



SOUTHCENTRAL ALASKA
SUBSISTENCE REGIONAL
ADVISORY COUNCIL
Meeting Materials

*March 26-27, 2019
Anchorage*



What's Inside

Page

1	Agenda
4	Roster
5	Draft Fall 2018 Council Meeting Minutes
14	2021 Nonrural Determination Cycle
15	Wildlife Closure Review WCR18-03 (Unit 7 moose - Kings Bay)
23	Wildlife Closure Review WCR18-41 (Unit 6C moose)
33	Wildlife Closure Review WCR18-42 (Unit 12 within WRST caribou - crossover proposal)
52	News Release: Call for Proposals to Change Federal Subsistence Hunting and Trapping Regulations
53	Proposed Rule: Subsistence Management Regulations for Public Lands in Alaska—2020–21 and 2021–22 Subsistence Taking of Wildlife Regulations
58	How to Submit a Proposal to Change Federal Subsistence Regulations
61	Council's FY2018 Draft Annual Report
65	Native Village of Eyak, Department of the Environment and Natural Resources: Copper River Chinook Salmon Escapement Monitoring Program 2003– 2018
69	Cordova District Ranger, US Forest Service, Report to the Council
73	Effects of Egg Harvest on Glaucous-winged Gull Hatch Success Final Report
92	Sterling Highway MP 45-60 Project
130	Fall 2019 Council Meeting Calendar
131	Winter 2020 Council Meeting Calendar
132	Region 2 – Southcentral Map
133	Council Charter

On the cover...

Frozen Chitina River meandering through a wintery landscape.

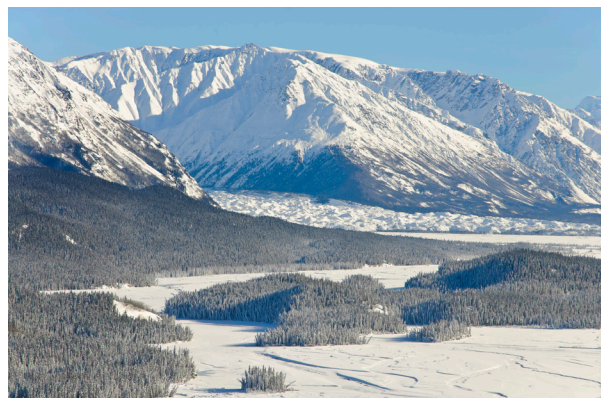


photo by Bryan Pettry. NPS public domain

This page intentionally left blank

SOUTHCENTRAL ALASKA SUBSISTENCE REGIONAL ADVISORY COUNCIL

Aleutian Pribilof Island Association, Inc.
1131 E. International Airport Road
Anchorage

March 26 – 27, 2019
convening at 11:00 am on March 26; 9:00 a.m. on March 27

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. Election of Officers***
 - Chair (*Designated Federal Officer*)
 - Vice-Chair (*New Chair*)
 - Secretary (*New Chair*)
- 7. Review and Approve Previous Meeting Minutes*** (*Chair*) 5
- 8. Reports**
 - Council Members’ Reports
 - Chair’s Report
 - Coordinator’s Report

9. Public and Tribal Comment on Non-Agenda Items (Available each morning)

10. Old Business (*Chair*)

- a. Moose Pass Nonrural Determination Proposal Update (OSM) 14
- b. Wildlife Delegation of Authority (OSM)
- c. Cook Inlet Fisheries Final Rule Update (OSM)

11. New Business (*Chair*)

- a. Wildlife Closure Reviews*
 - WCR18-03 (Unit 7 moose-Kings Bay) 15
 - WCR18-41 (Unit 6C moose)..... 23
 - WCR18-42 (Unit 12 within WRST caribou – crossover proposal)..... 33
- b. Call for Federal Wildlife Proposals* 52
- c. Council Charter Review* 133
- d. Approve FY2018 Annual Report* 61

12. Agency Reports

(Time limit of 15 minutes unless approved in advance)

Tribal Governments

- 1. Ninilchik Traditional Council
- 2. Native Village of Eyak 65

Native Organizations

- 1. Ahtna Inter-Tribal Resource Commission

USFWS

USFS 69

NPS

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

BLM

AKDOT – Cooper Landing By-pass 92

ADF&G

OSM

- 1. General Update
- 2. Fisheries Program Update

13. Future Meeting Dates*

Confirm Fall 2019 meeting date and location 130

Select Winter 2019 meeting date and location131

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 March 15, 2019.

DRAFT

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	R. Greg Encelewski Chair Ninilchik
4	2016 2019	Diane A. Selanoff Valdez
5	2016 2019	Daniel E. Stevens Chitina
6	2003 2020	Gloria Stickwan Secretary Tazlina
7	2017 2020	Dennis M. Zadra Cordova
8	2011 2020	Michael V. Opheim Seldovia
9	2011 2020	Andrew T. McLaughlin Chenega Bay
10	2018 2021	Aaron Bloomquist Copper Center
11	2018 2021	John C. Whissel Cordova
12	 2018	VACANT
13	 2018	VACANT

SOUTHCENTRAL ALASKA SUBSISTENCE REGIONAL ADVISORY COUNCIL

Cordova Center, Cordova

October 29-30, 2018

8:30 a.m. daily

Meeting Minutes

Invocation – Gloria Stickwan

Meeting called to order by Mr. Greg Encelewski, Chair

Roll Call and Establish Quorum

Roll Call by Council Coordinator; quorum established with the following twelve members present: Ed Holsten, Eleanor Dementi, Greg Encelewski, Daniel Stevens, Gloria Stickwan, Dennis Zadra, Michael Opheim, Andy McLaughlin, Judy Caminer, Tom Carpenter, Ricky Gease, and Diane Selanoff (teleconference). Ingrid Peterson was unexcused absent.

Welcome and Introductions

Agency Personnel

Milo Burcham	Cordova District, USDA-Forest Service (USFS)
Robert Skorkowsky	USFS
Dave Schmid	Regional Forester USFS
LE Staff	USFS
Barbara Cellarius	Wrangell-St. Elias National Park & Preserve
Scott Ayers	Office of Subsistence Management (OSM)
DeAnna Perry	Juneau, USFS
Tom Whitford	Anchorage, USFS
Jordan Rymer	USFS
Andy Morris	USFS
Glenn Chen	Anchorage, Bureau of Indian Affairs (BIA)
David Pearson	Moose Pass USFS
Dave Sarafin	Wrangell-St. Elias National Park & Preserve
Jennifer Hardin	OSM
Carol Ann Woody	Anchorage, National Park Service (NPS)
Christine Brummer	OSM
Chris McKee	OSM
Robbin La Vine	OSM
Charlotte Westing	Cordova, Alaska Department of Fish and Game (ADFG)
Jesse Hankins	Glennallen, Bureau of Land Management (BLM) (teleconference)
Carol Damberg	Anchorage, U.S. Fish & Wildlife Service (USFWS) (teleconference)
Jill Klein	Anchorage, ADFG (teleconference)
Todd Eskelin	Kenai, USFWS (teleconference)
Dan Sharp	Anchorage, BLM (teleconference)
Gabriella	Anchorage, ADFG (teleconference)

Public/NGO

Ivan Encelewski	Ninilchik Traditional Council
John Whissel	Native Village of Eyak
Karen Linnell	Ahtna Intertribal Resource Commission (AITRC)
Bruce Cain	AITRC
Mark King	Cordova
Matt Piche	Native Village of Eyak

District Ranger Sorkowsky and Dave Schmid Regional Forester welcomed the Council to Cordova.

Review and Adopt Agenda

Suggested changes were offered to the printed agenda. First, it was suggested to move the Fisheries Resource Monitoring Program (FRMP) discussion to 9. b. Additionally, under USFS agency reports, the LE update on the Russian River and Copper River subsistence fishery were moved to after completion of fishery proposals analysis presentations. Mr. Carpenter moved to adopt the agenda as amended. Motion adopted with amendments.

Review and Approve Previous Meeting Minutes

Mr. Carpenter moved to adopt the meeting minutes of March 6-7, 2018, second called by Mr. Opheim.

Discussion. Minutes adopted.

Mr. Gease moved to adopt the minutes of the SCRAC teleconference meeting held on April 17, 2018. The teleconference meeting was held to address Fisheries Temporary Special Action 18-02 requesting modifications to Federal subsistence regulations for implementation of the Kenai River community gillnet fishery.

Reports

Council Member Reports

Council members reported the salmon fishery was poor for Sockeye and Chinook on the Copper River. Other fisheries, like Coho Salmon, experienced good returns but the Pink Salmon returns were late.

