pers. comm., Hatcher 2014, Robbins 2017, pers. comm.), which exceeds current State management goals. The average number of calves: 100 cows in Unit 11 between 1998 and 2015 was 21 (range 9-48) (Tobey 2010, Schwanke 2013, pers. comm., Hatcher 2014, Robbins 2017, pers. comm.).



Map 2. Federal hunt areas in Unit 11.

Moose population information was also collected by WRST staff near the north end of Unit 11 in the Upper Copper River (UCR) moose survey area, which covers the Boulder Creek drainage east to Copper Lake (Table 2). Although a portion of this survey area is accessible using all-terrain vehicles from the Nabesna Road, the western portion of the survey area is accessible only by aircraft. Between 2003 and 2008 (excluding 2007), an average of 297 moose were counted annually in the Upper Copper River moose survey area (Table 2) (Reid 2007, pers comm.). Results from sex and age composition counts found that

the calf:cow ratio was fairly stable, averaging 12 calves:100 cows with calves accounting for about 7% of the population. Bull:cow ratios remained fairly stable as well, averaging 46 bulls:100 cows; well above the management objective.



Map 3. Analysis areas within the count area. These areas were selected to allow comparisons with historical survey areas (Putera 2010).

Although a moose population census for all of Unit 11 has never been conducted, population estimates from the GSPE surveys conducted in 2007, 2010, 2011, and 2013 by WRST staff represent the most comprehensive moose population data for Unit 11 (Putera 2013, pers. comm). GSPE developed by ADF&G is an accepted method for estimating moose populations in large areas such as Unit 11 (Ver Hoef 2001). Population estimates for the total survey area, bull:cow ratios, and calf:cow ratios increased slightly from 2007 to 2013 (**Table 3**) (Reid 2008, Putera 2010, 2013). Separate population estimates were also determined for three analysis areas that cover previous trend count survey areas. For the Mt. Drum area, bull:cow ratios continued to remain high at 118:100 in 2007, 55:100 in 2010, and 79:100 in 2013 (**Table 3**). Moose density increased slightly in 2013 from the 2010 survey. Results of the 2007 and 2010 GSPE surveys for the UCR area are consistent with previous trend surveys, with 2-3 times more moose observed than in the Mt. Drum and Crystalline Hills survey areas. Calf:cow ratios were slightly higher in 2013 (**Table 3**) than surveys conducted in 2012 (**Table 1**). The Crystalline Hills and Mt. Drum count areas had the greatest increase from 2010 and 2013 (**Table 3**). In cooperation with ADF&G, WRST staff conducted a GSPE survey in 2011 along the Nabesna Road corridor, an area that receives relatively high hunting pressure. The population estimate was 1,272 moose with an estimated density of 0.79 moose/mi², a bull:cow ratio of 34:100 and a calf:cow ratio of 27:100. The bull:cow ratio along the Nabesna Road corridor was substantially lower than bull:cow ratios from the 2007 and 2010 GSPE surveys (**Table 3**).

Habitat

In 2009, the Chakina fire near McCarthy burned 52,000 acres and should produce forage for the next 20 years (Hatcher 2014). Typically within 10 –15 years following fires or disturbance (Loranger et al. 1991), early seral forest habitat becomes the most productive area for moose because it supports high density of forage species such as paper birch (*Betula papyrifera*), aspen (*Populus tremuloides*), and willow (*Salix sp.*). The severity and frequency of fires will determine how productive an area becomes for moose (Loranger et al. 1991; Johnstone and Kasischke 2005; Brown and Johnstone 2012). For instance, peak moose density during winter occurred approximately 15 years after the 1947 fire on the Kenai Peninsula (Loranger et al. 1991).

Table 1. Unit 11 moose population demographics on the western slopes of Mount Drum, Wrangell-St Elias National Park and Preserve, AK, 1998-2009 – a lightly hunted population (Tobey 2004, 2008; Schwanke 2013, Hatcher 2014, Robbins 2017, pers.comm.).

Year	Number of Bulls	Number of Cows	Number of Calves	Total Moose	Bulls:100 Cows	Calves/100 Cows	% Calves	Moose /hour	Density Moose/ mi ²
1998-99	51	46	7	104	111	15	7	24	0.4
1999-00	58	53	11	122	109	21	9	28	0.4
2000-01	58	37	9	104	157	24	9	23	0.4
2001-02	43	46	4	93	94	9	4	19	0.3
2002-03	----	----	----	----	----	---	--	---	----
2003-04	69	60	9	138	115	15	7	30	0.5
2004-05	----	----	----	----	----	----	----	----	----
2005-06	----	----	----	----	----	----	----	----	----
2006-07	57	62	30	149	92	48	20	32	0.5
2007-08	----	----	----	----	----	----	----	----	----
2008-09	63	86	15	164	73	17	9	38	0.6
2009-10	----	----	----	----	----	----	----	----	----
2011-12	98	138	29	265	71	21	11	46	0.9
2012-13	120	143	19	282	84	13	7	46	1.0
2013-14	91	103	27	221	88	26	12	45	0.8
2014-15	67	133	30	230	50	23	13	45	0.8
Mean	70	82	17	170	95	21	10	32	0.56

Table 2. Unit 11 moose population demographics in the Upper Copper River survey area, Boulder Creek to Copper Lake, Wrangell – St. Elias National Park and Preserve, AK, 2003-2008 – a relatively heavily hunted population accessible by aircraft and all-terrain vehicles (Reid 2007, 2008; Putera 2010).

Year	Number of Bulls	Number of Cows	Number of Calves	Total Moose	Bulls:100 Cows	Calves/100 Cows	% Calves
2003	97	215	21	333	45	10	6
2004	78	142	25	245	55	18	10
2005	92	183	11	286	50	6	4
2006	86	218	31	335	39	14	9
2008	77	186	22	285	41	12	8
Total	430	944	110	1,484			
Mean	86	189	22	297	46	12	7

Table 3. Moose Population Estimates for selected areas of Unit 11, from GSPE surveys conducted in 2007, 2010, and 2011 (Reid 2008, Putera 2010, 2013).

Area	Year	Population Estimate	Moose Observed	Calf:100 Cows	Bull:100 Cows	No. Units Surveyed	Density (mi ²)
Total Survey 3170 mi ²	2007	1576 ± 244	500	19	52	87	0.49
	2010	1584 ± 214	623	17	50	94	0.50
	2013	2107 ± 307	725	18	64	83	0.70
Upper Cop- per 524 mi ²	2007	403 ± 70	170	16	38	25	0.76
	2010	539 ± 106	220	14	49	19	1.02
	2013	515 ± 121	155	16	61	16	1.0
Mt. Drum 349 mi ²	2007	232 ± 65	82	11	118	8	0.66
	2010	186 ± 51	66	35	55	11	0.53
	2013	225 ± 56	94	25	79	9	0.70
Crystalline Hills 349 mi ²	2007	260 ± 93	63	29	42	9	0.74
	2010	259 ± 55	134	17	50	16	0.74
	2013	380 ± 78	179	19	70	13	1.10
Nabesna 1602 mi ²	2011	1272 ± 134	551	27	34	107	0.79

Cultural Knowledge and Traditional Practices

Reference to the harvest and use of moose by the people of the Eastern Interior and the Copper River Basin begin as early as the 1800s and continue to the present day (Simeone 2006). Archeological evidence and historical accounts suggest that large land mammals were an important subsistence resource for the Ahtna Athabascans of the upper Copper River watershed (Simeone 2006). Russian explorer, Rufus Sereberinikoff, noted that Ahtna families along the Tazlina River had fresh moose meat when he visited the Copper Basin in May of 1848. De Laguna (1981) reported that, "caribou and moose were caught either in drag-pole snares or in snares set 200-300 feet apart in long brush fences." Winter moose hunting took place on foot with the use of snowshoes and the aid of bow and arrows (Reckord 1983; Simeone 2006; Haynes & Simeone 2007). The traditional practices of drying and freezing meat, as well as the proper and respectful treatment of harvested resources such as moose, are described in several ethnographic accounts of the Ahtna and people of the upper Tanana (de Laguna & McClellan 1981; Haynes & Simeone 2007; Reckord 1983; Simeone 2006).

In recent comprehensive subsistence surveys conducted by the Alaska Department of Fish and Game (ADF&G), it was noted that while salmon composed a majority of the harvest in most communities along the upper Copper River drainage, large land mammal harvest is high and ranged between 21% and 88% (Holen, et al. 2012; Kukkonen & Zimpleman 2012; La Vine, et al. 2013; La Vine & Zimpleman 2014). In the communities with the closest proximity to the southern portion of Unit 11 moose was harvested at 13 lb

per capita in McCarthy and 8 lb per capita in Chitina. Additionally, use was high with 67% of households reporting use in Chitina and 62% households reporting use in McCarthy (La Vine 2014).

During each study year, communities within the Copper River Basin harvested or hunted for moose in Units 11, 12, and 13. While many communities documented harvest and search areas for moose in Unit 11 in general, Chitina, Copper Center, Glennallen, Kenny Lake/Willow Creek, and McCarthy reported harvest and search areas in the southern portion specifically (La Vine et al. 2013). Harvest and search areas described include the Richardson Highway south of the Glenn-Richardson Highway to the Edgerton Highway and areas around the community of Chitina, the 60 mile stretch of McCarthy Road, and Dan Creek across the Nizina River from McCarthy (Holen, et al. 2015; La Vine, et al. 2013; La Vine & Zimpleman 2014).

Harvest History

Moose harvest from 1963 to 1974 averaged 164 moose per year in Unit 11. During this time there was both a fall and winter season and cows made up as much as 50% of the harvest (Tobey 2010). In response to declining moose numbers, seasons were shortened, the winter season was eliminated, and harvest was restricted to bulls only from 1975 to 1989. The average annual bull harvest was 45 (range 21-58) between 1975 and 1989.

In 1990 the State season was shortened to Sept. 5 - Sept. 9 to align the season with the adjacent Unit 13 and because of population decline due to increased mortality during the severe 1989/1990 winter (Tobey 1993 2010). During the 1990s, the average harvest was 34 bulls (range 22-42). Since 2000, the mean harvest has been 58 bulls, which includes an estimated 10 unreported moose being harvested each year (**Table 4**) (Tobey 2010, FWS 2017). One moose was harvested in Unit 11 under the Copper Basin Community Permit Hunt (CM300) in 2009 (FWS 2017). The mean annual moose harvest under Federal and State regulations in Unit 11 from 2000 to 2016 was 21 and 28, respectively (**Table 4**). Under the joint State/Federal permit from 2012 to 2016 the annual Federal and State moose harvest was 49 (**Table 4**). (Timmerman and Buss 2007). Hunting pressure has typically been low in Unit 11, in part because moose densities are greater and access is easier in the adjacent Unit 13. Increasing the harvest season by approximately six months in two areas within Unit 11 has the potential to significantly increase harvest on Federal public lands. The majority of the moose harvest in Unit 11 occurs on Federal public lands. The impact of such an increase of harvest is likely to be much greater in Unit 11 than in adjacent Unit 13, where moose populations are larger, and the majority of lands are non-Federal.

Other Alternative Considered

One alternative considered was to extend the moose harvest season on Federal public lands in Unit 11 by a month from Nov. 1 – Dec. 1. Although the increase in the moose harvest would be less than the 6 month extension requested by the proponent, this alternative was not chosen because moose populations have remained stable to slightly increasing and due the low density of moose populations in Unit 11 (< 1.0 mi²). Proposal WP18-16/50 was also submitted for the 2018-2020 regulatory cycle to extend the winter moose season by one month to Jan. 20 (Nov. 10- Jan. 20) in the southern portion of Unit 11.

Table 4. State and Federal Moose harvest in Unit 11 from 2000-2015^a (Tobey 2010, Hatcher 2014, FWS 2017, ADF&G 2017).

Year	M	F	U	Estimate of Unreported Kill	Federal Total	State Total	Total
2000/2001	52	0	1	10	23	30	63
2001/2002	43	1	1	10	14	31	55
2002/2003	40	0	1	10	8	33	51
2003/2004	45	0	0	10	15	30	55
2004/2005	56	0	1	10	27	30	67
2005/2006	47	1	0	10	24	24	58
2006/2007	41	0	1	10	20	22	52
2007/2008	47	2	0	10	25	24	59
2008/2009	53	0	0	10	28	25	63
2009/2010	64	0	2	10	20	36	66
2010/2011	38	0	0	10	20	18	48
2011/2012	74	0	0	10	27	37	74
2012/2013	48	0	0	10	9 ^a	39	58
2013/2014	61	0	0	10	12 ^a	39	61
2014/2015	39	0	0	10	10 ^a	29	49
2015/2016	47	0	0	10	13 ^a	34	57
2016/2017	62	0	0	10	17 ^a	45	72

^a Harvests by Federally qualified subsistence users under the joint State/Federal permit established in 2012 are included in the "Total State" column

Effects of the Proposal

If this proposal is adopted, it would lengthen the moose season on Federal public lands in a portion of Unit 11 by approximately 6 months. A seven month hunting season would give Federally qualified subsistence users more opportunity to harvest moose according to their customary and traditional practices, as requested by the proponent.

Moose populations in Unit 11, which occur at relatively low densities, are subject to population fluctuations due to severe winters and predation from bears and wolves. Hunting mortality combined with increased predation during severe winters can severely reduce moose populations (Walters et al. 1981). Prime breeding bulls and cows are particularly vulnerable during the rut and early winter aggregations

OSM PRELIMINARY CONCLUSION

Oppose Proposal WP18-17.

Justification

Extending the moose season in two primary hunting areas in Unit 11 to March 31 would provide more opportunity for Federally qualified subsistence users to harvest moose according to their traditional and cultural practices, but could also present some potentially serious conservation concerns.

Although moose populations in surveyed areas of Unit 11 have remained relatively stable to slightly increasing through 2012/2013, they still occur at relatively low densities. Increasing the harvest could reverse the current population trend. Under the current harvest regime moose populations in Unit 11 have been able to grow slowly. Extending the moose season in Unit 11 by approximately six months is not recommended at this time.

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Written Public Comments



Ahtna Intertribal Resource Commission

dba/Copper River-Ahtna Inter-Tribal
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July 26, 2017

Chairperson of Federal Subsistence
Board or his Designated Field Officer
Office of Subsistence Management
1011 E. Tudor Road, MS-121
Anchorage, Alaska 99503-6199

Dear Mr. Christensen or Designated Field Officer:

Enclosed are Ahtna Inter-Tribal Resource Commission's (AITRC) comments on 2018-2020 Federal Wildlife proposals. Please consider our viewpoint on wildlife proposals, when decisions are made on federal wildlife regulations.

Sincerely,



Shirley Smelcer, Chairperson of CRITR

Comments on 2018-2020 Federal Wildlife Proposals

Southcentral Subsistence Regional Advisory Council

WP18-14 Change season dates for wolverine hunting and trapping

We support Proposal WP18-14 to extending Unit 11 Wolverine hunting season to February 28th, and extending Unit 13 Wolverine hunting and trapping seasons to February 28th.

Wolverine population in Unit 11 and Unit 13 is considered to be healthy and abundant. There isn't a conservation concern for wolverine in these two game management units.

Other Federally qualified subsistence users and Ahtna People will be able to hunt and trap longer in these two GMUs, allowing more opportunity to harvest a wolverine for personal use or to sell for extra income.

Wolverine is commonly used for clothing, ruff, or for moccasins, coats or jackets. Wolverine fur is also sold to acquire extra income, which supplements cash, food cost and bills.

WP18-16 Extend winter season [Unit 11 moose]

We do not support WP18-16. See comments under WP18-17.

WP18-17 Extend season [Unit 11 moose] (CRITR)

We support Proposal WP18-17 to extend moose hunting season and to allow Ahtna Intertribal Resource Commission to distribute moose permits on federal public lands in Unit 11.

Moose population in Unit 11 can sustain a moose hunt from August 1 to March 31. Moose population will not be depleted or over harvested by Ahtna tribal members who are federally qualified hunters. An increase of moose harvest on federal public lands will not occur with the newly established tribal moose hunt.

AITRC has management capability to distribute Unit 11 moose federal permits to Ahtna tribal members. A permitting system will be set up to allow proof of residency within the Copper Basin and Cantwell communities before moose permits are distributed to federally qualified tribal members. AITRC staff will monitor moose permit and hunting by tribal members. AITRC has a wildlife biologist on staff to help with moose hunt. AITRC has management capability to distribute Unit 11 moose permits to tribal members. Ahtna, Inc. staff, who are on loan to AITRC has coordinated the Copper Basin Community Subsistence Hunt since 2009. AITRC has experienced staff to distribute moose permits and ensure tribal hunters will return moose permits.

WP18-18 Extend season [Unit 13 moose] (CRITR)

We support WP18-18 to extend moose season and to allow AITRC to distribute moose permits. Moose population in Unit 13 can sustain a moose hunt from August 1 to March 31. Moose population will not be depleted or over harvested by Ahtna tribal members who are federally qualified hunters. Bureau of Land Management Biologist reported in 2016 1,384 moose permits were distributed, 681 moose permits were used and 99 moose were harvested by federally qualified subsistence hunters. An increase of moose harvest on federal public lands will not occur with the newly established tribal moose hunt.

AITRC has management capability to distribute Unit 13 moose federal permits to Ahtna tribal members. A permitting system will be set up to allow proof of residency within the Copper Basin and Cantwell communities before moose permits are distributed to federally qualified tribal members. AITRC staff will monitor moose permit and hunting by tribal members. AITRC has a wildlife biologist on staff to help with moose hunt. AITRC has management capability to distribute Unit 13 moose permits to tribal members. Ahtna, Inc. staff, who are on loan to AITRC has coordinated the Copper Basin Community Subsistence Hunt since 2009. AITRC has experienced staff to distribute moose permits and ensure tribal hunters will return moose permits.

WP18-19 Caribou – Revise permitting system [Unit 13 caribou] (CRITR)

We support WP18-19 to allow AITRC to distribute Unit 13 Nelchina Caribou hunting permits to Ahtna tribal members, who are federally qualified customary and traditional use hunters.

AITRC has management capability to distribute Unit 13 Nelchina Caribou permits to tribal members. Ahtna, Inc. staff, who are on loan to AITRC has coordinated the Copper Basin Community Subsistence Hunt since the year 2009. AITRC has experienced staff to distribute Nelchina Caribou permits and ensure tribal hunters return caribou permits.

Eastern Interior Subsistence Regional Advisory Council

WP18-50 Extend season [Unit 11 moose]

We do not support WP18-50, we support WP18-17. See comments under WP18-17.

WP18-51 Statewide – Modify baiting restrictions to align State regulations

We support WP18-51 to modify bait regulations to align with State regulations. Federal regulations are more restrictive than State regulations. Adding skinned carcasses of furbearers and fur animals, small game, with the exception of the meat of birds, to bait bear regulations will align State and Federal regulations, provide more opportunities for federal subsistence hunters who use bait stations to harvest bears.

Traditional use of grease, parts of wild game, and other methods of harvesting bears at bait stations would occur, hunters who use bait stations would have an improved chance of harvesting a bear with more options to choose from to use as bait.

WP18-54 – Increase harvest limit and Delegate Authority to set harvest limit for [Unit 12 caribou] to be announced winter season

We do not support WP18-54 to change Unit 12 Caribou regulations to “up to 3 caribou” may be taken with a federal registration permit. This will increase the take of caribou beyond sustainable limits and will stress the herd in its winter range. We have seen overharvest of caribou in the past with liberal bag limit that has taken decades to recover. This is not a wise proposal and we oppose it..

WP18-55 Extend Winter and fall season [Unit 12 moose]

Unit 12 Moose

That portion within Tetlin National Wildlife Refuge Aug. ~~24~~ 20 - Sept. ~~29~~ 30

and those lands within the Wrangell-St. Elias National

Preserve north and east of a line formed by the

Pickeral Lake Winter Trail from the Canadian border

to Pickerel Lake – 1 antlered bull by Federal registration Nov. 1 - ~~Feb. 28~~ Apr. 30

permit (FM1203)

We are neutral on WP18-55 to extend Unit 12 Moose season to allow longer hunting opportunity.

WP18–18 Executive Summary	
General Description	<p>Proposal WP18–18 requests that the moose season on Federal public lands in Unit 13 and Unit 13-remainder be changed from Aug. 1-Sept. 20 to Aug. 1-Mar. 31. In addition AITRC requests authorization to distribute (FM1301) permits to Federally qualified tribal members only. Bureau of Land Management (BLM) and Denali National Park and Preserve (DENA) will distribute (FM1301) permits to other Federally qualified subsistence hunters. <i>Submitted by: Ahtna Intertribal Resource Commission.</i></p>
Proposed Regulation	<p>Unit 13—Moose</p> <p><i>Unit 13E—1 antlered bull moose by Federal registration Aug. 1–Sept. permit only; only 1 permit per household. 20Mar. 31</i></p> <p><i>Unit 13, remainder —1 antlered bull moose by Federal Aug. 1–Sept. registration permit only. 20Mar. 31</i></p>
OSM Preliminary Conclusion	<p>Support Proposal WP18–18 with modification to create a split season.</p> <p>The modified proposal should read:</p> <p>Unit 13—Moose</p> <p><i>Unit 13E—1 antlered bull moose by Federal Aug. 1–Sept. 20 registration permit only; only one permit per household. Nov. 1–Mar. 31</i></p> <p><i>Unit 13, remainder —1 antlered bull moose by Federal Aug. 1–Sept. 20 registration permit only. Nov. 1–Mar. 31</i></p>
Southeast Alaska Subsistence Regional Advisory Council Recommendation	
Southcentral Alaska Subsistence Regional Advisory	

WP18–18 Executive Summary	
Council Recommendation	
Kodiak/Aleutians Subsistence Regional Advisory Council Recommendation	
Bristol Bay Subsistence Regional Advisory Council Recommendation	
Yukon-Kuskokwim Delta Subsistence Regional Advisory Council Recommendation	
Western Interior Alaska Subsistence Regional Advisory Council Recommendation	
Seward Peninsula Subsistence Regional Advisory Council Recommendation	
Northwest Arctic Subsistence Regional Advisory Council Recommendation	

WP18–18 Executive Summary	
Eastern Interior Alaska Subsistence Regional Advisory Council Recommendation	
North Slope Subsistence Regional Advisory Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	1 Support

DRAFT STAFF ANALYSIS WP18-18

ISSUES

Proposal WP18-18, submitted by the Ahtna Intertribal Resource Commission (AITRC), requests that the moose season on Federal public lands in Unit 13 and Unit 13-remainder be changed from Aug. 1-Sept. 20 to Aug. 1-Mar. 31. In addition AITRC requests authorization to distribute (FM1301) permits to Federally qualified tribal members only. Bureau of Land Management (BLM) and Denali National Park and Preserve (DENA) will distribute (FM1301) permits to other Federally qualified subsistence hunters.

DISCUSSION

The proponent requests the extension of the moose season to provide more opportunity for Ahtna tribal members to harvest a moose during the fall and winter months according to customary and traditional practices. In explaining why the regulatory change should be made, the proponent states that per the Memorandum of Agreement between the United States Department of Interior and the AITRC, Federal wildlife proposals are to be written to accommodate Ahtna customary and traditional ways of harvesting large wild game.

The Office of Subsistence Management (OSM) is only evaluating the season extension aspects of this proposal. Discussion/evaluation of permit issuance is deferred until further review and guidance is received from the Solicitors Office and Department of Interior.

Existing Federal Regulation

Unit 13—Moose

Unit 13E—1 antlered bull moose by Federal registration permit only; only 1 permit will be issued per household. Aug. 1–Sept. 20

Unit 13, remainder —1 antlered bull moose by Federal registration permit only. Aug. 1–Sept. 20

Proposed Federal Regulation

Unit 13—Moose

Unit 13E—1 antlered bull moose by Federal registration permit only; only 1 permit per household. Aug. 1–~~Sept.~~
~~20~~**Mar. 31**

Unit 13, remainder —1 antlered bull moose by Federal registration permit only.

Aug. 1–Sept. 20
Mar. 31

Existing State Regulation

Unit 13-Moose

<i>Unit 13</i>	<i>Residents: 1 bull per harvest report by community harvest permit only; however, no more than 100 bulls that do not meet antler restrictions for other resident hunts in the same area may be taken by Tier II permit in the entire community harvest area during the Aug. 20-Sept. 20 season, up to 350 Tier II permits may be issued;</i>	<i>CM300</i>	<i>Aug. 20–Sept. 20</i>
<i>1 moose per regulatory year as follows:</i>			<i>Dec. 1–Dec. 31</i> <i>(Subsistence hunt only)</i>
	<i>OR</i>		
	<i>Residents: 1 bull, with spike-fork antlers or 50-inch antlers or antlers with 4 or more brow tines on at least one side;</i>	<i>HT</i>	<i>Sept. 1–Sept. 20</i> <i>(Subsistence hunt only)</i>
	<i>OR</i>		
	<i>1 bull, by registration permit only;</i>	<i>HT</i>	<i>Dec. 1–Dec. 31</i> <i>(General hunt only)</i>
	<i>OR</i>		
	<i>Residents: 1 antlerless moose by drawing permit only; up to 200 permits may be issued; a person may not take a calf or cow accompanied by a calf.</i>	<i>DM325</i>	<i>Oct. 1–Oct. 31</i> <i>Mar. 1–Mar. 31</i> <i>(General hunt only)</i>
	<i>OR</i>		
	<i>Residents: 1 bull moose by drawing permit only; up to 5 permits may be issued;.</i>	<i>DM324</i>	<i>Sept. 1–Sept. 20</i> <i>(General hunt only)</i>

Unit 13 *Nonresidents: 1 bull with 50-inch antlers or antlers with 4 or more brow tines on at least one side by drawing permit only; up to 150 permits may be issued.* DM335- DM339 Sept. 1-Sept. 20

Extent of Federal Public Lands

Federal public lands comprise approximately 12% of Unit 13 and consist of approximately 6% National Park Service (NPS) managed lands, 4% Bureau of Land Management (BLM) managed lands and 2% U.S. Forest Service (USFS) managed lands (See **Unit Map**). Federal public lands within DENA as it existed prior to the Alaska National Interest Lands Conservation Act (ANILCA) (December 1980) are closed to all hunting and trapping.

Lands customarily and traditionally used by the Ahtna people extend from the Canadian border in the east to Denali National Park in the west and encompass most of Units 11, 12, and 13 (**Map 1**).

Customary and Traditional Use Determinations

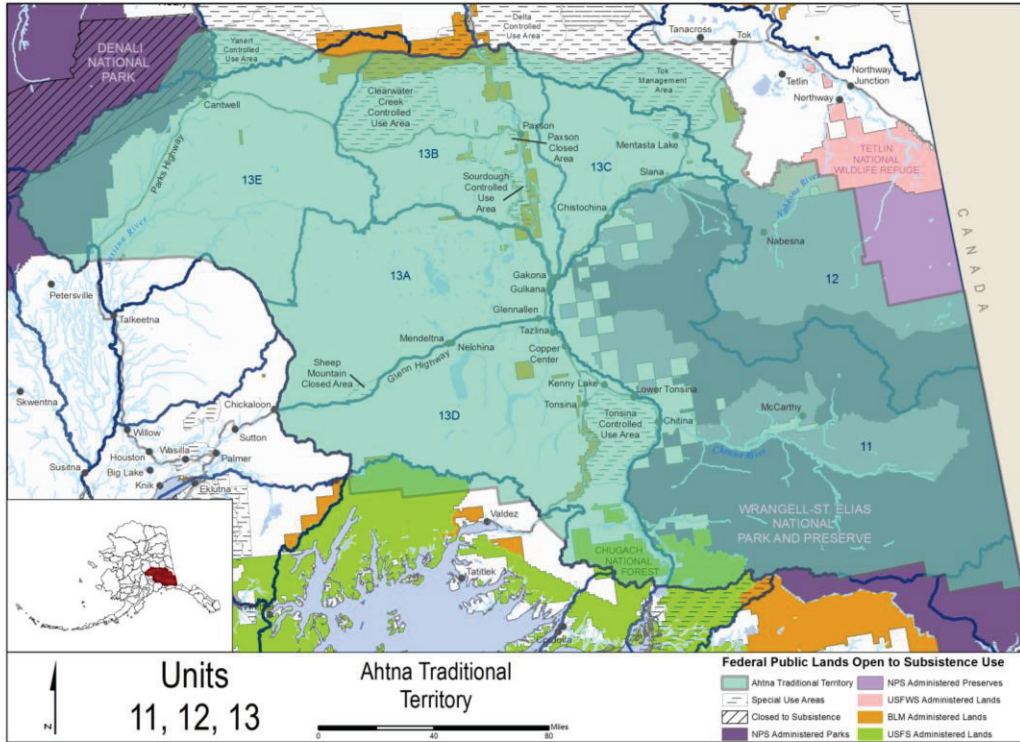
Residents of Unit 13, Chickaloon and Slana have a customary and traditional use determination for moose in Units 13A and 13D.

Residents of Units 13 and 20D (excluding residents of Fort Greely) and Chickaloon, and Slana have a customary and traditional use determination for moose in Unit 13B.

Residents of Units 12 and 13, Chickaloon, Healy Lake, Dot Lake, and Slana have a customary and traditional use determination for moose in Unit 13C.

Residents of Unit 13, Chickaloon, McKinley Village, Slana, and the area along the Parks Highway between mileposts 216 and 239 (excluding residents of Denali National Park headquarters) have a customary and traditional use determination for moose in Unit 13E.

Under the guidelines of ANILCA, National Park Service regulations identify qualified local rural subsistence users in National Parks and Monuments by: 1) identifying resident zone communities which include a significant concentration of people who have customarily and traditionally used subsistence resources on park lands; and 2) identifying and issuing subsistence use (13.440) permits to individuals residing outside of the resident zone communities who have a personal or family history of subsistence use. In order to engage in subsistence in the Denali National Park (DENA) ANILCA additions, the National Park Service requires that subsistence users either live within the park's resident zone (36 CFR 13.430, 36 CFR 13.902) or have a subsistence permit (36 CFR 13.440) issued by the park superintendent.



Map 1. Location of areas customarily and traditionally used for subsistence by the Ahtna people.

Regulatory History

The existing Federal subsistence regulations, one antlered bull moose by Federal registration permit only, from Aug. 1 to Sept. 20 (OSM 1995), have been in place since 1995 when the season starting date was changed from Aug. 25 to Aug. 1 thus providing an additional 14 days for Federally qualified subsistence users to harvest moose without interference from State Tier II permit hunters.

In 2004, the Federal Subsistence Board (Board) considered Proposal WP04-27, which requested that the harvest season for moose be shortened by 14 days, and to require reporting of the permit number and exact location of the harvest, and require a 3-day vs 5-day harvest reporting period to BLM (OSM 2004). The Board rejected this proposal because it would have reduced the harvest opportunity by two weeks, and the permit requirements would have done little to curtail illegal harvest.

The State general harvest regulations for moose in Unit 13 were changed in 2000 when the designation of a legal bull went from 3 or more brow tines or 50-inch antler spread to a 4 or more brow tines or 50-inch antler spread and have been in effect ever since. The same year, non-resident general moose hunting was eliminated from Unit 13 in the State regulations due to low moose population numbers. In addition, the Alaska Department of Fish and Game (ADF&G) also managed a State Tier II hunt (TM300) for one bull moose by permit Aug. 15 – Aug. 31 between 1995 and 2008.

In 2008, the State Tier II hunt was changed by the Alaska State Board of Game (BOG) to add a community harvest (CM300) and the season was modified to Aug 10 – Sept 20 with an upper harvest limit of 10 any-bull moose for Unit 13 and an unlimited number of spike/fork, 50 inch, and 4 or more brow tine moose. For residents, drawing permit hunts (DM330-334) for one bull moose with a season of Sept. 1-Sept. 20 were added as a new harvest option in select areas where moose numbers had increased. For non-residents, drawing permit hunts (DM 335-339) were established to harvest one bull with 50-inch antlers or antlers with 4 or more brow tines on at least one side from Sept. 1-Sept. 20. These three hunts were in addition to the State general harvest of one bull moose with spike-fork or 50-inch antlers or antlers with 4 or more brow tines on at least one side from Sept.1 to Sept. 20 for residents.

In March 2009, the BOG revised the amount reasonably necessary for subsistence (ANS) findings for moose and caribou in Unit 13 eliminated the Tier II hunts for both populations and created the Community Subsistence Hunts (CSH) (Robbins 2017). The CSH included an allocation of 100 bulls that did not meet the antler restrictions. The BOG also created antlerless moose drawing hunts of residents and antlered bull moose hunts for nonresidents.

In 2011, the BOG adopted a new regulation for the Community Subsistence Hunt in 2011/12 which allowed any community or group of Alaska residents numbering 25 or more to apply for the hunt between Aug.10 and Sept. 20. Following this change, the number of participants in the CSH hunts increased substantially. The BOG decreased the number of bulls that do not meet the antler restrictions from 100 to 70.

In 2013, the BOG increased the number of bulls not required to meet the antler restrictions from 70 back to 100 in response to increased participation in the hunt. A winter registration hunt from Dec.1-Dec.31, which was effective in 2014, was also added to provide additional opportunity for bulls that do not meet the antler restrictions. The hunt was closed after one day to very high levels of participation and not resumed.

In 2015, the BOG required participants in the CSH to commit to participation for two consecutive years and provide an annual group report with the stipulation that if a report is not submitted the entire group would be ineligible for a permit hunt the next regulatory year. The Board also created an any bull moose drawing for residents which was effective in 2016 and shortened the CSH season by 10 days from Aug. 10-Sept. 20 to Aug. 20-Sept. 20 for the 2016/17 regulatory year.

The Paxson Closed Area in Unit 13B (**Map 1**) was established by the State in 1958 to provide a viewing area adjacent to the junction of the Richardson and Denali Highways (ADF&G 2015). During 1991/1992 and 1992/1993 regulatory years, Federal public lands within the Paxson Closed Area were closed to the hunting of big game under the Special Provisions section for Unit 13 in the Federal Subsistence Management Regulations for Federal public lands in Alaska. However, the hunting for small game was still allowed in the Paxson Closed Area. In 1992, the Federal Subsistence Board (Board) closed the Paxson Closed Area in Unit 13B to the taking of big game. In June 2014, the Glennallen Field Office of BLM became aware of the unencumbered Federal public lands within the Paxson Closed Area and they were subsequently removed from State selection. As a result, Federal public lands in the Paxson Closed Area were determined to be opened (i.e. no longer State selected) to the taking of big game, which includes moose, by Federally qualified subsistence users under Federal subsistence regulations. In 2016, the Board

rejected Wildlife Proposal WP16-16 which requested that the Federal public lands within the Paxson Closed Area in Unit 13 be closed to Federally qualified subsistence users (OSM 2016).

To address concerns that the communal pattern of use was not providing reasonable opportunity in Unit 13, the BOG adopted amended Proposal 20 (RC25) at the special meeting in Glennallen in February 2017 to retain the CSH moose hunt for resident hunters for the fall (Aug. 20 – Sept. 20) and winter (Dec. 1 - Dec. 31; subsistence hunt only) hunts with the following restrictions: *One bull per by community harvest permit only; however, no more than 100 bulls that do not meet antler restrictions may be taken by Tier II permit during the August 20 – September 20 season, up to 350 Tier II permits may be issued, one Tier II permit per household.*

Biological Background

In the early 1900s, moose densities in Unit 13 were low but increased gradually until peaking in the mid-1960s. The population then declined due to a combination of factors including overhunting, severe winters, and predation, primarily by brown bears and wolves (Ballard et al. 1987, Schwanke 2012, Robbins 2014). The population reached a low in 1975 and then started to increase by 1978, reaching a second peak in 1987. Between 1988 and 1994, the moose population declined due to a combination of factors including hunting pressure, deep snow and increasing wolf predation (Robbins 2014). From 1987 to 2001 the moose population declined by an estimated 47% (Tobey and Schwanke 2008, 2010). The moose populations in Unit 13 have grown since 2000 due to a combination of mild winters, predator control, and more conservative hunting regulations (Schwanke 2012, Robbins 2014).

State management objectives for moose populations and human use in Unit 13 are as follows (Robbins 2014):

Population Objectives

- Maintain a combined population of 17,600 to 21,900 moose in Unit 13:
 - 3,500-4,200 moose in Subunit 13A
 - 5,300-6,300 moose in Subunit 13B
 - 2,000-3,000 moose in Subunit 13C
 - 1,200-1,900 moose in Subunit 13D
 - 5,000-6,000 moose in Subunit 13E
- Maintain minimum fall composition ratios:
 - 25–30 calves:100 cows in Subunit 13A
 - 30 calves:100 cows in Subunits 13B, 13C, 13D, and 13E
 - 25 bulls:100 cows in all subunits
 - 10 yearling bulls:100 cows in all subunits

Human Use Objectives

- Maintain a combined annual harvest of 1,050–2,180 moose in Unit 13:
 - 210-420 moose in Subunit 13A
 - 310-620 moose in Subunit 13B

- 155-350 moose in Subunit 13C
- 75-190 moose in Subunit 13D
- 300-600 moose in Subunit 13E

ADF&G conducts fall counts to determine the sex and age composition and population trends in large count areas distributed throughout Unit 13. From 2001–2009 the number of moose observed in Unit 13 during the fall increased from 3,466 in 2001 to 5,604 in 2011 and then dropped slightly to 5,404 in 2012 (**Table 1**). Although the bull:cow and yearling bull:cow ratios increased in Unit 13, with the population increases between 2001–2012, calf:cow ratios remained below the minimum management objective of 25:100 cows (**Table 1**). In 2012, bull:cow ratios were below State management objectives for Units 13A but above management objectives for Units 13B, 13C, 13D, and 13E. In 2015 they were within the State management objectives for all subunits. Except for the yearling bull:cow ratio in Unit 13D, the yearling bull:cow and calf:cow ratios were below the State management objectives of 10 yearling bulls:100 cows and 25 calves:100 cows in Unit 13A and 30 calves:100 cows in the remaining units (**Table 2**) (Robbins 2014).

Moose are most abundant along the southern slopes of the Alaska Range in Units 13B (Alphabet Hills) and 13C and in the eastern Talkeetna Mountains in western Unit 13B. The lowest densities are found in the section of Denali National Park located in the western portion of Unit 13E, Lake Louise Flats in eastern portion of Unit 13A, and Unit 13D. Historically, moose numbers in the western portion of Unit 13A, Unit 13B, and Unit 13C tend to fluctuate more than in lower density areas (Tobey and Schwanke 2008, 2010, Robbins 2014).

Moose typically congregate in subalpine habitats during fall rutting and move down to lower elevations as the snow increases. Winter distribution depends mainly on snow depth and to a lesser extent wolf distribution (Tobey and Schwanke 2010). Known wintering areas include the southern Alphabet Hills, the upper Susitna River, Tolsona Creek burn, the eastern foothills of the Talkeetna Mountains, and the Copper River floodplain (Robbins 2014). Severe winters with deep snow are known to cause winter mortality by increasing nutritional stress through restriction of movements. Severe winters prevent access to adequate and/or quality food (Coady 1974, Testa 2004, Bubenik 2007, Innes 2010), and increases the risk of predation, primarily by wolves (Bishop and Rausch 1974, Peterson et al. 1984). Snow depths greater than 35 inches represent a critical depth for adults with calves (Coady 1974), older adults (≥ 8 yrs. old), and adult males which are more susceptible to nutritional stress and death (Coady 1982). In 2004–2005, despite the severe snowpack conditions compared to the previous 11 years (Testa 2004), moose numbers remained fairly stable in Unit 13B (Tobey and Schwanke 2008).

Fluctuations in moose populations in Denali National Park were shown to be linked to occasional severe winters. Hunting mortality combined with increased predation during severe winters can severely reduce moose populations (Walters et al. 1981). Prime breeding bulls and cows are particularly vulnerable during the rut which occurs primarily during the month of September in Denali National Park and Preserve (Miquelle 1991). Consequently, hunting seasons are often scheduled after the peak rut when bulls are extremely wary and much less vulnerable, in order to leave more prime bulls in the population and ensure the successful breeding of cows. During early winter aggregations of bulls and cows, excessive harvests

can also occur from hunters using snowmobiles and all-terrain vehicles (Timmerman and Buss 2007). Many subsistence users will avoid taking bull moose in the rut because of the quality of the meat.

Table 1. Unit 13 fall aerial moose composition counts in trend count areas 3, 5, 6, 10, 13, 14, 15, and 16 (Tobey and Schwanke 2008, 2010, Robbins 2014, Robbins 2015, 2017 pers.comm.).

Year	Bulls:100 cows	Yearling bulls: 100 cows	Calves: 100 cows	% Calves	Adults observed	Total moose observed	Moose/hour	Density moose/mi ² (observed range)
2001	23	3	15	11	3,086	3,466	37	1.0 (0.6 – 1.4)
2002 ^a	24	6	22	15	2,918	3,428	36	1.0 (0.5 – 1.2)
2003	24	8	18	12	3,707	4,230	47	1.2 (0.5 – 1.7)
2004	28	6	22	15	3,215	3,768	40	1.1 (0.5 – 1.7)
2005	27	7	18	13	3,500	4,009	45	1.1 (0.4 – 1.4)
2006	30	8	23	15	3,416	4,028	49	1.1 (0.5 – 1.5)
2007 ^b	32	10	22	14	3,875	4,517	40	1.3 (0.5 – 1.8)
2008	35	12	19	13	3,918	4,481	54	1.3 (0.5 - 1.9)
2009 ^b	34	9	23	15	4,315	5,046	50	1.7 (0.5-2.0)
2010	30	10	21	14	4,558	5,313	53	1.5 (0.6-2.2 0)
2011	33	10	23	15	4,777	5,604	53	1.6 (0.5-2.2)
2012	32	7	16	11	4,821	5,404	50	1.5 (0.5-2.2)
2013	34	5	27	17	4,453	5,350	49	1.5 (0.4-2.4)
2014 ^c	35	11	16	11	1,975	2,213	53	1.5 (0.4-2.4)
2015	32	7	25	16	4,694	5,596	50	1.6 (0.3-2.4)
^a Two of eight count areas were not flown in 2002, therefore data were estimated for those areas								
^b One of eight count areas was not flown in 2007, therefore data was estimated for those areas								
^c Three of eight count areas were not flown in 2014, therefore data was estimated for those areas								

Table 2. Unit 13A, 13B, 13C, 13D, and 13E fall aerial moose composition counts for calendar year 2012 (Robbins 2014).

Unit	Bulls:100 cows	Yearling bulls: 100 cows	Calves: 100 cows	% Calves	Total moose observed	Density moose/mi ²
13A	22	3	16	11	1,833	1.2
13B	22	6	17	12	1,943	1.3
13C	27	7	23	15	1,891	1.3
13D	35	12	20	13	2,265	1.5
13E	36	7	29	18	2,230	1.5

Cultural Knowledge and Traditional Practices

Most of game management Unit 13 was traditional territory of the Ahtna Athabascans with the northwestern portion of the unit historically being Dena'ina land (ADF&G 2017b). Moose, caribou, and Dall sheep were the primary large game mammals important for subsistence within the region (ADF&G 2017b). Russian explorer, Rufus Sereberinikoff, noted that Ahtna families along the Tazlina River had fresh moose meat when he visited the Copper Basin in May of 1848 (de Laguna and McClellan 1981). Moose were traditionally hunted in late summer through late winter (ADF&G 2017b). De Laguna and McClellan(1981) reported that within Ahtna territory, "caribou and moose were caught either in drag-pole snares or in snares set 200-300 feet apart in long brush fences." Winter moose hunting took place on foot with the use of snowshoes and the aid of bow and arrows (Reckord 1983; Simeone 2006; Haynes & Simeone 2007; ADF&G 2017b). The traditional practices of drying and freezing meat, as well as the proper and respectful treatment of harvested resources such as moose, are described in several ethnographic accounts of the Ahtna and people of the upper Tanana (de Laguna & McClellan 1981; Haynes & Simeone 2007; Reckord 1983; Simeone 2006).