Moose and bear subsistence harvests were reported to be good.

Public and Tribal Comment on Non-Agenda Items

Mark King of Cordova provided testimony and requested that a study be conducted on how marine mammals affect the fishery, and inquired how tribes can be involved in management.

Old Business

Cook Inlet Fishery Proposed Rule

The Council accepted public testimony and those testifying spoke in favor of the proposed rule. No conservation concerns exist. The Council voted to support adoption of the administrative changes to the regulations for Cook Inlet by unanimous consent.

New Business

The Council took action to develop its recommendations on Cook Inlet and Prince William Sound fishery proposals after presentations of the analyses, and heard agency and public comments for each fishery proposal.

Cook Inlet Federal Fisheries Proposals

FP19-12: Revise Kasilof experimental community gillnet salmon fishery. Mr. Scott Ayers presented the analysis. The OSM recommendation was to support with modification.

Action: Support with Modification to clarify that the fishery can use a set net, a drift net, or a pole net.

Justification: The Council supported the proposal with modification as recommended by the Office of Subsistence Management. The Ninilchik Traditional Council implemented the fishery to minimize bycatch. The Council supported the proposal as it benefits subsistence users and there are no conservation concerns for salmon stocks on the Kasilof River.

Prince William Sound

FP19-13: Add current fish permit conditions to regulations. Mr. Milo Burcham and Dave Pearson USFS, presented analysis. The OSM recommendation was to support with modification.

Action: Support as modified by OSM

Justification: The Council supported the proposal stating that it will clarify the regulations and will provide for less confusion in the regulations. The Council stated that this regulation is a housecleaning proposal to clarify current regulations.

FP19-14: Lift restriction on the mainstem waters to the Copper River and allow a dip net and rod and reel fishery within ½ mile downriver of road crossings from the Million Dollar Bridge to mile 27 of the Copper River Highway.

Action: Withdrawn by Proponent. The Native Village of Eyak (NVE) requested that this proposal be withdrawn. The NVE Traditional Tribal Council voted to withdraw FP19-14

following a series of meetings and work sessions by the Tribe. With the withdrawal, no action was taken by the Council. According to the Federal Subsistence Board's Policy on Withdrawal of Regulatory Proposals, a proponent can withdraw a proposal with no further action if the Council has not made a recommendation.

FP19-15: Move requirement to check fish wheel from fish wheel owner to fish wheel operator. Ms. Robbin La Vine presented the analysis. The OSM recommendation was to support the proposals.

Action: Support

Justification: The Council supported the proposal, stating it was a collaborative effort with the land managing agency and subsistence users. Additionally, the proposal aligns Federal and State regulations.

FP19-16: Clarify gear usage for Upper Copper River District subsistence salmon fishing permits. Ms. Robbin La Vine and Mr. Scott Ayers presented the analysis. The OSM recommendation was to support the proposal.

Action: Support

Justification: The proposal provides additional fishing opportunities and will liberalize fishing methods. The Council stated the proposal requires additional discussion to clarify the intent of the proposed regulations, which may lead to confusion among fishing methods used under one fish wheel permit. One Council member voted in opposition stating that the proposal provided no clear intent and may be confusing for fishers in the upper Copper River.

Nonrural Determination Proposals

RP19-01: Request for Moose Pass to be considered a rural community. Ms. Robbin La Vine and Ms. Christine Brummer, both with the OSM anthropology division, presented the proposal. OSM sought the Council's opinion on whether the request meets the threshold requirements. The Council moved to adopt the Moose Pass proposal as meeting the threshold requirements. The Council stated that OSM should work closely with the residents of Moose Pass in developing the analysis.

FRMP Updates and Priority Information Needs

Mr. Scott Ayers, OSM fisheries biologist, and Ms. La Vine provided a report on the Fishery Resource Monitoring Program (FRMP) and Priority Information Needs (PIN). The Council discussed the PINs and made its recommendation based on the Council's working group suggestions and from public and agency comments.

The Council moved to adopt the PINs with some modifications. The Council adopted to approve the first three PINs identified by the Southcentral RAC Working Group, add number 5 to the priority list, and strike number 4. The Council also supported the multi-region FRMP projects for Chinook Salmon.

Identify Issues for Annual Report

The Council discussed and agreed to submit the following items to the Federal Subsistence Board. The annual report is a tool for the Council to bring regional subsistence issues and needs to the Secretaries' attention. The Council identified the following topics for the 2018 Annual Report and discussed them on record:

1. Delegation of Authority

The Federal Subsistence Board (Board) has the authority to delegate to agency field officials the authority to set harvest and possession limits, define harvest areas, specify methods and means of harvest, permit requirements, and open or close specific fish or wildlife harvest seasons within the frameworks established by the Board. The Board sets the scope of delegation within limits set by established regulations. In Federal conservation units, fishery in-season managers, field managers for the U.S. Fish and Wildlife Service (USFWS), Bureau of Land Management (BLM), and National Park Service (NPS) are issued delegations of authority.

The Council notes that managers are not always present in the field to implement actions necessary to make in-season management decisions in the event of a conservation concern. The Council recommends that in-season managers with delegations of authority be allowed to designate an acting in-season manager if they are not available to carry out special actions to meet the requirements of Title VIII of ANILCA. In addition, the Council wonders why consultation with a RAC chair is not mandated by the delegation of authority letters. The delegation letter requires consultation with tribes, but only that the in-season managers notify Council Chair(s). The Council urges the Board to consider requiring consultation with the Council Chairs for any special actions being considered by in-season managers or their designees.

2. Copper River Weir

The Council discussed the importance of continued funding for the weirs/counting towers in the Copper River drainage recognizing that these projects have been losing funding. Rural residents in the Copper River Basin are dependent upon Sockeye Salmon as a subsistence resource. Monitoring salmon runs and data collection is necessary to ensure escapement goals are met and to ensure all user groups are afforded opportunities to harvest salmon. The FRMP has limited funding available for weir projects to continue to monitor and collect biological data on annual basis and additional funding sources need to be identified.

The Council encourages the Board to seek other partners, or to request State and Federal agencies to assist in securing funding for weirs/counting towers. Options such as cost

sharing or grants from other sources should be explored to continue these important monitoring projects, such as the Long Lake weir project. The data collected provide valuable long term information important to manage the fishery and to achieve escapement goals for the Copper River drainage.

3. Chitina Dip Net Fishery

At its December 2017 meeting in Valdez, the Alaska Board of Fisheries (BOF) failed to adopt Proposal 13, which would have prohibited the use of a dip net from a boat in the Chitina fishery. The Council objected to any dip net fishery from a boat on the Copper River. The Ahtna people have not practiced dip net fishery for Sockeye Salmon on the Copper River with a boat. In the past, fishing by the Ahtna people was done on fishing platforms during the run.

The Council requests that the Board send a letter to the BOF on behalf of the Council. The Council is also considering submitting a proposal to the BOF to restrict dip netting from a boat on the Copper River. Allowing an additional dip net fishery from a boat will affect permit holders operating a fish wheel on the river, most likely creating competition among user groups.

4. Nonrural Determination

At its fall meeting, the Council discussed the nonrural determination proposal submitted by the community of Moose Pass to change the community's status from nonrural to rural. As a part of that discussion, the Council found the Board's Policy on Nonrural Determination criteria to be vague and lacking meaningful guidance. The Council believes that it will be challenging to make supportable decisions as outlined by this Policy. The Council seeks guidance on how to apply the policy and continue supporting the nonrural determination proposal submitted by Moose Pass.

The Council requests that OSM continue its dialogue with the proponent and provides proponent with an opportunity to participate in discussions on the nonrural determination process. Specific guidance from the Board to apply the criteria for Moose Pass will provide OSM staff and the proponent clear direction and identify unique characteristics to move forward on rescinding the nonrural determination for Moose Pass.

5. More Comprehensive Salmon Research for In-Season Management

Due to the scope of the FRMP program, most information needs are focused on salmon in freshwater streams. Real time in-season fishery information is needed to manage salmon stocks, regardless of environment. More research needs to be done in the marine environment.

With the recent poor returns on salmon in the Copper River and Alaska Peninsula, it is important that real time biological data be available to in-season managers. Real time information can be used to manage for genetic diversity of the fishery stock. When a fishery run is slow or below the average population return, the information can be applied to address conservation concerns. Genetic diversity needs to be maintained in returning populations.

The Council encourages the Board and the State to work together and discuss research ideas with National Oceanic and Atmospheric Administration (NOAA), university systems, and other research firms to investigate marine conditions in order to predict run timing and size and develop more accurate models for in-season management. Disaster relief from State and Federal agencies for some of the more hard-hit areas may provide potential funding for research projects designed to broaden knowledge of salmon in all of their environments. The Board could also consider allocating funds to provide real time information to managers to help monitor returning stocks and ensure subsistence practices continue.

6. Biological Data

Analysts and natural resource managers have had challenges accessing historical biological data collected by the State of Alaska in order to review trends for subsistence and personal use harvests, particularly in the Copper River tributaries.

The Council would like the Board to initiate a plan for improved data sharing between the Alaska Department Fish and Game (ADF&G) and Federal resource managers. In the Copper River area, stream data has been requested and the response has been slow. Historical monitoring and harvest data should be available online, in a searchable format, and available to the public, staff and managers in order to understand harvest trends and other data to develop management strategies.

7. Climate Change

The effects of climate change on the environment and subsistence resources continue to be of concern for the Council. These concerns include invasive species in the various ecosystems, disruption in patterns of resource harvest and uses, changes in water temperature and acidification, and erosion.

The Council requests additional informational presentations for itself and its constituents on how to adapt to climate change. Such presentations will provide tools for communities to be better prepared in adapting to these changes. The Council recommends reaching out to the Landscape Conservation Cooperatives to provide updates on recent projects and guidance to communities dealing with climate change.

8. All Council Meeting

The Council continues to support and endorse another All-Council meeting. The Council suggests that OSM solicit input from Councils on the draft agenda to identify training needs and informational materials to be used in future meetings of the Councils.

9. Salmon Predation

The Council heard public testimony regarding marine mammals preying on salmon migrating up the Copper River. Marine mammals, such as harbor seals, sea lions, and whales, are staging at the mouth of the Copper River to feed on migrating salmon. As the run reaches the Miles Lake and Abercrombie Rapids, at least 600 seals have been observed in the area preying on salmon. The amount of salmon preyed upon by the marine mammals is unknown.

The local Tribe in Cordova voiced concern about the sea lion and seal populations and the tremendous amount of salmon being consumed and want this investigated and addressed. The Board, in consultation with NOAA, should examine the extent of the impact predation has on fisheries.

Agency Reports

Federal agencies representing the USFWS, USFS, NPS, and OSM provided reports on various resource management activities as well as report from the ADF&G and Tribal Native organizations. The Council agreed to reschedule a report from the Alaska Department of Transportation and Public Facilities to its winter meeting in Anchorage. This report will provide a status report on the Cooper Landing by-pass project to realign the Sterling Highway.

Ninilchik Traditional Council

Mr. Ivan Encelewski provided a report to the Council on the subsistence fishery for the Kasilof and Kenai Rivers and acknowledged the Tribe for operating the subsistence fishery in a professional and responsible manner.

Native Village of Eyak (NVE)

Mr. Matt Piche provided a summary of the NVE Copper River Chinook Salmon escapement monitoring program.

Ahtna Intertribal Resource Commission (AITRC)

Ms. Karen Linnell, provided a brief report on the AITRC. Ms. Linnell reported they are currently working on a Tribal stewardship program in the Ahtna region and a caribou monitoring program.

USFS

Forest Service staff provided a report on its Law Enforcement activity in the Russian River falls. Mr. Milo Burcham provided a report on the Forest Service 2018 Subsistence Program accomplishments. A handout was provided to the Council and the public.

NPS

Ms. Barbara Cellarius referred the Council to its written report in the meeting materials.

BLM

Mr. Jesse Hankins summarized the BLM subsistence hunt in Unit 13 in the meeting materials.

ADF&G

ADF&G staff provided updates on current wildlife projects in the Prince William Sound region. Fishery staff are currently working on a genetic sampling project for salmon.

Future Meeting Dates

The Council confirmed its winter meeting for February 26-27, 2019 in Anchorage. The Council selected October 2-3, 2019 as its fall 2019 meeting dates and Soldotna as its meeting location with Kenai as a backup.

Closing Comments

Council members offered individual comments, and the Council thanked the community of Cordova for hosting the meeting.

Adjourned

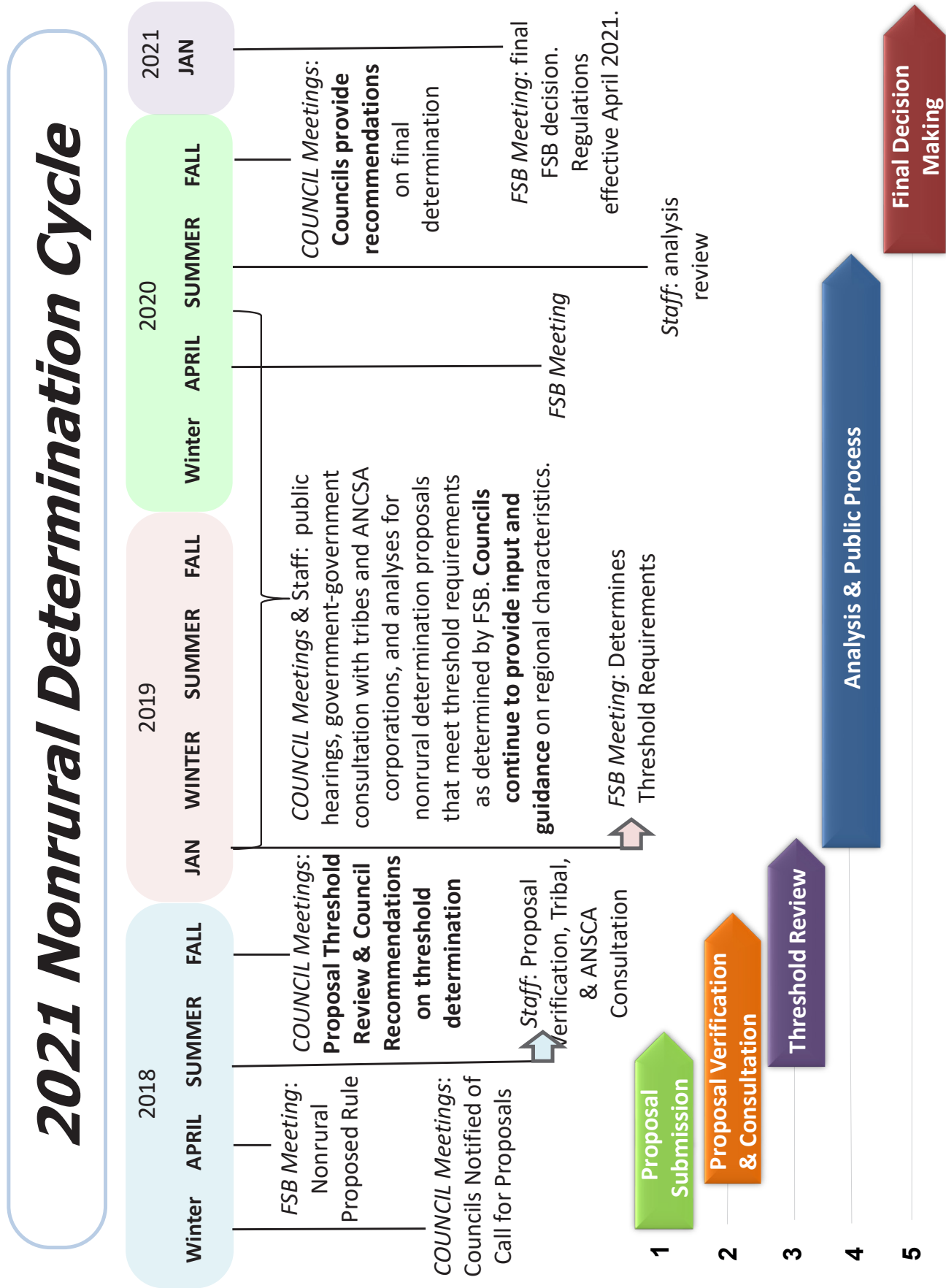
I hereby certify that, to the best of my knowledge, the foregoing minutes are accurate and complete.