The Dena'ina traditionally hunted moose on an annual basis in areas close to their winter villages and moose rawhides were used to create snowshoes (Townsend 1981). Before contact, weapons utilized to hunt large game included sinew-backed bow and arrows with antler, spears, and chipper/ground stone points. After contact, iron was used for arrows and spear points and guns were available by the 1840s (Townsend 1981).

The arrival of the Russians, and later other non-Native explorers, into both Ahtna and Dena'ina territories brought about many changes in the nineteenth and twentieth centuries. Trading posts, roads, mining camps, roadhouses, schools, missions, and the Trans-Alaska pipeline were of few of many such changes. Population increases rose in the Copper River Basin, most especially in the 1940s with the influx of military personnel coming into Alaska to serve in the Pacific Theater during World War II. Those living in the Copper River Basin today are of diverse backgrounds (Sandberg and Hunsinger 2014).

In recent comprehensive subsistence surveys conducted by the Alaska Department of Fish and Game (ADF&G), it was noted that while salmon composed a majority of the harvest in most communities along the upper Copper River drainage, large land mammal harvest is high and ranged between 21% and 88% of total harvest by weight (Holen, et al. 2015; Kukkonen & Zimpleman 2012; La Vine, et al. 2013; La Vine & Zimpleman 2014). Surveys reported the per capita moose harvest from communities in the Copper River Basin ranged from 0 lbs/person in Mendeltna to approximately 113 lbs/person in Tolsona, a community that shares extensively with households in neighboring communities like Mendeltna (Holen et al. 2015). Even in those communities that reported no harvest for their study year, moose was widely used, shared, and received. For example, while Mendeltna reported no harvest for the study year, 100% of the households reported using moose (Holen et al. 2015).

During each study year, communities within the Copper River Basin harvested or hunted for moose in Units 11, 12, and 13. Harvest and search areas specific to Unit 13 described locations along the Middle Fork Chulitna River, Tyone River, Klutina and Mentasta Lakes, and the Denali, Parks, Glenn, and Richardson Highways (Holen et al. 2015; La Vine et al. 2013).

Harvest History

Historically, Unit 13 has been an important area for moose hunting in Alaska due to its proximity to major human populations within the state. Throughout the 1960s and early 1970s, annual harvests averaged more than 1,200 bulls and 200 cows (Tobey 2004). During this time, harvests occurred in both fall and winter seasons. By the late 1970s harvests declined to approximately 775 bulls annually, while cow harvests and the winter season were eliminated, and the bull:cow ratios were low. In response, ADF&G changed the harvest of any bull to a harvest of a bull with an antler spread of at least 36 inches or 3 brow tines on at least one antler in 1980. This harvest regime helps to promote growth of the moose population. Subsequently the harvests increased, peaking in 1998 when 1259 moose were reported harvested (Tobey 2004). However, since 1990 State harvest regulations have been revised several times in response to low bull:cow ratios, severe winter mortality, and increased predation. Since 2001, moose harvest and population levels have continued to increase throughout Unit 13, although calf:cow ratios have remained below State management objectives (**Table 1, Table 2**) (Robbins 2014).

Currently, the Federal season in Unit 13 allows for a longer subsistence opportunity for Federally qualified subsistence users than the season for non-Federally qualified users. A majority of the moose harvest in Unit 13 occurs during the State general hunt from Sept. 1 – Sept. 20 (Del Frate 2017). Moose harvest on Federal public lands, which comprise only a small portion of Unit 13, has been approximately 6-8% of the total harvest for the last 10 years. From 2006 to 2015 the total annual moose harvest in Unit 13 has ranged from a low 776 to a high of 1,095 (**Table 3**). Under the current Federal and State regulations the harvest in each subunit is currently within State management objectives (**Table 4**). During the last two years, the combined annual harvest has exceeded 1,000 bulls, which is close to the minimum State harvest objective of 1,050 moose. Annually a majority of the moose harvest (75% in 2016) on Federal public lands occurs in Unit 13B.

Ahtna Athabascans, which are the indigenous people of the Copper River Basin, have expressed concerns that increased competition and abuse of the Community Harvest System has decreased their ability to harvest moose according to customary and traditional practices (Fall 2017). As a result of the numerous proposals submitted to the BOG on issues surrounding the community caribou and moose hunts, a special meeting on Copper Basin moose and caribou hunting was held on March 18-21, 2017 at Glennallen, Alaska. A summary of information presented at this meeting can be found at:

<http://www.adfg.alaska.gov/index.cfm?adfg=gameboard.meetinginfo&date=03-18-2017&meeting=glennallen>

A brief history of the Community Subsistence Hunt (CSH) in the Copper River Basin area as it relates to the harvest history is as follows (ADF&G 2017b). The BOG noted that residents of communities in the hunt area (Unit 13) typically travelled shorter distances than non-local hunters and have traditionally hunted moose throughout the year. Harvest by local users was traditionally conducted without regard to antler size restrictions as this was the most efficient way to obtain their food. Hunting regulations that specify specific antler configuration, which are usually done to protect the most important segment of the breeding population, also allow for more hunters in the field as not all animals are available. In addition, restrictions on the season and antler configuration may also reduce the success of local users. In 2009, the BOG established the CSH, with an earlier Aug. 10 starting date versus Aug. 15, to provide a community-based hunt that had been established and used by the Ahtna people.

Beginning in 2011, any community or group of Alaskan hunters numbering 25 or more could apply for the hunt from Aug. 10-Sept. 20. Up to 70 bulls not meeting the general season antler restrictions could be taken.

In 2013, up to 100 bulls not meeting the general season antler restrictions could be taken in CSH hunt area which included Unit 11, a portion of Unit 12, and Unit 13. In addition, the BOG provided other regulatory options to provide reasonable opportunities for those individuals and families that chose not to organize as a community. These options included a general hunt with a harvest ticket (with antler restrictions), a winter “any bull” moose hunt, and drawing hunts.

Between 2009 and 2016 the number of groups and participants in the CSH has increased from 1 to 73 and 378 to 3,023, respectively (**Table 5**) (ADF&G 2017b). Although the number of groups, households, and participants increased, the CSH total moose harvest (approximately 19%) did not increase at the same rate (**Table 5**) (Del Frate 2017). Currently the moose population in Unit 13 is stable based on the 2015 population estimates and composition surveys (Del Frate 2017). A majority of the hunters currently participating in the CSH are non-local residents.

Table 3. State and Federal moose harvest in Unit 13 from 2006-2016 (Toby and Schwanke 2008, 2010, Robbins 2014, WinfoNet 2017, FWS 2017).

Year	M	F	U	Estimate Unreported	Estimate Illegal	Accidental Road/Train	Federal Harvest	State Harvest	Total
2006/07	665	4	0	25	25	55	47	669	821
2007/08	628	4	0	25	25	75	53	632	810
2008/09	710	1	4	25	25	75	57	715	897
2009/10	857	1	2	25	25	26	61	860	997
2010/11	855	1	0	25	25	113	77	854	1,094
2011/12	867	1	0	25	25	68	80	868	1,066
2012/13	651	5	2	25	25	54	59	658	821
2013/14	674	2	0	25	25	-	50	676	776 ^a
2014/15	842	4	0	25	25	-	86	846	982 ^a
2015/16	952	8	0	25	25	-	85	960	1,095 ^a
2016/17	953	4	0	25	25	-	99	957	1,106 ^a

^a Total does not include road/train mortality data

Table 4. Comparison of current population and harvest estimates for Units 13A, 13B, 13C, 13D, and 13E in 2015 with State management population and harvest objectives (Del Frate 2017).

Unit	Population	Harvest	Bulls:100 cows
13A	3,500 – 4,200	210 -420	25:100
2015	3,568	335	25:100
13B	5,300 – 6,300	310 - 620	25:100
2015	4,762 (± 530)	243	28:100
13C	2,000 – 3,000	155 – 350	25:100
2015	2,184	115	30:100
13D	1,200 – 1,900	75 – 190	25:100
2015	948	78	58:100
13E	5,000 – 6,000	300 – 600	25:100
2015	5,085	192	30:100

Table 5. Characteristics of the Community Subsistence Hunt for moose and total harvest in Units 11, 13 and portion of Unit 12 from 2009-2016 (ADF&G 2017a, DeFrate, 2017).

Regulatory Year	Number of Groups	Number of Communities	Number of Households	Number of Individuals	CSH Harvest	Total Harvest (Unit 13)
2009/2010	1	19	246	378	98	997
2010/2011 ^a	-	-	-	-	-	1,094
2011/2012	9	31	416	814	83	1,066
2012/2013	19	29	460	969	92	821
2013/2014	45	41	955	2,066	152	776 ^c
2014/2015	43	41	893	1,771	149	982 ^c
2015/2016	43	43	1,039	1,984	170	1,095 ^c
2016/2017 ^b	73	48	1,527	3,400	201	1,106 ^c

^a A community hunt was not offered in 2010/2011

^b Harvest is not finalized

^c Total does not include road/train mortality data

Other Alternatives Considered

One alternative considered was to delegated authority to BLM and Denali National Park and Preserve, to determine the number of permits, set quotas, and establish closures to manage the moose harvest on Federal public lands in Unit 13. Further discussion is warranted with the applicable land managers and the Southcentral Alaska and Eastern Interior Alaska Subsistence Regional Advisory Councils before this option is pursued.

Effects of the Proposal

If this proposal is adopted, it would extend the moose season on Federal public lands in Unit 13 to March 31. An additional six months would give Federally qualified users more opportunity to harvest antlered bulls when needed. However, there will be fewer antlered bulls from February to March as many bulls will have shed their antlers in December and January. This would allow local residents to more efficiently meet their subsistence needs for moose according to their customary and traditional practices.

As of 2015, moose populations in Unit 13 are stable to slightly increasing. Under current Federal and State regulations, the harvest in each subunit is currently within management objectives set by the State (**Table 4**). Current moose harvest on Federal lands ranges from 6-8% of the total harvest and averaged 69 animals from 2006-2016 (**Table 3**). Increase of the harvest season by approximately six months, with the assumption that the harvest rate would be the same as it is currently during the two months in the fall, has a potential to triple the current harvest. This would potentially increase the annual moose harvest on a relatively small portion of Federal public lands in Unit 13 to approximately 200 bull moose. Harvesting bulls during the rut or early winter, when they are most vulnerable, could disrupt breeding and lead to excessive harvest.

OSM PRELIMINARY CONCLUSION

Support Proposal WP18–18 **with modification** to create a split season.

The modified proposal should read:

Unit 13—Moose

Unit 13E—1 antlered bull moose by Federal registration permit only; only one permit per household. *Aug. 1–Sept. 20
Nov. 1–Mar. 31*

Unit 13, remainder —1 antlered bull moose by Federal registration permit only. *Aug. 1–Sept. 20
Nov. 1–Mar. 31*

Justification

The moose populations within Unit 13 overall are stable or increasing. However, there is concern that the most recent Unit 13 moose population estimate and calf:cow ratios are below State population objectives in Unit 13B and 13D and that the calf:cow ratios are below the 25 calves:100 cows, the State management objective. The current moose harvest by subunit is below or within the sustainable harvest levels as determined by the State. Extending the moose season by six months to March 31 has the potential to triple the moose harvest on Federal public lands by Federally qualified subsistence users. Based on the low and high harvest levels documented on Federal public lands from 2006-2015 (**Table 3**), the anticipated increase in bull harvest by Federally qualified subsistence users could range from 141 to 258 animals. Providing a break in the moose season during the rut and early winter is recommended to protect bulls, avoid disruption to breeding, and avoid harvesting bulls and cows when they're aggregated during the early winter. At current population levels the potential increase in the moose harvest would likely be sustainable if it is distributed between the five subunits. However, this increase could be excessive if taken entirely from one subunit.

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Written Public Comments



Ahtna Intertribal Resource Commission

dba/Copper River-Ahtna Inter-Tribal
Resource Conservation District
PO Box 613
Glennallen, Alaska 99588
907-822-8154
contact@ahtnatribal.org

July 26, 2017

Chairperson of Federal Subsistence
Board or his Designated Field Officer
Office of Subsistence Management
1011 E. Tudor Road, MS-121
Anchorage, Alaska 99503-6199

Dear Mr. Christensen or Designated Field Officer:

Enclosed are Ahtna Inter-Tribal Resource Commission's (AITRC) comments on 2018-2020 Federal Wildlife proposals. Please consider our viewpoint on wildlife proposals, when decisions are made on federal wildlife regulations.

Sincerely,

A handwritten signature in black ink that reads "Shirley Smelcer". The signature is written in a cursive, flowing style.

Shirley Smelcer, Chairperson of CRITR

Comments on 2018-2020 Federal Wildlife Proposals

Southcentral Subsistence Regional Advisory Council

WP18-14 Change season dates for wolverine hunting and trapping

We support Proposal WP18-14 to extending Unit 11 Wolverine hunting season to February 28th, and extending Unit 13 Wolverine hunting and trapping seasons to February 28th.

Wolverine population in Unit 11 and Unit 13 is considered to be healthy and abundant. There isn't a conservation concern for wolverine in these two game management units.

Other Federally qualified subsistence users and Ahtna People will be able to hunt and trap longer in these two GMUs, allowing more opportunity to harvest a wolverine for personal use or to sell for extra income.

Wolverine is commonly used for clothing, ruff, or for moccasins, coats or jackets. Wolverine fur is also sold to acquire extra income, which supplements cash, food cost and bills.

WP18-16 Extend winter season [Unit 11 moose]

We do not support WP18-16. See comments under WP18-17.

WP18-17 Extend season [Unit 11 moose] (CRITR)

We support Proposal WP18-17 to extend moose hunting season and to allow Ahtna Intertribal Resource Commission to distribute moose permits on federal public lands in Unit 11.

Moose population in Unit 11 can sustain a moose hunt from August 1 to March 31. Moose population will not be depleted or over harvested by Ahtna tribal members who are federally qualified hunters. An increase of moose harvest on federal public lands will not occur with the newly established tribal moose hunt.

AITRC has management capability to distribute Unit 11 moose federal permits to Ahtna tribal members. A permitting system will be set up to allow proof of residency within the Copper Basin and Cantwell communities before moose permits are distributed to federally qualified tribal members. AITRC staff will monitor moose permit and hunting by tribal members. AITRC has a wildlife biologist on staff to help with moose hunt. AITRC has management capability to distribute Unit 11 moose permits to tribal members. Ahtna, Inc. staff, who are on loan to AITRC has coordinated the Copper Basin Community Subsistence Hunt since 2009. AITRC has experienced staff to distribute moose permits and ensure tribal hunters will return moose permits.

WP18-18 Extend season [Unit 13 moose] (CRITR)

We support WP18-18 to extend moose season and to allow AITRC to distribute moose permits. Moose population in Unit 13 can sustain a moose hunt from August 1 to March 31. Moose population will not be depleted or over harvested by Ahtna tribal members who are federally qualified hunters. Bureau of Land Management Biologist reported in 2016 1,384 moose permits were distributed, 681 moose permits were used and 99 moose were harvested by federally qualified subsistence hunters. An increase of moose harvest on federal public lands will not occur with the newly established tribal moose hunt.

AITRC has management capability to distribute Unit 13 moose federal permits to Ahtna tribal members. A permitting system will be set up to allow proof of residency within the Copper Basin and Cantwell communities before moose permits are distributed to federally qualified tribal members. AITRC staff will monitor moose permit and hunting by tribal members. AITRC has a wildlife biologist on staff to help with moose hunt. AITRC has management capability to distribute Unit 13 moose permits to tribal members. Ahtna, Inc. staff, who are on loan to AITRC has coordinated the Copper Basin Community Subsistence Hunt since 2009. AITRC has experienced staff to distribute moose permits and ensure tribal hunters will return moose permits.

WP18-19 Caribou – Revise permitting system [Unit 13 caribou] (CRITR)

We support WP18-19 to allow AITRC to distribute Unit 13 Nelchina Caribou hunting permits to Ahtna tribal members, who are federally qualified customary and traditional use hunters.

AITRC has management capability to distribute Unit 13 Nelchina Caribou permits to tribal members. Ahtna, Inc. staff, who are on loan to AITRC has coordinated the Copper Basin Community Subsistence Hunt since the year 2009. AITRC has experienced staff to distribute Nelchina Caribou permits and ensure tribal hunters return caribou permits.

Eastern Interior Subsistence Regional Advisory Council

WP18-50 Extend season [Unit 11 moose]

We do not support WP18-50, we support WP18-17. See comments under WP18-17.

WP18-51 Statewide – Modify baiting restrictions to align State regulations

We support WP18-51 to modify bait regulations to align with State regulations. Federal regulations are more restrictive than State regulations. Adding skinned carcasses of furbearers and fur animals, small game, with the exception of the meat of birds, to bait bear regulations will align State and Federal regulations, provide more opportunities for federal subsistence hunters who use bait stations to harvest bears.

Traditional use of grease, parts of wild game, and other methods of harvesting bears at bait stations would occur, hunters who use bait stations would have an improved chance of harvesting a bear with more options to choose from to use as bait.

WP18-54 – Increase harvest limit and Delegate Authority to set harvest limit for [Unit 12 caribou] to be announced winter season

We do not support WP18-54 to change Unit 12 Caribou regulations to “up to 3 caribou” may be taken with a federal registration permit. This will increase the take of caribou beyond sustainable limits and will stress the herd in its winter range. We have seen overharvest of caribou in the past with liberal bag limit that has taken decades to recover. This is not a wise proposal and we oppose it..

WP18-55 Extend Winter and fall season [Unit 12 moose]

Unit 12 Moose

That portion within Tetlin National Wildlife Refuge Aug. ~~24~~ 20 - Sept. ~~29~~ 30

and those lands within the Wrangell-St. Elias National

Preserve north and east of a line formed by the

Pickeral Lake Winter Trail from the Canadian border

to Pickerel Lake – 1 antlered bull by Federal registration Nov. 1 - ~~Feb. 28~~ Apr. 30

permit (FM1203)

We are neutral on WP18-55 to extend Unit 12 Moose season to allow longer hunting opportunity.

WP18–19 Executive Summary	
General Description	<p>Proposal WP18–19 requests that requests that the Ahtna Inter-Tribal Resource Commission be allowed to distribute Federal registration permits to Ahtna tribal members for the Federal caribou season in Units 13A, 13B, and 13 remainder. The proposal also requests that the Ahtna Advisory Committee be added to the list of agencies and organizations consulted by the Bureau of Land Management Glennallen Field Office Manager when announcing the sex of the caribou to be taken in Units 13A and 13B. <i>Submitted by: Ahtna Inter-Tribal Resource Commission.</i></p>
Proposed Regulation	<p style="text-align: center;">Unit— Caribou</p> <p><i>Unit 13A and 13B – 2 caribou by Federal registration permit only. The sex of animals that may be taken will be announced by the Glennallen Field Office Manager of the Bureau of Land Management in consultation with the Alaska Department of Fish and Game area biologist and Chairs of the Eastern Interior Regional Advisory Council and the Southcentral Regional Advisory Council and the Ahtna Advisory Committee</i></p> <p style="text-align: right;"><i>Aug. 1 – Sept. 30 Oct. 21 – Mar. 31</i></p> <p><i>Unit 13, remainder – 2 bulls by Federal registration permit only</i></p> <p style="text-align: right;"><i>Aug. 1 – Sept. 30 Oct. 21 – Mar. 31</i></p> <p><i>Ahtna Inter-Tribal Resource Commission will distribute (FC1302) caribou permits for tribal members only. Bureau of Land Management and Denali National Park & Preserve will distribute (FC1302) caribou permits for other Federally qualified subsistence users.</i></p>

WP18–19 Executive Summary	
OSM Preliminary Conclusion	Defer
Southeast Alaska Subsistence Regional Advisory Council Recommendation	
Southcentral Alaska Subsistence Regional Advisory Council Recommendation	
Kodiak/Aleutians Subsistence Regional Advisory Council Recommendation	
Bristol Bay Subsistence Regional Advisory Council Recommendation	
Yukon-Kuskokwim Delta Subsistence Regional Advisory Council Recommendation	
Western Interior Alaska Subsistence Regional Advisory Council Recommendation	
Seward Peninsula Subsistence Regional Advisory Council Recommendation	
Northwest Arctic Subsistence Regional Advisory Council Recommendation	

WP18–19 Executive Summary	
Eastern Interior Alaska Subsistence Regional Advisory Council Recommendation	
North Slope Subsistence Regional Advisory Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	1 support

**DRAFT STAFF ANALYSIS
WP18-19**

ISSUES

Proposal WP18-19, submitted by the Ahtna Inter-Tribal Resource Commission (AITRC), requests that AITRC be allowed to distribute Federal registration permits to Ahtna tribal members for the Federal caribou season in Units 13A, 13B, and 13 remainder. The proposal also requests that the Ahtna Advisory Committee be added to the list of agencies and organizations consulted by the Bureau of Land Management Glennallen Field Office Manager when announcing the sex of the caribou to be taken in Units 13A and 13B.

DISCUSSION

The proponent states that per the Memorandum of Agreement between the United States Department of Interior and the AITRC, Federal wildlife proposals are to be written to accommodate Ahtna customary and traditional ways of harvesting large wild game. The proponent also states that AITRC will distribute Federal permits in a customary and traditional manner to Ahtna tribal members, advising them where and when to hunt. The proponent wants to ensure that customary and traditional ways and practices of harvesting caribou are carried on from one generation to the next.

Existing Federal Regulation

Unit— Caribou

<i>Unit 13A and 13B – 2 caribou by Federal registration permit only.</i>	<i>Aug. 1 – Sept. 30</i>
<i>The sex of animals that may be taken will be announced by the Glennallen Field Office Manager of the Bureau of Land Management in consultation with the Alaska Department of Fish and Game area biologist and Chairs of the Eastern Interior Regional Advisory Council and the Southcentral Regional Advisory Council</i>	<i>Oct. 21 – Mar. 31</i>
<i>Unit 13, remainder – 2 bulls by Federal registration permit only</i>	<i>Aug. 1 – Sept. 30</i>
	<i>Oct. 21 – Mar. 31</i>

Proposed Federal Regulation

Unit— Caribou

<i>Unit 13A and 13B – 2 caribou by Federal registration permit only.</i>	<i>Aug. 1 – Sept. 30</i>
<i>The sex of animals that may be taken will be announced by the</i>	<i>Oct. 21 – Mar. 31</i>

Glennallen Field Office Manager of the Bureau of Land Management in consultation with the Alaska Department of Fish and Game area biologist and Chairs of the Eastern Interior Regional Advisory Council and the Southcentral Regional Advisory Council and the Ahtna Advisory Committee

Unit 13, remainder – 2 bulls by Federal registration permit only Aug. 1 – Sept. 30

Oct. 21 – Mar. 31

Ahtna Inter-Tribal Resource Commission will distribute (FC1302) caribou permits for tribal members only. Bureau of Land Management and Denali National Park & Preserve will distribute (FC1302) caribou permits for other Federally qualified subsistence users.

Existing State Regulation

Unit 13- Caribou

Residents – One caribou by permit per household, available only by application. See Subsistence Permit Hunt Supplement for details

RC566

Aug. 10 – Sept. 20

Oct. 21 – Mar. 31

Or

Residents – One caribou by permit per household, available only by application. See the Subsistence Permit Hunt Supplement for details

CC001

Aug. 10 – Sept. 20

Oct. 21 – Mar. 31

Or

Residents – One caribou by permit

DC485

Aug. 20 – Sept. 20

Oct. 21 – Mar. 31

Nonresidents

No open season

Extent of Federal Public Lands

Federal public lands comprise approximately 12% of Unit 13 and consist of 6% National Park Service (NPS) managed lands, 4% Bureau of Land Management (BLM) managed lands, and 2% U.S. Forest

Service (USFS) managed lands (see **Unit 13 Map**). Federal public lands within Denali National Park as it existed prior to the Alaska National Interest Lands Conservation Act (ANILCA) (December 1980) are closed to all hunting and trapping.

Customary and Traditional Use Determinations

Residents of Units 11, 12 (along the Nabesna Road and Tok Cutoff Road, mileposts 79-110), 13, 20D (excluding residents of Fort Greely), and Chickaloon have a customary and traditional use determination for caribou in Unit 13B

Residents of Units 11, 12 (along the Nabesna Road and Tok Cutoff Road, mileposts 79-110), 13, Chickaloon, Dot Lake, and Healy Lake have a customary and traditional use determination to harvest caribou in Unit 13C.

Residents of Units 11, 12 (along the Nabesna Road), 13, and Chickaloon have a customary and traditional use determination to harvest caribou in Unit 13A and 13D.

Residents of Units 11, 12 (along the Nabesna Road), 13, Chickaloon, McKinley Village, and the area along the Parks Highway between mileposts 216-239 (excluding the residents of Denali National Park Headquarters) have a customary and traditional use determination to harvest caribou in Unit 13E. . Under the guidelines of ANILCA, National Park Service regulations identify qualified local rural subsistence users in National Parks and Monuments by: 1) identifying resident zone communities which include a significant concentration of people who have customarily and traditionally used subsistence resources on park lands; and 2) identifying and issuing subsistence use (13.440) permits to individuals residing outside of the resident zone communities who have a personal or family history of subsistence use. In order to engage in subsistence in the Denali National Park (DNA) ANILCA additions, the National Park Service requires that subsistence users either live within the park's resident zone (36 CFR 13.430, 36 CFR 13.902) or have a subsistence permit (36 CFR 13.440) issued by the park superintendent.

Other Alternatives Considered

Delegation of authority cannot be granted to non-Federal agencies as requested in this proposal. Therefore, a November 29, 2016 Memorandum of Agreement (MOA) between the Department of Interior and the Ahtna Intertribal Resource Commission (AITRC) describes initiating rulemaking to allow the Federal Subsistence Board (Board) to issue one or more community harvest permits to AITRC for a community harvest system authorizing the harvest of moose, caribou, and possibly other wildlife species. The MOA further describes that AITRC would then manage harvests by participating Federally qualified subsistence users who reside in the participating villages within a framework established by the Board. Instead of individual permits, AITRC would “provide the Department and Board with a list of all participants who will be hunting under the permit(s). The AITRC will also provide Federally qualified subsistence users participating in the community harvest system with a harvest tag or some other form of identification showing their eligibility to participate in the permit hunt and will ensure that all hunters understand all permit stipulations and applicable regulatory requirements.” See **Appendix 1** for the full text of the MOA as it relates to this community harvest permit (Article III(A)). This alternative avoids the

legal uncertainty associated with the proposal for AITRC to issue permits and thus could be implemented within the existing legal framework of the Federal Subsistence Management Program.

OSM PRELIMINARY CONCLUSION

Defer Proposal WP18-19.

Justification

The Board has established a framework of issuing Federal permits through the Subsistence Permitting System. Based on statutes and regulations covering system security and information collection, only Federal employees are granted access to this system and specific field managers are delegated authority to issue permits. 50 CFR 100.10(d)(6) states: The Board may delegate to agency field officials the authority to set harvest and possession limits, define harvest areas, specify methods or means of harvest, specify permit requirements, and open or close specific fish or wildlife harvest seasons within frameworks established by the Board.

Until further guidance is received from the Solicitors Office and DOI, the recommended course of action is to defer action on this proposal.

WRITTEN PUBLIC COMMENTS

Comments on 2018-2020 Federal Wildlife Proposals

Southcentral Subsistence Regional Advisory Council

WP18-14 Change season dates for wolverine hunting and trapping

We support Proposal WP18-14 to extending Unit 11 Wolverine hunting season to February 28th, and extending Unit 13 Wolverine hunting and trapping seasons to February 28th.

Wolverine population in Unit 11 and Unit 13 is considered to be healthy and abundant. There isn't a conservation concern for wolverine in these two game management units.

Other Federally qualified subsistence users and Ahtna People will be able to hunt and trap longer in these two GMUs, allowing more opportunity to harvest a wolverine for personal use or to sell for extra income.

Wolverine is commonly used for clothing, ruff, or for moccasins, coats or jackets. Wolverine fur is also sold to acquire extra income, which supplements cash, food cost and bills.

WP18-16 Extend winter season [Unit 11 moose]

We do not support WP18-16. See comments under WP18-17.

WP18-17 Extend season [Unit 11 moose] (CRITR)

We support Proposal WP18-17 to extend moose hunting season and to allow Ahtna Intertribal Resource Commission to distribute moose permits on federal public lands in Unit 11.

Moose population in Unit 11 can sustain a moose hunt from August 1 to March 31. Moose population will not be depleted or over harvested by Ahtna tribal members who are federally qualified hunters. An increase of moose harvest on federal public lands will not occur with the newly established tribal moose hunt.

AITRC has management capability to distribute Unit 11 moose federal permits to Ahtna tribal members. A permitting system will be set up to allow proof of residency within the Copper Basin and Cantwell communities before moose permits are distributed to federally qualified tribal members. AITRC staff will monitor moose permit and hunting by tribal members. AITRC has a wildlife biologist on staff to help with moose hunt. AITRC has management capability to distribute Unit 11 moose permits to tribal members. Ahtna, Inc. staff, who are on loan to AITRC has coordinated the Copper Basin Community Subsistence Hunt since 2009. AITRC has experienced staff to distribute moose permits and ensure tribal hunters will return moose permits.

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AITRC has management capability to distribute Unit 13 Nelchina Caribou permits to tribal members. Ahtna, Inc. staff, who are on loan to AITRC has coordinated the Copper Basin Community Subsistence Hunt since the year 2009. AITRC has experienced staff to distribute Nelchina Caribou permits and ensure tribal hunters return caribou permits.

Eastern Interior Subsistence Regional Advisory Council

WP18-50 Extend season [Unit 11 moose]

We do not support WP18-50, we support WP18-17. See comments under WP18-17.

WP18-51 Statewide – Modify baiting restrictions to align State regulations

We support WP18-51 to modify bait regulations to align with State regulations. Federal regulations are more restrictive than State regulations. Adding skinned carcasses of furbearers and fur animals, small game, with the exception of the meat of birds, to bait bear regulations will align State and Federal regulations, provide more opportunities for federal subsistence hunters who use bait stations to harvest bears.

Traditional use of grease, parts of wild game, and other methods of harvesting bears at bait stations would occur, hunters who use bait stations would have an improved chance of harvesting a bear with more options to choose from to use as bait.

WP18-54 – Increase harvest limit and Delegate Authority to set harvest limit for [Unit 12 caribou] to be announced winter season

We do not support WP18-54 to change Unit 12 Caribou regulations to “up to 3 caribou” may be taken with a federal registration permit. This will increase the take of caribou beyond sustainable limits and will stress the herd in its winter range. We have seen overharvest of caribou in the past with liberal bag limit that has taken decades to recover. This is not a wise proposal and we oppose it..

WP18-55 Extend Winter and fall season [Unit 12 moose]

Unit 12 Moose

That portion within Tetlin National Wildlife Refuge Aug. ~~24~~ 20 - Sept. ~~29~~ 30

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Preserve north and east of a line formed by the

Pickeral Lake Winter Trail from the Canadian border

to Pickerel Lake – 1 antlered bull by Federal registration Nov. 1 - ~~Feb. 28~~ Apr. 30

permit (FM1203)

We are neutral on WP18-55 to extend Unit 12 Moose season to allow longer hunting opportunity.

Appendix 1



Ahtna

**MEMORANDUM OF AGREEMENT
BETWEEN
UNITED STATES DEPARTMENT OF THE INTERIOR
AND
AHTNA INTER-TRIBAL RESOURCE COMMISSION
FOR
A DEMONSTRATION PROJECT FOR COOPERATIVE MANAGEMENT OF
CUSTOMARY AND TRADITIONAL SUBSISTENCE USES IN THE AHTNA REGION**

This Memorandum of Agreement (MOA) is entered into for the purpose of formalizing the subsistence wildlife management partnership between the United States Department of the Interior (Department) and the Ahtna Inter-Tribal Resource Commission (hereinafter referred to as AITRC) for the allocation and harvest of moose and caribou by rural residents of the Native villages in the Ahtna region (as shown on the attached map) on Federal public lands. It also establishes a process for the formation of a local advisory committee and memorializes the parties' mutual goal of developing a regional management plan for moose, caribou, and other wildlife populations traditionally taken by the Ahtna villages to allow for better informed management and decisionmaking in the future.

ARTICLE I – BACKGROUND AND OBJECTIVES

The Department is committed to developing a subsistence wildlife management partnership project with the AITRC that will result in empowering the rural Native villages of the Ahtna region with greater self-determination and, when possible and in accordance with applicable law, providing improved hunting opportunities that will allow them to continue practicing their customary and traditional way of life. The Department recognizes that special circumstances within the Ahtna region have not permitted these local residents to meet their subsistence needs. Moreover, the Department recognizes the right of the rural resident members of the Native villages in the Ahtna region to maintain their cultural identity through opportunities to practice their subsistence lifestyle on the Federal public lands in a manner that enables them to pass down traditional knowledge and customary practices from generation to generation. The Department further recognizes that it has an obligation to uphold the Federal trust responsibility to tribes, a well-established legal obligation that originates from the unique historical relationship between the United States and the tribes. Central to the Department's mission is honoring and supporting the government-to-government relationship with tribes.

The Department and AITRC share a mutual interest in the conservation of healthy wildlife populations and their habitats as well as the opportunity for customary and traditional subsistence uses. The Department and AITRC are committed to developing and maintaining a mutually beneficial relationship that will serve the best interests of the residents of the Ahtna region, the wildlife management agencies within the Department, and the wildlife resources and the environment necessary to sustain healthy populations. To that end, the Department is committed to incorporating Ahtna traditional ecological knowledge and customary and traditional management practices, based on Ahtna's special geographical, historical, and cultural connections to the lands, waters and wildlife in the Ahtna traditional territory, into the Department's subsistence wildlife management structure and policies. The AITRC values the scientific and monitoring tools that the Department brings to subsistence wildlife management, and is committed to building capacity in this area and partnering with the Department on such projects. The Department and AITRC are committed to working together to arrive at mutually beneficial solutions and programs when, through law or policy, wildlife management objectives differ between the parties.

The Department and AITRC also share a mutual concern for the already very evident impact of climate change on the habitat and resources within the Ahtna region, including wildlife populations. The parties agree that in order to begin to address this changing environment, it will be necessary to incorporate traditional ecological knowledge broadly into wildlife management decision making, including, when appropriate, comprehensive wildlife and habitat management plans for the public lands within the Ahtna region.

ARTICLE II - AUTHORITY

The following authorities support the MOA:

- Title VIII of the Alaska National Interest Lands Conservation Act (ANILCA), 16 U.S.C. § 3111 et seq.
- Executive Order 13175, "Consultation and Coordination with Indian Tribal Governments"
- Secretarial Order 3317, "Department of Interior Policy on Consultation with Indian Tribes"
- Secretarial Order 3335, "Reaffirmation of the Federal Trust Responsibility to Recognized Indian Tribes and Individual Indian Beneficiaries"
- Secretarial Order 3342, "Identifying Opportunities for Cooperative and Collaborative Partnerships with Federally Recognized Indian Tribes in the Management of Federal Lands and Resources"
- Federal Subsistence Board Regulations at 36 C.F.R. § 242 and 50 C.F.R. § 100

Congress has vested authority in the Secretaries of the Interior and Agriculture (Secretaries) through Title VIII of ANILCA to manage subsistence uses and resources on the Federal public lands in Alaska. The Secretaries have delegated significant aspects of subsistence management on Federal public lands to the Federal Subsistence Board (Board). The Secretary of Interior, (Secretary) however, retains broad management authority over the National Park Service, U.S. Fish and Wildlife Service, and Bureau of Land Management public lands in Ahtna's

traditional territory. Section 809 of ANILCA authorizes the Secretaries to enter into cooperative agreements or otherwise cooperate with other Federal agencies, the State of Alaska (State), Native Corporations, other appropriate persons and organizations to effectuate the purposes and policies of Title VIII. Additional Federal laws, including the Indian Self-Determination and Education Assistance Act as amended, authorize contracts, compacts and other forms of funding agreements with tribes for Federal programs.

The AITRC is composed of a representative of each of the eight federally recognized tribes in the Ahtna region, (Native Villages of Cantwell, Mentasta, Cheesh'na, Chitina, Gulkana, Gakona, Tazlina, and Kluti Kaah) Ahtna Inc., the ANCSA regional corporation, and Chitina Native Corporation, the ANCSA village corporation for the Native Village of Chitina. The other seven ANCSA village corporations for the Ahtna region merged with Ahtna, Inc. The eight federally recognized Ahtna tribes through resolutions of their governing bodies established the AITRC for the purpose of management of customary and traditional resources, lands and waters, including engaging in cooperative management agreements, and for related Federal tribal contracting opportunities.

The Southcentral Subsistence Regional Advisory Council (SCRAC) and Eastern Interior Subsistence Regional Advisory Council (EIRAC) (collectively, RAC), which were established pursuant to section 805 of ANILCA, have authority to make recommendations to the Board and Secretary on issues related to the taking of subsistence wildlife on the public lands within Ahtna's traditional territory. The Subsistence Resource Commissions (SRC) for the Denali and Wrangell-St. Elias National Parks are responsible for developing annual recommendations for subsistence hunting programs on park and preserve lands in Ahtna's traditional territory. The SRC recommendations go directly to the Secretary.

Both the Regional Advisory Council and SRC recommendations concerning the taking of fish and wildlife are entitled to deference pursuant to sections 805 and 808 of ANILCA and Federal regulations.

ARTICLE III - STATEMENT OF AGREEMENT

This MOA formalizes an agreement for the purpose of establishing a process and structure as a demonstration project within the Federal Subsistence Management Program that provides the AITRC with authority to cooperatively manage, within parameters established by the Board, certain aspects of subsistence hunting on Federal public lands by rural residents who are members of the eight federally recognized tribes in the Ahtna region, which is delineated on the attached map.

- A. The Department will immediately commence rulemaking to allow the issuance of AITRC-managed community harvest permit(s) through the Federal Subsistence Management Program.**
- 1) The Department agrees that during the next subsistence regulatory cycle following the signing of this MOA, the Department will commence rulemaking with the goal of authorizing the Board to issue a permit, or series of permits, to the AITRC for subsistence taking of wildlife species, including moose, caribou, and other species culturally and

traditionally harvested, on Federal public lands within the Ahtna region pursuant to the following goals and caveats:

- a) Such permit or permits will allow AITRC to establish harvest limits, quotas, season dates, and methods and means within the framework, if any, established by the Board through its regulatory process and included as a condition or conditions of the permit(s) for the purposes of conservation of healthy populations, public safety, or administration. The objective is to provide maximum opportunity for the continuation of the Ahtna tribes' hunting way of life and right to self-determination through providing AITRC with authority to manage the taking of wildlife according to the customary and traditional knowledge and practices of the Ahtna people through a process that is consistent with the Board's legal mandates.
 - b) Such permit(s) may be for the benefit of the AITRC's member tribal communities only; however, the parties understand and agree that the taking of fish and wildlife on all Federal public lands must be implemented in a manner consistent with the statutory rural priority set forth in Title VIII.
 - c) The Secretaries will direct the Board to strive to authorize the subsistence taking on the Federal public lands within the Ahtna region of allocations of moose, caribou, and other wildlife species that are sufficient to meet the needs of the participating Ahtna villages to the fullest extent possible in light of the Board's legal obligations.
 - d) At its discretion, the Board may delegate to the agency field officers for the Wrangell-St. Elias and Denali National Parks, Tetlin National Wildlife Refuge, and for the Bureau of Land Management lands within the Ahtna region, the authority to issue the permit(s) and establish the AITRC quotas.
- 2) The AITRC agrees that when implementing the permit or permits, it will:
- a) Provide notice of all openings, closings, limits, and changes to methods and means to the appropriate agency field officers and the Office of Subsistence Management in a timely manner so as to allow adequate advanced notice to the public;
 - b) Comply with all permit conditions;
 - c) Provide the Department and Board with a list of all participants who will be hunting under the permit(s). The AITRC will also provide all hunters participating in the permit with a harvest tag or some other form of identification showing their eligibility to participate in the permit hunt and will ensure that all hunters understand all permit stipulations and applicable regulatory requirements.

- B. The Department will seek to establish an Ahtna region specific local advisory committee pursuant to ANILCA section 805 to allow greater reliance on local ecological knowledge and input by regional residents into subsistence hunting management plans and decisionmaking.**
- 1) The Department agrees that within 30 days following the signing of this MOA, the Office of Subsistence Management will, in consultation with AITRC, draft a charter for a subsistence local advisory committee pursuant to 36 C.F.R. § 242.12, 50 C.F.R. § 100.12, and section 805(a) of ANILCA and initiate the regulatory process for implementing the charter. It is anticipated that membership shall consist of six residents of the Ahtna region nominated by AITRC and appointed by the Secretary, one representative each from the SCRAC, EIRAC, the Wrangell-St. Elias SRC, the Denali SRC, and the State of Alaska, for a total of eleven members.
 - a) The purpose of the local advisory committee will be to make recommendations concerning policies, standards guidelines, and regulations to the Secretary, Board (or its delegate), RAC's, and SRC for implementing a recommended strategy for the management and taking of wildlife species customarily and traditionally used within the Ahtna traditional territory.
 - b) The local advisory committee shall be permitted to meet at least twice per year, with planning, administrative assistance, and travel expenses including per diem (except for the State representative) to be borne by the Office of Subsistence Management.
 - c) The Board shall give substantial weight to the recommendations of the local advisory committee except when such recommendations either contradict the recommendations of the appropriate regional advisory council or, as set forth in section 805(c) of ANILCA, are not supported by substantial evidence, are contrary to recognized principles of fish or wildlife management, or are detrimental to the satisfaction of subsistence needs.
 - i. Ahtna traditional knowledge and understanding of the customary and traditional needs, practices and uses of Ahtna tribal communities will be presumed to be substantial evidence.
 - ii. Ahtna traditional knowledge and customary and traditional management practices shall be presumed to be consistent with recognized principles of wildlife management unless it is demonstrated that there is a significant likelihood that the local advisory committee's recommendations for harvest management will result in material detriment to the conservation of a wildlife stock or population.
 - 2) With regard to the establishment of the local advisory committee, AITRC understand as follows:

- a) Such committee will be subject to the Federal Advisory Committee Act (FACA), including, but not limited to the requirements of: advanced notice and open meetings; attendance at meetings by a Designated Federal Officer; a membership that is fairly balanced in terms of those directly affected, interested, and qualified on the issues to be addressed by the committee; and, an approved charter.
- b) Charter approval is a statutory prerequisite to action by any federal advisory committee. Such approval is a lengthy process and cannot be guaranteed, however, the Department will make all good faith efforts to expedite the process and charter approval.

C. The future cooperative development and implementation of policies, programs and projects for the conservation and sustainable subsistence harvest of wildlife customarily and traditionally utilized on lands within the Ahtna region.