Donald Mike, Designated Federal Officer
USFWS Office of Subsistence Management

Richard Greg Encelewski, Chair
Southcentral Alaska Subsistence Regional Advisory Council

These minutes will be formally considered by the Southcentral Alaska 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



**FEDERAL WILDLIFE CLOSURE REVIEW
WCR18-03**

Closure Location: Unit 7—Moose

Current Federal Regulation

Unit 7—Moose

Unit 7—that portion draining into Kings Bay—Federal public lands are closed to the taking of moose except by residents of Chenega Bay and Tatitlek. No open Federal season

Closure Dates: Year-round

Current State Regulation

Unit 7 remainder—Moose

Residents and Nonresidents: One bull with a spike on at least one side or 50-inch antlers or antlers with 4 or more brow tines on at least one side. HT Sep. 1-Sep. 25

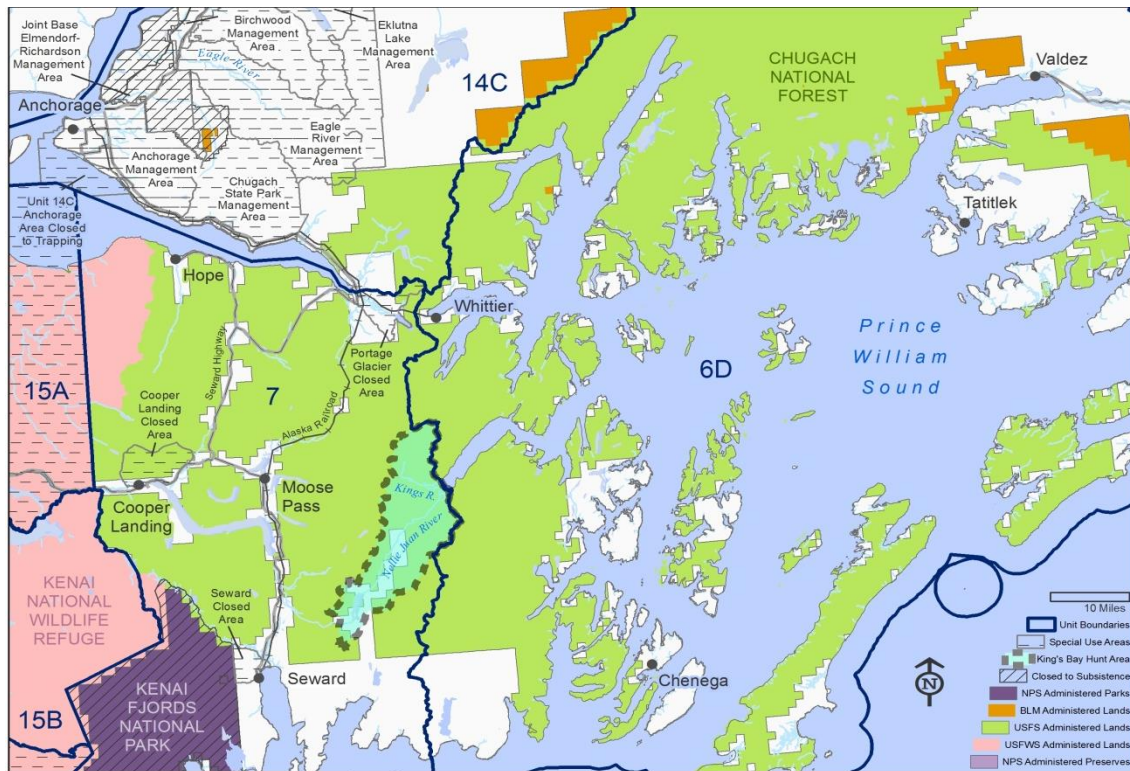
Regulatory Year Initiated: 1997 – original closure was to non- Federally qualified users. 2006 – The closure was expanded to include all users.

Regulatory History

At its April 1997 meeting, the Federal Subsistence Board (Board) adopted a customary and traditional use determination (P97-018b) for moose in the Kings Bay drainage portion of Unit 7 to include the residents of Chenega Bay and Tatitlek (**Map 1**) (OSM 1997a). At the same meeting, the Board adopted proposal P97-021 with modification to create a season for one bull with spike-fork or 50 inch antlers or 3 or more brow tines on either antler from Aug. 10 – Sep. 20 with a harvest limit of 2 moose per community for residents of Chenega Bay and Tatitlek, and closed Federal public lands to all other users (OSM 1997b).

In 2001, Special Action WSA01-02, submitted by the Chugach National Forest, U.S. Forest Service, requested that the Aug. 10 – Sep. 20 moose season in the Kings Bay drainage of Unit 7 be closed to all users (OSM 2001). This Special Action was approved by the Board. The Board determined that the

moose population was too small to support a harvest. The Special Action lasted for one regulatory year without a proposal to continue the closure. Therefore, the original Aug.10 – Sep. 20 season was re-opened starting with the 2002 season.



Map 1. Location of Kings Bay drainage area.

Wildlife Closure Review WCR05-03 found the moose population to be at a low density and no indication that there were any increases in the population to justify harvest except by Federally qualified subsistence users (OSM 2005).

In 2006, Proposal WP06-16/17 requested a season extension from Aug. 10 – Sep. 20 to Aug.10 – Feb. 28 and that harvest antler restrictions be changed from one bull with spike-fork or 50–inch antlers or 3 or more brow tines on either antler to a moose of either sex (OSM 2006). At the March 14-16, 2006 Southcentral Alaska Subsistence Regional Advisory Council (Council) meeting, the Council discussed changing the Kings Bay drainage moose harvest limit, harvest season, and removing the Federal closure. The Council voted to support WP06-16 with modification to: remove the antler restrictions and retain only the bull harvest, add a permit with a 7-day reporting requirement, change the harvest dates to Sep. 1–Dec. 31, and retain the closure of Federal public lands to non-Federally qualified users. The proponent from Chenega Bay stated they had never been restricted during the Aug. 10-Sep. 20 season, primarily because that time of year (in the early season) the moose are rarely (if at all) harvestable as the snow has not yet pushed them down from higher elevations that they normally occupy in the early fall. The proponent stated the historical moose harvest by Prince William Sound rural residents did not take place until later into the winter months. The Council suggested the season change to accommodate a winter

harvest, but added a restriction of one bull harvest and recommended the Federal closure because the Council was concerned about the small population of moose in the area. Subsequently, the Board closed Federal public lands in this portion of Unit 7 to the hunting of moose by all users due to conservation concerns at its May 2006 meeting.

In 2010, the Council voted to maintain the status quo and continue the closure to all users for the conservation of a healthy population. Wildlife Closure Review WCR10-03 found the moose population was at a low density and there were no indications of any population increases to justify subsistence or non-subsistence harvest (OSM 2010).

In 2012, the Board rejected Proposal WP12-29, which requested a moose season be established in Unit 7 for that portion draining into Kings Bay, due to conservation concerns (OSM 2012).

At its meeting on November 5, 6, and 7, 2013, the Council recommended a harvest quota of only one bull moose every four years for WP14-11 (SCRAC 2013:237). Additionally, the Council recommended that eligibility be determined through an ANILCA Section 804 prioritization analysis because of the small harvestable surplus of animals that was likely to exist in the hunt area relative to the large number of subsistence users with a customary and traditional use determination (SCRAC 2013:238).

In 2014 the Board adopted Proposal WP14-11 with modification to include only residents of Chenega Bay and Tatitlek in the Customary and Traditional Use Determination for moose from this hunt area (OSM 2014). The Board also voted to continue the closure based on the results of the 2014 moose survey.

Federal public lands comprise approximately 80% of Unit 7 and consist of 53% U.S. Forest Service (USFS) managed lands, 23% National Park Service managed lands and 2% U.S. Fish and Wildlife managed lands (**Map 1**). Federal public lands of the Kings Bay drainage portion of Unit 7 consist of only U.S. Forest Service managed lands within the Chugach National Forest.

Closure Last Reviewed: 2014 – WP14-11

Justification for Original Closure (ANILCA Section 815 (3) criteria)

Section §815(3) of ANILCA states:

Nothing in this title shall be construed as – (3) authorizing a restriction on the taking of fish and wildlife for nonsubsistence uses on public lands (other than national parks and monuments) unless necessary for the conservation of healthy populations of fish and wildlife, for the reasons set forth in section 816, to continue subsistence uses of such populations, or pursuant to other applicable law...

The Board adopted Proposal P97-21 to protect this small moose population and to provide residents of Chenega Bay and Tatitlek the opportunity to harvest moose (OSM 1997b). Under Section 815(3),

authorizing restriction on the taking of fish and wildlife for non-subsistence uses on Federal public lands is allowable when necessary for the conservation of healthy populations and to continue subsistence uses.

Council Recommendation for Original Closure

The Council supported Proposal P97-21 with modification to establish an Aug. 20-Sep. 30 season over a Sep. 1-Dec. 31 season, implement antler restrictions, and limit harvest to 1 bull each for the communities of Chenega Bay and Tatitlek. The Council also recommended that the Board limit the Federal closure to the 1997-98 regulatory year with reauthorization to occur on an annual basis (FSB 1997). The Board adopted the proposal with modification, changing the dates of the season from Sep. 1-Dec. 31 to Aug 10-Sep 20 to avoid adverse impacts from the season extending into the rut.

State Recommendation for Original Closure

The State did not support the original closure. The State supported a 1996 special action that created a temporary closure in the affected area, but did not support adopting a permanent Federal closure beyond the 1997-98 regulatory year. The State stated that a permanent closure of this area or the entire area to all but Federally qualified subsistence users was not necessary.

The State supported a limited fall subsistence hunt as proposed on public lands in the Kings River and lower three miles of the Nellie Juan River but did not support the area description for the hunt because it applied to the entire Kings and Nellie Juan river system draining into Kings Bay. The State was concerned that Alaska residents who fly into Nellie Juan lake in the fall to fish for grayling and hunt for moose and black bear would not be able to hunt under Proposal P97-21 (OSM 1997b). The State preferred to see a modification of the closure area to be limited to the lower three miles of the Nellie Juan River and the public lands Kings River draining into Kings Bay (FSB 1997).

Biological Background

A comprehensive moose survey has never been conducted in Unit 7 (Herreman 2012, 2018). The amount of moose habitat in the Kings Bay area is small, and consists of narrow riparian areas along the Kings River and Nellie Juan River. Severe winters with deep snow are common in this area and probably contribute to a high mortality rate and the relatively low moose densities (McDonough 2010). Aerial surveys in the vicinity of Kings Bay in Unit 7 were conducted during 1996/1997, 1997/1998, 1999/2000, 2001/2002, 2005/2006, and 2014/2015 (**Table 1**). An aerial survey conducted by the Alaska Department of Fish and Game (ADF&G) on January 8, 1997, revealed a minimum of 20 moose in the area. The herd consisted of 8 bulls, 10 cows, and 2 calves. Counting conditions were good, with heavy snow cover and excellent visibility.

The entire drainages of the Nellie Juan and Kings Rivers were flown in March 2001 by the ADF&G, from Nellie Juan Lake downstream to the head of Kings Bay and up the Kings River to the glacial headwaters. Nine moose were counted during the survey in conditions characterized as being excellent for aerial surveying (Spraker 2001, OSM 2005). The small area of moose habitat at Kings Bay is isolated with only one accessible route for moose to enter the area across the mountains from Paradise Lakes or Nellie Juan Lake areas and then down the Nellie Juan River—a distance of 15 to 20 miles over difficult terrain. Interchange of moose with other areas is therefore likely minimal. The fact that only 9 moose were

observed is significant. Black bear occur in high densities in western Prince William Sound (Crowley 2002), and brown bears are regularly present in the Kings Bay area as well. These two predators may elevate the importance of safe calving habitat, which appears to be limited. Productivity and viability of this small group of moose, therefore, is marginal. The restricted area used by moose in the Kings Bay area makes them vulnerable to hunters who walk up the river valley or use authorized motorized access.

Table 1. Population data from moose surveys conducted in Unit 7 in the vicinity of Nellie Juan River and Kings River which drain into Kings Bay from 1996 to 2005 (Herreman 2013, 2018).

Year	Number of Bulls	Number of Cows	Number of Calves	Total Moose	Bulls:100 Cows	Calves:100 Cows	% Calves
1996/1997	8	10	2	20	80	20	10
1997/1998	0	1	1	15 ^a	-	100	6.7
1999/2000	-	-	-	7 ^b	-	-	-
2000/2001	3	3	3	9	100	100	33.3
2001/2002	4	7	1	12	57	14	8.3
2005/2006	1	-	0	5 ^c	20 ^d	-	-
2014/2015	0	0	0	0	0	0	0
Mean	2.7	4.2	1.2	9.7			

^a Age and sex data not recorded for 14 adult moose

^b Age and sex not recorded during survey

^c Age and sex not recorded for 4 moose

^d Minimum count

A moose index survey was flown on March 27, 2006, funded by the U.S. Forest Service and conducted by ADF&G personnel, using the standard ADF&G moose survey protocol. The conditions were generally good for counting. Extra time was spent following moose tracks to try to obtain a better observation of the total moose numbers (Zemke 2006, pers. comm.; OSM 2018). A total of 5 moose were observed. Two were seen south of the Nellie Juan River confluence with Kings Bay and two were seen in the area between the Nellie Juan River and Kings River (Zemke 2006, pers. comm.). One bull moose was observed upstream in the Kings River watershed (Zemke 2006 pers. comm., OSM 2018). No calves were observed in the area. A majority of the moose tracks were observed within a half mile of the shoreline. The surveyors stated that, although additional moose could be present in this heavily timbered steep country, they were relatively certain there were a very limited number of moose in the area during the survey period. The number of moose in this area during the fall would be hard to predict from this late spring survey as some moose may have migrated out of the area before heavy winter snowfall. No moose were observed in the Kings Bay drainage portion of Unit 7 during the 2014 survey conducted by the U.S. Forest Service and ADF&G (Burcham 2018).

Harvest History

Harvest data indicate that no moose were harvested from this area from 1997–2000 (OSM 2012). As of 2001, it was known that some hunting had occurred from the village of Tatitlek with no success (Vlasoff 2001, OSM 2005). The hunters of Chenega Bay informally discussed this hunt on May 5, 2001,

concluding that they knew of no one from the Chenega Bay that had hunted the Kings Bay herd in recent years (Robertson 2001, pers. comm.; OSM 2005).

According to the recollections of several hunters from Chenega Bay and Tatitlek, Kings Bay has been used for moose hunting by residents of these two villages since at least the 1960s. Moose harvests have taken place incidental to commercial fishing, seal hunting, or goat hunting. Studies of the old village of Chenega in the 1960s, the re-established village of Chenega Bay in the 1980s (Stratton and Chisum 1986), and Tatitlek in the 1980s (Stratton 1990) by the ADF&G Subsistence Division noted that while moose harvests were not common, Kings Bay was a moose hunting location commonly used by these villages.

The general hunt under State regulations was closed by the Alaska Board of Game on Federal public lands in the Kings Bay drainage in 1997. The State's general hunt regulations apply to non-Federal public lands in the vicinity of Nellie Juan Lake, with a harvest limit of one bull with a spike at least on one side, 50-inch antlers or antlers with four or more brow tines on at least one side. The landowner (Chugach Corporation), however, has restricted access to the area. According to the corporation's permit specialist, no trespass permits for hunting have been issued by the corporation since 1997.

From 2000–2008, between 0 and 2 moose were reported harvested each year under State regulations within the Nellie Juan River drainage area (part of Unit 7 remainder in State regulations), which is near the Kings River drainage for a total of five moose. The 2000–2008 moose harvest was by non-Federally qualified users and the affected area is typically accessed by aircraft. No moose have been harvested in the Nellie Juan drainage from 2010-2017 (Winfonet 2018, OSM 2018).

OSM CONCLUSION:

- maintain status quo**
- initiate proposal to modify or eliminate the closure**
- other recommendation**

Justification

There is little information on the current status of the affected moose population in this area. Based on the 1996-1997, 2001-2002, 2005-2006, 2014-2015 survey results, the moose population has been at a low density and there are no indications that there have been any increases in the moose population to justify rescinding the current closure. Interchange of moose with other areas is likely minimal due to the difficult terrain. No moose were observed in the Kings Bay drainage portion of Unit 7 during a winter 2014 moose survey conducted by ADF&G. The Council supported maintaining the closed hunting season. Therefore the continuation of the current closure to moose hunting is necessary for the conservation of the wildlife resource.

LITERATURE CITED

Burcham, M. 2018. Wildlife Biologist. Personal communication: phone, email. Subsistence Program. U.S. Forest Service. Cordova, AK.