- 1) Many wildlife species migrate, and none recognize political or ownership boundaries. The Department and AITRC agree that there are substantial potential benefits for the managers of neighboring land within the Ahtna region to cooperate in reaching subsistence wildlife management objectives. Section 802(3) of ANILCA recognizes the need for cooperation among Native corporations and adjacent land managers such as AITRC “in managing subsistence activities on public lands and in protecting the continued viability of all wild renewable resources in Alaska.” The parties therefore agree to a cooperative partnership for the development and implementation of policies, programs, and projects that will serve mutual subsistence management objectives.
- 2) The partnership will address the conservation and sustainable subsistence harvest of wildlife customarily and traditionally utilized within the Federal public lands and Ahtna lands within the Ahtna region. The parties acknowledge that it may not be practicable to include all wildlife populations customarily and traditionally utilized by the Ahtna Native villages in the initial phases of the cooperative partnership. Moose, caribou, and any other large mammal populations identified by either party after consultation with the other party will be included.
- 3) A central purpose of the partnership is the incorporation of Ahtna’s traditional ecological knowledge and customary management practices into the Department’s subsistence wildlife management structure and policies. The parties agree that one important means for achieving this mutual goal is the meaningful incorporation of AITRC in the implementation of the policies, programs, and projects derived from the partnership.
- 4) Policies, programs, and projects cooperatively developed for purposes related to conservation and sustainable subsistence harvests will include those related to takings quotas and allocations, habitat conservation and enhancement, harvest and population monitoring, research, trespass control and enforcement, and access for subsistence hunting, including access by motorized vehicles to retrieve harvested game. The work of the partnership is intended to inform wildlife-related decisionmaking by the Board, the

Department land managing agencies, the United States Department of Agriculture Forest Service, and the AITRC for the foreseeable future.

- 5) Both parties agree that it would be beneficial to the residents of the Ahtna region to include the State of Alaska in the development and implementation of the policies, programs and projects described in this section of the MOA. The Department and AITRC therefore mutually agree to invite the State's participation in the work described in this section in the hope that the State: 1) will participate in discussions with the parties that are consistent with the goals and purposes of this section into the future; and 2) will agree, to the maximum extent permitted by applicable law, to implement policies, programs, and projects mutually agreed upon by AITRC, the Department and the State on State managed lands. The State's participation shall have no impact on the ability of AITRC and the Department to reach independent agreements on other subsistence related matters, policies, programs, and projects.

D. Funding AITRC capacity building and participation in the development and implementation of the MOA.

Both parties agree to diligently pursue sources for funding that will assist AITRC in developing and sustaining the capacity to meaningfully participate in the permits and programs set forth in this MOA. It is the mutual goal of the parties that AITRC will, within the near future and depending on the availability of appropriations, enter into funding agreement(s) with the Department for the capacity, expertise, research, and administrative costs associated with development and implementation of the parts of this MOA.

ARTICLE IV – GENERAL PROVISIONS

- A. No member of, or delegate to, Congress shall be admitted to any share or part of this document, or to any benefit that may arise therefrom.
- B. The provisions of this MOA are complementary to and are not intended to replace Federal responsibility under Title VIII or any other law for the conservation of fish and wildlife on Federal public lands and the subsistence uses thereof.
- C. Nothing herein is intended to conflict with Federal, State, or local laws or regulations.
- D. Upon signing, the parties shall each designate an individual and an alternate to serve as the principal contact or liaison for implementation of this MOA.
- E. This MOA becomes effective upon signing by all signatories and will remain in force until: (1) terminated by one or both of the parties; or, (2) dissolution of AITRC or cessation of operations thereby.
- F. In the event that the State of Alaska assumes subsistence management on public lands within the Ahtna traditional territory under Title VIII of ANILCA, Article III Section A

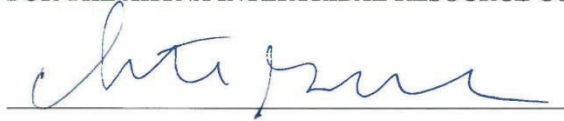
of this Agreement will be suspended for the period of State management. In the event that the State of Alaska ceases to manage public lands, this Agreement will resume and Article III Section A will return to full force and effect as if never suspended.

- G. Except as already required by law, nothing in this document shall be construed as obligating the signatories to expend funds or involving the United States or AITRC in any contract or other obligations for the future payment of money, except as may be negotiated in future cooperative funding agreements.
- H. This MOA establishes mutual goals and establishes proposed courses of action for reaching those goals, but it does not create any legally enforceable obligations or rights.
- I. This MOA does not restrict the signatories from participating in any other agreements with other public or private agencies, organizations, or individuals.

ARTICLE V.

SIGNATORIES:

FOR THE AHTNA INTERTRIBAL RESOURCE COMMISSION:

A handwritten signature in blue ink, appearing to read "Christopher Gene", written over a horizontal line.

Christopher Gene, Chairman

A handwritten signature in blue ink, appearing to read "Karen Linnell", written over a horizontal line.

Karen Linnell, Executive Director

FOR THE DEPARTMENT OF THE INTERIOR:

A handwritten signature in blue ink, appearing to read "Michael L. Connor", written over a horizontal line.

Michael L. Connor, Deputy Secretary of the Interior

ARTICLE V.

SIGNATORIES:

SIGNATURE OF SUPPORTING ORGANIZATIONS:

Ahtna, Incorporated acknowledges and supports this Memorandum of Agreement between the Department of the Interior and the Ahtna Inter-Tribal Resource Commission, and the spirit of cooperation it manifests.



A handwritten signature in blue ink, appearing to read "Nicholas Jackson", is written over a horizontal line.

Nicholas Jackson, Chairman of Ahtna, Incorporated



A handwritten signature in blue ink, appearing to read "Michelle Anderson", is written over a horizontal line.

Michelle Anderson, President of Ahtna, Incorporated

ARTICLE V.

SIGNATORIES:

SIGNATURE OF SUPPORTING ORGANIZATIONS:

The Ahtna Customary and Traditional Use Committee acknowledges and supports this Memorandum of Agreement between the Department of the Interior and the Ahtna Inter-Tribal Resource Commission, and the spirit of cooperation it manifests.



Eleanor Dementi, Chair, Ahtna Customary and Traditional Use Committee



Roy Ewan, Honorary Elder, Ahtna Customary and Traditional Use Committee

ARTICLE V.

SIGNATORIES:

SIGNATURE OF SUPPORTING ORGANIZATIONS:

The Chitina Native Corporation acknowledges and supports this Memorandum of Agreement between the Department of the Interior and the Ahtna Inter-Tribal Resource Commission, and the spirit of cooperation it manifests.

A handwritten signature in cursive script, reading "Anne Thomas", is written over a horizontal line.

Anne Thomas, President of Chitina Native Corporation

ARTICLE V.

SIGNATORIES:

SIGNATURE OF SUPPORTING ORGANIZATIONS:

The Native Village of Cantwell acknowledges and supports this Memorandum of Agreement between the Department of the Interior and the Ahtna Inter-Tribal Resource Commission, and the spirit of cooperation it manifests.

A handwritten signature in blue ink that reads "Rene Nicklie". The signature is written over a horizontal line.

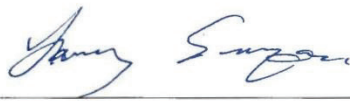
Rene Nicklie, Native Village of Cantwell

ARTICLE V.

SIGNATORIES:

SIGNATURE OF SUPPORTING ORGANIZATIONS:

The Native Village of Chistochina acknowledges and supports this Memorandum of Agreement between the Department of the Interior and the Ahtna Inter-Tribal Resource Commission, and the spirit of cooperation it manifests.

A handwritten signature in cursive script, appearing to read "Larry Sinyon", written in black ink. The signature is positioned above a horizontal line.

Larry Sinyon, Native Village of Chistochina

ARTICLE V.

SIGNATORIES:

SIGNATURE OF SUPPORTING ORGANIZATIONS:

The Chitina Traditional Indian Village Council acknowledges and supports this Memorandum of Agreement between the Department of the Interior and the Ahtna Inter-Tribal Resource Commission, and the spirit of cooperation it manifests.



A handwritten signature in cursive script, appearing to read "Rose Tyone", is written over a horizontal line.

Rose Tyone, President Chitina Traditional Indian Village Council

ARTICLE V.

SIGNATORIES:

SIGNATURE OF SUPPORTING ORGANIZATIONS:

The Native Village of Gakona acknowledges and supports this Memorandum of Agreement between the Department of the Interior and the Ahtna Inter-Tribal Resource Commission, and the spirit of cooperation it manifests.

A handwritten signature in blue ink that reads "Darrin Gene". The signature is written in a cursive style with a large initial 'D'.

Darrin Gene, Native Village of Gakona

ARTICLE V.

SIGNATORIES:

SIGNATURE OF SUPPORTING ORGANIZATIONS:

The Native Village of Gulkana acknowledges and supports this Memorandum of Agreement between the Department of the Interior and the Ahtna Inter-Tribal Resource Commission, and the spirit of cooperation it manifests.



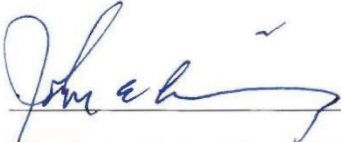
Eileen Ewan, Native Village of Gulkana

ARTICLE V.

SIGNATORIES:

SIGNATURE OF SUPPORTING ORGANIZATIONS:

The Native Village of Kluti-Kaah acknowledges and supports this Memorandum of Agreement between the Department of the Interior and the Ahtna Inter-Tribal Resource Commission, and the spirit of cooperation it manifests.




John Craig, Native Village of Kluti-Kaah

ARTICLE V.

SIGNATORIES:

SIGNATURE OF SUPPORTING ORGANIZATIONS:

The Native Village of Mentasta acknowledges and supports this Memorandum of Agreement between the Department of the Interior and the Ahtna Inter-Tribal Resource Commission, and the spirit of cooperation it manifests.

A handwritten signature in blue ink, appearing to read "Ted Sanford", is written over a horizontal line.

Ted Sanford, Native Village of Mentasta

ARTICLE V.

SIGNATORIES:

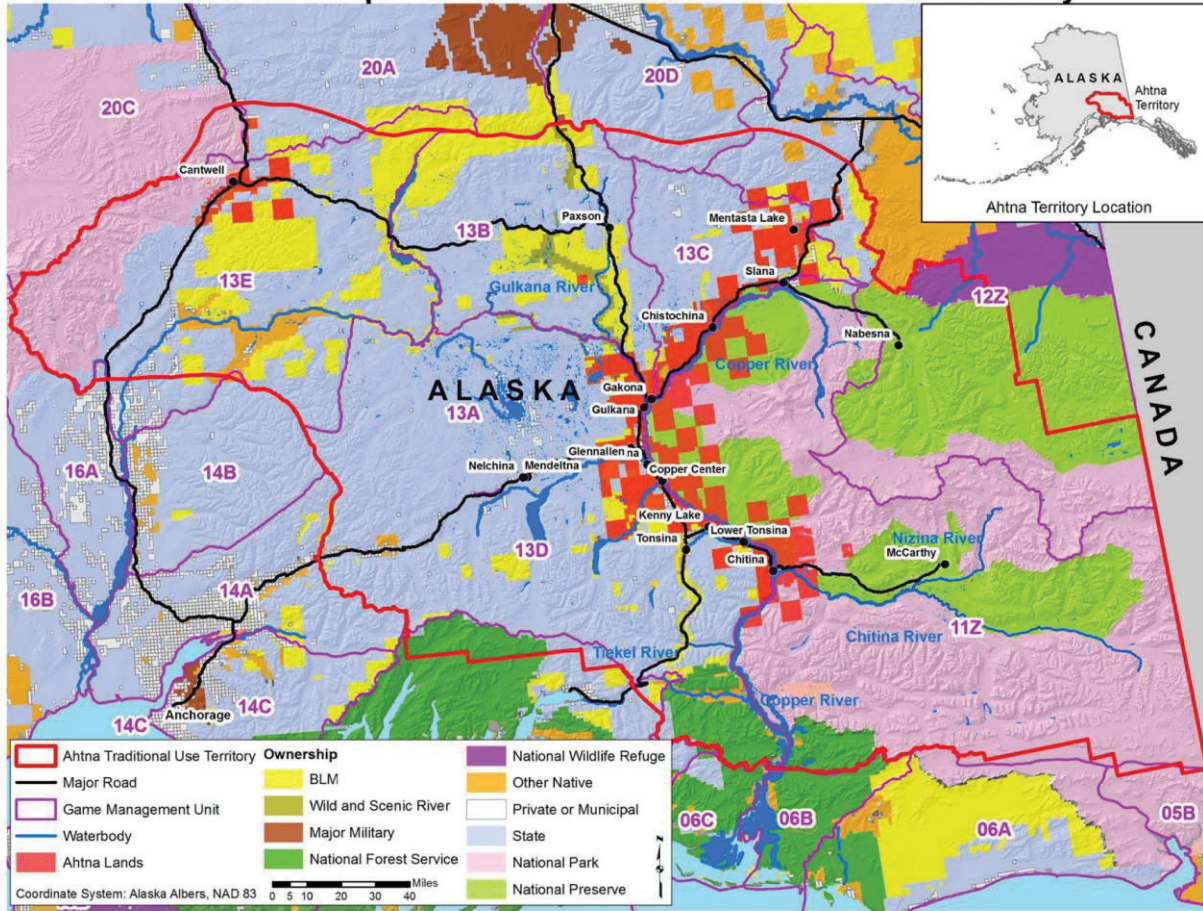
SIGNATURE OF SUPPORTING ORGANIZATIONS:

The Native Village of Tazlina acknowledges and supports this Memorandum of Agreement between the Department of the Interior and the Ahtna Inter-Tribal Resource Commission, and the spirit of cooperation it manifests.

 _____

Gloria Stickwan, Native Village of Tazlina

Land Ownership Patterns in the Ahtna Traditional Use Territory



WP18–54 Executive Summary

<p>General Description</p>	<p>Proposal WP18-54 requests that the Tetlin National Wildlife Refuge Manager, in consultation with Wrangell-St. Elias National Park and Preserve Superintendent, Alaska Department of Fish and Game area biologists, and Chairs of the Eastern Interior Alaska Subsistence Regional Advisory Council and Upper Tanana/Fortymile Fish and Game Advisory Committee (AC), be delegated authority to set the harvest limit for the to be announced winter caribou season in Unit 12 remainder. <i>Submitted by: Upper Tanana/Fortymile Fish and Game Advisory Committee.</i></p>
<p>Proposed Regulation</p>	<p>Unit 12 – Caribou</p> <p><i>Unit 12, remainder—1 bull</i> <i>Sep. 1-20.</i></p> <p><i>Unit 12, remainder— Up to 3 1caribou may be taken by a Federal registration permit (FC1202) during a winter season to be announced. Dates for a winter season to occur between Oct. 1 and Apr. 30, harvest limit and sex of animal to be taken will be announced by Tetlin National Wildlife Refuge Manager in consultation with Wrangell-St. Elias National Park and Preserve Superintendent, Alaska Department of Fish and Game area biologists, and Chairs of the Eastern Interior Regional Advisory Council and Upper Tanana/Fortymile Fish and Game Advisory Committee</i></p> <p><i>Winter season to be announced.</i></p>
<p>OSM Preliminary Conclusion</p>	<p>Support Proposal WP18-54 with modification to remove the regulatory language referring to dates and sex of animal to be taken for the winter season, delegate authority to announce season dates, harvest limit, and sex of the animals to be taken via a delegation of authority letter only, and clarify that season dates and harvest limits will be announced prior to any season opening (Appendix 1).</p> <p>The modified regulation should read:</p> <p>Unit 12 – Caribou</p> <p><i>Unit 12, remainder—1 bull</i> <i>Sep. 1-20.</i></p>

WP18–54 Executive Summary	
	<p><i>Unit 12, remainder— Up to 3 caribou may be taken by a Federal registration permit (FC1202) during a winter season to be announced. Season dates and harvest limits to be announced prior to any season opening. Dates for a winter season to occur between Oct. 1 and Apr. 30 and sex of animal to be taken will be announced by Tetlin National Wildlife Refuge Manager in consultation with Wrangell-St. Elias National Park and Preserve Superintendent, Alaska Department of Fish and Game area biologists, and Chairs of the Eastern Interior Regional Advisory Council and Upper Tanana/Fortymile Fish and Game Advisory Committee</i></p> <p style="text-align: right;"><i>Winter season to be announced.</i></p>
Southeast Alaska Subsistence Regional Advisory Council Recommendation	
Southcentral Alaska Subsistence Regional Advisory Council Recommendation	
Kodiak/Aleutians Subsistence Regional Advisory Council Recommendation	
Bristol Bay Subsistence Regional Advisory Council Recommendation	
Yukon-Kuskokwim Delta Subsistence Regional Advisory Council Recommendation	
Western Interior Alaska Subsistence Regional	

WP18–54 Executive Summary	
Advisory Council Recommendation	
Seward Peninsula Subsistence Regional Advisory Council Recommendation	
Northwest Arctic Subsistence Regional Advisory Council Recommendation	
Eastern Interior Alaska Subsistence Regional Advisory Council Recommendation	
North Slope Subsistence Regional Advisory Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	None

**DRAFT STAFF ANALYSIS
WP18-54**

ISSUES

Proposal WP18-54, submitted by the Upper Tanana/Fortymile Fish and Game Advisory Committee, requests that the Tetlin National Wildlife Refuge Manager, in consultation with Wrangell-St. Elias National Park and Preserve (WRST) Superintendent, Alaska Department of Fish and Game (ADF&G) area biologists, and Chairs of the Eastern Interior Alaska Subsistence Regional Advisory Council (Eastern Interior Council) and Upper Tanana/Fortymile Fish and Game Advisory Committee (AC), be delegated authority to set the harvest limit for the to be announced winter caribou season in Unit 12 remainder (**Map 1**).

DISCUSSION

The proponent states that the proposed regulation change will promote adaptive and collaborative management of the FC1202 caribou hunt, reduce administrative workloads by eliminating the need for special action requests to increase harvest limits when the Nelchina Caribou Herd (NCH) is overabundant, and provide for additional subsistence hunting opportunities. The proponent notes that overharvest of the NCH is unlikely due to historically low harvest rates in Unit 12 remainder and because annual harvest limits will be established collaboratively by area land managers. The Mentasta Caribou Herd (MCH) is a small herd that sometimes intermingles with the NCH in Unit 12 remainder during the winter. The proponent states that the ratio of NCH:MCH caribou will be monitored by Tetlin National Wildlife Refuge (Tetlin NWR) and that the winter season will be closed or suspended if the ratio falls below 20 NCH:1 MCH caribou or if large segments of the MCH are in easily accessible areas (i.e. near roads). The proponent also notes that incidental harvest from the Chisana Caribou Herd (CCH) is extremely unlikely as few Chisana caribou are found in the hunt area, particularly during the winter. The CCH hunt has been undersubscribed since its inception in 2012.

Existing Federal Regulation

Unit 12 – Caribou

Unit 12, remainder—1 bull

Sep. 1-20.

Unit 12, remainder—1 caribou may be taken by a Federal registration permit (FC1202) during a winter season to be announced. Dates for a winter season to occur between Oct. 1 and Apr. 30 and sex of animal to be taken will be announced by Tetlin National Wildlife Refuge Manager in consultation with Wrangell-St. Elias National Park and Preserve Superintendent, Alaska Department of Fish and Game area biologists, and Chairs of the Eastern Interior Regional Advisory Council and Upper Tanana/Fortymile Fish and Game Advisory Committee

Winter season to be announced.

Proposed Federal Regulation

Unit 12 – Caribou

Unit 12, remainder—1 bull

Sep. 1-20.

*Unit 12, remainder— **Up to 3** ~~4~~ caribou may be taken by a Federal registration permit (FC1202) during a winter season to be announced. Dates for a winter season to occur between Oct. 1 and Apr. 30, **harvest limit** and sex of animal to be taken will be announced by Tetlin National Wildlife Refuge Manager in consultation with Wrangell-St. Elias National Park and Preserve Superintendent, Alaska Department of Fish and Game area biologists, and Chairs of the Eastern Interior Regional Advisory Council and Upper Tanana/Fortymile Fish and Game Advisory Committee*

Winter season to be announced.

Existing State Regulation

Unit 12 – Caribou

Unit 12, remainder—Both residents and nonresidents

No open season

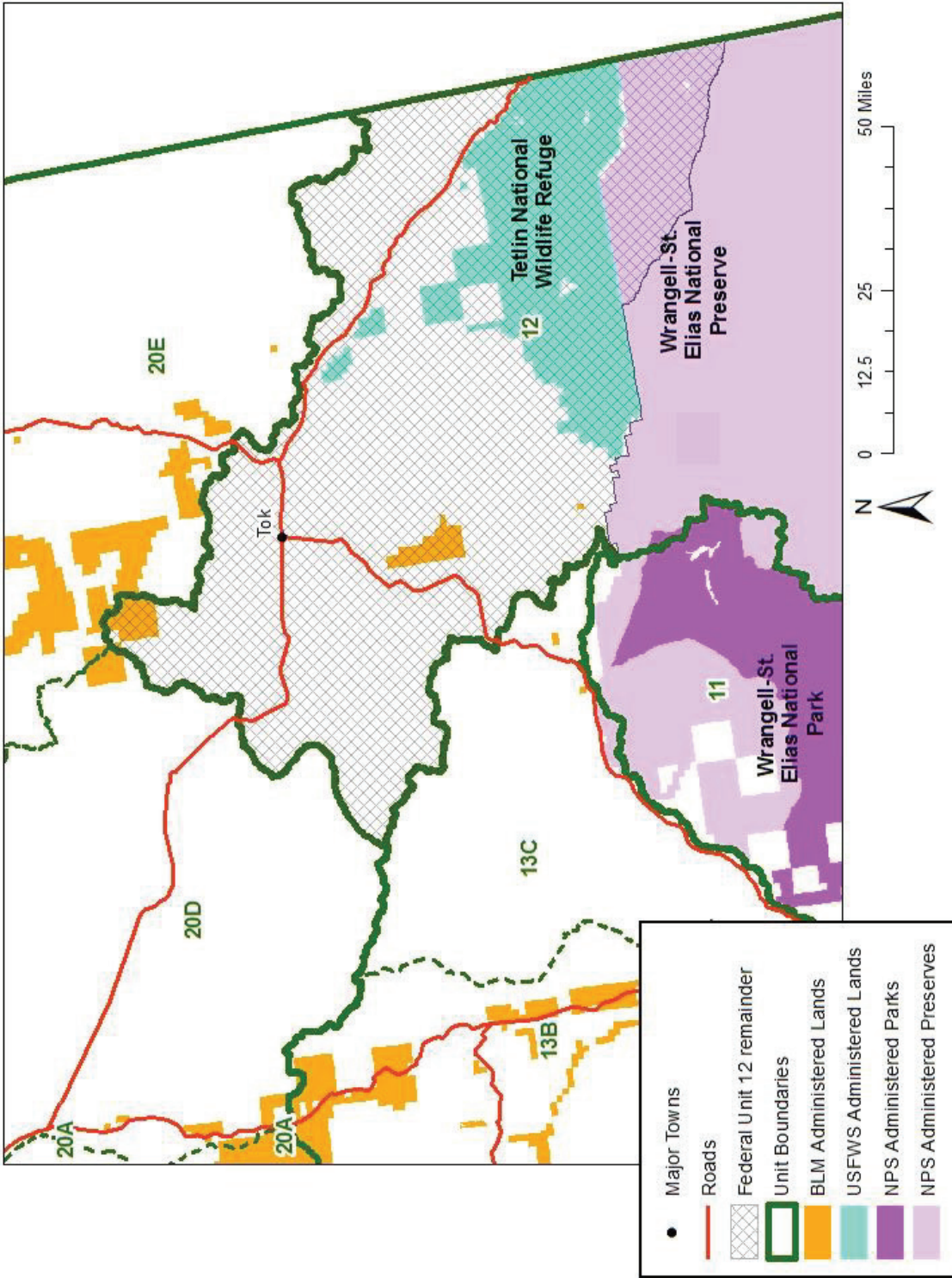
Extent of Federal Public Lands

Federal public lands comprise approximately 60% of Unit 12 and consist of 48% National Park Service (NPS) managed lands, 11% U.S. Fish and Wildlife Service (USFWS) managed lands, and 1% Bureau of Land Management (BLM) managed lands.

Unit 12 remainder is comprised of approximately 29% Federal public lands, which consist of 19% USFWS managed lands (Tetlin NWR), 8% NPS managed lands (WRST), and 2% BLM managed lands (**Map 1**).

Customary and Traditional Use Determinations

Residents of Unit 12, Chistochina, Dot Lake, Healy Lake, and Mentasta Lake have a customary and traditional use (C&T) determination for caribou in Unit 12.



Map 1. Federal Unit 12 remainder hunt area for caribou. Note: BLM lands in Unit 12 are not depicted in the Federal regulations booklet map. These lands have become unencumbered since creation of the maps in the Federal regulations booklet.

Regulatory History

In 1991, Federal subsistence hunting regulations for caribou in Unit 12 remainder were one bull from Sept. 1-20 and one caribou during a to-be-announced winter season for residents of Tetlin and Northway only as they had a C&T determination for the NCH in Unit 12. Regulations for the September season have remained unchanged since then.

Also in 1991, the Federal Subsistence Board (Board) approved Special Actions S91-05 and S91-08. Special Action S91-05 opened the winter caribou hunt in Unit 12 remainder on Oct. 28 and S91-08 closed it on Dec. 9 after subsistence needs had been met.

In 1992, the Board rejected Proposals P92-105 and P92-106 due to biological concerns. Proposal P92-105 requested abolishing the to-be-announced winter caribou season in Unit 12 remainder and Proposal P92-106 requested lengthening the September caribou season in Unit 12 remainder from Sept. 1-20 to Aug. 20-Sept. 20. The Board determined that there was no biological reason to eliminate the winter hunt and that extending the September hunt could impact the declining MCH and jeopardize the more popular winter hunt.

Also in 1992, the Board adopted Proposal P92-107, which changed the harvest limit for the winter caribou season in Unit 12 remainder from one caribou to one bull in order to protect the declining MCH, which mixes with the NCH in Unit 12 during the winter.

In 1993, the Board rejected Proposal P93-53, which requested that the Unit 12 remainder caribou season be closed when a quota of 125 bulls was reached. The Board rejected the proposal because there was no biological basis to restrict harvest. The Board also approved Special Action S93-06, opening a bulls-only caribou season in Unit 12 remainder from Dec. 6-Jan. 4.

In 1994, the Board approved Special Action S94-15, opening a caribou season in Unit 12 remainder from Nov. 16-Dec. 16 for the residents of Tetlin and Northway only, who had a C&T determination for the NCH in Unit 12. (Note: C&T determinations for caribou used to be by herd.)

In 1996, the Board deferred action on Proposals P96-56 and P96-57, which requested that the eligibility for caribou hunts in Unit 12 be expanded. Identifying customary and traditional use by area instead of by herd and submitting a similar proposal for the 1997 regulatory year were recommended.

In 1997, the Board adopted P97-24 with modification, which requested a complex suite of changes to eligibility for caribou hunts in Units 11, 12, and 13. As a result of P97-24, a customary and traditional use determination was made for caribou in Unit 12. Hence, only residents with a customary and traditional use determination could harvest caribou in Unit 12 remainder during the winter season.

In 1998, the customary and traditional use determination for caribou in Unit 12 was revised to include Healy Lake via adoption of Proposal P98-99 by the Board. Proposal P98-98 requested that the C&T

determination for caribou in Unit 12 remainder be expanded. The Board did not take action on Proposal P98-98 due to its action on Proposal P97-24 and an administrative oversight (misprinting of the regulation booklet), which rendered P98-98 moot. The Board also approved Special Action S98-19, opening a caribou season in Unit 12 remainder from Mar. 29 - Apr. 11. The Board also adopted Proposal P98-23, which closed the MCH hunt in Unit 11 due to conservation concerns, including low calf recruitment. This hunt has remained closed.

In 1999, the Board approved Special Actions S99-06 and S99-12, which enabled the Tetlin NWR manager to open/close winter caribou seasons in Unit 12 remainder.

In 2000, the Board adopted Proposal P00-058, which delegated authority to set the opening and closing dates as well as the sex of caribou to be taken for the winter season in Unit 12 remainder to the Tetlin NWR manager in order to increase management flexibility and subsistence opportunities. The Board also adopted Proposal P00-59, which redefined a caribou hunt area in Unit 12, effectively closing the portion of Unit 12 remainder within WRST and west of the Nabesna River in order to protect the declining MCH.

In 2001, the State stopped issuing permits for the winter caribou season in Unit 12 remainder, effectively closing the hunt. This was done because the NCH population was at the lower end of its management objective. The hunt has remained closed due to concerns of overcrowding and safety as well as consideration for the MCH (Butler 2016, pers. comm.).

In 2010, the Board rejected Proposal WP10-102, which requested that the harvest limit for the winter season in Unit 12 remainder be increased from 1 to 2 caribou. The proposal was rejected due to concern for the MCH and uncertainty about the mixing ratio of the Mentasta and Nelchina caribou herds during the winter hunt. The Board also rejected Proposal WP10-103, which requested that the winter season in Unit 12 remainder be opened by regulation on Oct. 21 and remain open until closed by the Tetlin NWR manager, which would have decreased management flexibility and raised conservation concerns for the MCH.

In 2012, the customary and traditional use determination for caribou in Unit 12 was modified to include *Chistochina* via adoption of Proposal WP12-68 by the Board.

In 2016, the Board approved Emergency Wildlife Special Action WSA16-05 to create a may be announced ten-day caribou season between Oct. 1 and Oct. 20 in Unit 13. WSA16-05 targeted the NCH, the same herd affected by this request. WSA16-05 was approved in order to increase harvest of the NCH, which was above State management objectives, and to provide additional hunting opportunity for Federally qualified subsistence users as fall harvest was low. The Board also approved Temporary Wildlife Special Action WSA16-06 to increase the harvest limit for the winter season in Unit 12 remainder from one to two caribou for the 2016/17 regulatory year in order to reduce the NCH population and to increase harvest opportunities for Federally qualified subsistence users.

Biological Background

The ranges of the Nelchina, Mentasta, and Chisana caribou herds overlap in Unit 12 remainder (**Map 2**, CCHWG 2012). Overlap with the CCH range is minimal and occurs in a relatively inaccessible and unfrequented area of Unit 12 remainder. Therefore, the CCH is not considered further in this analysis.

Nelchina Caribou Herd

The NCH calving grounds and summer range lie within Unit 13. The rut also generally occurs within Unit 13. About 60-95% of the NCH overwinters in Unit 20E, although Nelchina caribou also overwinter in Unit 12 and across northern portions of Units 13 and 11 (Schwanke and Robbins 2013). Nelchina caribou are usually found in Unit 12 remainder over the winter and en route to wintering grounds in Unit 20E. Winter competition with the Fortymile caribou herd in Unit 20E may be impacting the NCH and range conditions. While use (location and timing) of the NCH calving grounds remains static, use of other seasonal ranges varies with resource availability and snow cover (Schwanke and Robbins 2013).

State management goals and objectives for the NCH are as follows (Schwanke and Robbins 2013):

- Maintain a fall population of 35,000–40,000 caribou, with a minimum of 40 bulls:100 cows and 40 calves:100 cows.
- Provide for the annual harvest of 3,000–6,000 caribou.

The State manages the NCH for maximum sustained yield, principally by annual adjustments in harvest quotas. The population of the NCH has fluctuated over time, influenced primarily by harvest (Schwanke and Robbins 2013). Between 2001/02 and 2015/16, the NCH population ranged from 31,114 - 49,550 caribou and averaged 39,672 caribou. However, the herd has exceeded State population objectives since 2010 (**Table 1**). Reduced predation resulting from intensive wolf management programs geared toward moose in Unit 13, and the Fortymile herd in Units 12 and 20 may have contributed to NCH population increases (Schwanke and Robbins 2013, ADF&G 2017).

Bull:cow and calf:cow ratios have similarly fluctuated over time. Between 2001/02 and 2016/17, the fall bull:cow ratio ranged from 24-64 bulls:100 cows and averaged 39.5 bulls:100 cows. Over the same time period, the fall calf:cow ratio ranged from 19-55 calves:100 cows and averaged 40 calves:100 cows (**Table 1**).

In recent years (2008-2012), below average fall calf weights and low parturition rates for 3-year-old cows suggest nutritional stress, raising concern for the health of NCH (Schwanke and Robbins 2013). Schwanke and Robbins (2013) caution that without a timely reduction in the NCH population, range quality and long-term herd stability may be compromised. The current management goal is herd reduction (Schwanke and Robbins 2013).

Mentasta Caribou Herd

The calving grounds for the Mentasta caribou herd (MCH) are located in northern Unit 11 within WRST (Route et al. 1995, **Map 2**). The MCH disperses across Unit 12 and southern Unit 20E in winter, often intermingling with the NCH (Route et al. 1995).

A cooperative management plan for the MCH was completed in 1995 and specifies the following management objectives (Route et al. 1995):

- To the extent possible, allow for human harvest that will have minimal effects on the production, composition, and abundance of Mentasta caribou.
- To provide harvest priority to Federally-eligible subsistence users and to allow State authorized hunting to occur whenever possible.
- To monitor the herd demographics and harvest such that all pertinent data on the health of the herd are collected and disseminated to all agencies and citizens concerned with their management.

The MCH population declined from an estimated 3,160 caribou in 1987 to an estimated 512 caribou in 2013 (**Table 2**). Preliminary data from 2016 suggests the herd has declined to the 2010 population estimate of 336 caribou (Putera 2016, pers. comm.). Another population survey was conducted in June 2017, although results are pending (Putera 2017, pers. comm.). Between 1987 and 2016, the bull:cow ratio has fluctuated widely, ranging from 35-120 bulls:100 cows and averaging 57 bulls:100 cows. June and fall calf:cow ratios fluctuated over the same time period, ranging from 1-38 calves:100 cows and 0-33 calves:100 cows, respectively (**Table 2**, Putera 2011, pers. comm. in OSM 2012).

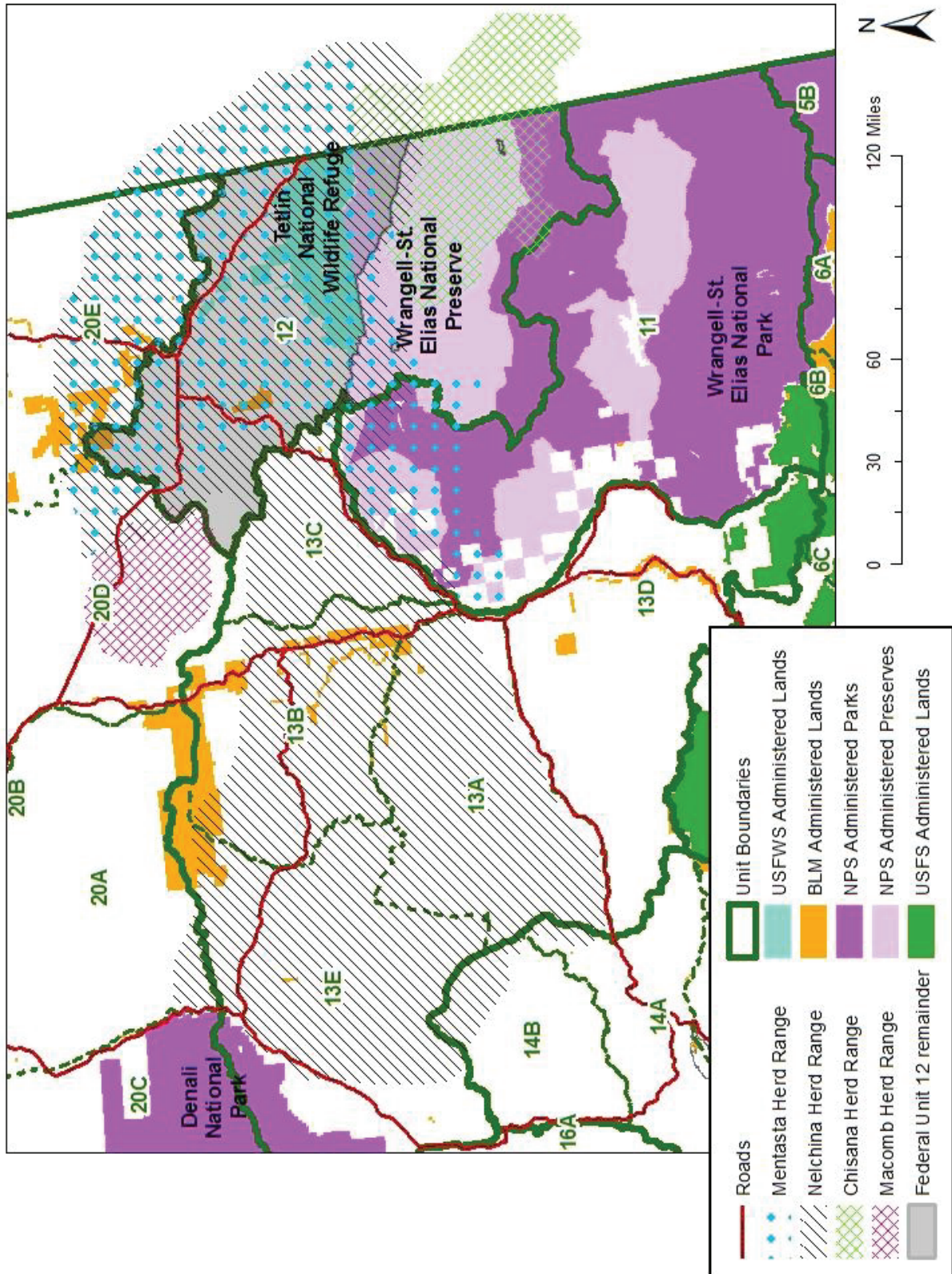


Table 1. Population size and composition of the Nelchina caribou herd (Tobey and Kelleyhouse 2007, ADF&G 2008, 2010, Schwanke 2011, Schwanke and Robbins 2013, Robbins 2015, 2016a, 2016b pers.comm., 2017, pers. comm.).

Year	Total bulls: 100 cows ^a	Calves: 100 cows ^a	Population size ^b
2001	37	40	35,106
2002	31	48	35,939
2003	31	35	31,114
2004	31	45	38,961
2005	36	41	36,993
2006	24 ^c	48 ^c	
2007	34	35	33,744
2008	39	40	
2009	42	29	33,146
2010	64	55	44,954
2011	58	45	40,915
2012	57	31	46,496
2013	30	19	40,121
2014	42	45	
2015	36	45	48,700
2016	57	48	49,550
Average	39.5	40.1	39,672
^a Fall Composition Counts			
^b Summer photocensus			
^c Modeled estimate			

Table 2. Population size and composition of the Mentasta caribou herd (Putera 2011, pers. comm. in OSM 2012, Putera 2016 pers. comm.).

Year	June Calves:100 Cows ^a	Fall Calves:100 cows	Fall Bulls:100 cows	Fall Population Estimate
1987	18	12	41	3,160
1988	34	18	43	2,480
1989	31	16	45	2,600
1990	-	-	-	-
1991	3	2	42	1,940
1992	16	6	41	1,430
1993	9	4	38	970
1994	19	11	38	880
1995	26	22	35	850
1996	16	11	35	780
1997	15	5	40	610
1998	13	10	42	540
1999	13	10	77	430
2000	1	0	59	470
2001	11	5	66	586
2002	21	29	45	410
2003	17	16	46	522
2004	8	5	-	293
2005	23	15	69	261
2006	-	-	-	-
2007	23	29	77	280
2008	14	20	73	319
2009	12	10	86	421
2010	25	25	120	336
2011	-	-	-	-
2012	-	34	84	-
2013	38	23	77	512
2014	-	-	-	-
2015	-	-	-	-
2016	-	33	42	-

^aIncludes small bulls that are indistinguishable from cows during fixed-wing flights.

Cultural Knowledge and Traditional Practices

Reference to the harvest and use of caribou by the people of the Eastern Interior and the Copper River Basin began as early as the 1800s and continues to the present day (Simeone 2006). Archeological evidence and historical accounts suggest that caribou was a primary subsistence resource for the Ahtna Athabascans of the upper Copper River watershed where a successful caribou hunt meant the difference between life and death for those living in the northern portion of the basin and beyond (Simeone 2006). The governor of Russian America, F.P. Wrangell, described witnessing numerous hunts and strategies used to harvest caribou in the 1820s and 1830s, including the use of fences and herd drives (Simeone 2006). As more explorers and early settlers moved into the region, they too depended heavily on the caribou that moved through what are now portions of Units 11, 12, and 13. The traditional practices of drying and smoking meat, as well as the proper and respectful treatment of harvested resources such as caribou and moose, are described in several ethnographic accounts of the Ahtna and people of the upper Tanana (de Laguna and McClellan 1981; Haynes and Simeone 2007; Mishler et al. 1988; Reckord 1983; Simeone 2006).

In recent comprehensive subsistence surveys conducted by the Alaska Department of Fish and Game (ADF&G) in the upper Copper River and Tanana watersheds, it has been noted that large land mammal harvest is high (ranging between 17% and 60% of the total community harvest by weight) and in some villages and towns surpassed that of fish (Holen et al. 2012; Kukkonen and Zimpleman 2012; La Vine, et al. 2013; La Vine and Zimpleman 2014). During each study year, communities within the Copper River Basin harvested or hunted for caribou primarily in Unit 13 (Holen et al. 2015; Kukkonen and Zimpleman 2012; La Vine, et al. 2013; La Vine and Zimpleman 2014). Not all communities in the Upper Tanana watershed participated in recent surveys. Those that have (Dot Lake, Dry Creek, Mentasta Pass, Northway, and Tok) all demonstrate a high reliance on large land mammals with the percentage of the total community harvest in pounds of edible weight ranging from 28% of the harvest in Northway to 42% of the harvest in Dot Lake to 75% of the harvest in Dry Creek (Holen et al. 2012; La Vine et al. 2013; Godduhn and Kostick 2016). In 2011, the per capita caribou harvest from communities in the Upper Tanana watershed ranged from 14 lbs/person in Dry Creek to 31 lbs/person in Tok (Holen et al. 2012). In 2014, the caribou harvest by residents of Northway was 3% of edible weight and 9 lbs/person (Godduhn and Kostick 2016). Both Dot Lake and Dry Creek documented harvest and search areas for caribou close to their communities in Unit 20 during their study year (2011). Tok residents traveled farther. Harvest and search areas for caribou during 2011 extended along the Alaska Highway from Dry Creek east as far as the Canadian border, along the Taylor Highway as far as Eagle, and along the Tok Cutoff toward Mentasta Pass. Some residents reported harvest and search areas that extended into the Tetlin National Wildlife Refuge. Northway caribou harvest and search areas also extend into Tetlin National Wildlife Refuge.

Harvest History

The NCH is a popular herd to hunt and experiences heavy harvest pressure due to its road accessibility and proximity to Fairbanks and Anchorage. Population limits can be controlled solely by human harvest, and harvest quotas are adjusted annually in order to achieve management objectives (Schwanke and Robbins 2013).

Over 95% of the NCH harvest occurs in Unit 13. The Federal harvest limit for caribou in Unit 13A and 13B is two caribou with the sex to be announced, and in Unit 13 remainder the harvest limit is two bulls. Between 2001 and 2016, harvest from the NCH under State regulations ranged from 797-5,709 caribou/year and averaged 2,423 caribou/year (**Table 3**). Between 2012 and 2015, harvest from the NCH under Federal regulations has ranged from 233-608 caribou/year and averaged 550 caribou/year (Robbins 2017, pers. comm.). While the long-term average is below management objectives, the harvest quota and associated harvest has increased in recent years (2010-2015) in response to the increasing NCH population (**Table 3**). In 2016, the initial harvest quota of 4,000 caribou was lifted after population estimates from the summer photocensus showed that the NCH was still growing. No adjusted quota was announced in 2016 (Robbins 2017, pers. comm.). There has been no targeted harvest of the Mentasta herd since 1998 when all caribou hunting in Unit 11 closed due to conservation concerns. Wounding loss and illegal and/or unreported harvest account for an unknown number of mortalities (Schwanke and Robbins 2013).

The only caribou season open in Unit 12 under State regulation is in the northwest portion of the unit. The State hunt targets the Macomb caribou herd and, while technically within the Federal Unit 12 remainder hunt area, contains no Federal public lands (**Map 2**). Therefore, all caribou harvested from Federal public lands within Unit 12 remainder occurs under Federal regulations. No caribou are taken during the September season as caribou are not present on Federal public lands during this time (Berg 2016, pers. comm.). Between 1998 and 2016, caribou harvest during the winter season ranged from 0-71 caribou/year and averaged 27 caribou/year (**Table 4**).

Winter hunts targeted for the NCH may result in incidental harvest of Mentasta caribou as the herds mix during the winter in Unit 12 remainder and Nelchina and Mentasta caribou cannot be differentiated (Route et al. 1995, Berg 2016, pers. comm.). The MCH management plan notes, “It is unrealistic to close seasons directed at other larger caribou herds as long as incidental harvest of Mentasta caribou is biologically insignificant.” The plan continues, “Movement patterns and aggregation behavior of collared caribou suggest that incidental harvest of Mentasta caribou is usually insignificant” (Route et al. 1995:6).

Table 3. Nelchina caribou herd harvest quota and total State harvest (Robbins 2015, pers. comm., 2017, pers. comm., Schwanke and Robbins 2013, Tobey and Schwanke 2009, Tobey and Kelleyhouse 2007).

Regulatory Year	Harvest Quota	Bull Harvest	Cow Harvest	Total Harvest
2001		1,476	17	1,500
2002		1,326	6	1,344
2003		1,077	6	1,087
2004		1,166	93	1,265
2005		1,995	798	2,813
2006		2,142	930	3,090
2007		981	402	1,392
2008		994	370	1,372
2009		781	14	797
2010	2,300	1,708	721	2,439
2011	2,400	1,892	678	2,515
2012	5,500			4,429
2013	2,500			2,640
2014	3,000			2,818
2015	5,000			3,550
2016	N/A ^a			5,709

^a Initial harvest quota of 4,000 was lifted and no adjusted quota was announced

Table 4. Federal (FC1202) caribou harvest and permits issued in Unit 12 remainder (OSM 2016).

Regulatory Year	Permits Issued	Bulls Harvested	Cows Harvested	Unknown Sex Harvested	Total Harvest
1998	46	9	0	2	11
1999	206	32	0	0	32
2000	183	38	0	2	40
2001	40	0	0	0	0
2002	2	0	0	0	0
2003	102	13	0	0	13
2004	114	18	1	0	19
2005	78	6	10	0	16
2006	53	0	3	0	3
2007	88	11	5	2	18
2008	147	15	13	0	28
2009	110	17	0	2	19
2010	120	31	23	0	54
2011	103	37	9	0	49
2012	152	35	35	1	71
2013	113	15	21	0	40
2014	116	15	22	0	37
2015	126	14	35	0	49
2016	114	3	3	0	6
Average	106	16.26	9.47	0.47	26.58

Other Alternatives Considered

WRST staff recommended deferring action on this proposal pending review of the 1995 Mentasta Caribou Herd Cooperative Management Plan and the collaring of additional MCH caribou to ensure that an adequate number of collared animals are available for monitoring. The plan is more than 20 years old and overdue for review.

WRST staff also recommended considering only authorizing a harvest limit of up to 2 caribou and limiting the designated hunter possession limit to no more than 4 caribou. A 2 caribou harvest limit would be consistent with the harvest limit in Unit 13 and double the harvest limit in Unit 20E. Hunts in these adjacent units also target the NCH. Limiting the possession limit could help preclude wanton waste, avoiding the potential of overtaxing a single hunter to properly care for the meat.

Effects of the Proposal

If this proposal is adopted, the authority to set the caribou harvest limit up to 3 caribou for the winter season in Unit 12 remainder would be delegated to the Tetlin NWR Manager in consultation with WRST Superintendent, ADF&G area biologists, and Chairs of the Eastern Interior Council and Upper Tanana/Fortymile Fish and Game AC. For brevity, only the Tetlin NWR manager will be mentioned regarding delegated authority for the remainder of this section.

Harvest during this hunt is primarily from the NCH, which has exceeded State population objectives since 2010 and continues to increase. Concerns have been raised about population crashes and degradation of habitat resulting from overpopulation. Adoption of this proposal would aid in NCH management by allowing annual adjustments in the harvest limit in response to current NCH population levels. As mentioned by the proponent, overharvest of the NCH would not be a concern due to historically low harvest pressure in the area and because area land managers would discuss and agree upon the most appropriate harvest limit for a given year.

The Tetlin NWR manager already has delegated authority to announce the sex of the animals to be taken as well as the dates for the winter season, allowing for management flexibility and quick response to changing conditions. Adding harvest limit to their delegated authority would further increase management flexibility and response as well as decrease the administrative burden of completing special action requests (**Appendix 1**). In 2016, the Board approved Temporary Special Action WSA16-06 to increase the harvest limit to two caribou in Unit 12 remainder for the winter season. This request required a public hearing, Tribal and ANCSA corporation consultations, a full analysis and several rounds of review. A decision by the Board was not made until after the FC1202 hunt opened. Delegating authority to the Tetlin NWR manager to set the harvest limit would alleviate the need for future special action requests and also result in more timely management actions regarding harvest limits.

Adoption of this proposal would provide additional harvest opportunity for Federally qualified subsistence users by increasing the harvest limit when the NCH population exceeds State management objectives, which could result in more efficient hunts by allowing more meat to be harvested in one trip. An increased harvest limit could prove particularly useful during years when other subsistence resources such as the Fortymile caribou herd are relatively unavailable due to shifts in migration and wintering areas. Weather and snow conditions could hamper or enhance access and harvest for the Unit 12 remainder winter caribou hunt.

It is not possible to distinguish between Nelchina and Mentasta herd caribou. While the NCH is the herd targeted by this request, an unknown number of Mentasta herd caribou may be harvested. This concern has been addressed in the past by monitoring herd locations and waiting to open the season until a sufficient number of Nelchina caribou are in the area. As the Tetlin NWR manager already has delegated authority to open/close the season, it is expected that a season would not be opened unless the ratio of Nelchina:Mentasta caribou is high. Mixing ratios are determined by aerial surveys of radio-collared caribou. Tetlin NWR has committed to monitoring this ratio and to closing or suspending the hunt if the

ratio falls below 20 Nelchina:1 Mentasta caribou. While the MCH management plan does not specify an appropriate mixing ratio, the 20:1 ratio has been used to determine winter season openings by the Board since at least 2000 (OSM 2000). The MCH management plan suggests that incidental harvest of Mentasta caribou is usually minimal (Route et al. 1995).

However, given the small number of Mentasta caribou that are currently collared, monitoring could be difficult. Monitoring flights to determine mixing ratios and the location and movements of Mentasta caribou are contingent upon having adequate numbers of radio-collared caribou. Currently, there are at most 10 collared Mentasta caribou (Putera 2017, pers. comm). Lack of availability of the drugs used in the captures prevented WRST staff from collaring additional animals in 2016, and it is unclear whether the capture drugs needed for the collaring will be available in 2017 (Putera 2017, pers. comm.).

OSM PRELIMINARY CONCLUSION

Support Proposal WP18-54 with **modification** to remove the regulatory language referring to dates and sex of animal to be taken for the winter season, delegate authority to announce season dates, harvest limit, and sex of the animals to be taken via a delegation of authority letter only, and clarify that season dates and harvest limits will be announced prior to any season opening (**Appendix 1**).

The modified regulation should read:

Unit 12 – Caribou

Unit 12, remainder—1 bull

Sep. 1-20.

*Unit 12, remainder— **Up to 3** ~~caribou may be taken by a Federal registration permit (FC1202) during a winter season to be announced. Season dates and harvest limits to be announced prior to any season opening. Dates for a winter season to occur between Oct. 1 and Apr. 30 and sex of animal to be taken will be announced by Tetlin National Wildlife Refuge Manager in consultation with Wrangell St. Elias National Park and Preserve Superintendent, Alaska Department of Fish and Game area biologists, and Chairs of the Eastern Interior Regional Advisory Council and Upper Tanana/Fortymile Fish and Game Advisory Committee~~ Winter season to be announced.*

Justification

Delegating authority to the Tetlin NWR manager in consultation with the WRST superintendent, ADF&G area biologist, and Chairs of the Eastern Interior and Southcentral Councils and Upper Tanana/Fortymile Advisory Committee to set the harvest limit for the FC1202 hunt increases management flexibility and

response. There are no conservation concerns as harvest limits will be established by local land managers in response to current conditions, namely NCH population levels.

Additionally, approval of this proposal will increase harvest opportunities for Federally qualified subsistence users when the NCH population exceeds State management objectives through increases in the caribou harvest limit.

Removal of regulatory language and creation of a delegation of authority letter for the Federal in-season manager will simplify regulations and allow for management flexibility through adjustment of in-season hunt parameters.

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Appendix 1

Refuge Manager
Tetlin National Wildlife Refuge
P.O. Box 779 MS 529
Tok, Alaska 99780

Dear Refuge Manager:

This letter delegates specific regulatory authority from the Federal Subsistence Board (Board) to the manager of the Tetlin National Wildlife Refuge to issue emergency or temporary special actions if necessary to ensure the conservation of a healthy wildlife population, to continue subsistence uses of wildlife, for reasons of public safety, or to assure the continued viability of the population. This delegation only applies to the Federal public lands subject to Alaska National Interest Lands Conservation Act (ANILCA) Title VIII jurisdiction within Unit 12 remainder for the management of caribou on these lands.

It is the intent of the Board that actions related to management of caribou by Federal officials be coordinated, prior to implementation, with the Alaska Department of Fish and Game (ADF&G), Wrangell-St. Elias National Park and Preserve (WRST), the Chairs of the Eastern Interior Alaska and Southcentral Alaska Subsistence Regional Advisory Councils (Councils), and the Upper Tanana/Fortymile Fish and Game Advisory Committee (AC) to the extent possible. Federal managers are expected to work with managers from the State and other Federal agencies, the Council Chairs, and applicable Council members to minimize disruption to subsistence resource users and existing agency programs, consistent with the need for special action.

DELEGATION OF AUTHORITY

1. Delegation: The Tetlin National Wildlife Refuge Manager is hereby delegated authority to issue emergency or temporary special actions affecting caribou on Federal public lands as outlined under the **Scope of Delegation** below. Any action greater than 60 days in length (temporary special action) requires a public hearing before implementation. Special actions are governed by Federal regulation at 36 CFR 242.19 and 50 CFR 100.19.

2. Authority: This delegation of authority is established pursuant to 36 CFR 242.10(d)(6) and 50 CFR 100.10(d)(6), which state: “The Board may delegate to agency field officials the authority to set harvest and possession limits, define harvest areas, specify methods or means of harvest, specify permit requirements, and open or close specific fish or wildlife harvest seasons within frameworks established by the Board.”

3. Scope of Delegation: The regulatory authority hereby delegated is limited to the following authorities within the limits set by regulation at 36 CFR 242.26 and 50 CFR 100.26:

To set dates for a winter season to occur between Oct. 1 and Apr. 30 as well as the harvest limit and sex of animals to be taken during the winter season for caribou in Unit 12 remainder.

This delegation may be exercised only when it is necessary to conserve caribou populations, to continue subsistence uses, for reasons of public safety, or to assure the continued viability of the population.

All other proposed changes to codified regulations, such as customary and traditional use determinations, adjustments to methods and means of take, customary trade, or closures and restrictions for take for only non-Federally qualified users shall be directed to the Federal Subsistence Board.

The Federal public lands subject to this delegated authority are those within Unit 12 remainder.

4. Effective Period: This delegation of authority is effective from the date of this letter and continues until superseded or rescinded.

5. Guidelines for Delegation: You will become familiar with the management history of the wildlife species relevant to this delegation in the region, with current State and Federal regulations and management plans, and be up-to-date on population and harvest status information. You will review special action requests or situations that may require a special action and all supporting information to determine: (1) consistency with 36 CFR 242.19, (2) if the request/situation falls within the scope of authority, (3) if significant conservation problems or subsistence harvest concerns are indicated, and (4) what the consequences of taking an action or no action may be on potentially affected subsistence users and non-Federally qualified users. Requests not within your delegated authority will be forwarded to the Board for consideration. You will maintain a record of all special action requests and rationale for your decision. A copy of this record will be provided to the Administrative Records Specialist in the Office of Subsistence Management (OSM) no later than sixty days after development of the document.

You will notify OSM and coordinate with local ADF&G biologists, WRST superintendent, and the Chairs of the Eastern Interior and Southcentral Councils and the Upper Tanana/Fortymile AC regarding special actions under consideration. You will issue decisions in a timely manner. Before the effective date of any decision, reasonable efforts will be made to notify the public,

OSM, affected State and Federal managers, law enforcement personnel, and Council representatives. If an action is to supersede a State action not yet in effect, the decision will be communicated to the public, OSM, affected State and Federal Managers, and the local Council representatives at least 24 hours before the State action would be effective. If a decision to take no action is made, you will notify the proponent of the request immediately. A summary of special action requests and your resultant actions must be provided to the coordinator of the appropriate Subsistence Regional Advisory Council(s) at the end of each calendar year for presentation to the Council(s).

You may defer a special action request, otherwise covered by this delegation of authority, to the Board in instances when the proposed management action will have a significant impact on a large number of Federal subsistence users or is particularly controversial. This option should be exercised judiciously and may be initiated only when sufficient time allows for it. Such deferrals should not be considered when immediate management actions are necessary for conservation purposes. The Board may determine that a special action request may best be handled by the Board, subsequently rescinding the delegated regulatory authority for the specific action only.

6. Support Services: Administrative support for regulatory actions will be provided by the Office of Subsistence Management, U.S. Fish & Wildlife Service, and the Department of the Interior.

Sincerely,

Anthony Christianson
Chair, Federal Subsistence Board

cc: Commissioner, Alaska Department of Fish and Game
Assistant Regional Director, Office of Subsistence Management
Deputy Assistant Regional Director, Office of Subsistence Management
Chair, Eastern Interior Alaska Subsistence Regional Advisory Council
Chair, Southcentral Alaska Subsistence Regional Advisory Council
Council Coordinator, Eastern Interior Alaska Subsistence Regional Advisory Council, Office of Subsistence Management
Council Coordinator, Southcentral Alaska Subsistence Regional Advisory Council, Office of Subsistence Management
Superintendent, Wrangell-St. Elias National Park and Preserve

Federal Subsistence Liaison Team Leader, Alaska Department of Fish and Game
Federal Subsistence Board
Interagency Staff Committee
Administrative Record

WP18–55 Executive Summary	
General Description	Proposal WP18–55 requests that the fall and winter moose seasons be extended from Aug. 24-Sept. 20 and Nov. 1-Feb. 28 to Aug. 20-Sept. 30 and Nov. 1-Apr. 30, in a portion of Unit 12. <i>Submitted by: Tetlin National Wildlife Refuge.</i>
Proposed Regulation	<p>Unit 12—Moose</p> <p><i>Unit 12—that portion within Tetlin National Wildlife Refuge and those lands within the Wrangell–St. Elias National Preserve north and east of a line formed by the Pickerel Lake Winter Trail from the Canadian border to Pickerel Lake- 1 antlered bull by Federal registration permit</i></p> <p>Aug. 24—Sept. 20 Aug. 20 – Sept. 30</p> <p>Nov. 1 – Feb. 28 Apr. 30</p>
OSM Preliminary Conclusion	Support
Southeast Alaska Subsistence Regional Advisory Council Recommendation	
Southcentral Alaska Subsistence Regional Advisory Council Recommendation	
Kodiak/Aleutians Subsistence Regional Advisory Council Recommendation	
Bristol Bay Subsistence Regional Advisory Council Recommendation	
Yukon-Kuskokwim Delta Subsistence Regional Advisory Council Recommendation	

WP18–55 Executive Summary	
Western Interior Alaska Subsistence Regional Advisory Council Recommendation	
Seward Peninsula Subsistence Regional Advisory Council Recommendation	
Northwest Arctic Subsistence Regional Advisory Council Recommendation	
Eastern Interior Alaska Subsistence Regional Advisory Council Recommendation	
North Slope Subsistence Regional Advisory Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	3 Neutral

**DRAFT STAFF ANALYSIS
WP18-55**

ISSUES

Proposal WP18-55, submitted by Tetlin National Wildlife Refuge (NWR), requests that the fall and winter moose seasons be extended from Aug. 24-Sept. 20 and Nov. 1-Feb. 28 to Aug. 20-Sept. 30 and Nov. 1-Apr. 30, in a portion of Unit 12.

DISCUSSION

The proponent states that extending the fall and winter moose season in the portion of Unit 12 within Tetlin NWR and Wrangell-St. Elias National Preserve north and east of the Pickerel Lake Winter Trail, would align the fall season dates with the moose season in the southern hunt area of Unit 12 and Unit 20E, and would align the winter season closing date with the caribou season closing date in Unit 12 remainder. The proponent states that this would provide Federally qualified subsistence users with additional opportunity and would reduce user confusion in the unit. The proponent mentions that a majority of moose in the area winter at higher elevations and that harvest at this time is most likely incidental to hunting of caribou. This proposal would allow Federally qualified subsistence users to harvest moose while hunting for caribou during the winter season in Unit 12 remainder.

Existing Federal Regulation

Unit 12—Moose

Unit 12—that portion within Tetlin National Wildlife Refuge and those lands within the Wrangell –St. Elias National Preserve north and east of a line formed by the Pickerel Lake Winter Trail from the Canadian border to Pickerel Lake- 1 antlered bull by Federal registration permit *Aug. 24 – Sept. 20*
Nov. 1 – Feb. 28

Proposed Federal Regulation

Unit 12—Moose

Unit 12—that portion within Tetlin National Wildlife Refuge and those lands within the Wrangell –St. Elias National Preserve north and east of a line formed by the Pickerel Lake Winter Trail from the Canadian border to Pickerel Lake- 1 antlered bull by Federal registration permit ~~*Aug. 24 – Sept. 20*~~
Aug. 20 – Sept. 30
~~*Nov. 1 – Feb. 28*~~ *Apr. 30*

Existing State Regulation

Unit 12—Moose

<i>Unit 12, remainder</i>	<i>Residents—one bull</i>	<i>Aug. 24-Aug. 28</i> <i>Sept. 8-Sept. 17</i>
	<i>Nonresidents—One bull with 50-inch antlers or antlers with 4 or more brow tines on at least one side</i>	<i>Sept. 8-Sept. 17</i>

Extent of Federal Public Lands

Federal public lands comprise approximately 59.78% of Unit 12, and consist of 48.01% National Park Service (NPS) managed lands, 10.84% U.S. Fish and Wildlife Service (USFWS) managed lands, and 0.92% Bureau of Land Management (BLM) managed lands (**Figure 1**).

Customary and Traditional Use Determinations

Residents of Units 12, 13C, Dot Lake, and Healy Lake have a customary and traditional use determination for moose in that portion of Unit 12 that lies within the Tetlin NWR and those lands within the Wrangell-St. Elias National Preserve north and east of a line formed by the Pickerel Lake Winter Trail from the Canadian border to Pickerel Lake.

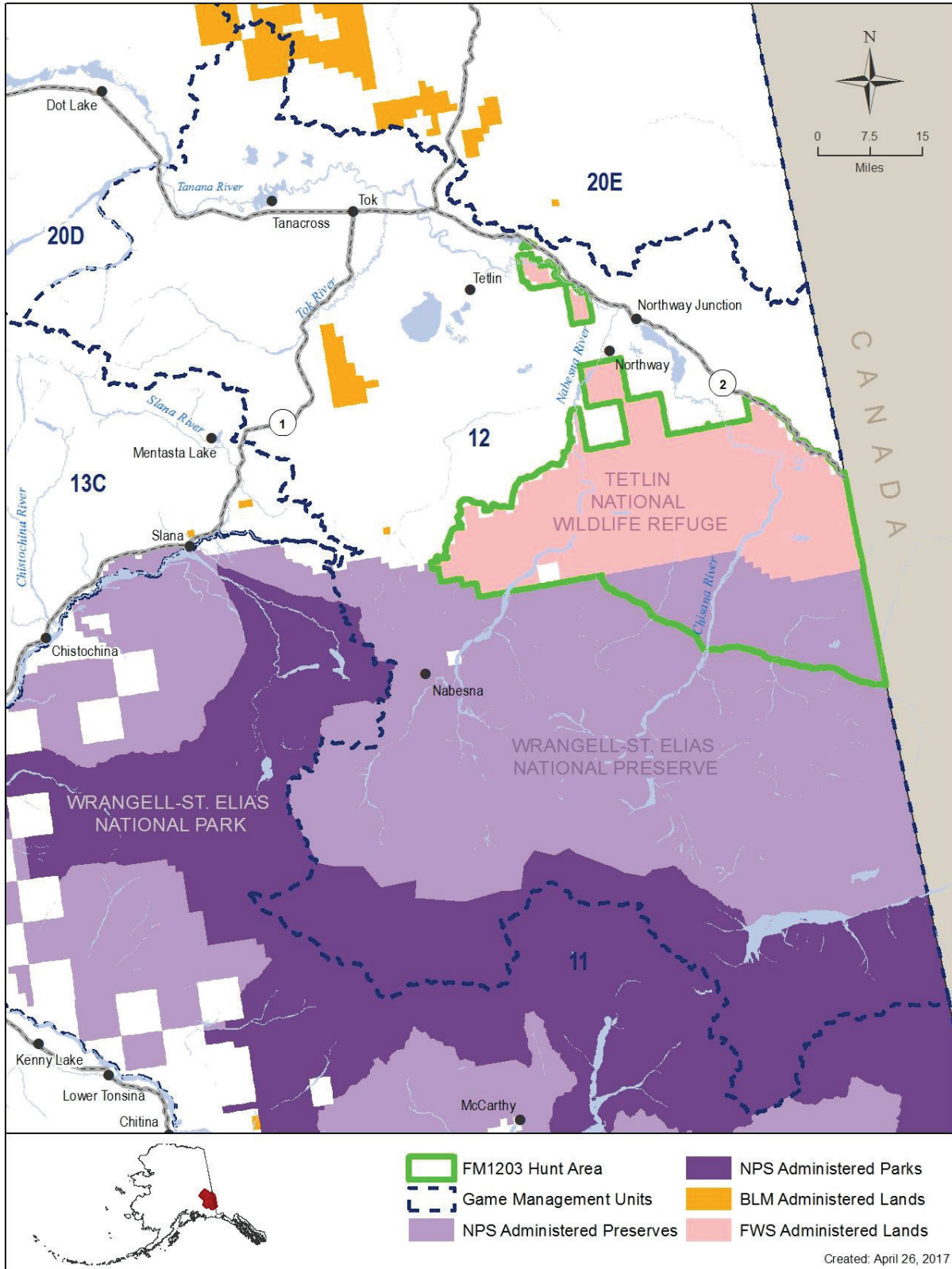


Figure 1. Federal public lands and the hunt area for FM1203 in Unit 12.

Regulatory History

Federal and State moose hunting regulations in Unit 12 have changed numerous times since 1989. The Federal seasons and harvest limits have most often been changed in response to the State's establishment, modification, and/or subsequent discontinuance of spike-fork seasons. State and Federal regulations for the remote hunt area south of the Pickerel Lakes Winter Trail remained consistent until the Alaska Board of Game (BOG) added the unit-wide Aug. 20-Aug. 28 spike-fork season in 1995, and the Federal Subsistence Board (Board) followed suit in 1996. In 1998, the BOG opened the Unit 12 spike-fork season on August 15 — five days earlier. In 1999, the Board aligned Federal regulations with the longer State season.

The BOG continued to modify moose regulations in Unit 12 throughout the 2000s. In March of 2000, the BOG adopted Proposal 38, submitted by the Alaska Department of Fish and Game (ADF&G), which changed the State's Unit 12 moose hunting season into a five day August season and a ten day September season. In March of 2012, the BOG adopted Proposal 186 with modification to change the hunting seasons and harvest limit of moose in Units 11 and 12. In Unit 12 this added a resident and nonresident bull (with antler restrictions) registration hunt (RM291) season from Aug. 20-Sept. 17 in a portion of the Nabesna River Drainage (Wells 2014). In 2017, the BOG adopted Proposal 88 which clarified the antler-restricted moose hunting area within the Tok River drainage.

Federal Regulations also changed multiple times since the year 2000. Due to conservation concerns expressed by ADF&G and staff of the Tetlin NWR, the Eastern Interior Subsistence Regional Advisory Council submitted Proposal WP01-41 requesting changes to the dates (from Aug. 15-Aug. 28 and Sept. 1-Sept. 15 to Aug. 24-Aug. 28 and Sept. 8- Sept. 17) of the fall season and the removal of the August spike-fork season from a portion of Unit 12. The Board adopted the proposed regulations for the 2001/02 regulatory year for the Tetlin National Wildlife Refuge hunt area portion of Unit 12.

Throughout the following years, the Board took action on many proposals concerning moose in Unit 12. In May 2003, the Board adopted Proposal WP03-45 with modification, which established new dates for the fall moose season (from Aug. 15-Aug. 28 and Sept. 1-Sept. 30 to Aug. 24-Sept. 30) and paralleled the State actions eliminating the spike-fork season, in that portion of Unit 12 east of the Nabesna River and the Nabesna Glacier and south of the Winter Trail running southeast from Pickerel Lake to the Canadian border (Unit 12 southern hunt area). The Board adopted Proposal WP06-59 in 2006 to clarify moose regulations in Unit 12. This proposal simplified the language for hunt area boundaries within the unit to reduce user confusion. In 2006, WP06-60 was also adopted with modification to eliminate the spike fork antler restriction in Unit 12 remainder during the Aug. 24-28 and Sept. 1-17 portion of the season while maintaining the restriction during the Aug. 15-23 season. In 2007, the Board adopted WP07-57 with modification, which requested a change in the winter season dates (from Nov. 20-Nov. 30 to Nov. 20-Dec. 10) in the FM1203 hunt.

The Board addressed multiple proposals concerning moose in Unit 12 during the 2012 regulatory cycle. The Board adopted Proposal WP12-71/72 with modification to extend the winter season in the Tetlin NWR hunt area portion of Unit 12 from Nov. 20-Dec. 10 to Nov.1-Feb. 28 and to extend the fall season from Aug. 24-Aug. 28 and Sept. 8-Sept. 17 to Aug. 24-Sept. 20, while also maintaining the Federal registration permit

requirement for the winter season. The same year, Proposal WP12-70/73 was also adopted with modification to align the Unit 11 and Unit 12 remainder moose seasons to Aug. 20-Sept. 20 and to create a joint-State Federal registration permit for a portion of Unit 11 (that portion draining into the east bank of the Copper River upstream from and including the Slana River drainage) and Unit 12 remainder. In 2012, a Wildlife Special Action Request (WSA12-05) was submitted by Wrangell-St. Elias National Park and Preserve (WRST) to extend the moose season for the Batzulnetas Culture Camp by 31 days, changing the season end date from July 31 to August 31, 2012. This request was unanimously approved by the Board.

Biological Background

Habitat

Moose rely on willow and shrub habitats for browsing and for cover from predators and typically select areas with habitat heterogeneity (Maier et al. 2005) to meet their nutritional and shelter needs. Wildfire (the primary driver of boreal forest succession and habitat heterogeneity; Maier et al. 2005) frequency is forecast to increase as the Arctic climate warms, causing projected moose habitat to increase (Joly et al. 2012). Currently, moose have been found to occur in greater densities in areas where fire occurred within the past 11-30 years (Maier et al. 2005). Due to changes in climate, connectivity between moose populations is expected to increase as populations expand to make use of habitat expansion (Schmidt et al. 2008, Tape et al. 2016).

In Unit 12, moose typically inhabit areas below 4,500 feet with extensive river margin (Maier et al. 2005, Wells 2014, 2016). Approximately 6,000 mi² is categorized as suitable moose habitat within the unit, with approximately 5,250 mi² available in the winter and 6,572 mi² available in the summer (Wells 2014, 2016).

The landscape within the Tetlin NWR hunt area of Unit 12 contains large swaths of boreal forest, shrub and sedge meadows, and interspersed wetlands (Collins et al. 2005, Wells 2016). Shrub habitat is commonly found near water bodies and in recently burned areas (Collins et al. 2005). These areas are typically comprised primarily of willow, alder, and dwarf birch species (Collins et al. 2005). Shrub habitat can also be found above 4,000 feet, in gullies that drain subalpine tundra (Collins et al. 2005). These higher elevation habitat areas attract higher concentrations of moose during fall and early winter, following the rut (Collins et al. 2005).

Ecosystems can be modified by moose foraging (Maier et al. 2005, Schmidt et al. 2008) and thus, habitat and browse surveys are an important component of wildlife monitoring and management. In Unit 12 browse surveys have been periodically conducted since the 1970s (Wells 2014). Although fire suppression led to many areas of potentially good moose habitat becoming dominated by spruce forest, browse surveys have shown that use of preferred browse species in the unit is low relative to availability (Wells 2014). During these surveys it was noted that early successional species of browse were used far more than species in undisturbed areas. Habitat was not found to be a limiting factor on the moose population in Unit 12 (Wells 2014).

A fire management plan was developed by ADF&G in 2013 and Tetlin NWR developed a fire management plan in 2001. In 2003, a 40,000 acre wildfire burned on the Tetlin NWR (ADF&G 2017a). That portion

of the refuge would now fall into the 11-30 year post fire timeframe that moose prefer. Prescribed burns have not taken place over the last few years, but many wildfires have occurred over the past 10 years (**Figure 2**; Bayless 2017, pers. comm.). Since 2010, there have been wildfires in three locations on the refuge (Bayless 2017, pers. comm.): on either side of the Upper Chisana River (2013 and 2015) and southeast of Northway (2016).

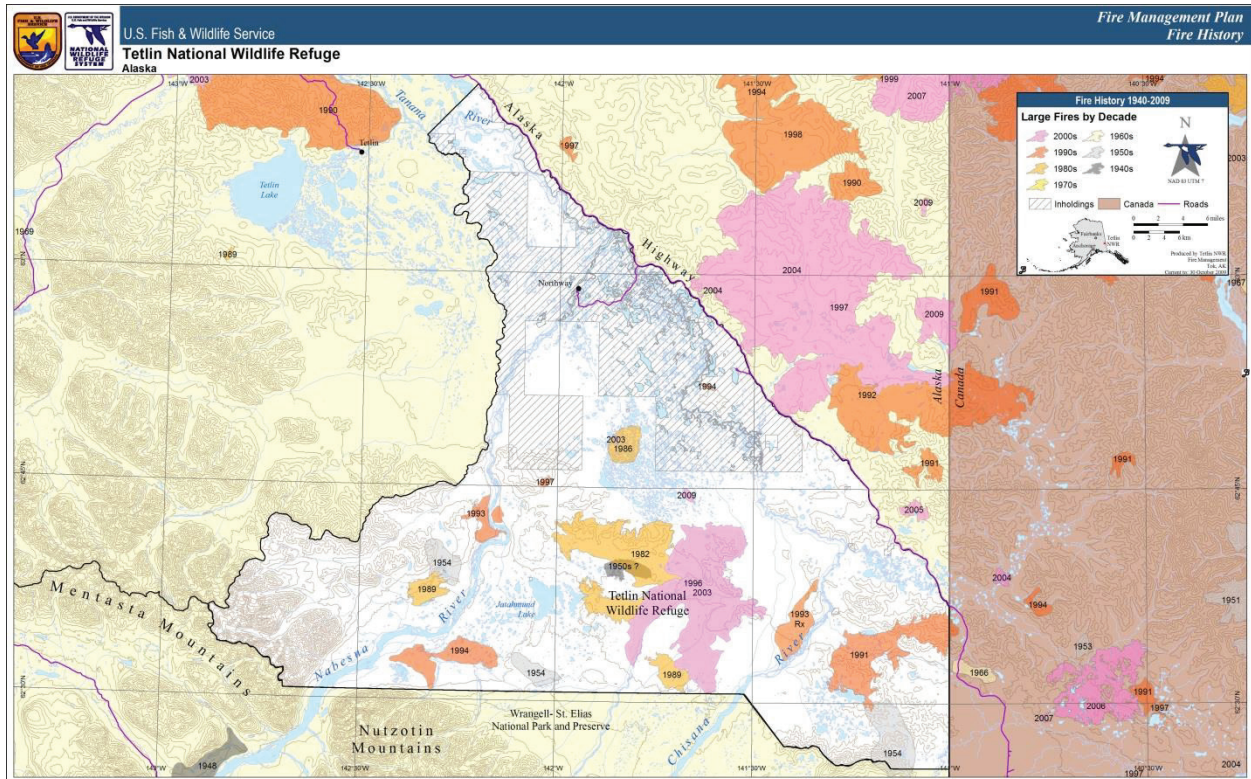


Figure 2. Major wildfires that took place on and adjacent to Tetlin National Wildlife Refuge between 1940 and 2009 (Bayless 2017, pers. comm.).

Population Management

State moose management goals for Unit 12 include protecting the moose population in conjunction with ecosystem function, maintaining subsistence use of moose, maximizing moose hunting opportunities, and maximizing nonconsumptive use opportunities for moose (Wells 2014, 2016). The State management objective for moose in Unit 12 is to maintain a post hunt ratio of 40 bulls:100 cows east of the Nabesna River and a bull:cow ratio of 25:100 in the remainder portion of the unit (Wells 2014, 2016).

Management goals pertaining to moose, developed by the Tetlin NWR in the Comprehensive Conservation Plan, include continuing surveys to monitor population trends, distribution, and habitat needs of moose on, and adjacent to, the refuge (USFWS 2008). Moose are an important subsistence resource for communities of the Upper Tanana Valley and other area residents (Collins et al. 2005), with moose being the preferred red meat resource in many households in Northway and the most available source of red meat for communities in the eastern upper Tanana Valley (Godduhn and Kostick 2016).

Tetlin NWR began collaborating with ADF&G to collect moose population data shortly after the refuge was established in 1981 (Collins et al. 2005: 3). An estimate of 4,300-5,600 moose was determined in 2008 using fall Geospatial Population Estimation (GSPE) survey data (ADF&G 2017a). This is a slight increase from the 2003 estimate of 2,900-5,100 moose (ADF&G 2017a). Moose densities vary widely throughout the unit, ranging from approximately 0.03 moose/mi² in Northway Flats to >2 moose/mi² by the north side of the Nutzotin Mountains (ADF&G 2017a).

Region and habitat specific surveys have been conducted since the unit-wide 2008 population survey (**Table 1**), with unit-wide estimates being extrapolated from regional data. The Tetlin NWR portion (included in the southeastern Unit 12 survey area; **Figure 3**) of Unit 12 was surveyed in November of 2012 along with the northern and northwestern sections (excluding WRST) of the unit. The GSPE surveys conducted in these areas produced an estimate of 4,773 moose present in these Unit 12 survey areas (Wells 2014). This data was then extrapolated to the rest of the 6,000 mi² of estimated moose habitat within Unit 12 to develop an estimate of 4,883-6,571 (0.8-1.1 moose/mi²) observable moose (Wells 2014). Similarly, data collected throughout the unit from 2010-2014 was summarized to develop a unit-wide observable November population estimate of 4,492-6,444 moose (Wells 2016). Surveys are only conducted in each survey area approximately every three or four years, which can make it difficult to determine and respond to population trends in a timely manner (Wells 2016). Additionally, moose population surveys have not taken place on Tetlin NWR in the last five years due to inadequate survey conditions (Bayless 2017, pers. comm.). Moose densities appear to have been relatively stable within the southeastern and northwestern survey areas since 2008 and are expected to remain stable throughout most of the unit (ADF&G 2017a, Wells 2016).

The current unit-wide bull:cow ratios are above the management goals of 40:100 east of the Nabesna River and 25:100 in the remainder of the unit (ADF&G 2017a, Wells 2016). A majority of the moose harvest takes place near the highway system and the Tok, Little Tok, and Tanana rivers due to easy access. In these heavily hunted areas the bull:cow ratio dropped to 20-40 bulls:100 cows in the past, but this ratio has improved since antler restrictions were put in place in portions of the unit (ADF&G 2017a). The last composition survey conducted in the Tetlin NWR survey area (Southeastern Unit 12) was in 2012 when the bull:cow ratio was estimated at 52 bulls:100 cows, which is a decrease from 89 bulls:100 cows for the survey area in 2003 (**Table 2**; Wells 2014). Similarly, the calf:cow ratio also decreased from 33 calves:100 cows to 18 calves:100 cows from 2003 to 2012 (Wells 2014). According to Stout (2010) population guidelines, a ratio of less than 20 calves:100 cows may indicate the population is in decline while a ratio of 20-40 calves:100 cows may indicate a stable population.

Table 1. Unit 12 moose population estimates from 2003-2014. The sightability correction factor (SCF) used for 2003-2006 was a factor of 1.25 and a factor of 1.20 for the years 2008-2012 (Wells 2014). No SCF was available for the Chisana survey area in 2014 (Wells 2016).

Survey Area	Year	Population Estimate (±90% CI)	Population Estimate with SCF	Moose/mi ² w/SCF
Northwestern Unit 12	2003	3,064 (±35%)	3,830	1.35
	2005	2,129 (±15%)	2,661	0.94
	2006	2,317 (±18%)	2,896	1.07
	2008	3,225 (±18%)	3,870	1.43
	2012	3,058 (±12%)	3,670	1.36
Southeastern Unit 12	2003	1,317 (±19%)	1,646	0.56
	2004	1,272 (±20%)	1,590	0.54
	2008	1,843 (±20%)	2,212	0.75
	2012	1,613 (±17%)	1,936	0.66
Nabesna Road	2011	1,272 (±17%)	1,526	0.95
Chisana Alaska Portion	2014	673 (±23%)	---	---

Table 2. Fall aerial moose composition counts for Unit 12 from 2003-2014 (Wells 2014, 2016).

Survey Area	Year	Bulls:100 Cows	Calves:100 Cows	Percent Calves	Calves Observed	Adults Observed
Northwestern Unit 12	2003	25	32	19	111	464
	2005	22	30	18	69	315
	2006	37	41	21	185	688
	2008	46	35	20	218	899
	2012	29	27	16	133	650
Southeastern Unit 12	2003	89	33	16	89	475
	2004	70	48	20	89	351
	2008	62	24	13	81	552
	2012	52	18	9	65	634
Nabesna Road	2011	34	27	14	75	476
Chisana Alaska Portion	2014	50	11	---	---	---

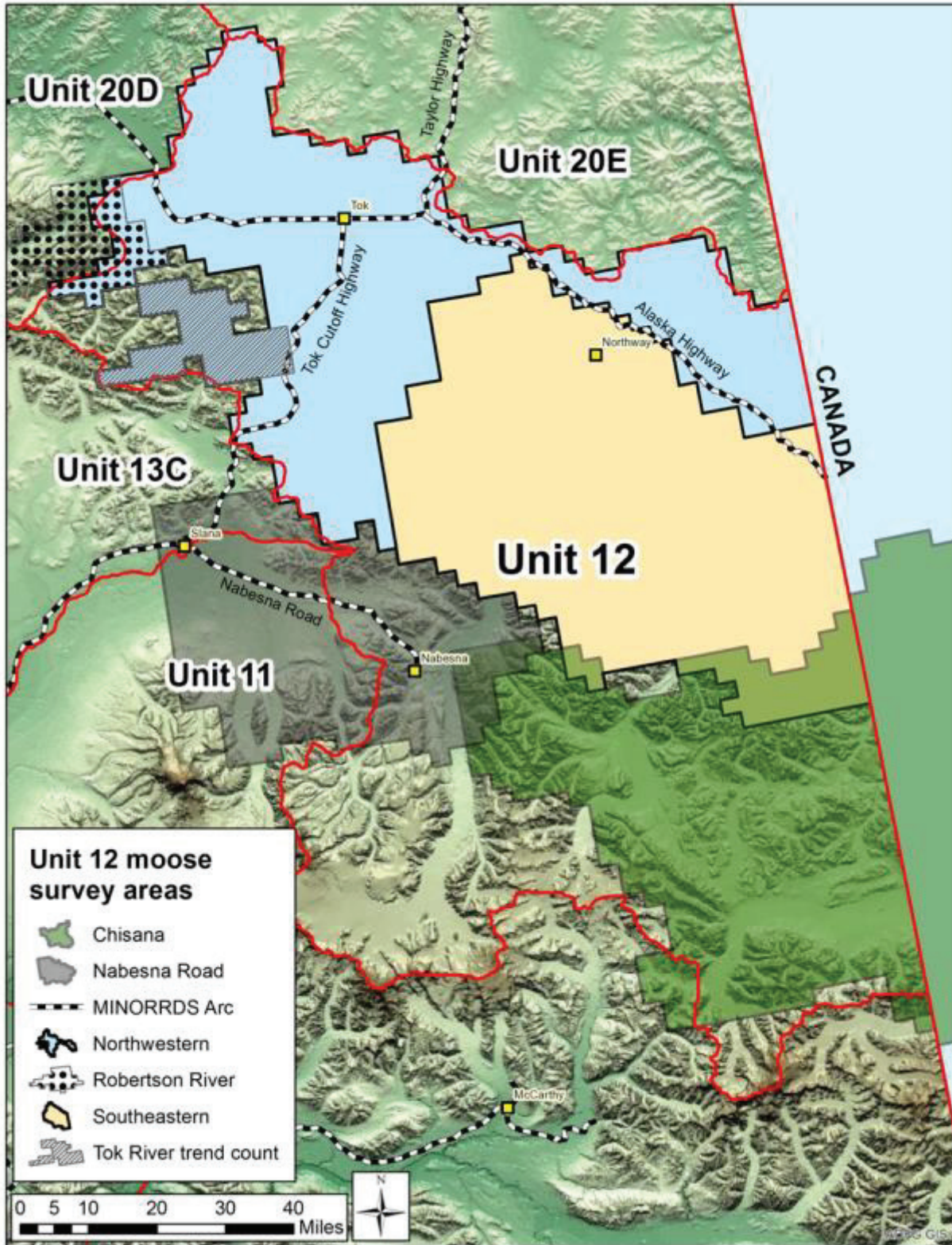


Figure 3. Survey areas used by ADF&G for moose surveys in Unit 12. Map is from Wells (2016).

Harvest History

The State sustainable harvest rate for moose in Unit 12 is 3-4% (Wells 2014). Most of the unit is difficult to access, especially within the Tetlin NWR, which leads to those areas near roads and rivers receiving higher harvest than the rest of the unit. An average of 132 moose have been harvested annually over the last ten years, with 163 moose being harvested in 2015, the last year for which data are available (**Table 3**; ADF&G 2017b). This falls within the State sustainable harvest rate for the unit. Only one cow moose was reported harvested during the fall and winter seasons in this ten year period, due to regulatory restrictions that only allow bull harvest and include antler restrictions, although an average of four cow moose were taken annually between 2011 and 2014 for potlatch use (Wells 2016). In 2015, approximately 30% of the moose harvest was taken by local Unit 12 users (**Figure 4**; ADF&G 2017b). It is important to note that some nonlocal (those residing outside of Unit 12) resident users also have a cultural and traditional use determination for portions of Unit 12 and therefore some of the nonlocal resident harvest may have also been from Federally qualified subsistence users for each of the hunt areas.

Table 3. All moose harvest in Unit 12 from 2006 through 2015 according to ADF&G harvest reports (ADF&G 2017b).