- Crowley, D. 2002. Black bear management report. Game Management Unit 6. Pages 123-140 *in* Carol Healy, ed. Black bear management report of survey-inventory activities, 1 July 1998–30 June 2001. ADF&G Division of Wildlife Conservation, Juneau, AK.
- FSB. 1997. Transcripts of the Federal Subsistence Board proceedings, April 7, 1997. Anchorage, AK.
- Herreman, J. 2012. Unit 7 moose management report. Chapter 8, pages 8-1 through 8-6 *in* P. Harper and L.A. McCarthy, editors. Moose management report of survey and inventory activities 1 July 2011-3 June 2013. Alaska Department of Fish and Game, Species Management Report ADF&G/DWC/SMR-2014-6, Juneau, AK.
- Herreman, J. 2018. Moose management report and plan, Game Management Unit 7: Report period 1 July 2010-30 June 2015 and plan period 1 July 2015 – 30 June 2020. Alaska Department of the Fish and Game, Species Management Report and Plan ADF&G/DW/SMR&P-2018-11, Juneau, AK.
- McDonough, T. 2010. Unit 7 moose management report. Pages 110–115 *in* P. Harper, editor. Moose management report of survey and inventory activities 1 July 2007–30 June 2009. Alaska Department of Fish and Game. Project 1.0., Juneau. AK.
- OSM. 1997a. Staff analysis P97-018B. Pages 161–171 *in* Federal Subsistence Board Meeting Materials April 7–11, 1997. Office of Subsistence Management, FWS. Anchorage, AK. 1034 pp.
- OSM. 1997b. Staff analysis P97-021. Pages 441–446 *in* Federal Subsistence Board Meeting Materials April 7–11, 1997. Office of Subsistence Management, FWS. Anchorage, AK. 1034 pp.
- OSM. 2001. Staff analysis WSA01-02. Office of Subsistence Management, FWS. Anchorage, AK. 3 pp
- OSM. 2005. Staff Analysis WCR05-03. Office of the Subsistence Management, FWS. Anchorage, AK. 4 pp.
- OSM. 2006. Staff analysis WP06-16/17. Pages 189–196 *in* Federal Subsistence Board Meeting Materials May 16–18, 2006. Office of Subsistence Management, FWS. Anchorage, AK. 579 pp.
- OSM. 2010. Staff Analysis WCR10-03. Office of the Subsistence Management, FWS. Anchorage, AK. 3 pp.
- OSM. 2012. Staff analysis WP12-29. Pages 616–623 *in* Federal Subsistence Board Meeting Materials January 17–20, 2012. Office of Subsistence Management, FWS. Anchorage, AK. 1021 pp.
- OSM. 2014. Staff analysis WP14-11. Pages 58–79 *in* Federal Subsistence Board Meeting Materials April 15–17, 2014. Office of Subsistence Management, FWS. Anchorage, AK. 680 pp.
- OSM. 2018. Harvest database. Office of Subsistence Management, FWS. Anchorage, AK.
- Robertson, C., 2001. Personal Communication: phone FWS. Chenega Bay, AK.
- SCRAC. 2013. Transcripts of the North Slope Subsistence Regional Advisory Council proceedings. November 6, 2013. Barrow, AK. Office of Subsistence Management, USFWS. Anchorage, AK.
- Spraker, T., 2001. Wildlife Biologist. ADF&G, Soldotna, AK. Wildlife Closure Review 05-03.

Stratton, L. 1990. Resource harvest and use in Tatitlek, Alaska. ADF&G Div. of Subsistence Tech. Paper No. 181. Juneau, AK. <<http://www.adfg.alaska.gov/sf/publications/index.cfm/ADFG=addLine.home>>

Stratton, L. and E.B. Chisum. 1986. Resource use patterns in Chenega, western Prince William Sound: Chenega in the 1960s and Chenega Bay 1984–1986. ADF&G Div. of Subsistence Tech. Paper No. 139. Juneau, AK. <<http://www.adfg.alaska.gov/sf/publications/index.cfm/ADFG=addLine.home>>

Vlasoff, K., 2001. Southcentral Regional Advisory Council. Personal communication. Tatitlek, AK.

WinfoNet. 2018. Wildlife Information Network (WinfoNet). Alaska Department of Fish and Game. Anchorage, AK. <https://winfonet.alaska.gov/>.

Zemke, S., 2006. CNF EVOS Liaison/Subsistence Coordinator. Personal communication. USDA Forest Service, Girdwood, AK.

**FEDERAL WILDLIFE CLOSURE REVIEW
WCR18-41**

Closure Location: Unit 6C—Moose

Current Federal Regulation

Unit 6C—Moose

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

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

1 bull by Federal drawing permit only. Sep. 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.

Closure Dates: Nov. 1-Dec. 31

Current State Regulation

Unit 6C—Moose

One bull by permit DM 167 Sep. 1 – Oct. 31

Regulatory Year Initiated: 2014

Regulatory History

Prior to 2000, State residents could take one moose by drawing permit in Unit 6C Sep. 1-Oct. 31. In 2000, the Native Village of Eyak submitted Proposal P00-17 to establish a Federal subsistence hunt for moose in Units 6B and 6C. The Federal Subsistence Board (Board) adopted the proposal with

modification, allowing drawing permits to be issued for 5 cow moose in Unit 6C (the total allowable cow moose harvest at that time), but left the rest of the State-managed moose harvest in place (OSM 2000).

In 2002, the Board adopted Proposal WP02-48, submitted by Mr. George Covell of Cordova, requesting that 100% of the bull moose harvest in Unit 6C come from Federal subsistence drawing permits and a change in the 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 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 (OSM 2002).

In 2007, the Board adopted Proposal WP07-19, which requested 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 Federally qualified subsistence users to continue to target cow moose without the possibility of unintentional violation should an antlerless bull be harvested (OSM 2007).

At its Southcentral Regional meeting in Kenai, March 15-19, 2013, the Alaska Board of Game (BOG) adopted amended Proposal 129 to authorize a State registration hunt for moose in Unit 6C (RM169), with a harvest limit of 1 moose, Nov. 1 – Dec. 31. The State's proposal was intended to allow for the harvest of moose allocated to the Federal quota that may not have been taken during the Federal subsistence hunt.

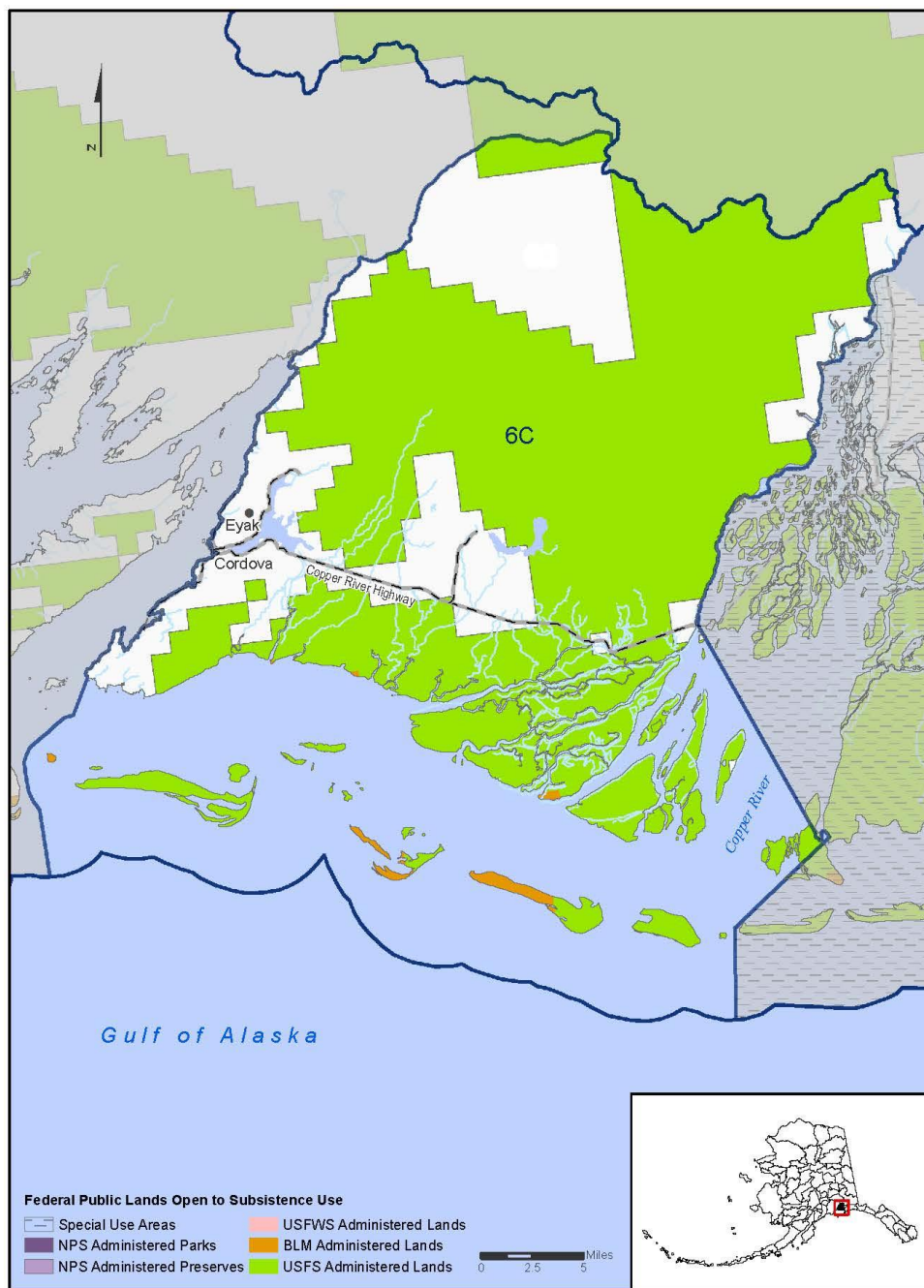
In 2014, the Board adopted WP14-18, which closed Federal public lands in Unit 6C to the harvest of moose except by Federally qualified subsistence users with a Federal permit (Nov. 1 – Dec. 31). Additionally it allowed Federally qualified subsistence users an opportunity to harvest antlerless moose that were not harvested during the early season (Sep. 1 – Oct. 31), if needed to control the population (**Map 1**) (OSM 2014).

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

In 2018, the Board rejected Proposal WP18-15, submitted by Tom Carpenter of Cordova, requesting that residents receiving a State or Federal Unit 6C permit be ineligible to receive a Federal 6C permit the following year, because there was no conservation concern and thus no need to restrict local users (OSM 2018).

In Unit 6C, Federally qualified subsistence 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.

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 public lands in Unit 6C.

Closure Last Reviewed: 2014—WP14-18

Justification for Original Closure (ANILCA Section 815 (3) criteria):

Nothing in this title shall be construed as – (3) authorizing a restriction on the taking of fish and wildlife for nonsubsistence uses on public lands (other than national parks and monuments) unless necessary for the conservation of healthy populations of fish and wildlife, for the reasons set forth in section 816, to continue subsistence uses of such populations, or pursuant to other applicable law...

Proposal WP14-18 aligned with the intentions of existing Federal regulations, which allocated 100% of the harvest quota for antlerless moose in Unit 6C to Federally qualified subsistence users. Providing the opportunity for additional harvest of antlerless moose and closing Federal public lands to moose hunters without a valid Federal permit for Unit 6C moose from November 1 to December 31, would maintain the Federal subsistence priority and continue subsistence uses on the Federal public land. As a result of the BOG adopting Proposal 129 in 2013, which opened some of the antlerless moose harvest to all State residents through and State registration hunt, Federally qualified subsistence users could have seen a reduced opportunity to harvest antlerless moose in Unit 6C due to competition with non-Federally qualified users. Proposal 14-18 would allow additional antlerless moose harvest by Federally qualified subsistence users, should the need exist to harvest additional moose after the regular season ends on October 31. It would also limit the effect of the new State regulation, by restricting those without a valid Federal permit for Unit 6C moose to hunt on private and State lands within Unit 6C (OSM 2014).

As directed by the Board's closure policy, use by non-Federally qualified subsistence users may be reduced or prohibited for the conservation of healthy populations of fish and wildlife or when a fish or wildlife population is not sufficient to provide for both Federally qualified subsistence users and other users (FSB 2007). Providing the opportunity for additional harvest of antlerless moose and closing Federal public lands to moose hunters without a valid Federal permit for Unit 6C moose from November 1 to December 31, would maintain the Federal subsistence priority and continue subsistence uses on the Federal public land (OSM 2014).

Council Recommendation for Original Closure:

The Council supported the closure to provide additional subsistence opportunities even though there were no conservation concerns. Section 815(3) of ANILCA allows for restrictions on the taking of fish and wildlife for non-subsistence uses public lands only if necessary for the conservation of healthy fish and wildlife populations, to continue subsistence uses of such populations, or pursuant to other applicable law. Federal registration permits would allow for control and monitoring of the harvest.

State Recommendation for Original Closure:

The State opposed the proposal. It was stated that the latest population estimate was 535-665 (90% CI) with a midpoint of 600 moose and that this translated to an overall density of 3 moose/mi², and a core winter range at 6-9 moose /mi². The State claimed that this population was subject to relatively low

predation and must be harvested accordingly to keep it from increasing and to protect winter range from over-browsing.

During the 2012 State and Federal moose hunt in Unit 6C, the Alaska Department of Fish and Game (ADF&G) found that a harvestable surplus of moose remained at the end of the regular hunting season. This was because ADF&G staff must estimate the available harvest a year in advance of the hunt, and due to better than anticipated survival during the winter of 2011/2012, there were a number of unfilled tags, 77% for bulls (17 of 22 taken) and 85% success for cows (33 of 39 taken) (Burcham 2018, pers. comm.). ADF&G considered a late season emergency opening for antlerless moose, but did not have support of the Copper River Prince William Sound Advisory Committee and therefore did not pursue it. ADF&G felt that more flexibility for administration of this hunt would be helpful if this situation occurred again, therefore Proposal 129 was submitted to the Alaska Board of Game in March 2013.

Biological Background

The moose population in Unit 6 originated from 24 moose calves that were transplanted to the west Copper River Delta from the Kenai Peninsula, Anchorage, and the Matanuska-Susitna area between 1949 and 1958 (Paul 2009). This action was 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 has become more suitable following the 1964 earthquake. The only moose endemic to Unit 6 is a small population of approximately 40 animals in the Lowe River drainage of Unit 6D. The first moose hunt was held in 1960 and hunts have occurred annually since 1962. The Unit 6C moose hunt became a State drawing permit hunt in 1984 (Stratton 1989).

During the 1990s, the Copper River-Prince William Sound Fish and Game 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 (Westing 2018a). 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, 2018a).

Population surveys, which are dependent on snow cover and weather conditions for flying, are usually conducted between mid-January and mid-March. From 1991 to 2012 the study design was based on stratified random sampling using the Gasaway technique. Since 2013 the sampling design has used the Geospatial Population Estimate (GSPE). Moose population estimates have ranged between 296 and 609 moose from 2005 to 2013 (**Table 1**). In 2011, 2013, and 2016 the moose population in Unit 6C was above the new and revised Unit 6 moose management objective of 600-800 moose (Smythe 2015, Westing 2018b). There is little or no indication of nutritional stress due to habitat loss despite a relatively high moose density of 1,250 to 1,900/1,000 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). The GPSE survey protocol, which uses a random sample of units is less biased but can also be less efficient (Westing 2014). From 2006 to 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**). The percentage of cows with twins during the fall composition surveys increased to 19% in 2014, compared to 12% in 2009 and 6% in 2010 (Westing 2014). The high bull:cow and calf:cow ratios in 2103/2014 was most likely due to the high cow harvest during 2103/2014 (Westing 2014). The twinning rates from 2007-2015 ranged from 41 to 76% (Westing 2018a).

Table 1. Moose population estimates in Unit 6C 2005-2013 (Crowley 2006, 2010, 2012; Westing 2014, 2018a, b).

Year	Calves (%)	Adult Estimate	Moose Observed	Population Estimate	90% CI
2005/06	10	438	361	488	423-553
2006/07	20	447	409	560	453-667
2007/08	15	367	347	430	389-471
2008/09	19	314	269	388	334-443
2009/10	17	245	183	296	164-426
2010/11	17	331	296	398	324-471
2011/12	21	472	535	601	536-666
2012/13 ^a	-	-	-	-	-
2013/14	20	487	291	609	483-734
2017/18	32	464	509	677	468-888

^a Population data not collected

Table 2. Moose composition estimates in Unit 6C 2005-2013 (Crowley 2006, 2010, 2012; Westing 2014, 2018a).

Year	Bulls	Cows	Calves	Total Moose	Bulls:100 Cows	Calves: 100 Cows	Calves (%)
2005/06	45	151	44	240	30	29	18
2006/07	-	-	-	-	-	-	-
2007/08	32	83	14	129	36	17	11
2008/09 ^a	-	-	-	-	-	-	-
2009/10	34	230	34	298	14	15	11

2010/11	40	183	35	258	22	19	14
2011/12^a	-	-	-	-	-	-	-
2012/13^a	-	-	-	-	-	-	-
2013/14	63	129	63	255	49	49	25

^a Composition data not collected

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 2017, 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 concern that the moose population was exceeding carrying capacity. 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). Harvest in 2017 was 74 moose, which has been the average since 2013 and above the 10 year average of 52 moose per year from 2002-2012.