Year	Species	Local Resident Harvest	Nonlocal Resident Harvest	Total Resident Harvest	Non-Resident Harvest	Unknown Residency Harvest	Total Harvest	Bulls Harvested	Cows Harvested	Unknown Gender
2015	Moose	49	78	127	34	2	163	162	0	1
2014	Moose	59	72	131	38	0	169	169	0	0
2013	Moose	35	39	74	25	1	100	99	0	1
2012	Moose	33	59	92	34	1	127	124	0	3
2011	Moose	45	40	85	27	0	112	112	0	0
2010	Moose	44	47	91	18	0	109	109	0	0
2009	Moose	57	59	116	26	3	145	142	1	2
2008	Moose	55	53	108	49	0	157	157	0	0
2007	Moose	52	46	98	24	0	122	121	0	1
2006	Moose	45	44	89	26	2	117	117	0	0
Total:		474	537	1011	301	9	1321	1312	1	8
Average:		47.4	53.7	101.1	30.1	0.9	132.1	131.2	0.1	0.8

Currently harvest tickets are mandatory within Unit 12 when State or Federal registration permits are not required. These harvest tickets require users to submit a harvest report to track harvest throughout the unit. To increase the reporting rate for harvest tickets, ADF&G sends reminder letters to users who did not initially report their harvest (Wells 2014). The State also conducts community household surveys in local communities, which helps assess unreported harvest.

A community household survey was completed in Unit 12 for 2011 in Tok. Based on this survey, 48 moose were recorded as being harvested by Tok residents (ADF&G 2011). This is greater than the overall harvest recorded (45 moose) in harvest reports for all local users in Unit 12. Due to only 26% of Tok households being surveyed, the State used a conversion factor to develop an estimated harvest of 187 moose taken by Tok residents, some of which may not have been harvested in Unit 12 (ADF&G 2011,

Holen et al. 2012). The most recent community household survey for Northway was completed for 2014. Ninety six percent of Northway households reported using moose meat in 2014 (Godduhn and Kostick 2016). An estimated 23 moose were recorded as harvested by Northway residents during this survey with 20 of these moose being harvested in September (Godduhn and Kostick 2016).

There is currently a Federal registration hunt (FM1203) for the Tetlin NWR hunt area. On average, 55 permits are issued annually with 22 users actually hunting (**Table 4**; USFWS 2017). The average annual harvest during this Federal registration hunt is approximately two moose. The communities of Tok and Northway take part in the FM1203 hunt more than any other community (**Table 5**; USFWS 2017).

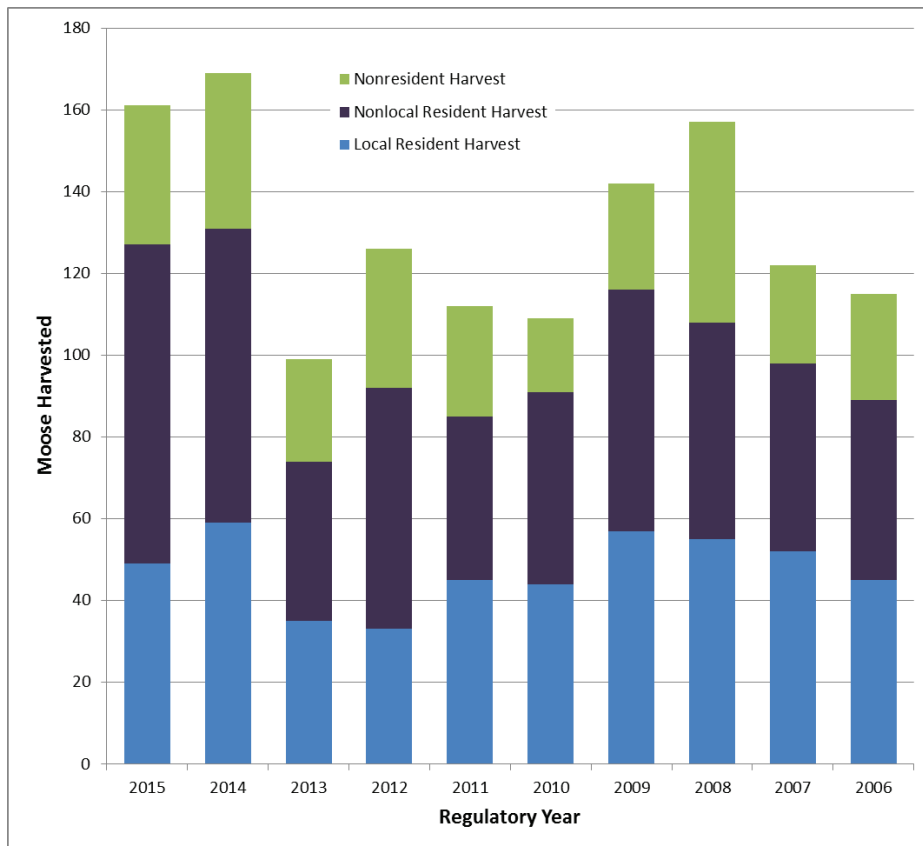


Figure 4. Moose harvest in Unit 12 broken down by user residency from 2006-2015 according to ADF&G harvest reports (ADF&G 2017b).

Table 4. Moose harvest for the FM1203 Federal registration permit in Unit 12 by year for 2006-2015 (USFWS 2017).

Year	Species	FM1203 Permits Issued	Number Who Hunted	Total Harvest	Bulls Harvested	Cows Harvested	Unknown Harvested	Percent Success
2015	Moose	97	28	4	4	0	0	14.30%
2014	Moose	84	36	3	1	0	1	8.30%
2013	Moose	95	46	5	4	0	0	10.90%
2012	Moose	101	51	2	2	0	0	3.90%
2011	Moose	25	8	3	3	0	0	37.50%
2010	Moose	30	12	1	1	0	0	8.30%
2009	Moose	20	9	0	0	0	0	0%
2008	Moose	46	12	0	0	0	0	0%
2007	Moose	41	9	0	0	0	0	0%
2006	Moose	11	4	0	0	0	0	0%
TOTAL		550	215	18	15	0	1	

Table 5. Moose harvest by community for the FM1203 Federal registration permit in Unit 12 for 2006-2015 (USFWS 2017).

Res Comm	Unit	FM1203 Permits Issued	Individuals Who Hunted	Total Harvest	Bulls Harvested	Cows Harvested	Unknown Harvested	Percent Success
UNKNOWN	---	4	1	0	0	0	0	0%
BORDER	12	10	7	0	0	0	0	0%
NABESNA	12	2	2	0	0	0	0	0%
TOK	12	259	99	13	12	0	0	13.10%
TETLIN	12	1	0	0	0	0	0	---
CHISANA	12	1	0	0	0	0	0	---
NORTHWAY	12	267	104	5	3	0	1	4.80%
SLANA	13	2	0	0	0	0	0	---
MENTASTA LAKE	13	2	2	0	0	0	0	0%
GLENNALLEN	13	1	0	0	0	0	0	---
FAIRBANKS	20	1	0	0	0	0	0	---
TOTAL		550	215	18	15	0	1	

Effects of the Proposal

If adopted, this proposal would extend the moose season and increase harvest opportunity for Federally qualified subsistence users.

If adopted, this proposal would align the fall season with the Unit 20E season and the fall season end date with the Unit 12 hunt area south of the hunt area being addressed, but it would misalign the FM1203 moose season with the Unit 12 remainder hunt area which completely surrounds the northern portion of the FM1203 hunt (**Figure 5**). Currently the Federal Unit 12 remainder and the Unit 12 FM1203 fall hunt end dates align.

If adopted, this proposal would also create parallel winter season end dates with the FC1202 caribou season, which could reduce user confusion and would allow Federally qualified subsistence users to harvest caribou and moose opportunistically. This would increase opportunities for users and decrease time and resources spent to harvest moose and caribou in the same season.

The average harvest by users using the FM1203 Federal registration permit since 2012, when the season was extended, is only three-and-a-half moose annually. Although community household surveys show that much of the harvest is unreported throughout the unit, harvest reporting during the FM1203 hunt should be more accurate due to the requirement of a Federal registration permit. Due to these factors, it is unlikely that the extension of the season as requested would have a significant negative impact on the moose population in Unit 12. Extending the season into spring when days are longer and temperatures are more moderate may result in increased user participation and harvest, however.

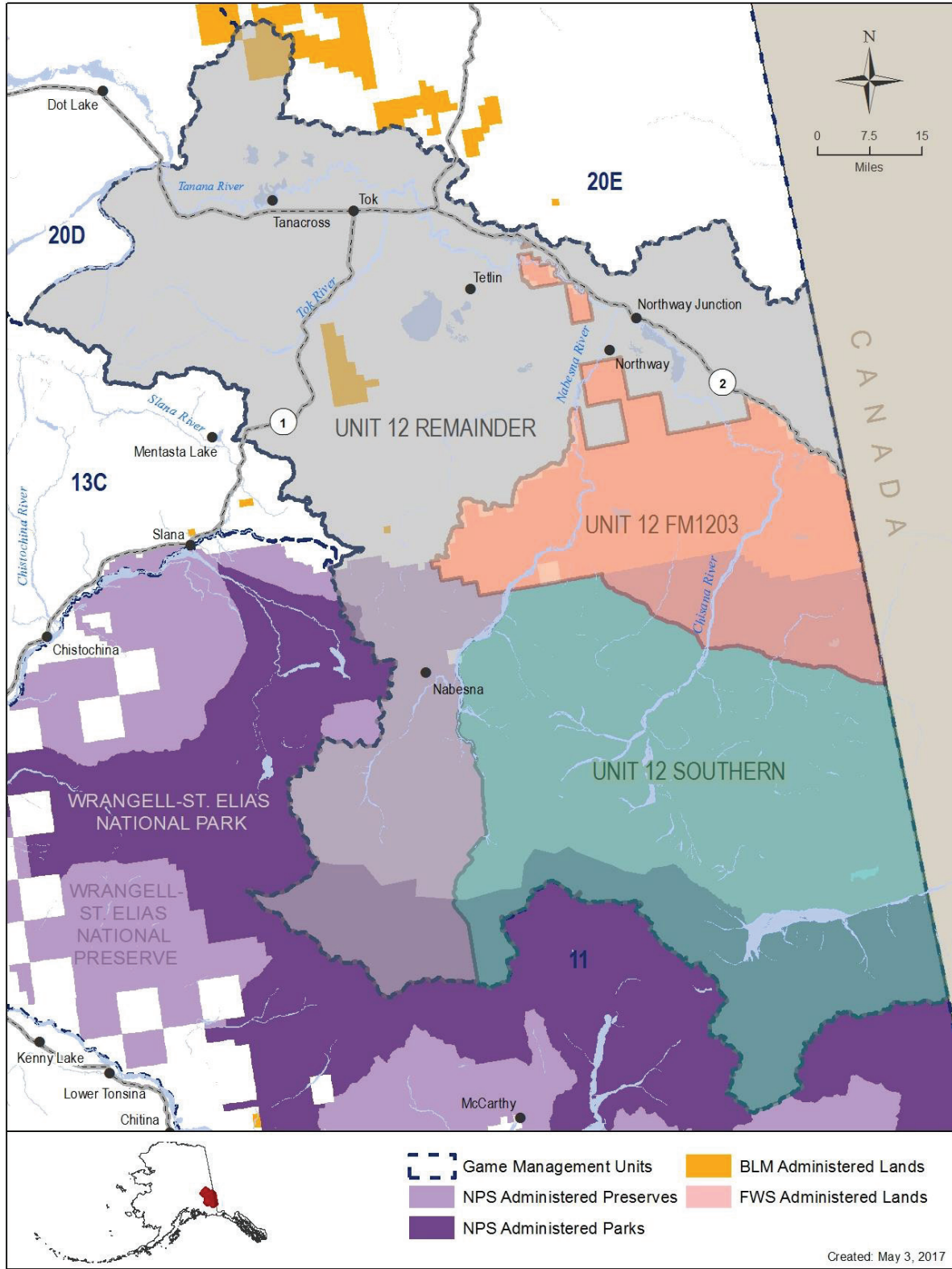


Figure 5. Federal hunt areas located in Unit 12.

OSM PRELIMINARY CONCLUSION

Support Proposal WP18-55.

Justification

This proposal is not likely to have a significant impact on the moose population. Few moose are harvested by Federally qualified subsistence users during this Federal registration hunt. Antlered bulls migrate to areas that provide limited accessibility to users during the harvest season. It is unlikely that harvest will increase dramatically by lengthening the harvest season as proposed.

By creating parallel winter season end dates with the FC1202 caribou season, user confusion may be reduced and Federally qualified subsistence users will be able to harvest caribou and moose at the same time. This would increase opportunities for users and decrease time and resources spent to harvest subsistence food sources.

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WRITTEN PUBLIC COMMENTS



Ahtna Intertribal Resource Commission

dba/Copper River-Ahtna Inter-Tribal
Resource Conservation District
PO Box 613
Glennallen, Alaska 99588
907-822-8154
contact@ahtnatribal.org

July 26, 2017

Chairperson of Federal Subsistence
Board or his Designated Field Officer
Office of Subsistence Management
1011 E. Tudor Road, MS-121
Anchorage, Alaska 99503-6199

Dear Mr. Christensen or Designated Field Officer:

Enclosed are Ahtna Inter-Tribal Resource Commission's (AITRC) comments on 2018-2020 Federal Wildlife proposals. Please consider our viewpoint on wildlife proposals, when decisions are made on federal wildlife regulations.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Shirley Smelcer'.

Shirley Smelcer, Chairperson of CRITR

Eastern Interior Subsistence Regional Advisory Council

WP18-50 Extend season [Unit 11 moose]

We do not support WP18-50, we support WP18-17. See comments under WP18-17.

WP18-51 Statewide – Modify baiting restrictions to align State regulations

We support WP18-51 to modify bait regulations to align with State regulations. Federal regulations are more restrictive than State regulations. Adding skinned carcasses of furbearers and fur animals, small game, with the exception of the meat of birds, to bait bear regulations will align State and Federal regulations, provide more opportunities for federal subsistence hunters who use bait stations to harvest bears.

Traditional use of grease, parts of wild game, and other methods of harvesting bears at bait stations would occur, hunters who use bait stations would have an improved chance of harvesting a bear with more options to choose from to use as bait.

WP18-54 – Increase harvest limit and Delegate Authority to set harvest limit for [Unit 12 caribou] to be announced winter season

We do not support WP18-54 to change Unit 12 Caribou regulations to “up to 3 caribou” may be taken with a federal registration permit. This will increase the take of caribou beyond sustainable limits and will stress the herd in its winter range. We have seen overharvest of caribou in the past with liberal bag limit that has taken decades to recover. This is not a wise proposal and we oppose it..

WP18-55 Extend Winter and fall season [Unit 12 moose]

Unit 12 Moose

That portion within Tetlin National Wildlife Refuge Aug. ~~24~~ 20 - Sept. ~~20~~ 30

and those lands within the Wrangell-St. Elias National

Preserve north and east of a line formed by the

Pickeral Lake Winter Trail from the Canadian border

to Pickerel Lake – 1 antlered bull by Federal registration Nov. 1 - ~~Feb. 28~~ Apr. 30

permit (FM1203)

We are neutral on WP18-55 to extend Unit 12 Moose season to allow longer hunting opportunity.



AK Subsistence, FW7 <subsistence@fws.gov>

Proposal 18-55

1 message

Charlotte <cenorthway@yahoo.com>
To: subsistence@fws.gov

Fri, Aug 4, 2017 at 11:49 PM

This comment is in regards to proposal 18-55 to expand the season two weeks for moose hunting to match unit 20. Please consider more important factors in your decision than matching seasons such as: 1) actual annual moose count trends, 2) ability of the Refuge to patrol, & 3) increased hunting by locals in the future due to Alaska's difficult economic conditions. These factors must be considered before a matching of seasons. Thank you.

Charlotte Brinkman
Northway/Scotty Creek/Tok

Sent from my iPhone



AK Subsistence, FW7 <subsistence@fws.gov>

Moose

1 message

esther frykman <wagon_girl@hotmail.com>

Fri, Aug 4, 2017 at 11:52 PM

To: "subsistence@fws.gov" <subsistence@fws.gov>

This comment is in regards to proposal 18-55 to expand the moose hunting season within the Refuge in Unit 12 to match Unit 20. The expansion of a season should also consider actual annual moose counts, patrolling ability by the Refuge, and increasing hunting to moose numbers by local communities in the future due to economic conditions instead of matching seasons. Please consider these additional factors before expanding the season. Thank you.
Signed, Esther Frykman

Sent from my iPhone

WP18–51 Executive Summary	
General Description	<p>Proposal WP18-51 requests that Federal (statewide) bear baiting restrictions be aligned with State regulations, specifically the use of biodegradable materials. <i>Submitted by: Eastern Interior Alaska Subsistence Regional Advisory Council.</i></p>
Proposed Regulation	<p>§ __.26(b) <i>Prohibited methods and means. Except for special provisions found at paragraphs (n)(1) through (26) of this section, the following methods and means of taking wildlife for subsistence uses are prohibited:</i></p> <p style="text-align: center;">* * * *</p> <p>(14) <i>Using bait for taking ungulates, bear, wolf, or wolverine; except you may use bait to take wolves and wolverine with a trapping license, and you may use bait to take black bears and brown bears with a hunting license as authorized in Unit-specific regulations at paragraphs (n)(1) through (26) of this section. Baiting of black bears and brown bears is subject to the following restrictions:</i></p> <p style="text-align: center;">* * * *</p> <p>(iii) <i>You may use only biodegradable materials for bait; if fish or game is used as bait, you may use only the head, bones, viscera, or skin of legally harvested fish and big game, the skinned carcasses of furbearers and fur animals, small game (including the meat, except the breast meat of birds), and unclassified game wildlife for bait may be used, except that in Units 7 and 15, fish or fish parts may not be used as bait. Scent lures may be used at registered bait stations;</i></p>
OSM Preliminary Conclusion	<p>Support Proposal WP18-51 with modification to establish a definition for scent lure and clarify the regulatory language.</p> <p>The modified regulation should read:</p> <p>§ __.25(a) <i>Definitions. The following definitions apply to all regulations contained in this part: scent lure (in reference to bear baiting) means any biodegradable material to which biodegradable scent is applied or infused.</i></p> <p>§ __.26(b)(14)(iii) <i>You may use only biodegradable materials for bait; if fish or wildlife is used as bait, you may use only the head, bones, viscera, or skin of legally harvested fish and wildlife for bait, the skinned carcasses of furbearers, and unclassified wildlife may be used, except that in Units 7 and 15, fish or fish parts may not be used as bait. Scent lures may be used at registered bait stations;</i></p>

WP18–51 Executive Summary	
Southeast Alaska Subsistence Regional Advisory Council Recommendation	
Southcentral Alaska Subsistence Regional Advisory Council Recommendation	
Kodiak/Aleutians Subsistence Regional Advisory Council Recommendation	
Bristol Bay Subsistence Regional Advisory Council Recommendation	
Yukon-Kuskokwim Delta Subsistence Regional Advisory Council Recommendation	
Western Interior Alaska Subsistence Regional Advisory Council Recommendation	
Seward Peninsula Subsistence Regional Advisory Council Recommendation	
Northwest Arctic Subsistence Regional Advisory Council Recommendation	
Eastern Interior Alaska Subsistence Regional	

WP18-51 Executive Summary	
Advisory Council Recommendation	
North Slope Subsistence Regional Advisory Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	3 Oppose

**DRAFT STAFF ANALYSIS
WP18-51**

ISSUES

Proposal WP18-51, submitted by the Eastern Interior Alaska Subsistence Regional Advisory Council, requests that Federal (statewide) bear baiting restrictions be aligned with State regulations, specifically the use of biodegradable materials.

DISCUSSION

The proponent states that the current Federal bear baiting restrictions are much more restrictive than the State's and do not provide for a Federal subsistence priority. The proponent proposes to align Federal and State bear baiting restrictions in order to reduce regulatory complexity, reduce user confusion, and allow baiting with items (e.g. dogfood, anise, popcorn, baked goods, grease, syrup, etc.) that have traditionally been used as bear bait by Federally qualified subsistence users and are currently allowed under State regulations.

Existing Federal Regulations

§__.26(b) Prohibited methods and means. Except for special provisions found at paragraphs (n)(1) through (26) of this section, the following methods and means of taking wildlife for subsistence uses are prohibited:

* * * *

(14) Using bait for taking ungulates, bear, wolf, or wolverine; except you may use bait to take wolves and wolverine with a trapping license, and you may use bait to take black bears and brown bears with a hunting license as authorized in Unit-specific regulations at paragraphs (n)(1) through (26) of this section. Baiting of black bears and brown bears is subject to the following restrictions:

* * * *

(iii) You may use only biodegradable materials for bait; you may use only the head, bones, viscera, or skin of legally harvested fish and wildlife for bait;

Proposed Federal Regulations

§__.26(b) Prohibited methods and means. Except for special provisions found at paragraphs (n)(1) through (26) of this section, the following methods and means of taking wildlife for subsistence uses are prohibited:

* * * *

(14) Using bait for taking ungulates, bear, wolf, or wolverine; except you may use bait to take wolves and wolverine with a trapping license, and you may use bait to take black bears and brown bears with a hunting license as authorized in Unit-specific regulations at paragraphs (n)(1) through (26) of this section. Baiting of black bears and brown bears is subject to the following restrictions:

* * * *

(iii) You may use only biodegradable materials for bait; **if fish or game is used as bait, you may use only the head, bones, viscera, or skin of legally harvested fish and big game, the skinned carcasses of fur-bearers and fur animals, small game (including the meat, except the breast meat of birds), and unclassified game** ~~wildlife for bait~~ **may be used, except that in Units 7 and 15, fish or fish parts may not be used as bait. Scent lures may be used at registered bait stations;**

Note: The proposal as submitted omitted the word “fish”. However, this was an oversight as the proponent’s intention was to align State and Federal regulations.

State Regulations

5 AAC 92.044. Permit for hunting bear with the use of bait or scent lures.

(a) A person may not establish a bear bait station to hunt bear with the use of bait or scent lures without first obtaining a permit from the department under this section.

(b) In addition to any condition that the department may require under 5 AAC 92.052, a permit issued under this section is subject to the following provisions:

* * * *

(8) only biodegradable materials may be used as bait; if fish or big game is used as bait, only the head, bones, viscera, or skin of legally harvested fish and game may be used, except that in Units 7 and 15, fish or fish parts may not be used as bait;

5 AAC 92.085. Unlawful methods of taking big game; exceptions: The following methods and means of taking big game are prohibited in addition to the prohibitions in 5 AAC 92.080:

* * * *

(4) with the use of bait for ungulates and with the use of bait or scent lures for any bear, except that bears may be taken with the use of bait or scent lures as authorized by a permit issued under 5 AAC 92.044;

5 AAC 92.210. Game as animal food or bait. A person may not use game as food for a dog or furbearer, or as bait, except for the following:

(1) the hide, skin, viscera, head, or bones of game legally taken or killed by a motorized vehicle, after salvage as required under 5 AAC 92.220;

(2) parts of legally taken animals that are not required to be salvaged as edible meat, if the parts are moved from the kill site;

(3) the skinned carcass of a bear, furbearer, or fur animal, after salvage as required under 5 AAC 92.220;

(4) small game; however, the breast meat of small game birds may not be used as animal food or bait;

(5) unclassified game;

(6) deleterious exotic wildlife;

(7) game that died of natural causes, if the game is not moved from the location where it was found; for purposes of this paragraph, "natural causes" does not include death caused by a human;

(8) game furnished by the state, as authorized by a permit under 5 AAC 92.040.

Extent of Federal Public Lands

Federal public lands comprise approximately 54% of Alaska and consist of 20% U.S. Fish and Wildlife Service (USFWS) managed lands, 15% Bureau of Land Management (BLM) managed lands, 14% National Park Service (NPS) managed lands, and 6% U.S. Forest Service (USFS) managed lands.

Customary and Traditional Use Determinations

Customary and traditional use determinations for specific areas and species are found in subpart C of 50 CFR part 100, §__.24(a)(1) and 36 CFR 242 §__.24(a)(1).

Regulatory History

In 1990, Federal regulations for bear baiting were adopted from State regulations. These regulations, specifically §__.26(b)(14)(iii), have not been modified since that time.

In 1992, Proposal P92-149 requested that bear baiting be prohibited due to habituation of bears to bait stations and human garbage, which results in bears becoming more dangerous. The Federal Subsistence Board (Board) rejected the proposal as there was no biological reason to restrict subsistence opportunity.

Currently, black bears may be taken at bait stations under Federal regulations in all units, except Units 1C, 4, 8, 9, 10, 14, 18, 22, 23, and 26. In 2014, the Board adopted Proposal WP14-50, allowing brown bears to be taken at bait stations in Unit 25D. In 2016, the Board adopted Proposal WP16-18, allowing brown bears to be taken at bait stations in Units 11 and 12.

In 2001, the Alaska Board of Game (BOG) adopted Proposal 156 to prohibit the use of fish parts as bear bait in Units 7 and 15 (ADF&G 2001). The intent of the proposal was to minimize human-bear interactions and to reduce defense of life or property (DLP) brown bear kills on the Kenai Peninsula (ADF&G 2001).

In 2015, the NPS published Final Rule 36 CFR 13.42(g)(10) prohibiting the take of black and brown bears over bait on National Preserves under State regulations. In 2016, the USFWS published a similar rule prohibiting the take of brown bears over bait on National Wildlife Refuges under State regulations. The USFWS rule was nullified when the President of the United States signed House Joint Resolution 69 into law on April 3, 2017. The Resolution invoked the Congressional Review Act, a law that permits regulations passed during the last six months of a previous administration to be overturned.

In 2016, the BOG adopted Proposal 61 as amended to insert the word “big” before game in 5 AAC 92.044(8) (see State regulations above). This was done to clarify that the skinned carcasses of legally harvested furbearers could be used as bear bait (ADF&G 2016).

In January 2017, the NPS published Final Rule 36 CFR 13.480(b) limiting types of bait that may be used for taking bears under Federal Subsistence Regulations to native fish or wildlife remains from natural mortality

or parts not required to be salvaged from a legal harvest. Based on public comment, the final rule includes a provision that allows to allow the superintendent of Wrangell-St. Elias National Park and Preserve (WRST) to issue a permit to allow use of human-produced foods upon a determination that such use is compatible with park purposes and values and the applicant does not have reasonable access to natural materials that could be used as bait (36 CFR 13.1902(d)). The exception for WRST was based on documented history of bear baiting.

Cultural Knowledge and Traditional Practices

Both black bears and brown bears are traditionally and contemporarily harvested, used, and shared across much of Alaska, though regional variations in harvest patterns, seasonal rounds and methods exist (Blackman 1990; Burch 1984; Clark 1981; Crow & Obley 1981; de Laguna & McClellan; de Laguna 1990; Hosley 1981; Lantis 1984; Slobodin 1981; Snow 1981; Townsend 1981). Historical methods of harvest among Alaska Native cultural groups included spearing (Brown 2012; Crow & Obley 1981; de Laguna & McClellan 1981; de Laguna 1990; Townsend 1981), harvest at winter den sites (Brown 2012; Hosley 1981; de Laguna 1990), snaring (Burch 1984; de Laguna & McClellan 1981; de Laguna 1990), bow and arrows (de Laguna 1990; Townsend 1981), deadfalls (de Laguna & McClellan 1981; de Laguna 1990), and with dogs (de Laguna & McClellan 1981; de Laguna 1990). Today, bears are frequently hunted with rifles while in pursuit of other large land mammals (ADF&G 1992; ADF&G 2008; Brown 2012).

The occurrence of bear baiting as a component of traditional harvest methods is limited within published literature; it is unknown if the practice occurred rarely or if it was merely seldom documented. Among the Upper Kuskokwim (Kolchan) Athabascans, some hunters were known to use ground squirrel nests to attract bears that had recently emerged from their dens in the spring (Brown 2012). A squirrel would be released near the bear and the bear would follow the tracks back to the nest where it would be harvested with lances (Brown 2012).

In Southeast Alaska, Tlingit hunters sometimes used dead falls to harvest bears and these were either set across bear trails or baited to attract bears (ADF&G 1992). The bait ingredients are unknown. Among several Athabaskan groups in Alaska's interior, documented methods of harvesting black bears included hunting with bow and arrow or lacing bait with coiled baleen that would expand and rupture the bear's digestive tract (ADF&G 2008). Use of bear baiting stations to attract and harvest black bears has also been documented specifically for hunters from the community of Tok (ADF&G 2008). In a 2001-2002 study of 18 southwest Alaska communities there was no documentation of the use of baiting stations for harvesting bears (Holen et al. 2005).

Contemporary use of bait stations for bear hunting in Alaska has been contentious (Harns 2004). While some people believe that baiting black bears is acceptable, others have suggested that the method violates fair chase ethics (Harns 2004). The method allows hunters to be selective and humane, it helps hunters with limited mobility to participate by reducing trekking distance, and it facilitates clean kills by bow hunters that harvest animals at a closer range (Harns 2004). Additionally, it allows hunters to be more selective, to more easily identify sex, and to verify the presence or absence of cubs with sows (Harns 2004).

Opponents of bear baiting often reference safety concerns and food conditioning (Cunningham 2017, Hilderbrand et al. 2013). The National Park Service has also cited concerns regarding preventing the

defense of life and property killing of bears and maintaining natural processes and behaviors (Hilderbrand et al. 2013). To alleviate some of these concerns, BOG and the Board have implemented several restrictions that stipulate where bear baiting stations are allowed, that require bear baiting stations to be registered with ADF&G, and that require the completion of an ADF&G bear baiting clinic for all hunters age 16 and older.

Other Alternatives Considered

Adoption of this proposal would permit the use of scent lures at bear baiting stations under Federal regulations. According to 50 CFR §__.25(a) *Definitions* and 5 AAC 92.990 *Definitions*, bait is defined as “any material excluding scent lures, that is placed to attract an animal by its sense of smell or taste; however, those parts of legally taken animals that are not required to be salvaged and which are left at the kill site are not considered bait.” While scent lures are excluded from the bait definition, they are not explicitly defined under Federal or State regulations. If scent lures are not defined, any material and chemical could be used at registered bait stations on Federal public lands, including toxic and non-biodegradable ones.

Effects of the Proposal

If this proposal is adopted, Federally qualified subsistence users would be able to use any biodegradable material as well as scent lures at registered bear baiting stations on lands administered by the USFWS, BLM, and USFS. As bear bait is limited to native fish and wildlife remains on NPS administered lands, this proposal would not affect NPS lands (with some exceptions in WRST). This will provide Federally qualified subsistence users with greater opportunity on most Federal public lands and will align State and Federal baiting restrictions, reducing regulatory complexity and user confusion. Currently, Federal regulations are more restrictive than State regulations. As the requested changes are already permitted under State regulations, no appreciable differences in bear harvests, populations, subsistence uses, or habituation of bears to human foods are expected from this proposal.

OSM PRELIMINARY CONCLUSION

Support Proposal WP18-51 **with modification** to establish a definition for scent lure and clarify the regulatory language.

The modified regulation should read:

*§__.25(a) Definitions. The following definitions apply to all regulations contained in this part: **scent lure means any biodegradable material to which biodegradable scent is applied or infused.***

*§__.26(b)(14)(iii) You may use only biodegradable materials for bait; **if fish or wildlife is used as bait, you may use only the head, bones, viscera, or skin of legally harvested fish and wildlife for bait, the skinned carcasses of furbearers, and unclassified wildlife may be used, except that in Units 7 and 15, fish or fish parts may not be used as bait. Scent lures may be used at registered bait stations;***

Justification

Adoption of this proposal will reduce regulatory complexity and provide greater opportunity for Federally qualified subsistence users by expanding and clarifying the use of biodegradable materials and scent lures as bear bait. There are no conservation concerns as these proposed clarifications are already permitted under State regulations.

Defining scent lures in regulation is necessary to ensure that only appropriate and non-harmful materials and scents are used on Federal public lands. The terms “game”, “fur animals”, and “small game” are not defined under Federal regulations, but are included in the Federal definition of “wildlife.” While the term “big game” is defined under Federal regulations, it is also included within the Federal definition of “wildlife.”

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WRITTEN PUBLIC COMMENTS



Mckinney, Kayla <kayla_mckinney@fws.gov>

Fwd: comments on proposal WP 18-51, 18-03,18-04, 18-05, 18-24

AK Subsistence, FW7 <subsistence@fws.gov> Fri, Aug 4, 2017 at 1:55 PM
To: Theo Matuskowitz <theo_matuskowitz@fws.gov>, Paul Mckee <paul_mckee@fws.gov>, Jennifer Hardin <jennifer_hardin@fws.gov>, Kayla Mckinney <kayla_mckinney@fws.gov>

----- Forwarded message -----

From: **Sharon Alden** <fwxsca@yahoo.com>
Date: Fri, Aug 4, 2017 at 1:52 PM
Subject: comments on proposal WP 18-51, 18-03,18-04, 18-05, 18-24
To: "subsistence@fws.gov" <subsistence@fws.gov>

To: Office of Subsistence Management
Attention: Theo Matuskowitz
From: Sean McGuire
Re: comments on proposal WP 18-51, 18-03, 18-4, 18-5, 18-24

I am opposing proposal WP 18-51 There should be no human food or any human substance to bait any animals. This is so basic. The last thing we want is to habituate bears or any wild animal to human food. This is an ethical as well as a safety issue. The last thing we want to see is the federal baiting regulations aligned with the state of Alaska's. The State baiting regulations are painfully out dated and present a glaring safety issue.

I am opposing proposal WP 18-03 the extended hunting and trapping season in game unit one. Over kill.

I am really opposed to proposal WP 18-04. Why in the world would you want to put more pressure on a wolf population that's already in trouble this appears to be contrary to the basic concept of wildlife management?

I am also opposing proposal WP 18-05 relates to my opposition to WP18-04.

I am also opposing in the strongest possible terms proposal WP 18-24
To heard wildlife with snow machines is one of the most unethical things I can imagine and the backlash would be harsh.

Thank you for your attention
Sean McGuire
159 Kniffen Rd

Fairbanks, Ak.
ph 907-888-0124
email fwxsc@yahoo.com



Mckinney, Kayla <kayla_mckinney@fws.gov>

Fwd: Comment on Proposed WP 18-51

AK Subsistence, FW7 <subsistence@fws.gov> Thu, Aug 3, 2017 at 7:48 AM
To: Theo Matuskowitz <theo_matuskowitz@fws.gov>
Cc: Paul Mckee <paul_mckee@fws.gov>, Kayla Mckinney <kayla_mckinney@fws.gov>

----- Forwarded message -----
From: **Jim & Suzanne Kowalsky** <jimkowalsky@yahoo.com>
Date: Wed, Aug 2, 2017 at 5:07 PM
Subject: Fwd: Comment on Proposed WP 18-51
To: subsistence@fws.gov

Attention as noted below.
Begin forwarded message:

From: Jim & Suzanne Kowalsky <jimkowalsky@yahoo.com>
Subject: Comment on Proposed WP 18-51
Date: August 1, 2017 at 12:17:30 PM AKDT

August 1, 2017

To: Office of Subsistence Management
p: Theo Matuskowitz
FR: Alaskans FOR Wildlife, Jim Kowalsky, Chair
Re: Comments on Proposal WP 18-51

Alaskans FOR Wildlife is a statewide member organization that advocates for naturally occurring Alaskan wildlife through education and advocacy headquartered in Fairbanks, Alaska PO Box 81957 99708 phone 907-488-2434

We wish to most strongly oppose proposal WP 18-51 which proposes to allow federally qualified subsistence hunters to add the use of human-produced foods and scent to the presently permitted use of biodegradable materials used to bait bears on all public federal lands, e.g.: federal wildlife refuges, national forests, BLM and National Park Service lands now open to rural subsistence.

We understand this proposal emerges from a request from the Eastern Alaska Regional Subsistence Advisory Council, purportedly to align federal with state bear baiting regulations which allow use of such as dog food, popcorn, grease, syrup, etc., to be used by federally qualified subsistence users currently, but only on state lands.

Our objection to WP 15-18 arises from the reality that such liberalization increases the already adverse effect of human food used to attract bears especially as a matter of public safety. Use of human foods will continue to alter bear behavior, increasing the numbers of human food-conditioned bears, attracting them to specific locations where conflicts with humans is certain to occur with increasing frequency. Such encounters would likely increase over time, resulting in serious human injuries and wrenching tragic deaths of the sort that Alaska currently experiences, and also more

killing offending bears.

Further negative impacts already occurring with frequency are bears attracted to humans and their food wastes in specific locations being killed in defense of life and property. Recent examples of bears that likely have become habituated to human foods being killed in defense of life and property have occurred at Prudhoe Bay and in Southeast Alaska with many other examples over time.

We view enactment of WP 15-18 would be highly irresponsible by perpetuating and increasing the already unfortunate practice of use of human produced foods at bait sites on state lands. This proposal amounts to making a serious increased threat to public safety on federal lands and to that already perpetuated on state lands.

Important also, WP15-18 proposes to gradually alter what should also be a natural growth and behavior of wild bears which should be allowed to exist and flourish in its natural wildlands habitat.

The proposal should not be enacted in the best interests of human and bear populations.
Thank you for consideration of our comment.



Mckinney, Kayla <kayla_mckinney@fws.gov>

Fwd: Comments on Proposals to the Federal Subsistence Board Attn. Theo Matuskowitz

AK Subsistence, FW7 <subsistence@fws.gov> Fri, Aug 4, 2017 at 7:51 AM
To: Theo Matuskowitz <theo_matuskowitz@fws.gov>, Paul Mckee <paul_mckee@fws.gov>, Kayla Mckinney <kayla_mckinney@fws.gov>

----- Forwarded message -----

From: **Francis Mauer** <fmauer@mosquionet.com>
Date: Thu, Aug 3, 2017 at 9:02 PM
Subject: Comments on Proposals to the Federal Subsistence Board Attn. Theo Matuskowitz
To: subsistence@fws.gov

Comments Regarding Federal Subsistence Proposals: WP 18-03, 18-04, 18-05, 18-24, and 18-51

Submitted to the Federal Subsistence Board by Fran Mauer, P.O. Box 80464, Fairbanks, AK 99708. August 3, 2017.

WP 18-03 I am opposed to extending the wolf hunting and trapping seasons in Unit 1. Wolves are highly vulnerable to harvest as it is, further extending of seasons is not justified, and would likely lead to excessive harvest of wolves as occurred on Prince of Wales Island last year which was supposed to be regulated by a quota, but even with quota rules in place the actual harvest exceeded the quota by 2.6 times. This proposal should be denied.

WP 18-04 This proposal would allow 30% of the wolf population on Prince of Wales Island to be harvested when existing harvest is 20%. As noted above, wolves are highly vulnerable to harvest, and last year's harvest exceeded the quota by 2.6 times! The extensive network of roads and trails on Prince of Wales render wolves exceptionally vulnerable. Expanding the harvest to 30% of the population following excessive harvest last year can not be justified given the failed management of this quota system last year. This proposal would lead to excessive harvest of an already depleted population and should be denied to conserve wolves on the Island.

WP 18-24 This proposal will open the door to harassment of wildlife by snow machines and violate a basic premise of hunting: respect for animals and fair chase principles. It would also result in excessive impacts to other animals that are not harvested due to disturbance associated with this "practice." Furthermore, it will exacerbate difficulty in enforcement of harassment rules. Approval of this proposal would give a black eye to subsistence in general, and certainly the Federal Subsistence Board, specifically for condoning such an inappropriate practice on the Federal public lands of

Alaska. Deny this proposal.

WP 18-51 This proposal would lower Federal standards for baiting to the lowest common denominator: State requirements. By allowing the use of human food items such as syrup, old dough nuts and other human refuse will habituate bears to humans and contribute to human – bear conflicts, and expose innocent people to risks from bears that no longer fear humans. Every spring the Alaska Dept of Fish and Game sponsors public service announcements advising folks to keep their garbage and bird feeder refuse secure from bears, clearly stating the danger to humans from habituated bears. There is absolutely no justification to also allow the use of human foods and scent to bait bears. I urge the Board to reject this proposal (18-51).

Thank you for the opportunity to comment.

Fran Mauer

FISHERIES RESOURCE MONITORING PROGRAM

BACKGROUND

Beginning in 1999, the Federal government assumed expanded management responsibility for subsistence fisheries on Federal public lands in Alaska under the authority of Title VIII of the Alaska National Interest Lands Conservation Act (ANILCA). Expanded subsistence fisheries management introduced substantial new informational needs for the Federal system. Section 812 of ANILCA directs the Departments of the Interior (DOI) and Agriculture (USDA), cooperating with the State of Alaska and other Federal agencies, to undertake research on fish and wildlife and subsistence uses on Federal public lands. To increase the quantity and quality of information available for management of subsistence fisheries, the Fisheries Resource Monitoring Program (Monitoring Program) was established within the Office of Subsistence Management (OSM). The Monitoring Program was envisioned as a collaborative interagency, interdisciplinary approach to enhance existing fisheries research, and effectively communicate information needed for subsistence fisheries management on Federal public lands.

Biennially, OSM announces a funding opportunity for investigation plans addressing subsistence fisheries on Federal public lands. The 2018 Notice of Funding Opportunity focused on priority information needs developed by the Subsistence Regional Advisory Councils with input from strategic plans and subject matter specialists. The Monitoring Program is administered through regions to align with stock, harvest, and community issues common to a geographic area. The six Monitoring Program regions are shown in **Figure 1**.

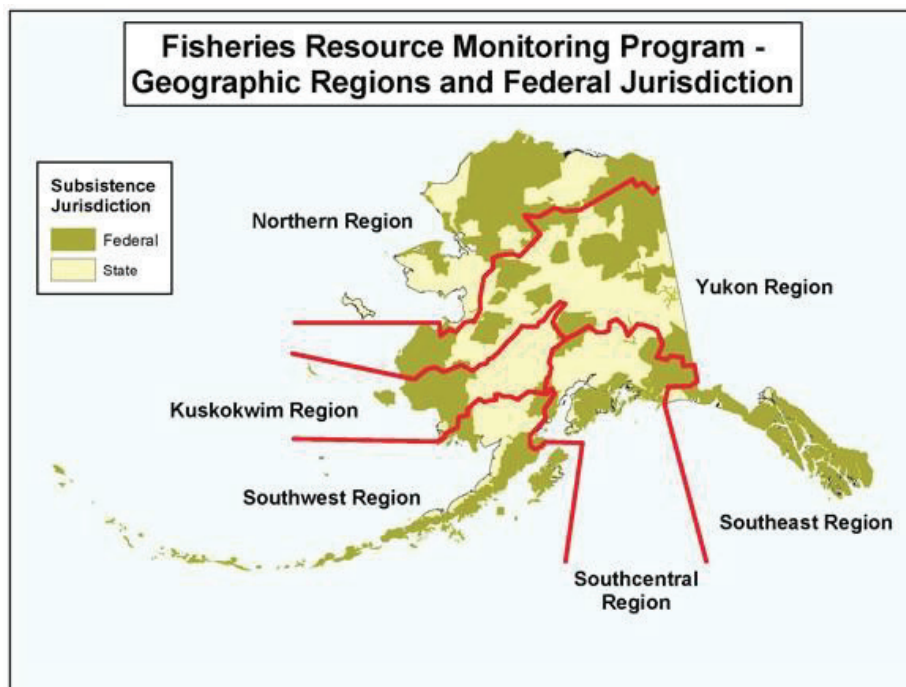


Figure 1. Geographic Regions for the Fisheries Resource Monitoring Program.

Strategic plans sponsored by the Monitoring Program have been developed by workgroups of fisheries managers, researchers, Subsistence Regional Advisory Councils, and by other stakeholders for three of the six regions: Southeast, Southcentral (excluding Cook Inlet Area), and Southwest Alaska. These plans identify prioritized information needs for each major subsistence fishery and are available for viewing on the Federal Subsistence Management Program website (<https://www.doi.gov/subsistence/frmp/funding>). Individual copies of plans are available by placing a request to OSM. Independent strategic plans were completed for the Yukon and Kuskokwim regions for salmon in 2005. For the Northern Region and the Cook Inlet Area, assessments of priority information needs were developed from regional working groups and experts on the Subsistence Regional Advisory Councils, the Technical Review Committee (a committee comprised of representatives from each of the five Federal agencies involved with subsistence management, and relevant experts from the Alaska Department of Fish and Game), and Federal and State managers, with technical assistance from OSM staff. Finally, a strategic plan specifically for research on whitefish species in the Yukon and Kuskokwim River drainages was completed in spring 2011 as a result of efforts supported through Monitoring Program project 08-206 (Yukon and Kuskokwim Coregonid Strategic Plan).

Investigation plans are reviewed and evaluated by OSM and Forest Service staff, and then by the Technical Review Committee. The Technical Review Committee's function is to provide evaluation, technical oversight, and strategic direction to the Monitoring Program. Each investigation plan is scored on these five criteria: strategic priority; technical and scientific merit; investigator ability and resources; partnership and capacity building; and cost benefit.

Project abstracts and associated Technical Review Committee proposal scores are assembled into a draft 2018 Fisheries Resources Monitoring Plan. The draft plan is distributed for public review and comment through Subsistence Regional Advisory Council meetings, beginning in August 2017. The Federal Subsistence Board will review the draft plan and will accept written and oral comments at its January 2018 meeting. The Federal Subsistence Board takes into consideration recommendations and comments from the process, and forwards their comments to the Assistant Regional Director of OSM. Final funding approval lies with the Assistant Regional Director of OSM. Investigators will subsequently be notified in writing of the status of their proposals.

HISTORICAL OVERVIEW

The Monitoring Program was first implemented in 2000, with an initial allocation of \$5 million. Since 2001, a total of \$117.2 million has been allocated for the Monitoring Program to fund a total of 452 projects (**Figure 2; Figure 3**).

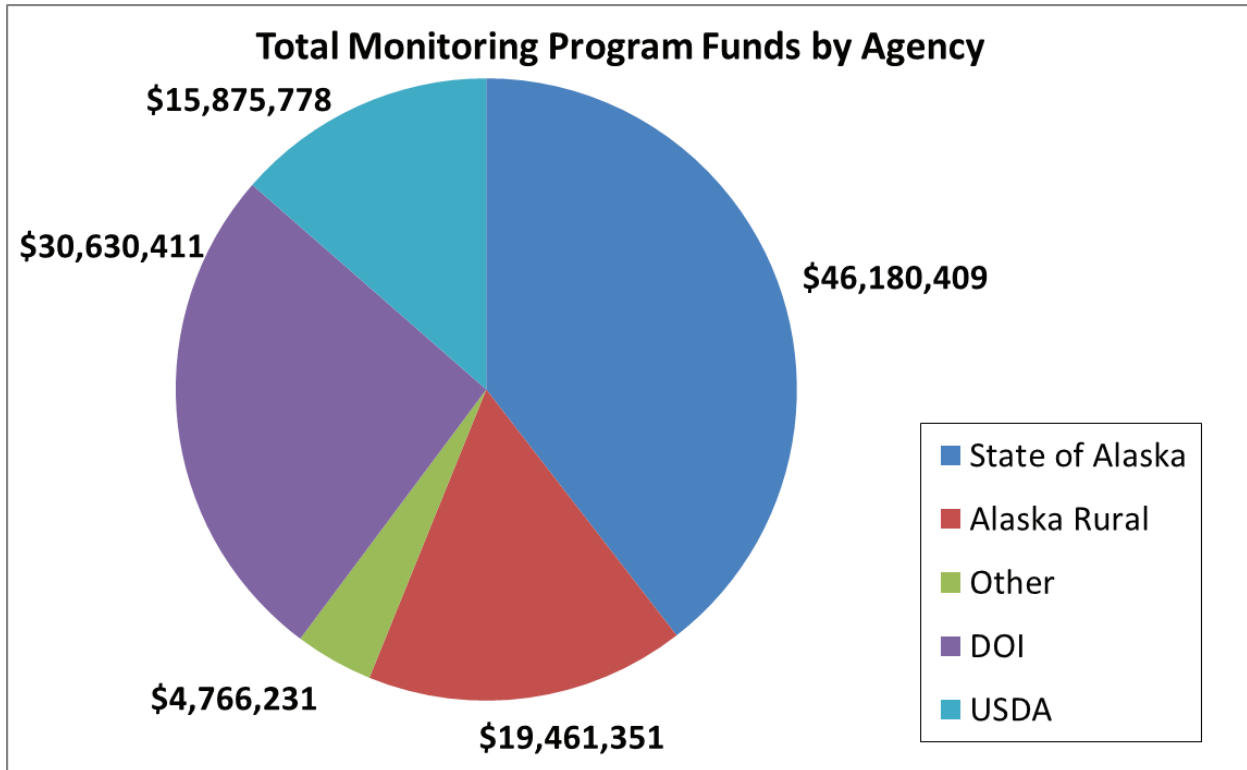


Figure 2. Total Project funds through the Monitoring Program from 2000 through 2016 listed by the organization of the Principal Investigator for projects funded. The funds listed are the total approved funds from 2000 to 2016. DOI = Department of Interior and USDA = U.S. Department of Agriculture.

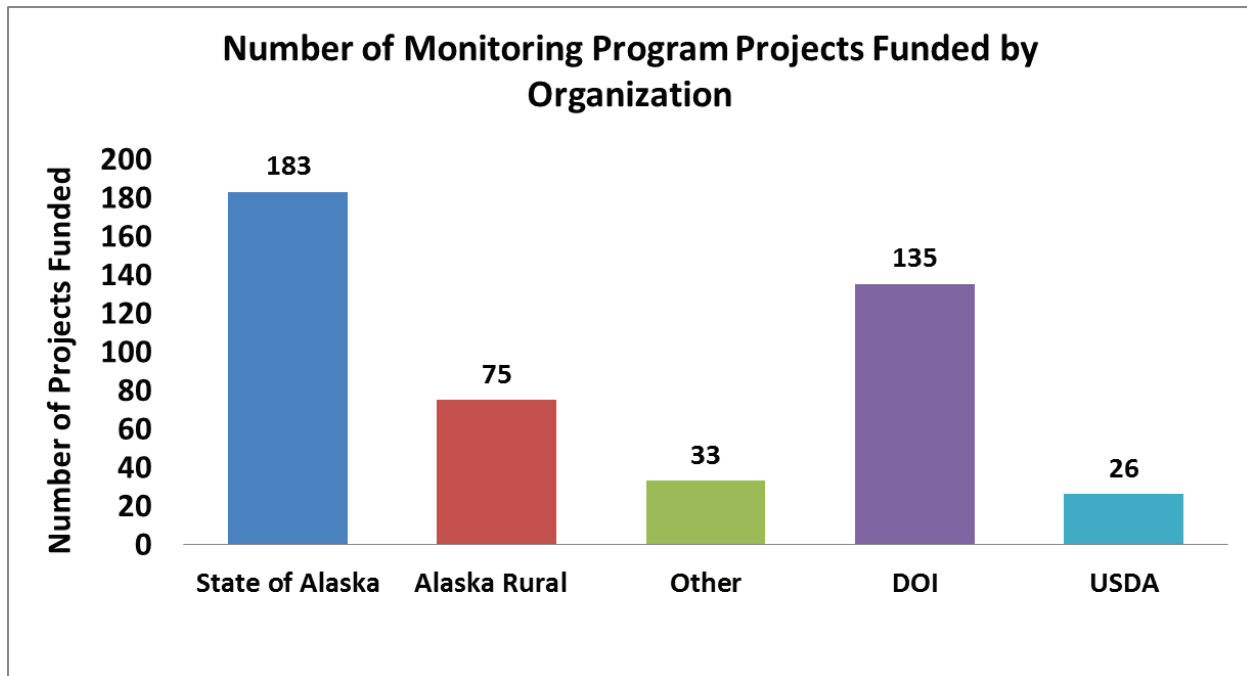


Figure 3. The total number of projects funded through the Monitoring Program from 2000 through 2016 listed by the organization of Principal Investigator. DOI = Department of Interior and USDA = U.S. Department of Agriculture.

During each biennial funding cycle, the Monitoring Program budget funds ongoing multi-year projects (2, 3 or 4 years) as well as new projects. Budget guidelines are established by geographic region (Table 1) and data type. The regional guidelines were developed using six criteria that included level of risk to species, level of threat to conservation units, amount of subsistence needs not being met, amount of information available to support subsistence management, importance of a species to subsistence harvest and level of user concerns with subsistence harvest. Budget guidelines provide an initial target for planning; however they are not final allocations and will be adjusted annually as needed (Figure 4; Figure 5).

Table 1. Regional allocation guideline for Fisheries Resource Monitoring Funds.

Region	Department of Interior Funds	U.S. Department of Agriculture Funds
Northern	17%	0%
Yukon	29%	0%
Kuskokwim	29%	0%
Southwest	15%	0%
Southcentral	5%	33%
Southeast	0%	67%
Multi-Regional	5%	0%

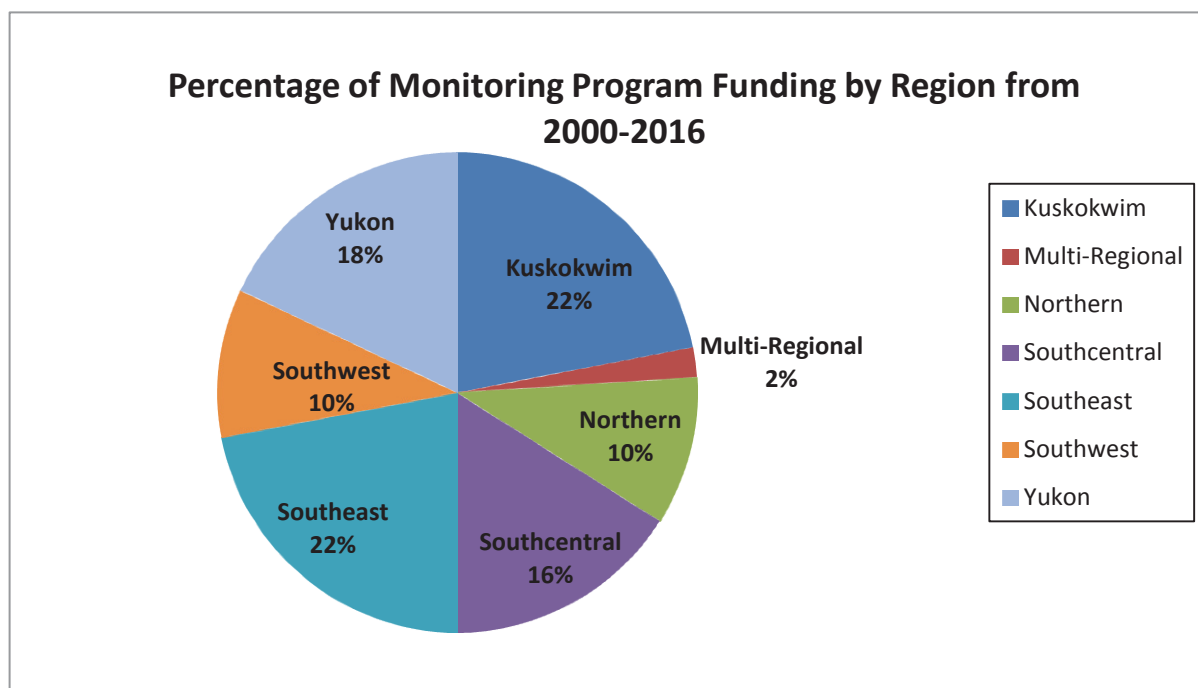


Figure 4. Total Project Funding by Geographic Region from 2000 through 2016.

Two primary types of research projects are solicited for the Monitoring Program including Harvest Monitoring/Traditional Ecological Knowledge (HMTEK) and Stock, Status and Trends (SST), although projects that combine these approaches are also encouraged. Project funding by type is shown in Figure 5.

Definitions of the two project types are listed below:

Harvest Monitoring and Traditional Ecological Knowledge (HMTEK) - These projects address assessment of subsistence fisheries including quantification of harvest and effort, and description and assessment of fishing and use patterns.

Stock Status and Trends Studies (SST) - These projects address abundance, composition, timing, behavior, or status of fish populations that sustain subsistence fisheries with linkage to Federal public lands.

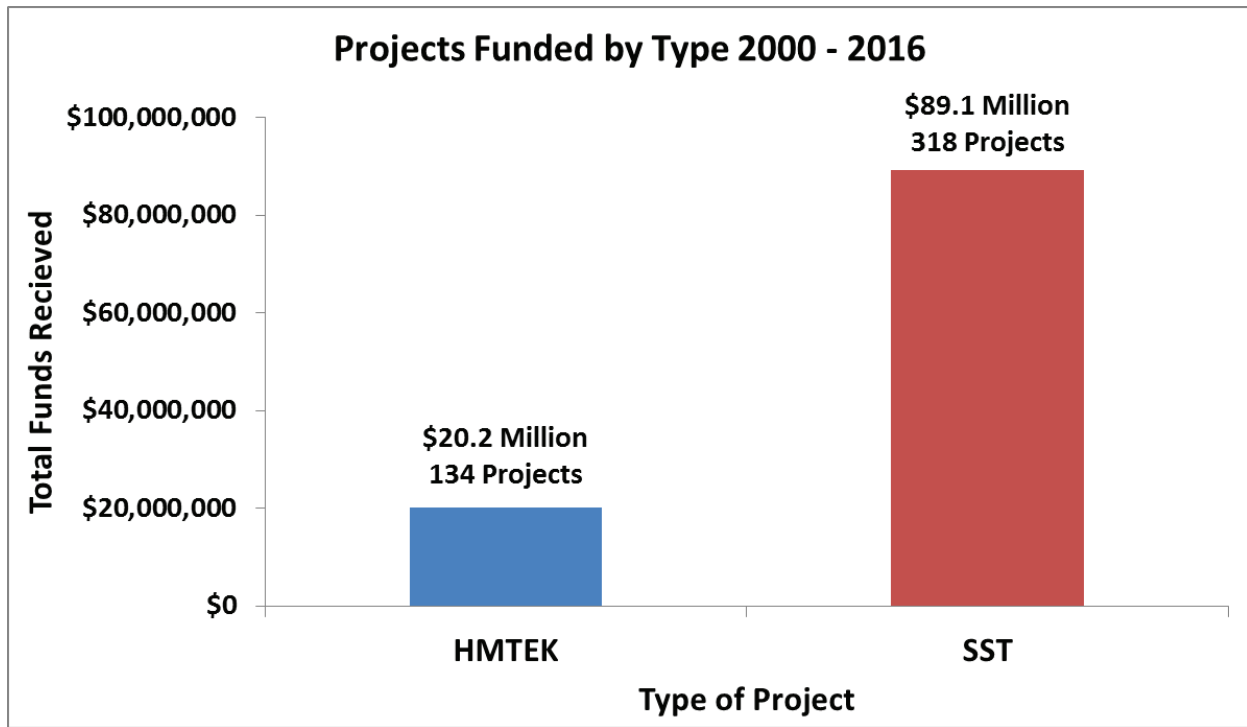


Figure 5. Total Project funding by type from 2000 through 2016. HMTEK = Harvest Monitoring/ Traditional Ecological Knowledge and SST = Stock, Status and Trends.

PROJECT EVALUATION PROCESS

In the current climate of increasing conservation concerns and subsistence needs, it is imperative that the Monitoring Program prioritizes high quality projects that address critical subsistence questions. Projects are selected for funding through an evaluation and review process that is designed to advance projects that are strategically important for the Federal Subsistence Program, technically sound, administratively competent, promote partnerships and capacity building, and are cost effective. Projects are evaluated by a panel called the TRC. This committee is a standing interagency committee of senior technical experts that is foundational to the credibility and scientific integrity of the evaluation process for projects funded by the Monitoring Program. The TRC reviews, evaluates, and make recommendations about proposed projects, consistent with the mission of the Monitoring Program. Fisheries and Anthropology staff from

the OSM provide support for the TRC. Recommendations from the TRC provide the basis for further comments from Subsistence Regional Advisory Councils, the public, the Interagency Staff Committee (ISC), and the Federal Subsistence Board, with final approval of the Monitoring Plan by the Assistant Regional Director of OSM.

To be considered for funding under the Monitoring Program, a proposed project must have a nexus to Federal subsistence fishery management. Proposed projects must have a direct association to a Federal subsistence fishery, and the subsistence fishery or fish stocks in question must occur in or pass through waters within or adjacent to Federal public lands. Complete project packages need to be submitted on time and must address five specific criteria (see below) to be considered a high quality project. Five criteria are used to evaluate project proposals:

1. ***Strategic Priorities*** – Studies should be responsive to information needs identified in the *2018 Priority Information Needs* <https://www.doi.gov/subsistence/frmp/funding>. All projects must have a direct linkage to Federal public lands and/or waters to be eligible for funding under the Monitoring Program. To assist in evaluation of submittals for projects previously funded under the Monitoring Program, investigators must summarize project findings in their investigation plans. This summary should clearly and concisely document project performance, key findings, and uses of collected information for Federal subsistence management. Projects should address the following topics to demonstrate links to strategic priorities:
 - **Federal jurisdiction,**
 - **Conservation mandate,**
 - **Potential impacts on the subsistence priority,**
 - **Role of the resource, and**
 - **Local concern.**
2. ***Technical-Scientific Merit*** – Technical quality of the study design must meet accepted standards for information collection, compilation, analysis, and reporting. Studies must have clear objectives, appropriate sampling design, correct analytical procedures, and specified progress, annual, and final reports.
3. ***Investigator Ability and Resources*** – Investigators must show they are capable of successfully completing the proposed study by providing information on the ability (training, education, and experience) and resources (technical and administrative) they possess to conduct the work. Applicants that have received funding in the past will be evaluated and ranked on their past performance, including fulfillment of meeting deliverable deadlines. A record of failure to submit reports or delinquent submittal of reports will be taken into account when rating investigator ability and resources.
4. ***Partnership and Capacity Building*** – Collaborative partnerships and capacity building are priorities of the Monitoring Program. ANILCA Title VIII mandates that rural residents be afforded a meaningful role in the management of subsistence fisheries, and the Monitoring

Program offers opportunities for partnerships and participation of local residents in monitoring and research. Investigators must not only inform communities and regional organizations in the area where work is to be conducted about their project plans, but must also consult and communicate with local communities to ensure that local knowledge is utilized and concerns are addressed. Letters of support from local communities or organizations that will collaborate on the proposed project add to the strength of a proposal. Investigators and their organizations must demonstrate their ability to maintain effective local relationships and commitment to capacity building. This includes a plan to facilitate and develop partnerships so that investigators, communities, and regional organizations can pursue and achieve the most meaningful level of involvement.

Investigators are encouraged to develop the highest level of community and regional collaboration that is practical. Investigators must demonstrate that capacity building has already reached the communication or partnership development stage during proposal development, and ideally, include a strategy to develop capacity building to higher levels, recognizing, however, that in some situations higher level involvement may not be desired or feasible by local organizations. Successful capacity building requires developing trust and dialogue among investigators, local communities, and regional organizations. Investigators need to be flexible in modifying their work plan in response to local knowledge, issues, and concerns, and must also understand that capacity building is a reciprocal process in which all participants share and gain valuable knowledge. The reciprocal nature of the capacity building component(s) must be clearly demonstrated in proposals.

5. Cost Benefit

Cost/Price Factors – An applicant’s cost/price proposal will be evaluated for reasonableness. For a price to be reasonable, it must represent a price to the government that a prudent person would pay when consideration is given to prices in the market. Normally, price reasonableness is established through adequate price competition, but may also be determined through cost and price analysis techniques.

Selection for Award – Applicant should be aware that the Government shall perform a “best value analysis” and the selection for award shall be made to the Applicant whose proposal is most advantageous to the Government, taking into consideration the technical factors listed above and the total proposed price across all agreement periods.

POLICY AND FUNDING GUIDELINES

Several policies have been developed to aid in implementing funding. These policies include:

1. Projects of up to four years duration may be considered in any year’s monitoring plan.
2. Studies must not duplicate existing projects.
3. A majority of Monitoring Program funding will be dedicated to non-Federal agencies.

4. Long term projects will be considered on a case by case basis.
5. Capacity building is considered a critical component of all projects, and all investigators are expected to incorporate capacity building and partnerships within their projects.
6. Activities that are not eligible for funding include:
 - a) habitat protection, mitigation, restoration, and enhancement;
 - b) hatchery propagation, restoration, enhancement, and supplementation;
 - c) contaminant assessment, evaluation, and monitoring; and
 - d) projects where the primary or only objective is outreach and education (for example, science camps, technician training, and intern programs), rather than information collection.

The rationale behind these policy and funding guidelines is to ensure that existing responsibilities and efforts by government agencies are not duplicated under the Monitoring Program. Land management or regulatory agencies already have direct responsibility, as well as specific programs, to address these activities. However, the Monitoring Program may fund research to determine how these activities affect Federal subsistence fisheries or fishery resources.

The Monitoring Program may fund assessments of key Federal subsistence fishery stocks in decline or that may decline due to climatological, environmental, habitat displacement, or other drivers; however applicants must show how this knowledge would contribute to Federal subsistence fisheries management. Similarly, the Monitoring Program may legitimately fund projects that assess whether migratory barriers (e.g. falls, beaver dams) significantly affect spawning success or distribution; however, it would be inappropriate to fund projects to build fish passes, remove beaver dams, or otherwise alter or enhance habitat.

2018 FISHERIES RESOURCE MONITORING PLAN

For 2018, a total of 53 investigation plans were received and 53 are considered eligible for funding. Of the projects that are considered for funding, 40 are SST projects and 13 are HMTEK projects.

For 2018, the Department of the Interior, through the U.S. Fish and Wildlife Service, will provide an anticipated \$1.0 to \$1.5 million in funding for new projects and up to \$1.6 million for ongoing projects that were initially funded in 2016. The U.S. Department of Agriculture, through the U.S. Forest Service, has historically provided \$1.8 million annually. The amount of U.S. Department of Agriculture funding available for 2018 projects is uncertain.

FISHERIES RESOURCE MONITORING PROGRAM SOUTHCENTRAL REGION OVERVIEW

Since the inception of the Monitoring Program in 2000, 49 projects have been undertaken in the Southcentral Region for a total of \$14.1 million (**Figure 1**). Of these, the State of Alaska conducted 12 projects, the Department of the Interior conducted 17 projects, Alaska Rural organizations have conducted 15 projects, the U.S. Department of Agriculture has conducted three projects, and other organizations conducted two projects (**Figure 2**). Thirty-eight projects were Stock, Status, and Trends (SST) projects, and 11 projects were Harvest Monitoring and Traditional Ecological Knowledge (HMTEK). A list of all Southcentral Region Monitoring Program projects from 2000 to 2016 is provided in **Appendix A**.

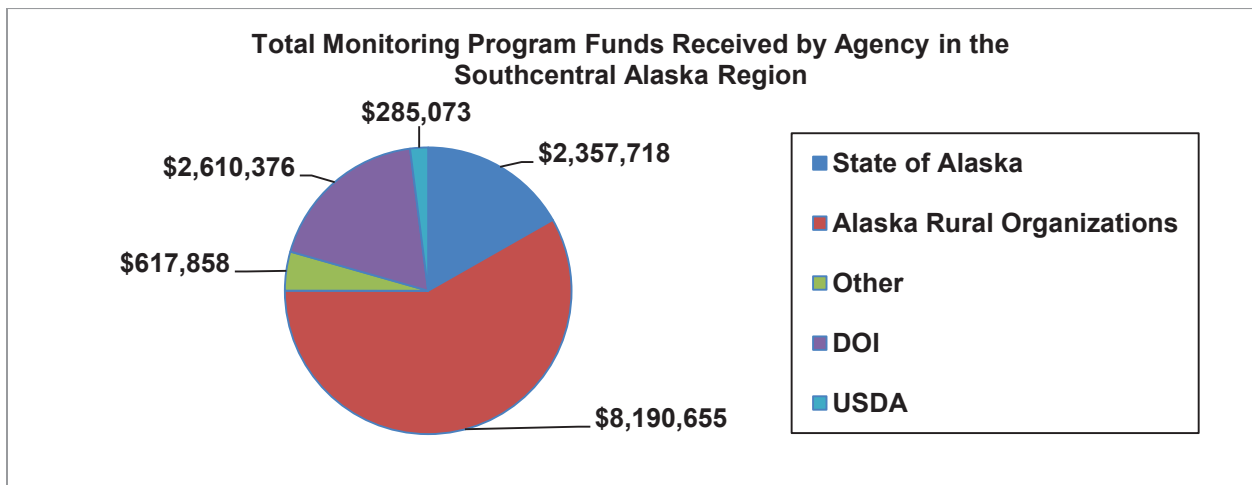


Figure 1. Monitoring Program funds received by agencies for projects in the Southcentral Region. The funds listed are the total approved funds from 2000 to 2016. DOI = Department of the Interior and USDA = U.S. Department of Agriculture.

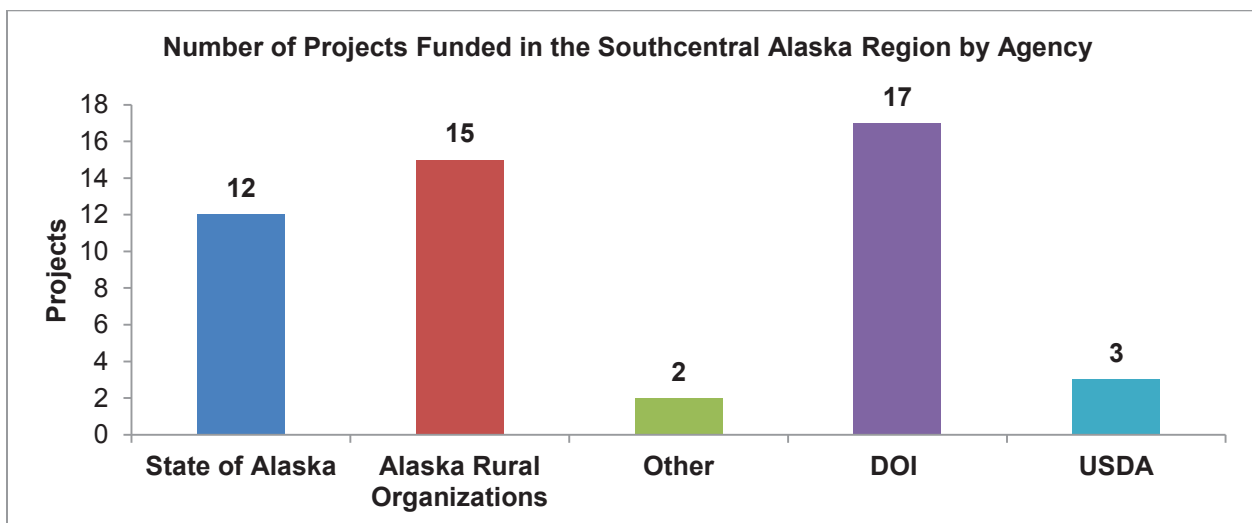


Figure 2. Total number of Monitoring Program projects funded, by agency, in the Southcentral Region from 2000 to 2016. DOI = Department of the Interior and USDA = U.S. Department of Agriculture.

2018 DRAFT SOUTHCENTRAL ALASKA REGION FISHERIES RESOURCE MONITORING PLAN

OVERVIEW

Priority Information Needs

The 2018 Notice of Funding Opportunity for the Southcentral Region identified five priority information needs:

- Reliable estimates of Chinook and Sockeye salmon escapement into the Copper River drainage (for example, projects utilizing weir, sonar, mark-recapture methods)
- Abundance, run timing, spawning site fidelity and timing, and age, sex, and length composition for Chinook Salmon that stage or spawn in waters of the Kenai River and its tributaries below Skilak Lake
- Assessment and subsistence harvest of the Ibeck Creek Coho Salmon population
- In-season harvest monitoring of Chitina salmon fisheries
- In-season harvest monitoring of Kenai/Kasilof Chinook Salmon fisheries

Available Funds

Federal Subsistence Board guidelines direct initial distribution of funds among regions and data types. Regional budget guidelines provide an initial target for planning. For 2018, the Department of the Interior, through the U.S. Fish and Wildlife Service, will provide an anticipated \$1.0 to \$1.5 million in funding for new projects and up to \$1.6 million for ongoing projects that were initially funded in 2016. The U.S. Department of Agriculture, through the U.S. Forest Service, has historically provided up to \$1.8 million annually. The amount of U.S. Department of Agriculture funding available for 2018 projects is uncertain.

Technical Review Committee Proposal Score

The mission of the Monitoring Program is to identify and provide information needed to sustain subsistence fisheries on Federal public lands for rural Alaskans through a multidisciplinary and collaborative program. It is the responsibility of the Technical Review Committee (TRC) to develop the strongest possible Monitoring Plan for each region and across the entire state.

For the 2018 Monitoring Program, eight proposals were submitted for the Southcentral Region. One proposal was withdrawn from consideration by the applicant and is not depicted in the subsequent materials. The TRC evaluated and scored each proposal for Strategic Priority, Technical and Scientific Merit, Investigator Ability and Resources, Partnership and Capacity Building, and Cost/Benefit (**Table 1**, 1= first place, 2 = second place, etc.). Projects that rank higher comprise a strong Monitoring Plan for the region by addressing strategically important information needs based on sound science and promote

cooperative partnerships and capacity building. The projects listed are currently being considered for funding in the 2018 Monitoring Program. Projects which were not eligible due to the nature of the activity are not included. For more information on projects submitted to the 2018 Fisheries Resource Monitoring Program please see the abstracts in **Appendix B**.

Table 1. Technical Review Committee (TRC) scores for projects submitted to the Monitoring Program in the Southcentral Region. Projects are listed by TRC score (number 1 = first place, number 2 = second place, etc.) and include the total and the average annual funds requested.

TRC Score	Project Number	Title	Total Project Request	Average Annual Request
1	18-504	Estimating the Inriver Abundance of Copper River Chinook Salmon	\$860,000	\$215,000
2	18-501	Gulkana River Sockeye Salmon Harvest Contribution	\$293,440	\$73,360
3	18-502	Ibeck Creek Coho Salmon Escapement and Harvest Monitoring	\$333,557	\$166,779
4	18-503	Abundance and Run Timing of Salmon in Long Lake	\$72,046	\$18,012
5	18-505	Abundance and Run Timing of Salmon in Tanada Creek	\$333,498	\$83,375
6 (tied)*	18-550	Upper Copper River Fisheries Information Network	\$180,312	\$90,156
6 (tied)*	18-506	Testing Small Unmanned Aircraft Systems (sUAS) to Index Salmon Spawning Escapement in the Upper Copper River Watershed	\$194,155	\$97,078
Total			\$2,267,008	\$743,760

*Proposals with identical scores during the rating process may be further assessed by comparing the average annual cost. Proposals with a lower average annual cost may be ranked above a similar rated proposal that has a higher annual average cost.

TECHNICAL REVIEW COMMITTEE JUSTIFICATION FOR PROJECT SCORE

TRC Score: 1

Project Number: 18-504

Project Title: Estimating the Inriver Abundance of Copper River Chinook Salmon

TRC Justification: Investigators request funding for continuation of project 14-505, which provides the only available statistically valid estimate of Chinook Salmon migrating up the Copper River each year. This project is unique in being solely operated by an Alaska Native organization, the Native Village of Eyak (NVE). Estimates of Chinook Salmon abundance produced from the mark-recapture experiment are used to determine whether the Copper River Chinook Salmon escapement goal is achieved. Federal and State fishery managers use the information from this project to influence management of Copper River salmon fisheries. This project addresses a 2018 Priority Information Need requesting Reliable Estimates of Chinook and Sockeye Salmon Escapement into the Copper River Drainage. Chinook Salmon continue to be an important resource to the many user groups throughout the drainage. Through the continued escapement monitoring, this project addresses the immediate subsistence concern of declining Chinook Salmon returns to the Copper River.

The project objective is quantifiable and measurable, the basic design of this project is well tested and documented, and results have been accurate and reliable. During this cycle, the investigators plan to integrate the use of an ARIS sonar unit just downstream of the Baird Canyon fish wheels as a means of determining whether the capture of Chinook Salmon by the fish wheels is size selective. This would allow determination of whether this platform is feasible as a means of apportioning counts of Chinook and Sockeye Salmon from the Miles Lake sonar. If successful, this could start the transition of Chinook Salmon escapement monitoring in the Copper River to a more advanced and less costly method.

NVE has a long history of successfully complete Monitoring Projects. These projects have been completed on time and within budget, the scientific and technical quality of the work has been excellent, and reports have been well written and completed on schedule. The primary and co-investigator have both been with this project for a number of years. Letters of support were submitted on behalf of this project with the Alaska Department of Fish and Game, Division of Commercial Fisheries, Alaska Department of Fish and Game, Division of Sport Fish, and the Ahtna Intertribal Resource Commission.

The total cost for the four years of the project is \$1,660,000, of which \$215,000 per year is requested from the Monitoring Program. This leaves \$200,000 per year currently unfunded. NVE is pursuing several avenues to obtain funding to cover the balance of the project costs. This is an expensive project to run, and the proponents have cut as many costs as possible while trying to maintain the same level of data quality. The requested funds are reasonable across all agreement periods and reasonable for the proposed products, but the larger question remains of where the additional funds required to run the projects are going to come from. Regardless of proposal score, the project will require additional funds to move forward. The project would be an exceptional value to the Monitoring Program for the cost, if the remaining funds are secured.

TRC Score: 2
Project Number: 18-501
Project Title: Gulkana River Sockeye Salmon Harvest Contribution

TRC Justification: The Alaska Department of Fish and Game (ADF&G), Division of Sport Fish (DSF) is partnering with the Ahtna Intertribal Resource Commission / dba Copper River Intertribal Resource Commission in this proposal to fund the in-river harvest contribution estimates program for Sockeye Salmon in the Copper River and age-sex-length collection from the harvest for Sockeye and Chinook Salmon. Wild Sockeye Salmon stocks in the Copper River drainage have been enhanced with Gulkana Hatchery fish since 1973, and an evaluation program to assess the contribution of the hatchery-produced fish to the various fisheries has been in place since 1981. The program is necessary as escapement of wild Sockeye Salmon into the Copper River is determined by apportioning the counts from the Miles Lake sonar by wild and hatchery fish using the inriver harvest contribution estimates and subsequently subtracting inriver harvest of wild fish. This information is needed to evaluate whether the escapement goal has been met, which in turn affects in-season management of the inriver fisheries. Estimates are made based on samples collected from harvests of the State personal use fishery near Chitina and the State and Federal subsistence fish wheels above the McCarthy Bridge. From 2012-2015, the Alaska Sustainable Salmon Fund (AKSSF) funded a successful DSF project to expand the sampling program all the way to Chistochina, a section of the river where the majority of Federal subsistence users are located. ADF&G division-wide budget cuts, coupled with the loss of AKSSF funding, has forced DSF to return to sampling only the original area in an opportunistic fashion that does not provide precise hatchery contributions. This project has not been funded through the Monitoring Program in the past.

The Copper River supports Federal subsistence fisheries as well as State personal use, sport, and subsistence fisheries. This project would address two Southcentral Priority Information Needs, and has the ability to affect in-season management of all in-river Sockeye Salmon fisheries by helping managers to evaluate whether the established escapement goal has been met and assessing the contribution of wild and hatchery stocks to subsistence fisheries. The weekly sampling schedule also provides in-season information on run strength, harvest success, and harvest quality. The evaluation program that this request would fund addresses the long-standing concern among scientists and local stakeholders regarding potential negative impacts of hatchery-produced fish on wild stocks.

The project objectives are clear, measureable, and achievable. The project uses proven science and logistics, and had been using these methods to achieve the desired technical results over the life of the project until recent budget cuts have forced the use of opportunistic sampling. ADF&G has the resources (technicians, transportation, housing, office facilities, otolith and scale processing and analyzation capacity, personnel and budget administration, data analysis, etc.) to carry out the project. The Copper River Intertribal Resource Commission (CRITR) will be providing a seasonal technician to the program as well as local knowledge and support. The principal investigator is partnering with a tribal organization (CRITR) as a co-primary investigator. The project has the ability to increase the technical capacity of CRITR by involving them in all aspects of the project, including logistics, project management, and

hiring. The total cost is \$392,263 for the four years of the project, of which \$61,620 is contribution from the State and \$37,203 is contribution from CRITR. The average annual cost to the monitoring program is \$73,360, which is reasonable for the proposed work. The investigator is encouraged to further develop how this project will help subsistence management.

TRC Score: 3

Project Number: 18-502

Project Title: Ibeck Creek Coho Salmon Escapement and Harvest Monitoring Program

TRC Justification: This new project would provide two years of escapement estimates and harvest monitoring of Ibeck Creek Coho Salmon. Ibeck Creek is an easily accessible, road system drainage just outside of Cordova that has seen a substantial increase in use by local Federal subsistence and sport fishing users. The increased use, paired with recent declines in Coho Salmon escapement indices, has caused local concern.

The investigator proposes using sonar to estimate Coho Salmon escapement in Ibeck Creek and a creel survey to estimate harvest and angler characteristics. Estimates from the sonar would provide run timing and some biological information, and can be used to evaluate the accuracy of Coho Salmon aerial surveys on the Copper River Delta. There are no concerns about a lack of apportionment at the sonar site in the investigation plan as Sockeye Salmon and Coho Salmon run-timing do not overlap in this system. A creel survey will be used to evaluate harvest levels and collect angler data, and can be used to evaluate the Alaska Department of Fish and Game's Sport Fish Harvest Survey estimates for this system.

This project is technically sound, addresses a 2018 Priority Information Need, and builds on the proposal submitted for the 2016 round of funding. The annual cost of the project is reasonable for the products being delivered, although there is no explanation as to why it will last only two years. The investigator is encouraged to consider collecting biological information during the creel surveys (age-sex-length samples) to assess overall characteristics of the harvest and to examine possible differences in harvest composition as compared to composition at the sonar. Additionally, as sport fish use is to be classified, it may be worth involving the Division of Sport Fish in the project in some manner.

TRC Score: 4

Project Number: 18-503

Project Title: Abundance and Run Timing of Salmon in Long Lake

TRC Justification: This investigation plan proposes continued funding for the Long Lake Weir. This weir has been funded in part through the Monitoring Program for a number of cycles (projects 04-501, 07-505, 10-505 and 14-501). This long-term weir project monitors a unique stock of Sockeye Salmon within the upper Copper River watershed, and addresses a priority information need for the region. It is within the boundary of the Wrangell-St. Elias National Park and Preserve bounds, and upstream of the Federal subsistence fisheries of the Chitina Subdistrict of the Upper Copper River District.

The objectives for this project are clear, measureable, and achievable. All of the components of the project are already in place, the principal investigator is more than qualified to run this project, and the weir updated to video technology in 2010. The cost of the proposed project is exceptionally reasonable, minimal to maintain the dataset, and would likely support locally hired individuals.

Escapement of Sockeye Salmon at the Long Lake weir does not correlate with Sockeye Salmon returns to the drainage, and counts from this project are not used for in-season management purposes. However, Long Lake weir counts are one of the tools used to assess how well the State managed the portion of the run that passes the Miles Lake sonar site late in the season as part of their post-season review and might act as an index of Chitina drainage Sockeye Salmon.

TRC Score: 5
Project Number: 18-505
Project Title: Abundance and Run Timing of Salmon in Tanada Creek

TRC Justification: This investigation plan proposes continued funding to provide annual estimates of salmon entering Tanada Creek to spawn. This weir has been funded through the Monitoring Program since its inception in 2000 (projects 00-013, 04-502, 07-502, 10-502, and 14-503). This long-term weir project monitors Sockeye Salmon and Chinook Salmon stocks within the upper Copper River watershed, and addresses a Priority Information Need for the region. It is within the Wrangell-St. Elias National Park and Preserve bounds, upstream of the Federal subsistence fisheries of the Glennallen Subdistrict of the Upper Copper River District, and downstream of the Batzulnetas Area fishery.

The objectives for this project are clear, measureable, and achievable. All of the components of the project are already in place, the principal investigator is more than qualified to run this project, and the weir updated to video technology in 2007. The cost of the proposed project is reasonable, the agency match is greater than the requested amount to the Monitoring Program, and the project would likely support locally hired individuals.

Escapement of Sockeye Salmon into Tanada Creek make up a small portion (05.% to 5.4%) of the total returns to the Copper River drainage as measured at the Miles Lake Sonar, but it does represent one of the largest spawning stocks in the upper Copper River drainage. The weir is located both above and below Federal subsistence fisheries, and may be used for in-season management purposes. Weir counts from this location are one of the tools used to assess how well the State managed the portion of the run that passes the Miles Lake sonar site early in the season as part of their post-season review.

TRC Score: 6 (tied)
Project Number: 18-550
Project Title: Upper Copper River Fisheries Information Network

TRC Justification: Copper River salmon are a fully allocated resource and managers need accurate and timely information to make regulatory decisions. Currently, harvest reporting happens post-season

despite management decisions being made in-season to open or close fisheries or decrease harvest limits. This project seeks to improve manager access to in-season harvest data for salmon in the Copper River drainage.

The proposal is to develop a web/phone based application for the digital submission of harvest data to a central database. The proposal is based on the assumption that in-season harvest data is needed yet in-season management of this fishery is based on run size, not harvest. The proposed software tool may be useful and has shown effectiveness in data collection elsewhere, but the applicant fails to clearly describe how fisher and manager buy-in will be sought.

There were no letters of support from fisheries managers or from communities. The tool would only be affective if it was widely utilized by those harvesting salmon in the region. The justification for this project would be stronger if more details on post-development deployment and applicability were defined, and if the project period extended beyond two-years to include multiple seasons of tool deployment.

TRC Score: 6 (tied)

Project Number: 18-506

Project Title: Testing Small Unmanned Aircraft Systems (sUAS) to Index Salmon Spawning Escapement in the Upper Copper River Watershed, Copper River, Alaska

TRC Justification: This project seeks to test the feasibility of using small unmanned aircraft systems to locate, index, and monitor salmon spawning streams in the Upper Copper River watershed. This would potentially replace the aerial surveys that the Alaska Department of Fish and Game currently conducts in the Upper Copper River drainage as a part of their assessment of salmon returns. The project's initial scope is limited to a single index stream in the Upper Copper River drainage, but the development of this technology could have very wide geographic implications. The project objectives seem clear and potential achievable based on the information provided, and address a Priority Information Need for the region. Successful achievement of the goals would be measured by the production of a functional protocol for use of these types of surveys. The project would be a test of unproven technology for this application, and has the ability to advance research if successful. The methods provide a rigorous research design that includes clear data collection, compilation, analysis, and reporting procedures. The investigation plan provides a plan to complete progress, annual, and final reports, and to engage with agencies on the applicability of the methodology.

The team is composed of members with experience in the necessary areas. The primary investigator works for the Copper River Intertribal Resource Commission and is the acting social scientist under the Partners for Fisheries Monitoring Program in Southcentral Alaska. Co-investigator K2 Dronotics will provide acquisition of video data. Co-investigator Terraqua will complete all data-post processing and analysis tasks, assists with report writing, and field training and support. Capacity will be built by providing field training to staff during the first field trial. Additionally, the investigator plans to hire field technicians from a pool of local students. The total cost for this two-year project is \$221,235, of which

\$27,080 is match from the Copper River Intertribal Resource Commission. The average annual cost to the monitoring program is \$97,078.

The project goals, while noteworthy, would not have an immediate impact on subsistence or conservation concerns. The investigation plan contained statements on current management of the fishery that were either incorrect or outdated. The proponents state that accurate, reliable estimates of spawner abundance are required to monitor salmon resources, set appropriate spawning escapement goals for individual tributaries, and manage in-season fisheries. However, there are no individual tributary escapement goals in the Copper River drainage, the escapement goal for Sockeye Salmon upriver stocks is measured by the Miles Lake sonar, and the escapement goal for Chinook Salmon is determined by a mark-recapture project in the lower river operated by the Native Village of Eyak. They also state that aerial surveys contribute to in-season management of the commercial, sport, personal use, and subsistence fisheries. However, aerial surveys conducted by ADF&G do not contribute to in-season management of the State or Federal fisheries. Additionally, there are concerns about the limitations and requirements of the gear, such as the need for the gear to remain in line-of-sight with the operator, which may make it difficult to use for this purpose in remote areas. It is currently unclear whether the time and expense required for this study, and the future expansions of this technology based on this methodology, outweighs any added benefit that this method may provide in accuracy of counts.

APPENDIX A

Table A.1. Fisheries Resource Monitoring Program projects funded in the Southcentral Region from 2000 to 2016.

Project Number	Project Title	Investigators
<i>Copper River Salmon</i>		
00-013	Tanada Creek Salmon Escapement	NPS
00-034	Miles Lake Sonar Improvement	USFS, ADF&G
00-040	Copper River Salmon Subsistence Fishery Evaluation	ADF&G, CRNA
01-020	Copper River Chinook Salmon Feasibility of Abundance Estimate	NVE, LGL
01-021	Lower Copper River In-season Abundance Estimate	NVE, LGL, ADF&G
01-217	Copper River Groups Capacity Building Workshop	CRNA, LGL
02-015	Copper River Chinook Salmon Radio Telemetry	ADF&G, NVE
03-010	Upper Copper River C&T Subsistence Fish Harvests GIS Atlas	CRNA, LGL
04-501	Long Lake Sockeye Salmon Escapement	NPS, CRWP
04-502	Tanada Creek Salmon Escapement	NPS
04-503	Copper River Chinook Salmon Abundance Estimate	NVE, LGL
04-506	Lower Copper River In-season Abundance Estimate	NVE, LGL, ADF&G
04-507	Copper River Chinook Salmon Genetics	ADF&G, NVE, NPS
04-553	Copper River Salmon Runs Traditional Knowledge of Long Term Changes	ADF&G, NVE
05-501	Copper River Sockeye Salmon Spawning Distribution	NVE, ADF&G
06-502	Copper River Sockeye Salmon Inriver Abundance	NVE, ADF&G
07-502	Tanada Creek Salmon Weir	NPS
07-503	Copper River Chinook and Sockeye Salmon Abundance	NVE
07-505	Long Lake Salmon Weir	NPS, PWSSC
08-501	Copper River Sockeye Salmon Abundance	NVE, LGL
10-502	Tanada Creek Salmon Assessment	NPS
10-503	Copper River Chinook Salmon Assessment	NVE, LGL
10-505	Long Lake Salmon Assessment	NPS
10-552	Copper River Subsistence Harvest Validation	HDR, ECO, ADF&G
12-500	Copper River Chinook Salmon RFID Feasibility	NVE, LGL
12-550	Upper Copper R. Changing Environments & Subsistence	ECO, ADF&G
14-501 ^a	Long Lake Salmon	NPS
14-503 ^a	Tanada Creek Salmon	NPS
14-505 ^a	Copper River Chinook Salmon Fish Wheels	NVE

Continued on next page

Table A.1. Continued

Project Number	Project Title	Investigators
Copper River Steelhead		
01-148	Copper River Steelhead Stock Status	ADF&G, CRNA,USFWS
01-035	Copper River Steelhead Harvest Monitoring	NPS, CRNA
03-001	Cooper River Steelhead Population Biology	ADF&G
05-502	Copper River Steelhead Abundance	ADF&G, NVE
Copper River Freshwater Species		
01-110	Copper River Non-Salmon Species Harvest and Use	CRNA, ADF&G, CHVC, CNTC, Karie, MTC
02-077	Upper Copper River Increasing GIS Capabilities	CRNA
07-501	Tanada and Copper Lakes Burbot Abundance	NPS, ADF&G, MTC
Copper River Eulachon		
02-075	Eulachon Subsistence Harvest Opportunities	NVE, USFS, AD&FG
Prince William Sound Salmon		
00-035	Coghill Coho Salmon Weir	ADF&G, USFS
02-028	Chugach Region TEK Mapping	CRRC
03-033	Billy's Hole, PWS Salmon Stock Assessment	ADF&G, CRRC, USFS
Cook Inlet		
00-038	Cooper Creek Dolly Varden Assessment	ADF&G
00-041	Turnagain Arm Eulachon Subsistence Use & Assessment	USFS
03-045	Cook Inlet Subsistence Fisheries Harvest Assessment	ADF&G
07-506	Tustumena Lake Coho Salmon Spawning Assessment	USFWS
07-507	Kasilof Watershed Coho Salmon Radio Telemetry	USFWS
07-509	Kasilof Watershed Steelhead Trout Radio Telemetry	USFWS
08-502	Tustumena Lake Coho Salmon Assessment	USFWS
08-503	Kasilof River Steelhead Radio Telemetry	USFWS
08-504	Crooked and Nikoli Creeks Steelhead Weirs	USFWS

^a Projects ending in 2017.

Abbreviations: **ADF&G** =Alaska Department of Fish and Game, **CNTC** = Cheesh'na Tribal Council, **CRNA** = Copper River Native Association, **CRRC** = Chugach Regional Resources Commission, **CRWP** = Copper River Watershed Project, **ECO** = Ecotrust, **USFS** = U.S. Forest Service, **Karie** = Dr. James Karie, **LGL** = LGL Ltd, **MTC** = Mentasta Tribal Council, **NPS** = National Park Service, **NVE** = Native Village of Eyak, **PWSSC** = Prince William Sound Science Center, and **USFWS** = U.S. Fish and Wildlife Service.

APPENDIX B

The following abstracts were written by the Principle Investigators and submitted to the Office of Subsistence Management as part of the proposal package. The statements and information contained in the abstracts were not altered and they may not reflect the opinions of the Office of Subsistence Management or the Technical Review Committee.

Project Number: 18-501
Title: Gulkana River Sockeye Salmon Harvest Contribution
Geographic Region: Southcentral Alaska Region
Data Type: Stock Status and Trends (SST)
Principal Investigator: James Savereide, Alaska Department of Fish and Game, Div. of Sport Fish
Co-Investigator(s): Erica McCall Valentine, Ahtna Intertribal Resource Commission / dba Copper River Intertribal Resource Commission (CRITR) and Stormy Haught Alaska Department of Fish and Game, Div. of Commercial Fisheries (DCF)

Cost:	2018: \$73,132	2019: \$72,897	2020: \$73,432	2021: \$73,979
Total: \$293,440				

Issues Addressed: The Copper River sockeye and Chinook salmon populations are comprised of a number of different stocks varying in abundance, timing, and location and managers need accurate and timely information to make decisions that affect subsistence, commercial, personal use, and sport fisheries while providing for adequate drainage-wide escapement to sustain these harvests. The estimate of hatchery-produced sockeye salmon to subsistence and personal use harvests derived from this project will be used by federal and state fishery managers to evaluate whether the established wild sockeye salmon SEG was met and to assess the contributions of wild and hatchery stocks to subsistence fisheries. This project addresses two of the FRMP priority information needs to 1) provide reliable estimates of Chinook and sockeye salmon escapement into the Copper River drainage and 2) monitor the inseason harvest of the Chitina salmon fisheries.

Objectives: The objectives of this project will be to annually (2018–2021):

1. Estimate the hatchery stock composition of the subsistence and personal use fishery harvests of sockeye salmon by sampling week such that the estimates are within 0.10 of the true proportion 95% of the time;
2. Estimate ASL composition of the subsistence and personal use harvests of sockeye salmon in the Copper River such that estimated proportions are within 0.10 of the true proportions 95% of the time; and,
3. Estimate ASL composition of the subsistence and personal use harvests of Chinook salmon in the Copper River such that estimated proportions are within 0.10 of the true proportions 95% of the time.

Methods: Sampling for sockeye and Chinook salmon from subsistence and personal use fisheries will occur along the Copper River from O’Brien Creek upstream to the village of Chistochina. To meet the desired precision of the estimated hatchery contribution to the harvest, a sample of 100 sockeye salmon otolith pairs will be collected each week from June 1 through August 31 from the subsistence and personal use fisheries.

Partnerships and Capacity Development: This project is a collaborative effort between DSF, CRITR, and the USFWS-funded Partners for Fisheries Monitoring Program. DSF and CRITR pooled their resources and worked together to craft this proposal because the estimates of hatchery contribution are important to all the stakeholders along the Copper River. They know managers need this information to make important decisions about how to achieve the established escapement goals that sustain these fishery harvests.

Project Number: 18-502
Title: Ibeck Creek Coho Salmon Escapement and Harvest Monitoring
Geographic Region: Southcentral Alaska Region
Data Type: Stock Status and Trends (SST) & Harvest Monitoring (HM)
Principal Investigator: Matt J. Piche, Native Village of Eyak, Cordova, Alaska
Co-Investigator(s): John Whissel, Native Village of Eyak, Cordova, Alaska
 Milo Burcham, US Forest Service Cordova Ranger District, Cordova, Alaska

Cost:	2018: \$177,217	2019: \$156,340	2020: \$0	2021: \$0
Total: \$333,557				

Ibeck Creek is a tributary of the Eyak River located on the Copper River Delta within the Chugach National Forest. Ibeck Creek is accessed via road 11 km from downtown Cordova. Easy access from the community of Cordova and a significant increase in publicity over the past 15 years has resulted in the Ibeck Creek coho salmon (*Oncorhynchus kisutch*) fishery becoming the most important and highest utilized road accessible subsistence resource for Cordova as well as the largest wild salmon sport fishery in Prince William Sound and the lower Copper River region (Fall and Zimpelman 2016; Alaska Sport Fishing Survey 2015).

While the increase in economic opportunity provided through visiting anglers is welcomed in Cordova, recent data trends have spurred local concern regarding the health of this important subsistence resource. Over the past 15 years sport fishing harvest estimates have increased sevenfold (Alaska Sport Fishing Survey 2015), paired with a decrease in aerial escapement indices by 2/3rd (Botz et al. 2014; Wiese et al. 2015). Because current monitoring consists of aerial indices and statewide mail out surveys which are lacking in both precision and accuracy, it is difficult to assess the status of this population to determine if a conservation issue exists. Therefore, developing an accurate and precise method of determining coho salmon escapement, harvest, and catch-and-release on Ibeck Creek is a priority for the Native Village of Eyak as well as the United States Forest Service (USFS) Cordova Ranger District. In addition, the Southcentral Alaska Regional Advisory Council has consulted with concerned locals and NVE Tribal

members to develop, recommend, and support the “Assessment of Ibeck Creek coho salmon Harvest and Escapement” as both a 2016 and a 2018 Priority Information Need for Federal subsistence fisheries in Southcentral Alaska.

Using established sonar and creel survey methods NVE, in partnership with USFS, will accurately and precisely estimate the level of harvest, catch and release, and escapement of Ibeck Creek coho salmon providing the necessary information for fishery managers (Federal and State) to assess population status. The creel survey will accomplish the following objectives: estimate harvest of coho salmon; estimate catch and release of coho salmon; estimate fishing effort from rural Prince William Sound (PWS) residents; and estimate fishing effort from visitors to rural (PWS). The sonar survey will accomplish the following objectives: estimate weekly and annual escapement of Ibeck Creek coho salmon such that the estimate is within 10% of the true value 95% of the time; determine run timing at the sonar site; and estimate average total length of a subset of coho salmon using sonar.

Project Number: 18-503
Title: Abundance and Run Timing of Adult Salmon in Long Lake
Geographic Region: Southcentral Alaska Region
Data Type: Stock Status and Trends (SST)
Principal Investigator: Dave Sarafin, Wrangell-St. Elias National Park and Preserve

Cost:	2018: \$17,698	2019: \$17,928	2020: \$18,159	2021: \$18,261
Total: \$72,046				

Issue Addressed:

Accurate assessment of yearly run strength and migratory timing in tributaries to the Copper River is essential to the development of a management strategy that meets the mandates of the Alaska National Interest Lands Conservation Act (ANILCA). The upper Copper River Sockeye Salmon populations are of particular importance to both federally qualified and state subsistence users. The primary assessment of in-river abundance for Copper River salmon (combined species) occurs from mid-May until early August at the Miles Lake sonar. However, migratory timing of Sockeye Salmon (*Oncorhynchus nerka*) into the Copper River is prolonged (May-September); and subsequent assessment of escapement into specific drainages is needed to determine spawning distribution.

Projects providing accurate assessment of yearly run strength and migratory timing of specific stocks in tributaries of the Copper River are extremely lacking. Only one Chinook Salmon escapement estimation tower (Gulkana River, ADFG) and two salmon counting weirs; one at Tanada Creek and one at Long Lake are operated annually. Long Lake is the only site within the Chitina River drainage where long term monitoring of salmon abundance has occurred. The weir has been operated from 1974 to 2016; it is presently funded for 2017, which will be its forty-fourth consecutive season of operation. This site has the potential to complement the work occurring in Tanada Creek as an index site for abundance and spawning distribution of Sockeye Salmon within the Copper River drainage. If both sites are maintained

in the future as index sites, they will provide a valuable tool to understand the response of salmon returns to management or ecological changes at substantially different points in the Copper River Basin.

Obtaining reliable estimates of Sockeye Salmon escapement in the Copper River area was identified by OSM in the 2018 Priority Information Needs. This project directly addresses these needs, as it will use a weir to obtain reliable estimates of Sockeye and Coho salmon escapement in an important Upper Copper River tributary, add to a long-term database providing information of spawning distribution and stock specific run timing, and add to a long-term database of water/air temperature recordings.

Objectives:

1. Count by day, the number of adult Sockeye and Coho salmon migrating past a weir operated in Long Lake during the period of late-July through early-October.
2. Estimate the age composition of the Long Lake Sockeye Salmon escapement from otolith interpretation, such that the estimates are within 10% of the true proportion 90% of the time.

Methods:

In late July, investigators will install a floating resistance board weir equipped with an underwater video camera installed directly on a fish passage chute connected to the weir. All salmon migrating past the weir will be recorded on a digital video recorder. Daily weir checks will be performed throughout the season. For each day, video footage be reviewed in its' entirety to obtain a direct count by hour, of the salmon passage, by species. The weir and video monitoring equipment will be removed in early October. Data analysis will take place in October through April. A summary of the season's work will be completed by December 1 and the draft annual report completed by May 1.

As a means of estimating the age composition of Sockeye Salmon in the spawning escapement, we will collect otoliths, identify sex, and measure length from carcasses collected in spawning areas of Long Lake. Sampling events will occur after carcasses are observed in the lake, typically beginning in late-September. All collected otoliths are then analyzed for age interpretation.

Partnerships and Capacity Building:

WRST will make efforts to obtain, and select from, a pool of applicants from local rural residents for all positions involved in this project. This project will provide seasonal employment to individuals in an area with very few job opportunities. They are provided training in biological data collection and recording, fish weir construction and maintenance, safety, and computer skills. The principal investigator for this project is a local hire, rural resident of Tazlina. In the past, local rural residents of McCarthy have also been employed on this project.

Several local groups are interested in the Copper River watershed. This project provides an opportunity to collaborate with local students, tribes and culture camps, nonprofits, and agencies to partner in the data collecting process. The Park has and will continue to share data and collaborate with the ADFG to collect Sockeye Salmon age-length data. In partnership with USFWS, this project also assists with the existing long-term temperature monitoring program.

Project Number: 18-504
Title: Estimating the Inriver Abundance of Copper River Chinook Salmon
Geographic Region: Southcentral Alaska Region
Data Type: Stock Status and Trends (SST)
Principal Investigator: Matt Piche, Native Village of Eyak, Cordova, Alaska

Cost:	2018: \$215,000	2019: \$215,000	2020: \$215,000	2021: \$215,000
Total: \$860,000				

Abstract: Subsistence harvest of Chinook salmon in Alaska’s Copper River Basin is an integral part of the livelihood, culture, and tradition of those who have used this resource since time immemorial. Long term monitoring of Chinook salmon escapement, in-river abundance, and total run size is critical baseline data necessary for effective fishery management, especially under the current scenario of fully allocated harvest. While the collection of this data is valuable for management of any fully allocated fishery, monitoring becomes critically imperative during periods of low abundance.

Chinook salmon harvest has decreased for all user groups on the Copper River over the past two decades and the population has failed to meet the established system-wide sustainable escapement goal for two of the past three years (2014, 2016). The smallest run ever documented occurred in 2016, and a smaller run is predicted for 2017. The current period of low abundance combined with the inherent value of Copper River Chinook salmon for the entire Copper River Basin justify continued monitoring.

Since 2003, the Native Village of Eyak (NVE) and LGL, Inc. have successfully generated the annual inriver abundance estimate of Copper River Chinook salmon which, combined with state and federal harvest estimates, generates system-wide escapement and total run size estimates. This is the only proven and independently verified technique currently available for population level Chinook salmon monitoring on the Copper River; providing critical data for state and federal fishery managers to make decisions regarding the harvest that both directly and indirectly impact subsistence users of this resource. Additionally, in-season data collected through this project and made available daily to fishery managers is one of several metrics used to issue emergency orders and harvest announcements. Using two-sample mark-recapture techniques with four live-capture fishwheels at two well-established remote field camps NVE will complete the following objective: to estimate the annual in-river abundance of Chinook salmon returning to the Copper River from 2018 to 2021 such that the inriver abundance estimate is within 25% of the true value 95% of the time. Given the observed trend and the record low 2017 forecast published by ADF&G, it is more important than ever to continue monitoring this population.

NVE is requesting the maximum allowable amount from FRMP (\$215,000/year for four years), to partially fund the continued monitoring of this population. NVE is pursuing other sources of funding to meet the budget shortfalls presented with the new funding cap, and within these additional requests NVE will develop aspects of implementing new, less costly techniques; while maintaining the established mark-recapture estimate, providing the opportunity to validate new methods while ensuring monitoring continues uninterrupted. Chinook salmon have an enormous historical, economic, and cultural

importance to the people of the Copper River watershed. Monitoring this resource has been a top priority of subsistence users, and the in-river abundance must be known to sustain a subsistence harvest.

Project Number: 18-505
Title: Abundance and Run Timing of Adult Salmon in Tanada Creek
Geographic Region: Southcentral Alaska Region
Data Type: Stock Status and Trends (SST)
Principal Investigator: Dave Sarafin, Wrangell St-Elias National Park and Preserve

Cost:	2018: \$81,222	2019: \$82,657	2020: \$84,092	2021: \$85,527
Total: \$333,498				

Issue Addressed:

Accurate assessment of yearly run strength and migratory timing of salmon stocks in tributaries to the Copper River provides key information in support of a management strategy that meets the mandates of the Alaska National Interest Lands Conservation Act (ANILCA). Upper Copper River Sockeye Salmon (*Oncorhynchus nerka*) populations are of particular importance to both federally qualified and state subsistence users. The Tanada Lake Sockeye are one of the uppermost runs of Sockeye in the Copper River and support subsistence salmon fisheries both in the Copper River and Tanada Creek. The Park Superintendent at Wrangell-St. Elias National Park/Preserve (WRST) is the federal local area and in-season manager for the Copper River.

Projects providing accurate assessment of yearly run strength and migratory timing of specific stocks in tributaries of the Copper River are extremely lacking. Only one Chinook Salmon escapement estimation tower (Gulkana River, ADFG) and two salmon counting weirs; one at Tanada Creek and one at Long Lake are operated annually.

Recent declines in Chinook salmon returns in many areas of the State have prompted increased concerns regarding the management of this species. Management actions designed to reduce harvest of Chinook Salmon in all Copper River fisheries are being considered for the upcoming season.

Obtaining reliable estimates of Chinook, as well as Sockeye salmon escapement in the Copper River area was identified by OSM in the 2018 Priority Information Needs. This project directly addresses these needs, as it will use a weir to obtain reliable estimates of Sockeye and Chinook salmon escapement in an important Upper Copper River tributary, add to a long-term database providing information of spawning distribution and stock specific run timing, and add to a long-term database of water/air temperature recordings.

Objectives:

1. Count by day, the number of adult Sockeye and Chinook salmon migrating past a weir operated in Tanada Creek during the period of mid-June through mid-September.

2. Estimate the age composition of the Tanada Lake Sockeye Salmon escapement from otolith interpretation, such that the estimates are within 10% of the true proportion 90% of the time.

Methods:

In late May, investigators will install a floating resistance board weir equipped with an underwater video camera installed directly on a fish passage chute connected to the weir. All salmon migrating past the weir will be recorded on a digital video recorder. Daily weir checks will be performed throughout the season. For each day, video footage be reviewed in its' entirety to obtain a direct count by hour, of the salmon passage, by species. The weir and video monitoring equipment will be removed in late September. Data analysis will take place in October through April. A summary of the season's work will be completed by December 1 and the draft annual report completed by May 1.

As a means of estimating the age composition of Sockeye Salmon in the spawning escapement, we will collect otoliths, identify sex, and measure length from carcasses collected in spawning areas of Tanada Lake and its outlet area. Sampling events will occur during September, once carcasses are observed in the lake. Events will be separated by approximately one week to allow carcasses to accumulate for sampling. All collected otoliths are then analyzed for age interpretation.

Partnerships and Capacity Building:

All WRST staff involved in this project will be of Local Hire designation. During 2016, this project provided seasonal fulltime employment to three local rural residents; two reside in the community of Slana and one in the native village of Mentasta Lake. In an area with very few job opportunities, this annual, seasonal employment has become long term for some of the individuals who have come to depend on this income to support their families. They are provided training in biological data collection and recording, fish weir construction and maintenance, safety, and computer skills. The principal investigator for this project is a local hire, rural resident of Tazlina. In the past, local rural residents of Chistochina, Glennallen, Nabesna, and Kenny Lake have also been employed on this project. In 2016, this project also received assistance from and provided the opportunity for additional fisheries work experience to a fisheries Pathways Program student/employee of the USFWS FRMP program.

Several local groups are interested in the Copper River watershed. This project provides an opportunity to collaborate with local students, tribes and culture camps, nonprofits, and agencies to partner in the data collecting process. The Batzulnetas culture camp typically occurs during the third week in June. Camp attendees are invited to participate in an interpretive visit to the weir site to learn about subsistence fisheries management. The Park has and will continue to share data and collaborate with the ADFG to collect Sockeye Salmon age-length data. In partnership with USFWS, this project also assists with the existing long-term temperature monitoring program.

Project Number: 18-506

Title: Testing small unmanned aircraft systems (sUAS) to index salmon spawning escapement in the Upper Copper River watershed, Copper River, Alaska

Geographic Region: Southcentral Alaska Region
Data Type: Stock Status and Trends (SST)
Principal Investigator: Erica McCall Valentine, Ahtna Intertribal Resource Commission dba Copper River Intertribal Resource Commission (CRITR)
Co-Investigator(s): Benjamin Kellie, K2 Dronotics
 Keith van den Broek, Terraqua, Inc.

Cost:	2018: \$97,738	2019: \$96,417	2020: \$0	2021: \$0
Total: \$194,155				

Issue/Need: Reliable salmon escapement estimates are necessary for fisheries management and for providing subsistence fishing opportunities. Currently, inriver salmon escapements and spawning indices for salmon are established via a limited number of manned aerial surveys on nine designated streams in the Copper River watershed. These surveys are costly and factors such as weather, water clarity, riparian cover, observer experience, stream morphology and habitat type, timing of survey flights, and stream residency influence the reliability of the spawning escapement indices. Small, unmanned aerial systems provide a safer and potentially cheaper alternative to manned aircraft when conducting aerial surveys. sUAS, using a camera and sensor platform, offer key advantages over traditional collection methods. They are cost effective, can operate autonomously or with minimal pilot training and licensing, fly at specific speeds and elevations, and over very precise areas at specific times of day. These capabilities are essential in obtaining detailed data sets that have many applications including in salmon escapement and monitoring.

Objectives: This project will test the feasibility in using sUAS to locate, index, and monitor salmon spawning streams in the Upper Copper River watershed. Project objectives are to: 1.) develop a working methodology for the use of sUAS in monitoring spawning escapement index streams in the Copper River watershed, and 2.) produce new data sets for fishery biologists to use in monitoring the inseason spawning escapement into the Upper Copper River watershed. To achieve these objectives, successful research will be measured by the production of a functional protocol to be used in conducting sUAS surveys.

Methods: In Year 1, Field tests will be conducted in one of the nine Copper streams indexed by ADF&G for spawning escapement to determine the applicability of sUAS on spawner escapement estimation. A census-type aerial survey of a single stream across a range of seasons, conditions, and expected spawner densities will be conducted over the course of three surveys. Fieldwork will coincide with the beginning, peak and tail of the Chinook spawning season within the targeted stream. Year 2 will focus on development of a robust statistical study design based on lessons learned from methodology testing in Year 1.

Partnerships/Capacity Building: This project is a collaborative effort led by the CRITR and the U.S. Fish and Wildlife Service, Partners for Fisheries Monitoring Program. The investigators will work closely with the communities in the Copper Valley to hire locally and will encourage input from Copper

River villages. The selection of field technicians will be from a pool of students studying biological sciences. Serving as an intern on this project will provides a significant opportunity to train Tribal youth in fisheries research and management issues, and introduce and train them on the use of difference technologies to monitor the fisheries. To build local capacity, Terraqua, Inc. will provide field training during the first field trial. For each of the remaining field trials, the PI will serve as the field lead.

Project Number: 18-550
Title: Upper Copper River Information Network (FIN)
Geographic Region: Southcentral Alaska Region
Data Type: Harvest Monitoring (HM)
Principal Investigator: Erica McCall Valentine, Ahtna Intertribal Resource Commission dba Copper River Intertribal Resource Commission (CRITR)
Co-Investigator(s): Jon Bonkoski, Ecotrust

Cost:	2018: \$94,551	2019: \$85,761	2020: \$0	2021: \$0
Total: \$180,312				

Issue: The Copper River salmon are a fully-allocated resource. The Copper River salmon populations are comprised of many different stocks of varying abundance, timing, and locations. Managers need accurate and timely information to make decisions that affect subsistence, commercial, personal use, and sport fisheries while providing for adequate drainage-wide escapement to sustain these harvests. Reliable inseason harvest estimates from the subsistence, personal use, and sport fishing salmon are necessary for fisheries management and for providing subsistence fishing opportunities. Current harvest reporting happens post-season despite inseason management decisions being made to open and close the fishery and/or increase or decrease harvest limits. The direct competition of the various mid- and upper-river salmon fisheries makes inseason harvest monitoring imperative.

Objectives: Using the previously-established Copper River Knowledge System as a foundational building block, this project will develop the Copper River Fisheries Information Network (Copper FIN) by:

1. Developing and extending an existing mobile data collection tool (Alaska Logbook) for the voluntarily inseason harvest reporting from the subsistence, personal use, and sport fish Copper River fisheries.
2. Redeveloping CRKS to include data synchronization from mobile tool and expanding its capabilities to include features for data visualization, organization, and analysis, as well as generate harvest reports as required by the state and federal management agencies.

Methods: Over the course of this two year project, Objectives 1 and 2 will be conducted concurrently as the developmental tasks are interlinked and require a simultaneous effort. Throughout the entire process of designing and implementing the Copper River FIN, PIs will work with state and federal agencies to ensure appropriate strategies for outreach and project dissemination. Project deliverables will put the

subsistence resource user at the center of the learning environment, thus facilitating subsistence fisher involvement in the inseason management of fishery. The Copper River FIN also provides opportunities for mentoring by scientists and tribal leaders and elders. The incorporation of the rural user into the inseason management of the Copper River fisheries, breaks down some of the data gaps and artificial barriers that currently exist in management. The project-related tasks include conducting a user needs assessment, designing and developing web-based tools, documenting, training and supporting the project as it is deployed, and conducting a post-project effectiveness and sustainability evaluation.

Partnerships/Capacity Building: This project is a collaborative effort led by the CRITR and the U.S. Fish and Wildlife Service, Partners for Fisheries Monitoring Program. The investigators will work closely with the communities in the Copper Valley to hire locally and encourage input from Copper River villages and users of the Copper River subsistence, personal use, and sport fisheries. The selection of field technicians will be from a pool of students studying biological sciences. Serving as an intern on this project will provides a significant opportunity to train Tribal youth in fisheries research and management issues, and introduce and train them on the use of difference technologies to monitor the fisheries. To build local capacity, Ecotrust will mentor CRITR in IT maintenance that is required for long-term sustainability of project deliverables.

ANNUAL REPORTS

Background

ANILCA established the Annual Reports as the way to bring regional subsistence uses and needs to the Secretaries' attention. The Secretaries delegated this responsibility to the Board. Section 805(c) deference includes matters brought forward in the Annual Report.

The Annual Report provides the Councils an opportunity to address the directors of each of the four Department of Interior agencies and the Department of Agriculture Forest Service in their capacity as members of the Federal Subsistence Board. The Board is required to discuss and reply to each issue in every Annual Report and to take action when within the Board's authority. In many cases, if the issue is outside of the Board's authority, the Board will provide information to the Council on how to contact personnel at the correct agency. As agency directors, the Board members have authority to implement most of the actions which would effect the changes recommended by the Councils, even those not covered in Section 805(c). The Councils are strongly encouraged to take advantage of this opportunity.

Report Content

Both Title VIII Section 805 and 50 CFR §100.11 (Subpart B of the regulations) describe what may be contained in an Annual Report from the councils to the Board. This description includes issues that are not generally addressed by the normal regulatory process:

- an identification of current and anticipated subsistence uses of fish and wildlife populations within the region;
- an evaluation of current and anticipated subsistence needs for fish and wildlife populations from the public lands within the region;
- a recommended strategy for the management of fish and wildlife populations within the region to accommodate such subsistence uses and needs related to the public lands; and
- recommendations concerning policies, standards, guidelines, and regulations to implement the strategy.

Please avoid filler or fluff language that does not specifically raise an issue of concern or information to the Board.

Report Clarity

In order for the Board to adequately respond to each Council's annual report, it is important for the annual report itself to state issues clearly.

- If addressing an existing Board policy, Councils should please state whether there is something unclear about the policy, if there is uncertainty about the reason for the policy, or if the Council needs information on how the policy is applied.
- Council members should discuss in detail at Council meetings the issues for the annual report and assist the Council Coordinator in understanding and stating the issues clearly.

- Council Coordinators and OSM staff should assist the Council members during the meeting in ensuring that the issue is stated clearly.

Thus, if the Councils can be clear about their issues of concern and ensure that the Council Coordinator is relaying them sufficiently, then the Board and OSM staff will endeavor to provide as concise and responsive of a reply as is possible.

Report Format

While no particular format is necessary for the Annual Reports, the report must clearly state the following for each item the Council wants the Board to address:

1. Numbering of the issues,
2. A description of each issue,
3. Whether the Council seeks Board action on the matter and, if so, what action the Council recommends, and
4. As much evidence or explanation as necessary to support the Council's request or statements relating to the item of interest.



Federal Subsistence Board

1011 East Tudor Road, MS 121
Anchorage, Alaska 99503 - 6199



FISH and WILDLIFE SERVICE
BUREAU of LAND MANAGEMENT
NATIONAL PARK SERVICE
BUREAU of INDIAN AFFAIRS

FOREST SERVICE

OSM 17046.DM

AUG 14 2017

Richard Encelewski, Chair
Southcentral Alaska Subsistence
Regional Advisory Council
c/o Office of Subsistence Management
1011 East Tudor Road, MS 121
Anchorage, Alaska 99503

Dear Chairman Encelewski:

This letter responds to the Southcentral Alaska Subsistence Regional Advisory Council's (Council) fiscal year 2016 Annual Report. The Secretaries of the Interior and Agriculture have delegated to the Federal Subsistence Board (Board) the responsibility to respond to these reports. The Board appreciates your effort in developing the Annual Report. Annual Reports allow the Board to become aware of the issues outside of the regulatory process that affect subsistence users in your region. We value this opportunity to review the issues concerning your region.

1. Nonrural Policy Implementation

The Council appreciated the opportunity to receive a briefing on the draft Nonrural Determination Policy, and has some thoughts on how the policy should be implemented. The Board should consider the use of fish and game household surveys and data. Existing data and surveys are available from the Alaska Department of Fish and Game and the Office of Subsistence Management (OSM) for staff to compile, interpret and provide in their analyses. This information would assist the Council in developing informed decisions prior to submitting its recommendation to the Board when making nonrural determinations.

Response:

The Board values the input from the public and the Council in the development of the policy. Because of the elimination of specific criteria from regulation, the Councils and the Board will be free to include whatever criteria or information may be relevant to guide Board decisions on nonrural determinations. This especially includes information that may be relevant for one

region but not another – regional flexibility has been a goal of changing the rural determination process to its present form. So, when the Council is presented with a proposal to change the rural status of a community within its region, it can include whatever information it believes is appropriate. Additionally, it is intended that anthropology staff at OSM tasked with conducting proposal analyses will be using household survey data from the Alaska Department of Fish and Game.

However, it is important to note that the U.S. Circuit Court of Appeals has placed some limits on how data may be utilized in identifying rural status. In *Kenaitze Indian Tribe v. State of Alaska*, 860 F.2d 312 (9th Cir. 1988), the court rejected the State’s definition of “rural,” which was limited to those areas where the economy was dominated by subsistence hunting and fishing. So, to the extent that fish and game household surveys may be utilized, it would not be permissible to use such data to establish an area as nonrural because it is not dominated by subsistence hunting and fishing (as the State was attempting to do with regard to the Kenaitze in that case).

2. Cook Inlet Fishery Regulations

At its fall 2016 meeting, the Council discussed the need to review the Cook Inlet subsistence fishery regulations to streamline regulations for consistency and clarification. The regulations for subsistence harvest of salmon by dip net and rod and reel cover several areas on the Kenai Peninsula with various methods and means for the harvest of salmon, which results in a complex and confusing regulatory environment for subsistence users. It is also, apparently, quite confusing to staff as well.

The Council suggests convening a workgroup to review existing Federal subsistence regulations with support from the Board to provide technical guidance to review the Federal subsistence regulations. The workgroup should consist of Federal and State fishery biologists, and other user groups to review the existing Federal regulations and provide a recommendation for the Council to consider. The product of the workgroup will be focused on streamlining the regulations for consistency and clarification for the Kenai Peninsula. The goal would be to submit a proposal during the next fisheries regulatory cycle to simplify the Kenai regulations.

Response:

The Board recognizes that the Cook Inlet regulations are overly complex. As such, we have directed OSM staff to initiate the rulemaking process to provide clarification and consistency in the regulations. The rulemaking process will come in the form of a proposed rule outlining the possible revisions to the Cook Inlet area regulations and initiating a public comment period. The rulemaking process has been delayed with the transition to a new Administration. We are unable to provide a timeline for publication of the proposed regulatory revisions in the Federal Register at this time. However, we are able to outline the steps that will follow publication. OSM will conduct an analysis of the proposed regulatory changes. The public will be notified of the proposed changes and provided an opportunity to provide written public comment on them.

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Affected Regional Advisory Councils will review the analysis of the proposed regulatory changes and provide recommendations to the Board. In addition, comments will be solicited from the Interagency Staff Committee and the State of Alaska. Tribal and ANCSA corporation consultations about the proposed revisions will be held. Finally, the Board will deliberate on the proposed rule. We will update the Council about the timing of this process when we have additional information.

3. Delegation of Authority

The Council discussed the Delegation of Authority (DA) authorized for each land manager for Federal public lands for the Southcentral Region with authority to close or open harvest of wildlife during situations of biological concerns or public safety. The Council requests specifics for each DA and for the Board to establish clear administrative authority for each species or unit for uniform consistency in administering Delegation of Authority for in-season managers on Federal public lands, and that the rural subsistence priority should be paramount regardless of the implementation of land use plans. The Council also requests OSM staff to compile a list of all DA letters issued to land managing agencies in the Southcentral region.

Response:

At the Council's meeting in February 2017, OSM staff presented the Council with a list of wildlife Delegation of Authority (DA) letters for review. All wildlife DA letters have been carefully written so that the language is clear and consistent, with the Scope of the Delegation to the land manager written in unambiguous terms. This Scope of Delegation details the regulatory authority being delegated, making it clear that this authority is limited to those set forth in 36 CFR 242.26 and 50 CFR 100.26. Furthermore, the Guidelines for Delegation in each letter require the land manager to provide a summary of special actions to the Council Coordinator for the appropriate Regional Advisory Council at the end of each calendar year for presentation to the Council. Use of delegated authority does not negate the requirement for maintaining a rural subsistence priority, but merely allows for management flexibility and a more nimble response to changing resource conditions.

Although not specifically mentioned by the Council, the Board will also provide information on fisheries delegation letters. Fisheries Delegation of Authority letters issued across the state are undergoing review in 2017. The previous version of Southcentral Region's delegation letters were issued in 2004. The current updates reflect changes to in-season managers' duties and mirror updates recently implemented in the wildlife division's Delegation of Authority letters.

For Southcentral Alaska fisheries, the following agency representatives have been delegated authority by the Board:

- Cook Inlet Area – Project Leader, Kenai Fish and Wildlife Field Office (currently Jeffry Anderson)
- Prince William Sound Area – Cordova District Ranger, Chugach National Forest (currently Robert Skorkowsky)

- Copper River Drainage – Superintendent, Wrangell-St. Elias National Park and Preserve (currently Ben Bobowski)

4. Sterling Highway Improvement

The Council had the opportunity to review and comment to the Alaska Department of Transportation and Public Facilities and the Federal Highway Administration on the issue of the Cooper Landing/Kenai River Bypass on the Sterling Highway MP 45-60 Project. The ecological health and wellbeing of the Kenai River has a direct impact on the access and opportunity for Federally qualified subsistence users to fish and hunt in their customary and traditional use areas on Federal public lands of the Kenai Peninsula. Additionally, the Kenai River supports many uses by other key user groups that also depend upon healthy populations of fish and wildlife.

The Council voted unanimously to request a reconsideration of the selection of G South Alternative as the preferred alternative on the Sterling Highway MP45-60 project. The Council requests that this selection is reevaluated in consideration of the following comments in opposition to the preferred alternative of G South, which fails to provide necessary long-term protections for a healthy Kenai River. We support the more Kenai River friendly Juneau Creek Alternative, which is the best route to bypass both Cooper Landing and the Kenai River.

The Council strongly opposes the selection of any alternative that fails to protect the Kenai River and believes that the protection of such a crucial resource should receive the highest priority in the decision making process.

Response:

The Board notes that the public comment period on the Draft Environmental Impact Statement ended on December 15, 2016. However, the Board will forward the Council's concern to the lead agencies, and remind the Federal Highway Administration of its obligations under Section 810 of ANILCA. The Board also forwarded this issue to the U.S. Forest Service, which provides this response:

The Alaska Department of Transportation and Public Facilities and the Federal Highway Administration are the lead agencies for the Sterling Highway MP 45-60 Project. The USDA Forest Service, Chugach National Forest, is a cooperating agency on the highway project. To date, the Forest Service has provided input to their environmental analysis for all alternatives. The Forest Service will not identify a preferred alternative since they are not the lead agency and decision maker.

The Sterling Highway MP 45-60 Project website¹ provides detailed information, including appropriate lead agency contacts.

¹ <http://www.sterlinghighway.net>

5. Salmon Biology and Ocean Acidification

Salmon and other marine finfish species harvested by subsistence, recreational and other users have observed those species' growth patterns decline to half the size they were about a decade ago. The decline in Chinook Salmon on the Copper River, observed changes in the sex ratios of Chinook Salmon, and in-season management restrictions are all a concern.

The abundance and size of fish are changing. Managers need marine indicators to help determine and forecast run timing in Alaska's freshwaters. Ocean acidification is another potential factor in the marine environment that affects productivity for salmon and other finfish species, whether from global climate change or acid rain from nations along the North Pacific Rim.

The Council encourages the Board to engage with the National Oceanic and Atmospheric Administration and other entities managing the Bering Sea and Gulf of Alaska fisheries to fund research focused on marine productivity to address declining Chinook populations and why the changes are occurring. The National Oceanic and Atmospheric Administration and other marine fishery management agencies can include in their basic research to investigate weather and transportation patterns coming from East Asia to help begin a dialogue between the United States and other nations.

Response:

The decline of Chinook Salmon has been an issue of concern across the state for the past several years. However, funding research on marine productivity is outside of the Federal Subsistence Board's authority. The Board is able to fund research through the Fisheries Resource Monitoring Program by approving proposals forwarded by the Technical Review Committee based on Priority Information Needs identified by the Regional Advisory Councils.

The State-initiated a Chinook Salmon Research Initiative (CSRI) in 2012 to better understand the factors affecting Chinook Salmon abundance in Alaska. State scientists, in collaboration with Federal and academic partners, developed a five-year research plan. The initial \$30 million requested allocation was ultimately cut to \$15 million due to the State's recent fiscal crisis. It should be noted that none of the State-funded research focused on marine productivity.

The last appropriation for the CSRI was received two years ago and funds are essentially exhausted. While 2016 was the last year of the work funded, some of the original long-term projects have by necessity continued past that time. For example, the Division of Subsistence still has active projects for the following Chinook Salmon stocks: Chilkat, Chignik, Nushagak, Kuskokwim and Yukon. As projects are completed, final results will be reported and made available through the Alaska Department of Fish and Game website.²

² For a summary of CSRI projects, go to <http://www.adfg.alaska.gov/index.cfm?adfg=chinookinitiative.main>.

6. Klutina and Gulkana River Chinook Salmon

The Klutina and Gulkana River Chinook Salmon are experiencing population declines. Factors for the decline are overfishing in these rivers and efficiency of the fishwheel, and Chinook Salmon harvested by fisheries along with the targeted Sockeye Salmon by subsistence and personal use fishers.

Inseason managers should review the management plan for Chinook Salmon on the Klutina and Gulkana Rivers to assess current and future returns and take action to protect the Chinook Salmon from further decline. Options to consider include shortening the recreational users' time on the river and limiting the fishwheel fishery when Sockeye Salmon returns are at their most abundant.

Response:

The Board is also concerned with the decreased returns of Chinook Salmon to the Copper River, and the effects they have on rural Alaskans. The Alaska Department of Fish and Game's 2017 Copper River forecast for Chinook Salmon was 29,000 fish, the lowest forecast to date and only 5,000 fish over the drainage-wide minimum escapement goal. In light of this, both the Alaska Department of Fish and Game and the Federal in-season manager issued pre-season restrictions for the 2017 season.

The Alaska Department of Fish and Game issued an emergency order in March 2017 to close the Chinook Salmon sport fishery completely, to limit the Subsistence fishery to the retention of 2 Chinook Salmon by fish wheel or dip net, and to prohibit the retention of Chinook Salmon in the personal use fishery. Additionally, they required that fish wheels be closely-attended while in operation to provide for the immediate release of Chinook Salmon beyond the limits.

The Federal subsistence in-season manager issued two special actions in April to delay the opening date of the Upper Copper River District (Chitina and Glennallen subdistricts) subsistence fishery from May 15 to June 1, and to limit retention of Chinook Salmon in these fisheries taken by dip net or rod and reel between June 1 and July 15 to two fish. This reduced limit did not apply to harvest by fish wheel.

The Superintendent of Wrangell-St. Elias National Park and Preserve is the Federal in-season manager for this fishery through delegation of authority from the Board. Consistent with the delegation of authority and tribal consultation responsibilities, the park consulted with the Chair of the Southcentral Alaska Subsistence Regional Advisory Council, the Wrangell-St. Elias National Park Subsistence Resource Commission, tribal councils in the communities eligible to participate in the fishery, and local management biologists with the Alaska Department of Fish and Game prior to taking these management actions.

Early season indicators through the commercial fishery at the mouth suggested the run could be larger than initially forecasted. Harvest of Chinook Salmon by the commercial fishery was high

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even though the fleet was strictly limited by both time and area, prompting relaxation of restrictions on the State subsistence and sport fisheries in early June. Federal subsistence regulation restrictions were rescinded shortly after, following run strength indication from the Native Village of Eyak fish wheel project that also suggested that run was looking larger than initially forecasted. Lastly, in light of favorable return indicators, the State opened the personal use fishery to retention of a single Chinook salmon per household on June 19.

State and Federal managers are continuing to monitor the run and adjust harvest opportunity as appropriate.

The Council should submit Federal and/or State regulatory proposals if it believes more restrictive regulations should be enacted to protect Chinook Salmon on the Klutina and Gulkana rivers. These regulatory proposals could be discussed at the fall 2017 Council meeting with the aim of submitting the proposals during the next fisheries regulatory cycles.

7. Unit 13 Subsistence Community Hunt

The community hunt program for moose in Unit 13, which allows harvest of any bull, has greatly benefited rural residents within Unit 13. It is also managed by the Alaska Department of Fish and Game and is now open to all State residents according to testimony received at our fall meeting. However, the intent was to benefit primarily the residents of Unit 13. The result has been competition among Alaska residents and Unit 13 residents.

The Unit 13 community hunt is unsustainable if left open to all Alaska residents. It would be helpful to see data on what communities are participating in the Unit 13 community hunt. The Board can begin dialogue with the Alaska Board of Game to address the situation, reduce the competition for the resource, and hopefully assist Unit 13 residents to find ways to meet their subsistence needs.

Response:

As a result of the numerous proposals submitted to the Alaska Board of Game (BOG) on issues surrounding the community caribou and moose hunts, a special meeting on Copper Basin moose and caribou hunting was held on March 18-21, 2017 at Glennallen, Alaska. A summary of information presented at this meeting can be found online.³

The BOG noted that residents of communities in the hunt area (Unit 13) typically travelled shorter distances than non-local hunters and have traditionally hunted moose throughout the year. Harvest by local users was traditionally conducted without regard to antler configuration as this was the most efficient way to obtain their food. Hunting regulations that specify specific antler configuration, which are usually done to protect the most important segment of the population, also allow for more hunters in the field as not all animals are available. In addition, restrictions on the season and antler configuration may also reduce the success of local users.

³ <http://www.adfg.alaska.gov/index.cfm?adfg=gameboard.meetinginfo&date=03-18-2017&meeting=glennallen>

In 2009, the BOG established the CSH, with an earlier starting date and a quota for the number of moose that could be harvested that did not meet the general antler restrictions, to provide a community-based hunt following the pattern of use that had been established and used by the Ahtna people. In addition, they provided other regulatory options to provide reasonable opportunities for those individuals and families that chose not to organize as a community. These options included a general hunt with a harvest ticket (antler restrictions), a winter “any bull” moose hunt, and drawing hunts.

Between 2009 and 2017 the number of groups and participants in the CSH has increased from 1 to 73 and 378 to 3,023, respectively (Table 1). Although the number of groups, households, and participants increased from 2009-2014, the CSH (approximately 19% of total harvest) and total moose harvest has not increased at the same rate (Table 1). Currently the moose population in Unit 13 is stable based on the 2015 population estimates and composition surveys.

Table 1. Characteristics of the Community Subsistence Hunt for moose and total harvest in Unit 13 from 2009-2016

Regulatory Year	Number of Groups	Number of Communities	Number of Households	Number of Individuals	CSH Harvest	Total Harvest
2009/2010	1	19	246	378	98	866
2010/2011 ^a	-	-	-	-	-	-
2011/2012	9	31	416	814	83	952
2012/2013	19	29	460	969	92	720
2013/2014	45	41	955	2,066	152	723
2014/2015	43	41	893	1,771	149	937
2015/2016	43	43	1,039	1,984	170	1,050
2016/2017 ^b	73	48	1,527	1,300	201	1,037

^a A community hunt was not offered in 2010/2011

^b Harvest is not finalized

A majority of the hunters currently participating in the CSH are non-local residents living outside of Unit 13. From 2008-2012, residents of Unit 13 averaged 49 moose and nonlocal residents averaged 591. For the Tier II hunt permits, Copper Basin residents harvested most of the moose from 1995-2001 (78%), but only 45% from 2002-2007. To address concern that communal pattern of use was not providing reasonable opportunity, the BOG adopted amended Proposal 20 (RC25) at the special meeting in Glennallen to retain the CSH moose hunt for resident hunters for the fall (Aug 20 – Sept. 20) and winter (Dec. 1 - Dec. 31; subsistence hunt only) hunts with the following restrictions: *One bull per by community harvest permit only; however, no more than 100 bulls that do not meet antler restrictions may be taken by Tier II permit during the August 20 – September 20 season, up to 350 Tier II permits may be issued, one Tier II permit per household.* The BOG clarified that permit holders for regulatory year 2017 and 2018 will not be bound by the two year commitment for regulatory year 2018.

The Board would like to see if the changes made for the State of Alaska’s CSH in Unit 13 are effective before contacting the BOG for additional ways to increase the opportunity for local residents in Unit 13 to efficiently meet their subsistence needs for moose. Although Federal public lands in Unit 13 are limited, local rural residents are also able to hunt in Unit 13 under

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Federal subsistence regulations with a season of August 1 to September 20 and an any antlered bull moose harvest limit.

In closing, I want to thank you and your Council for their continued involvement and diligence in matters regarding the Federal Subsistence Management Program. I speak for the entire Board in expressing our appreciation for your efforts and our confidence that the subsistence users of the Southcentral Region are well represented through your work.

Sincerely,



Anthony Christianson
Chair

cc: Federal Subsistence Board
Southcentral Alaska Subsistence Regional Advisory Council
Eugene R. Peltola, Jr., Assistant Regional Director, Office of Subsistence Management
Thomas Doolittle, Deputy Assistant Regional Director, Office of Subsistence Management
Carl Johnson, Council Coordination Supervisor, Office of Subsistence Management
Donald Mike, Subsistence Council Coordinator, Office of Subsistence Management
Southcentral Team, Office of Subsistence Management
Jill Klein, Special Assistant to the Commissioner, Alaska Department of Fish and Game
Interagency Staff Committee
Administrative Record

FWS/OSM ____ / ____

Field Supervisor
U.S. Fish and Wildlife Service
Kenai Fish and Wildlife Conservation Office
43655 Kalifornski Road
Kenai, AK 99669

Dear Kenai Office Field Supervisor:

This letter delegates specific regulatory authority from the Federal Subsistence Board (Board) to the Field Supervisor of the Kenai Fish and Wildlife Conservation Office (Field Supervisor) to issue emergency special actions when necessary to ensure the conservation of a healthy fish population, to continue subsistence uses of fish, for the continued viability of a fish population, or for public safety reasons. This delegation only applies to Federal public waters subject to the Alaska National Interest Lands Conservation Act (ANILCA) Title VIII in the Cook Inlet Area.

It is the intent of the Board that Federal subsistence fisheries management by Federal officials be coordinated, prior to implementation, with Regional Advisory Council (Council) representatives, the Office of Subsistence Management (OSM), and the Alaska Department of Fish and Game (ADF&G) to the extent possible. The OSM will be used by managers to facilitate communication of actions and to ensure proposed actions are technically and administratively aligned with legal mandates and policies. Federal managers are expected to cooperate with managers from the State and other Federal agencies, the Council Chair(s), and applicable Council members to minimize disruption to resource users and existing agency programs, consistent with the need for emergency special action.

DELEGATION OF AUTHORITY

1. Delegation: The Field Supervisor is hereby delegated authority to issue emergency special actions affecting fisheries in Federal public waters as outlined under the **Scope of Delegation** below. Although a public hearing is not required for emergency special actions, if deemed necessary by you, then a public hearing on the emergency special action is recommended. Special actions are governed by regulation at 36 CFR 242.19 and 50 CFR 100.19.

2. Authority: This delegation of authority is established pursuant to 36 CFR 242.10(d)(6) and 50 CFR 100.10(d)(6), which state: “The Board may delegate to agency field officials the authority to set harvest and possession limits, define harvest areas, specify methods or means of harvest, specify permit requirements, and open or close specific fish or wildlife harvest seasons within frameworks established by the Board.”

3. Scope of Delegation: The regulatory authority hereby delegated is limited to the issuance of emergency special actions as defined by 36 CFR 242.19(a) and 50 CFR 100.19(a). Such an emergency action may not exceed 60 days, and may not be extended.

This delegation permits you to open or close Federal subsistence fishing periods or areas provided under codified regulations. It also permits you to specify methods and means; to specify permit requirements; and to set harvest and possession limits for Federal subsistence fisheries.

This delegation also permits you to close and re-open Federal public waters to nonsubsistence fishing, but does not permit you to specify methods and means, permit requirements, or harvest and possession limits for State-managed fisheries. This delegation may be exercised only when it is necessary to conserve healthy populations of fish or to ensure the continuation of subsistence uses.

All other proposed changes to codified regulations, such as customary and traditional use determinations or requests for special actions greater than 60 days, shall be directed to the Board.

The Federal public waters subject to this delegated authority are those within the Cook Inlet Area (as described in the Subsistence Management Regulations for the Harvest of Fish and Shellfish on Federal Public Lands and Waters in Alaska). You will coordinate all local fishery decisions with all affected Federal land managers.

4. Effective Period: This delegation of authority is effective from the date of this letter and continues until superseded or rescinded.

5. Guidelines for Review of Proposed Special Actions: You will use the following guidelines to determine the appropriate course of action when reviewing proposed special actions.

- a) Does the proposed special action fall within the geographic and regulatory scope of delegation?
- b) Have you communicated with the OSM to ensure the emergency special action is aligned with Federal subsistence regulations and policy?
- c) Does the proposed action need to be implemented immediately as an emergency special action, or can the desired conservation or subsistence use goal be addressed by deferring the issue to the next regulatory cycle?
- d) Does the supporting information in the proposed special action substantiate the need for the action?
- e) Are the assertions in the proposed special action confirmed by available current biological information and/or by affected subsistence users?
- f) Is the proposed special action supported in the context of available historical information on stock status and harvests by affected users?
- g) Is the proposed special action likely to achieve the expected results?
- h) Have the perspectives of the Chair or alternate of the affected Council(s), OSM, and affected State and Federal managers been fully considered in the review of the proposed special action?
- i) Have the potential impacts of the proposed special action on all affected subsistence users and non-Federally qualified users within the drainage been considered?

j) Can public announcement of the proposed special action be made in a timely manner to accomplish the management objective?

k) After evaluating all information and weighing the merits of the special action against other actions, including no action, is the proposed emergency special action reasonable, rational, and responsible?

6. Guidelines for Delegation: You will become familiar with the management history of the fisheries in the region, with the current State and Federal regulations and management plans, and be up-to-date on stock and harvest status information.

You will provide subsistence users in the region a local point of contact about Federal subsistence fishery issues and regulations and facilitate a local liaison with State managers and other user groups. For in-season management decisions and special actions, consultation is not always possible, but to the extent practicable, two-way communication will take place before decisions are implemented. You will also establish meaningful and timely opportunities for government-to-government consultation related to pre-season and post-season management actions as established in the Board's Government to Government Tribal Consultation Policy (Federal Subsistence Board Government to Government Tribal Consultation Policy 2012).

You will review emergency special action requests or situations that may require an emergency special action and all supporting information to determine (1) consistency with 36 CFR 242.19 and 50 CFR 100.19, (2) if the request/situation falls within the scope of your delegated authority, (3) if significant conservation problems or subsistence harvest concerns are indicated, and (4) what the consequences of taking an action may be on potentially affected subsistence uses and nonsubsistence uses. Requests not within your delegated authority will be forwarded to the Board for consideration.

You will maintain a record of all special action requests and justification of your decisions. A copy of this record will be provided to the Administrative Records Specialist at OSM no later than sixty days after development of the document.

You will immediately notify the Board through the Assistant Regional Director for the OSM, and coordinate with the Chair or alternate of the affected Council(s), local ADF&G managers, and other affected Federal conservation unit managers concerning special actions being considered.

If the timing of a regularly scheduled meeting of the affected Council(s) permits without incurring undue delay, you may seek Council recommendations on the proposed emergency special action.

You will issue decisions in a timely manner. Before the effective date of any decision, reasonable efforts will be made to notify Council representatives, the public, OSM, affected State and Federal managers, and law enforcement personnel. If an action is to supersede a State action not yet in effect, the decision will be communicated to Council representatives, the public, OSM, and State and Federal managers at least 24 hours before the State action would be effective. If a decision to take no action is made, you will notify the proponents of the request immediately.

You may defer an emergency special action request, otherwise covered by the delegation of authority, to the Board in instances when the proposed management action will have a significant impact on a larger number of Federal subsistence users or is particularly controversial. These options should be exercised judiciously and only when sufficient time allows. Such deferral should not be

considered where immediate management actions are necessary for conservation purposes. The Board may determine that an emergency special action request may be best handled by the Board, subsequently rescinding the delegated authority for the specific action only.

7. Reporting: You must provide to the Board, through the Assistant Regional Director for the OSM, a report describing the pre-season coordination efforts, local fisheries management decisions, and post-season evaluation activities for the previous fishing season by November 15. A summary of emergency special action requests and your resultant actions must be provided to the coordinator of the appropriate Council(s) at the end of the calendar year for presentation during regularly scheduled Council meetings.

8. Support Services: Administrative support for your local Federal subsistence fisheries management activities will be provided by the Office of Subsistence Management

Should you have any questions about this delegation of authority, please feel free to contact the Assistant Region Director for the OSM at toll-free 1-800-478-1456 or (907) 786-3888.

Sincerely,

Anthony Christianson
Chair

Attachment: Map of the Cook Inlet Area

cc: Federal Subsistence Board
Interagency Staff Committee
Chair, Southcentral Alaska Subsistence Regional Advisory Council
Superintendent, Lake Clark/Katmai National Parks and Preserves
Superintendent, Denali National Park and Preserve
Superintendent, Wrangell-St. Elias National Park and Preserve
Manager, Kenai National Wildlife Refuge
Manager, Alaska Maritime National Wildlife Refuge
Forest Supervisor, Chugach National Forest
District Ranger, Seward Ranger District
Assistant Regional Director, Law Enforcement, U.S. Fish and Wildlife Service (Region 7)
Commissioner, Alaska Department of Fish and Game
Assistant Regional Director, Office of Subsistence Management
Administrative Record



United States Department of the Interior

NATIONAL PARK SERVICE
Denali National Park & Preserve
Mile 237 Parks Highway
P.O. Box 9
Denali Park, AK 99755

Denali Wildlife Update September 2017

Bear Monitoring/Denali North Side Bear Study

The objective of this study is to document the ecology of grizzly bears and their movements on the northeast portion of the park, especially outside the north park boundary where they may be subject to legal harvest and possible future intensive management efforts by the State of Alaska.

Earlier radio telemetry efforts in this area have shown that grizzly bears initially encountered within the park spend some portion of their lives outside the park boundary (see image below). These data were acquired from GPS radio collars that were deployed on bears in 2013 and released in 2015. Efforts to deploy additional collars in May 2016 were hampered by a lack of available bears and only four collars were deployed. The 2016 collars are Iridium based and location data directly to a computer about every 10 days. These 4 bears also split their time in and outside the park. A capture effort planned to deploy additional Iridium collars in May 2017 was hampered by lack of aircraft so a capture will be conducted in September 2017. Full analysis of the data will be completed after September 2019 when the last of the collars are programmed to release.

Bear Management

Over the course of the 2016 season 126 Bear Human Incident Management System (BHIMS) reports were collected along with two reports regarding bear caused human injuries. Nine were rated to be merely observations, where the reporting party saw a bear at a distance but the bear never noticed them. 117 bear encounters were reported where minimally, a bear noticed a human and its behavior changed in accordance. Reported bear behavior and subsequent management ratings were markedly different between frontcountry and backcountry reports. There were fewer reports of bear /human interaction filed for frontcountry areas than for backcountry areas, 40 and 79 respectively. However, 55% (22) of frontcountry reports were rated as an *incident* versus 15% (12) of reported backcountry interactions. Similarly, frontcountry BHIMS reports indicate 68% of bears displaying varying degrees of habituated behavior (ie. Tolerant, conditioned, and rewarded) and backcountry BHIMS reported 42%. Five

reports indicated that bears were actually provoked by humans. Four of the five encounters described in the aforementioned reports occurred on the park road by both visitors in private vehicles and concession employees driving buses.

Two major incidents occurred this season in which people were injured by bears. Both incidents involved people day hiking and grizzly bears. One incident occurred in the backcountry and one occurred on developed trails in the Savage River area. The human injury incident that occurred in the backcountry involved a lone hiker that surprised a grizzly sow with cubs and suffered a defensive attack. This incident was determined to be the result of natural bear behavior. The surrounding area was closed for a week and reopened without further incident.

The other bear caused human injury incident involved a sub-adult male bear and many hikers in a developed area. The injury incident occurred as the result of prior less severe incidents. In these other incidents there was a clear progression from a curious sub-adult bear testing boundaries to a bear that was rewarded with human food by approaching people to a bear that almost attacked a person and was subsequently destroyed. At every progressive stage of this major incident the bear encountered visitors that reacted incorrectly to the bear and the situation, ultimately leading to the destruction of the bear.

Moose

Denali receives funding for moose monitoring every third year from the Central Alaska Monitoring Network. These funds are then matched with park funds to conduct a moose survey on the north side of the park. Denali was scheduled to conduct this north side survey in Fall 2014. The survey area covers all areas within the park on the north side of the Alaska Range Mountains. Due to lack of adequate snow conditions, the survey was cancelled.

Partial funding was made available to attempt a survey of the same area in Fall 2015. Sufficient snow and reasonable weather conditions allowed us to conduct the survey between November 16 and 29 though the western-most units of the survey area were excluded. Results are as follows:

- Total units sampled = 111 (out of 653)
- Total area sampled = 657 mi² (out of 3863 mi²)
- Total moose counted = 524 (71 calves, 167 bulls, 286 cows)
- Preliminary Population Estimate = 2109 moose
- Preliminary Density Estimate = 0.55 moose/mi²
- Preliminary Calf:Bull:Cow ratio = 27:68:100

Denali is scheduled for moose survey funding in Fall 2017. Given adequate conditions the survey will be conducted in November/early December.

Caribou

This report summarizes research and monitoring of the Denali Caribou Herd conducted during

October 2015-September 2016 (FY2016). During this period, the specific objectives included:

1. Estimate the population size and composition in late September each year;
2. Determine productivity, survival patterns and age structure of adult females;
3. Assess calf production and recruitment;
4. Investigate the patterns of growth, survival, and seasonal habitat selection of male caribou;
5. Relate caribou population status, trends, and vital rates to climatic variables and predator population characteristics.

Herd size estimate of 2,660 caribou for September 2016. Although preliminary, the caribou population appears to have grown at about 5% per year since Autumn 2013. During these 3 years, winter snowfalls have been below average and adult female survival over winter has been very high, averaging 98%.

The adult sex ratio of 38 bulls:100 cows. Adult sex ratios declined from an average of 56:100 during 1984-1989 to a low of 29:100 during 1997-1998 as a result of increased mortality of males during severe winters in the late 1980s and early 1990s, as well as limited recruitment of male calves. Bull:cow ratios have shown an increasing, but variable, trend since that low point, but are well below those at the beginning of the study.

Productivity of cows ≥ 1 year old was estimated at 72% in mid-May 2016. Calf production has varied from 59% in 1990 to 92% in 1994 and is largely influenced by the number of yearling recruits, the highly variable productivity of 2-year-olds, and the proportion of older females in the herd.

During October 2015-September 2016, an estimated annual mortality rate was only 5% for adult females, lower than the long-term study average of 11% (range of annual values = 2-23%). Females ≥ 13 years old made up 10% of the population, declining from a recent peak of 22% in 2008.

Based on data collected from radiocollared females during October 1986 – September 2013, age-specific survival rates of females tend to be generally high for 2-7 year-olds, averaging 0.94, then decline slowly during 8-13 years of age prior to declining markedly as individuals become senescent. The 2 oldest caribou females we have monitored died in May as they turned an estimated 20 years old.

In mid-September bull caribou should be at their maximum body for the year in preparation for the rut and ensuing winter. Overall, body masses of males ranged from 93 to 278 kg. Body masses increased markedly with age from 1 to 6 years, gaining an average of 25 kg each year, and plateaued at 232 kg on average for bulls ≥ 6 years of age.

During our studies of bull survival since September 2007, we have noted that age-specific survival rates were high for males 1-4 years-old, averaging 88%. As bulls approached full adult size at 5 years of age and became active in the rut their survival declines with each passing year with very few surviving to 10 years. Interestingly, bulls ≥ 5 years old died predominantly during

July – November (85% of annual mortality) with half this mortality occurring prior to the onset of the rut in mid-September.

Wolf Monitoring

Denali National Park and Preserve's wolves have been studied by researchers since 1939. Population estimates were not very accurate until 1986, when a large-scale wolf research project was initiated by David Mech and others. This project provided basic information necessary for effective wolf management. The current monitoring program consists of maintaining one or two radio-collared wolves in each known pack inhabiting the park north of the Alaska Range. Radio-collared wolves are located about twice per month, with additional locations during late September to early October to determine fall pack sizes and to count pups, and during March to determine late winter pack sizes. In recent years, the use of GPS collars that record locations one or more times per day has greatly increased the number of locations available for most collared wolf packs. Telemetry locations acquired over one year (April—March) are used to determine the area of each pack territory. Counts of wolves in these packs and the area encompassed by the combined pack territories are used to estimate abundance and density of wolves. In addition, monitoring data are used to determine wolf movements, den locations, mortality factors, behavior, and population dynamics.

In spring 2017, we counted 72 wolves in 10 packs in our study area. This included a total of 20 wolves collared in 11 different packs (1 pack is outside of the study area currently). In 2016, at least 7 out of 9 monitored packs denned and 29 pups survived until the fall. From January 2016 to May 2017, 20 collared wolves died- 7 were harvested (shot or trapped), 7 were killed by wolves, 5 died of natural causes (such as starvation), and 1 died of an unknown cause.

We re-vamped Denali's wolf webpage this summer as well, with additional data and information. <https://www.nps.gov/dena/learn/nature/wolves.htm>

Sheep population Surveys

Ground-based Dall's sheep surveys were conducted annually along the Denali National Park Road corridor from 2008 to 2017. Previous ground surveys occurred from 1974 to 1996 but these were discontinued from 1997 to 2007. From 2008 to 2017, areas surveyed varied slightly from year to year depending on weather conditions and information gathered from aerial overflights prior to the surveys. From 2008 to 2017, a total of 41 to 184 sheep were counted and classified each year. Estimates of sheep productivity (expressed as the number of lambs per 100 ewes or ewe-like sheep) ranged from 3.57 (2013) to 50 (2016) lambs per 100 ewes. The estimate of productivity in 2012 (10.94) and 2013 (3.57) were the lowest recorded since 1993. The productivity estimate from 2013 was the lowest recorded during ground surveys since 1974. This drop occurred following a winter with very late snowmelt and record cold spring temperatures, which potentially covered spring forage and impacted natality and/or early survival of lambs. In 2017, 163 sheep were counted and the lamb to ewelike ratio was 49.21. In 2017, we also conducted aerial surveys using distance sampling methods. Over the course of two weeks, we

flew 102 transects via Supercub and saw 629 sheep. Population estimates from this survey will be coming this winter.

Trapping Records Project

Lake Minchumina is one of the communities designated for subsistence use in Denali under ANILCA. In April 2017, two biologists from Denali visited Lake Minchumina for four days to complete the field component of this project. During this time, we interviewed trappers. Interview questions detailed the trappers' observations of furbearer population trends over time, potential drivers of such changes, and questions they may have about furbearers. Trappers described their general lifestyle in the bush as subsistence users, and we heard multiple stories of changes experienced by the community over time. All interviews were recorded using a handheld audio recorder. Miki and Julie Collins also generously shared their trapping records with us. This valuable resource can be used not only as a historical reference but may also be applied to a retroactive population analyses on American marten, the main species targeted by the Collins twins. Considering that little is known about furbearers or of subsistence use in the Denali Preserve, having these records is of considerable importance to the National Park Service. Following our return from Lake Minchumina, the data collected was organized and quality assurance/quality control procedures were implemented. Along with a transcript, the audio file and an abstract for each interview will be archived in the Denali National Park Museum and on IRMA.

For further information on wildlife in Denali National Park and Preserve check out www.nps.gov/dena. You may also contact Pat Owen, Wildlife Biologist at pat_owen@nps.gov.

Denali Project Update

Denali National Park and Preserve Hosts Native Place Names Workshop

In an effort to preserve historically significant cultural resources, the National Park Service recently brought together linguistic experts and Alaska Native youth and elders in Denali National Park and Preserve to identify, share and learn about native place names in the Denali area.

The workshop included Alaska Natives from the Athabaskan communities of Telida, Nikolai, Nondalton, Nenana, Anchorage and Fairbanks, as well as Telida Village staff, all of whom recognize the importance of building a knowledge base of Native Place Names in Alaska that are only known to a few remaining speakers. The meeting also provided a platform for Native Elders to share culture and memories with younger members of their communities.

“These traditional ways are getting more important as we lose more of our elders. We need to pass this knowledge on to the younger generation,” said Nick Alexia, of Nikolai. “Getting together like this is really important.”

The Athabaskan people who lived and traveled in the lands now in Denali National Park and Preserve had names for natural features such as rivers, mountains, bays; human settlements and trails; and places to hunt, fish, and gather. These names are rich ethnographic and historical resources. Many of them refer to activities that took place regularly at the site; others tell of historical events that occurred there. Many of the names that were preserved in oral tradition have now been replaced with English names on modern maps. Many of the Elders who knew the place names and their stories are now gone; it is urgent to document the knowledge of those still living.

Native place names maintain and preserve cultural and spiritual practices as well as enhance the Park’s understanding of the history and significance of sites and resources in the parks. Park lands and associated place name resources hold key elements in maintaining Athabaskan traditional connections to sacred sites, cultural resources and traditional lifeways ways of life.

This workshop is the result of Telida Village Place Names Project that began several years ago. While conducting the project, linguist Ray Collins discovered a previously unknown series of tape recordings of Mishka Deaphon and Wassiley Petruska. These audio recordings describe travels along the Kuskokwim River and its drainages from the 1920’s and 1930’s. Elders from several Athabaskan groups joined linguist, James Kari, and NPS staff to help identify traditional place names from the recording that have been unknown to non-speakers and risked being lost forever as fewer people speak and understand Athabaskan languages.

During the workshop, various traditional Athabaskan names were restored to geographic features on the map. As Kari played the Petruska tape, several elders (Steven Nikolai Sr., Nick Alexia, Mike Alexia, Dora Esai, Verdresia Dennis) shared the place names they knew. In one dramatic moment, Dora (from Nikolai) recognized a place being discussed in the recording and hurried to the front to inform Kari about the Native name for Farewell Lake (Toydroya Mina’), which is translated as “that lake that belongs to Egypt Mountain.” This area is the Esai families’ Silvertip hunting camp located near the Iditarod Trail.

In addition to the important recovery of names, park archaeologist Phoebe Gilbert asked Telida and Nikolai members to name several archaeology sites that were discovered during field surveys in 2016. One was named on the spot, Dinatseya Ena Ghedushdi “where our ancestors lived.” This site is near the Alexia family’s traditional camping location where they would spend the winter trapping and hunting for sheep.

In addition to the mapping exercise, the workshop component of the meeting allowed students, teachers, and NPS staff to break into smaller groups and learn from Native elders about historical hunting routes into the park, trapping, winter camping, skills, and dog mushing.

“This was really good, getting together like this. I wish we could do more of this. It’s good for us older people and good for the young people to hear this,” said Butch Hobson, of Nondalton. “I am glad the park supports stuff like this.”

Nondalton Elders Butch and Pauline Hobson were able to ride in the Kennel’s dog sled. For Butch, it was like going back in time. He grew up mushing dogs, a time when that was the main source of transportation. After the ride, Butch told a few stories about his younger days mushing dogs. He first drove dogs through the mountains when he was 11 years old, hauling wood and moose meat.

There was also a session on “connection and living through values” and a beaver trapping video. Although the participants were from villages many miles apart they had much in common with one another. Participants young and old shared about what connection meant to them. All of what was shared revolved around the land. Some of the sharing included:

“Being out at camp and trapping for days.”

“Being at potlatch and knowing I am connected to my ancestors.”

“Eating moose meat.”

“Getting my first beaver.”

“Hearing the old stories and speaking the language.”

There was no doubt of the importance of the land, subsistence life way and cultural values.

The beaver trapping video was done through Lake Clark National Park and came from the Nondalton Dena’ina. This 15-minute video told the story of carrying on traditions and values. It spoke of the importance of ceremony and passing this knowledge on to the younger generation; one of the ceremonies included the blessing of a new pair of snow shoes.

This prompted a memory from a Nikolai Elder who stated that his grandma used to tell him that “when you weave the webbing into a pair of snow shoes, it needs be weaved in the direction of the moon.” This is another example of learning from the natural world around us.

In addition, NPS staff were able to discuss potential job opportunities for students and other members of the villages both within the agency and at Denali National Park. Workshop participants agreed that the gathering of several Native communities to reflect and share about culture was a tremendous success.

Winter 2018 Regional Advisory Council Meeting Calendar

February-March 2018

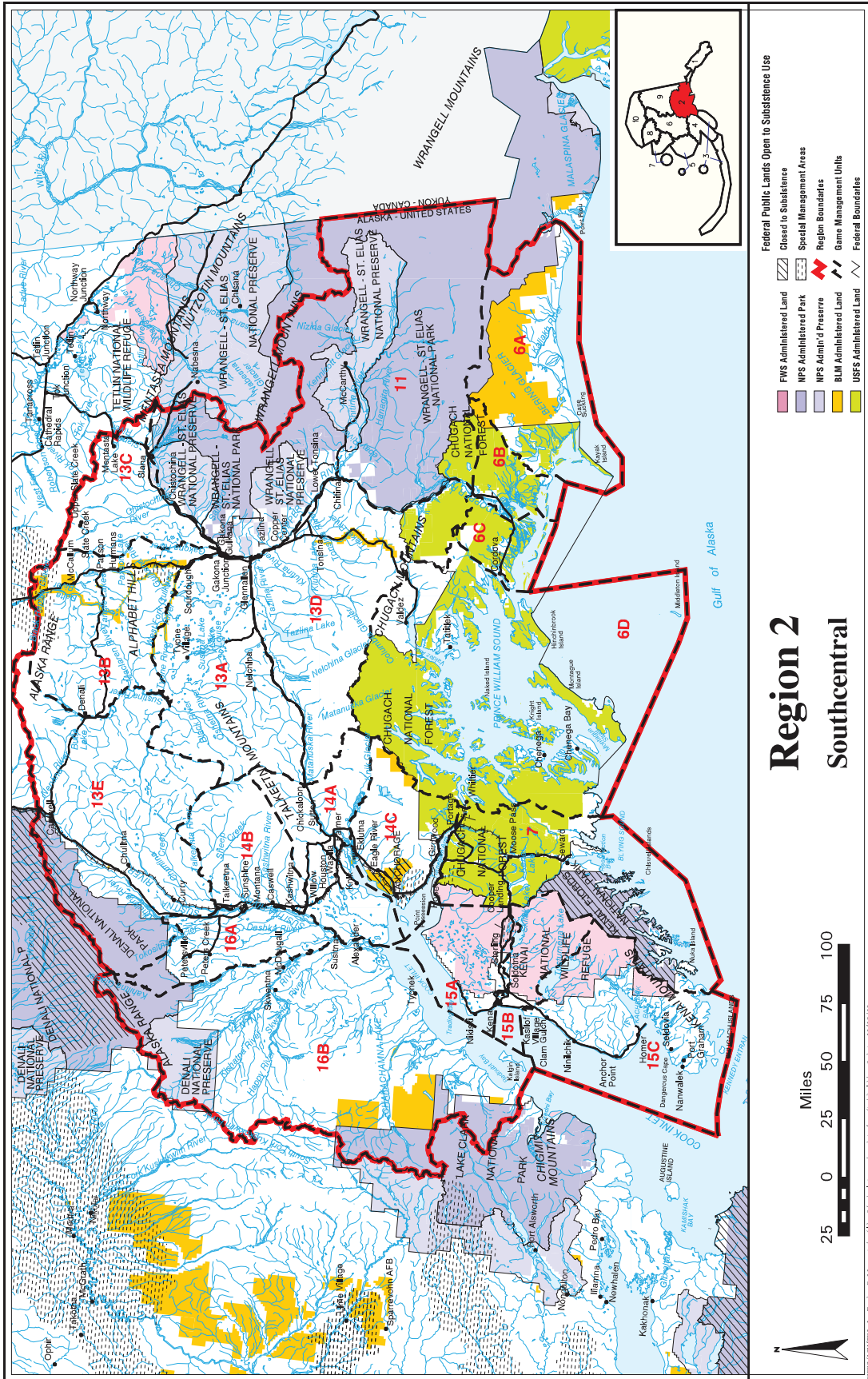
Meeting dates and locations are subject to change.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Feb. 4	Feb. 5 <i>Window Opens</i>	Feb. 6	Feb. 7 EI — Fairbanks	Feb. 8	Feb. 9	Feb. 10
		SE — Wrangell				
Feb. 11	Feb. 12	Feb. 13 NS — Utqiagvik	Feb. 14	Feb. 15	Feb. 16	Feb. 17
Feb. 18	Feb. 19 PRESIDENT'S DAY HOLIDAY	Feb. 20 WI — Anchorage	Feb. 21 KA — Kodiak	Feb. 22	Feb. 23	Feb. 24
Feb. 25	Feb. 26	Feb. 27 BB — Naknek (1st opt.)	Feb. 28 NWA — Kotzebue	Mar. 1	Mar. 2	Mar. 3
Mar. 4	Mar. 5 SP — Nome	Mar. 6 SC — Anchorage	Mar. 7	Mar. 8	Mar. 9	Mar. 10
Mar. 11	Mar. 12	Mar. 13 BB — Naknek (2nd opt.)	Mar. 14 YKD — Bethel	Mar. 15	Mar. 16 <i>Window Closes</i>	Mar. 17

Fall 2018 Regional Advisory Council Meeting Calendar

Meeting dates and locations are subject to change.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<i>Aug. 19</i>	<i>Aug. 20</i>	<i>Aug. 21</i>	<i>Aug. 22</i>	<i>Aug. 23</i>	<i>Aug. 24</i>	<i>Aug. 25</i>
<i>Aug. 26</i>	<i>Aug. 27</i>	<i>Aug. 28</i>	<i>Aug. 29</i>	<i>Aug. 30</i>	<i>Aug. 31</i>	<i>Sept. 1</i>
<i>Sept. 2</i>	<i>Sept. 3</i> LABOR DAY HOLIDAY	<i>Sept. 4</i>	<i>Sept. 5</i>	<i>Sept. 6</i>	<i>Sept. 7</i>	<i>Sept. 8</i>
<i>Sept. 9</i>	<i>Sept. 10</i>	<i>Sept. 11</i>	<i>Sept. 12</i>	<i>Sept. 13</i>	<i>Sept. 14</i>	<i>Sept. 15</i>
<i>Sept. 16</i>	<i>Sept. 17</i>	<i>Sept. 18</i>	<i>Sept. 19</i>	<i>Sept. 20</i>	<i>Sept. 21</i>	<i>Sept. 22</i>
<i>Sept. 23</i>	<i>Sept. 24</i>	<i>Sept. 25</i>	<i>Sept. 26</i>	<i>Sept. 27</i>	<i>Sept. 28</i>	<i>Sept. 29</i>
<i>Sept. 30</i>	<i>Oct. 1</i>	<i>Oct. 2</i>	<i>Oct. 3</i>	<i>Oct. 4</i>	<i>Oct. 5</i>	<i>Oct. 6</i>
<i>Oct. 7</i>	<i>Oct. 8</i> COLUMBUS DAY HOLIDAY	<i>Oct. 9</i>	<i>Oct. 10</i>	<i>Oct. 11</i>	<i>Oct. 12</i>	<i>Oct. 13</i>
		SE — TBD				
<i>Oct. 14</i>	<i>Oct. 15</i>	<i>Oct. 16</i>	<i>Oct. 17</i>	<i>Oct. 18</i>	<i>Oct. 19</i>	<i>Oct. 20</i>
				AFN — Anchorage		
<i>Oct. 21</i>	<i>Oct. 22</i>	<i>Oct. 23</i>	<i>Oct. 24</i>	<i>Oct. 25</i>	<i>Oct. 26</i>	<i>Oct. 27</i>
<i>Oct. 28</i>	<i>Oct. 29</i>	<i>Oct. 30</i>	<i>Oct. 31</i>	<i>Nov. 1</i>	<i>Nov. 2</i>	<i>Nov. 3</i>
<i>Nov. 4</i>	<i>Nov. 5</i>	<i>Nov. 6</i>	<i>Nov. 7</i>	<i>Nov. 8</i>	<i>Nov. 9</i>	<i>Nov. 10</i>



**Department of the Interior
U. S. Fish and Wildlife Service**

Southcentral Alaska Subsistence Regional Advisory Council

Charter

1. **Committee's Official Designation.** The Council's official designation is the Southcentral Alaska Subsistence Regional Advisory (Council).
2. **Authority.** The Council is renewed by virtue of the authority set out in the Alaska National Interest Lands Conservation Act (16 U.S.C. 3115 (1988)), and under the authority of the Secretary of the Interior, in furtherance of 16 U.S.C. 410hh-2. The Council is regulated by the Federal Advisory Committee Act (FACA), as amended, 5 U.S.C. Appendix 2.
3. **Objectives and Scope of Activities.** The objective of the Council is to provide a forum for the residents of the Region with personal knowledge of local conditions and resource requirements to have a meaningful role in the subsistence management of fish and wildlife on Federal lands and waters in the Region.
4. **Description of Duties.** The Council has authority to perform the following duties:
 - a. Recommend the initiation of, review, and evaluate proposals for regulations, policies, management plans, and other matters relating to subsistence uses of fish and wildlife on public lands within the Region.
 - b. Provide a forum for the expression of opinions and recommendations by persons interested in any matter related to the subsistence uses of fish and wildlife on public lands within the Region.
 - c. Encourage local and regional participation in the decisionmaking process affecting the taking of fish and wildlife on the public lands within the Region for subsistence uses.
 - d. Prepare an annual report to the Secretary containing the following:
 - (1) An identification of current and anticipated subsistence uses of fish and wildlife populations within the Region.
 - (2) An evaluation of current and anticipated subsistence needs for fish and wildlife populations within the Region.

- (3) A recommended strategy for the management of fish and wildlife populations within the Region to accommodate such subsistence uses and needs.
 - (4) Recommendations concerning policies, standards, guidelines, and regulations to implement the strategy.
 - e. Appoint one member to the Wrangell-St. Elias National Park Subsistence Resource Commission and two members to the Denali National Park Subsistence Resource Commission in accordance with Section 808 of the Alaska National Interest Lands Conservation Act (ANILCA).
 - f. Make recommendations on determinations of customary and traditional use of subsistence resources.
 - g. Make recommendations on determinations of rural status.
 - h. Provide recommendations on the establishment and membership of Federal local advisory committees.
5. **Agency or Official to Whom the Council Reports.** The Council reports to the Federal Subsistence Board Chair, who is appointed by the Secretary of the Interior with the concurrence of the Secretary of Agriculture.
 6. **Support.** The U.S. Fish and Wildlife Service will provide administrative support for the activities of the Council through the Office of Subsistence Management.
 7. **Estimated Annual Operating Costs and Staff Years.** The annual operating costs associated with supporting the Council's functions are estimated to be \$160,000, including all direct and indirect expenses and 1.15 staff years.
 8. **Designated Federal Officer.** The DFO is the Subsistence Council Coordinator for the Region or such other Federal employee as may be designated by the Assistant Regional Director – Subsistence, Region 7, U.S. Fish and Wildlife Service. The DFO is a full-time Federal employee appointed in accordance with Agency procedures. The DFO will:
 - Approve or call all of the advisory committee's and subcommittees' meetings,
 - Prepare and approve all meeting agendas,
 - Attend all committee and subcommittee meetings,
 - Adjourn any meeting when the DFO determines adjournment to be in the public interest, and
 - Chair meetings when directed to do so by the official to whom the advisory committee reports.

9. **Estimated Number and Frequency of Meetings.** The Council will meet 1-2 times per year, and at such times as designated by the Federal Subsistence Board Chair or the DFO.
10. **Duration.** Continuing.
11. **Termination.** The Council will be inactive 2 years from the date the Charter is filed, unless prior to that date it is renewed in accordance with the provisions of Section 14 of the FACA. The Council will not meet or take any action without a valid current charter.
12. **Membership and Designation.** The Council's membership is composed of representative members as follows:

Thirteen members who are knowledgeable and experienced in matters relating to subsistence uses of fish and wildlife and who are residents of the Region represented by the Council. To ensure that each Council represents a diversity of interests, the Federal Subsistence Board in their nomination recommendations to the Secretary will strive to ensure that nine of the members (70 percent) represent subsistence interests within the Region and four of the members (30 percent) represent commercial and sport interests within the Region. The portion of membership representing commercial and sport interests must include, where possible, at least one representative from the sport community and one representative from the commercial community.

The Secretary of the Interior will appoint members based on the recommendations from the Federal Subsistence Board and with the concurrence of the Secretary of Agriculture.

Members will be appointed for 3-year terms. A vacancy on the Council will be filled in the same manner in which the original appointment was made. Members serve at the discretion of the Secretary.

Council members will elect a Chair, Vice-Chair, and Secretary for a 1-year term.

Members of the Council will serve without compensation. However, while away from their homes or regular places of business, Council and subcommittee members engaged in Council, or subcommittee business, approved by the DFO, may be allowed travel expenses, including per diem in lieu of subsistence, in the same manner as persons employed intermittently in Government service under Section 5703 of Title 5 of the United States Code.

13. **Ethics Responsibilities of Members.** No Council or subcommittee member will participate in any specific party matter in which the member has a direct financial interest in a lease, license, permit, contract, claim, agreement, or related litigation with the Department.

14. **Subcommittees.** Subject to the DFO's approval, subcommittees may be formed for the purpose of compiling information and conducting research. However, such subcommittees must act only under the direction of the DFO and must report their recommendations to the full Council for consideration. Subcommittees must not provide advice or work products directly to the Agency. The Council Chair, with the approval of the DFO, will appoint subcommittee members. Subcommittees will meet as necessary to accomplish their assignments, subject to the approval of the DFO and the availability of resources.

15. **Recordkeeping.** Records of the Council, and formally and informally established subcommittees or other subgroups of the Council, shall be handled in accordance with General Records Schedule 6.2, and other approved Agency records disposition schedule. These records shall be available for public inspection and copying, subject to the Freedom of Information Act, 5 U.S.C. 552.



Secretary of the Interior

NOV 20 2015

Date Signed

DEC 03 2015

Date Filed

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