Table 3. State and Federal moose harvest in Unit 6C, 2001-2012 (Crowley 2006, 2008, 2010, 2012; Westing 2014, 2017, 2018a, b; FWS 2018; WinfoNet 2018).

Regulatory Year	Permits Issued				Harvest ^a			
	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	45	0
2003	16	5	5	0	16	5	5	0
2004	26	9	5	0	26	8	5	0
2005	26	9	5	0	25	9	4	0
2006	28	9	40	0	26	9	40	0
2007	55	18	50	0	53	13	45	0
2008	39	13	25	0	36	12	22	0
2009	41	13	10	0	32	11	10	0
2010	19	6	15	0	14	4	13	0
2011	16	13	10	0	10	6	10	0
2012	22	7	39	0	17	6	33	0
2013	24	7	50	0	23	7	45	0
2014	37	12	35	0	35	10	36	0
2015	37	12	35	0	34	11	31	0

2016	37	12	35	0	31	10	32	0
2017	46	15	35	0	41	14	33	0

^a Unreported, illegal, or accidental kills combined are probably less than 5 animals each year.

OSM CONCLUSIOIN:

- maintain status quo**
- initiate proposal to modify or eliminate the closure**
- other recommendation**

Justification

Since 2011, the moose population in Unit 6C has been above 600 animals and appears to be stable and meets the new management objectives of the cooperative moose management plan to maintain a post-hunting population of 600-800 moose with a minimum bull:cow ration of 25:100. There is no conservation concern to justify the closure to hunting moose on Federal public lands to non-Federally qualified users from Nov 1 – Dec. 31. However, opening Federal public lands to non-Federally qualified users would likely reduce the opportunity for Federally qualified subsistence users to harvest moose in Unit 6C.

However, Section 815(3) of ANILCA also allows for restrictions on the taking of fish and wildlife on Federal public lands to allow for the continuation of subsistence uses of such populations (FSB 2007). The dual management system, between the U.S. Forest Service, Cordova Ranger District, and ADF&G for moose in Unit 6C, allocates 100% of the antlerless moose permits and 75% of the bull permits in Unit 6C is currently meeting the long-term needs of local users in Cordova, maximizes the hunting opportunity and encompasses the population biology and variable access in Unit 6. The current management strategies in Unit 6C are a direct result of the cooperative moose management plan which was developed by the Prince William Sound/Copper River Delta Advisory Committee, ADF&G, and local residents. Retaining the closure of Federal public lands to moose hunters without a valid Federal permit for Unit 6C moose would maintain the Federal subsistence priority and continue subsistence uses on Federal public land.

LITERATURE CITED

Burcham, M. 2018. Wildlife Biologist. Personal Communication, email. U.S. Forest Service. Cordova, AK.

Crowley, D. 2006. Unit 6 moose management report. Pages 85-100 in P. Harper editor. Moose management report of survey and inventory activities 1 July 2003 – 30 June 2005. ADF&G. Project 1.0. Juneau, AK.

Crowley, D. 2008. Unit 6 moose management report. Pages 93-109 in P. Harper editor. Moose management report of survey and inventory activities 1 July 2005 – 30 June 2007. ADF&G. Project 1.0. Juneau, AK.

- Crowley, D. 2010. Unit 6 moose management report. Pages 93-109 in P. Harper editor. Moose management report of survey and inventory activities 1 July 2007 – 30 June 2009. ADF&G. Project 1.0. Juneau, AK.
- Crowley, D. 2012. Unit 6 moose management report. Pages 87-101 in P. Harper, editor. Moose management report of survey and inventory activities 1 July 2009-30 June 2011. ADF&G, Species Management Report ADF&G/DWC/SMR-2012-5, Juneau, AK.
- FSB. 2007. Policy on closures to hunting, trapping, and fishing on Federal public lands and waters in Alaska; Federal Subsistence Board, Adopted August 29, 2007. Office of Subsistence Management, FWS. Anchorage, AK.
- FWS. 2018. Harvest database. Office of Subsistence Management, FWS, Anchorage, AK.
- Griese, H.J. 1990. Unit 6 moose survey-inventory activities. Pages 46-63 in S.O. Morgan, ed. Management report of survey-inventory activities, 1 July 1987-30 June 1989. ADF&G, Federal Aid in Wildlife Restoration Program Report, Project W-23-2, Study 1.0, Juneau, AK. 428 pp.
- Nowlin, R.A. 1998. Unit 6 moose survey-inventory activities. Page 8 in M.V. Hicks, ed. Annual performance report of survey-inventory activities, 1 July 1997-30 June 1998. ADF&G, Federal Aide in Wildlife Restoration Program Report, Project W-27-1, Study 1.0, Juneau, AK. 43 pp.
- OSM. 2000. Staff analysis P00-17. Pages 84-91 in Federal Subsistence Board Meeting Materials May2-4, 2000. Office of Subsistence Management. FWS. Anchorage, AK. 661 pp.
- OSM. 2002. Staff analysis WP02-48. Pages 56-65 in Federal Subsistence Board Meeting Materials May 13-15,2002. Office of Subsistence Management. FWS. Anchorage, AK. 676 pp.
- OSM. 2007. Staff analysis WP07-19. Pages 230-236 in Federal Subsistence Board Meeting Materials April 30 – May 2, 2007. Office of Subsistence Management. FWS. Anchorage, AK. 643 pp.
- OSM. 2014. Staff analysis WP14-18. Pages 128-137 in Federal Subsistence Board Meeting Materials April 15-17, 2014. Office of Subsistence Management. FWS. Anchorage, AK. 680 pp.
- OSM. 2018. Staff analysis WP18-15. Pages 192-206 in Federal Subsistence Board Meeting Materials April 10-13, 2018. Office of Subsistence Management. FWS. Anchorage, AK. 1488 pp.
- Paul, T. W. 2009. Game transplants in Alaska. Technical Bulletin #4, second edition. ADF&G, Juneau, AK. 150 pp.
- Smythe, S.E. 2105. Evaluating tools used to estimate and manage browse available to wintering moose in the Copper River Delta, Alaska. Master Thesis, Oregon State University, Corvallis, OR. 105 pp.
- Stratton, L. 1989. Resource uses in Cordova, a coastal community of Southcentral Alaska. ADF&G, Division of Subsistence, Technical Paper No. 153. 172 pp.
- Westing, C. 2014. Unit 6 moose management report. Chapter 7, Pages 7-1 through 7-21 in P. Harper and Laura A. McCarthy, editors. Moose management report of survey and inventory activities 1 July 2011-30 June 2013. ADF&G, Species Management Report ADF7G/DWC/SMR-2014-6, Juneau, AK.
- Westing, C. 2017. Wildlife Biologist. Personal Communication, email. ADF&G, Cordova, AK.

Westing, C. 2018a. Moose management report and plan, Game Management Unit 6: Report period 1 July 2010-30 June 2015, and plan period 1 July 2015-30 June 2020. Alaska Department of Fish and Game, Species Management Report and Plan ADF&G/DWC/SMR&RP-2018-15, Juneau, AK. 70 pp.

Westing, C. 2018b. Moose population survey report for Unit 6C, west Copper River, and Unit 6B, east of the Copper River including the Martin River drainages. Memorandum to Cynthia Wardlow, July 10, 2018. ADF&G, Cordova, AK 10 pp.

WinfoNet. 2018. Wildlife Information Network (WinfoNet). Alaska Department of Fish and Game. Anchorage, AK. <https://winfonet.alaska.gov/>.

**FEDERAL WILDLIFE CLOSURE REVIEW
WCR18-42**

Closure Location: Unit 12—Caribou

Current Federal Regulation

Unit 12—Caribou

Unit 12—that portion within the Wrangell-St. Elias National Park that lies west of the Nabesna River and the Nabesna Glacier. All hunting of caribou is prohibited on Federal public lands. No Federal open season

Unit 12—that portion east of the Nabesna River and the Nabesna Glacier and south of the Winter Trail running southeast from Pickerel Lake to the Canadian border — 1 bull by Federal registration permit only. Aug. 10-Sept. 30

Federal public lands are closed to the harvest of caribou except by Federally qualified subsistence users hunting under these regulations.

Closure Dates: Year-round

Current State Regulation

Unit 12 remainder—Caribou

Residents and Nonresidents No open season

Regulatory Year Initiated:

Mentasta Caribou Herd - 1993

The original closure was for: *that portion west of the Nabesna River within the drainages of Jack Creek, Platinum Creek, and Totschunda Creek - The taking of caribou is prohibited on public lands.*

Chisana Caribou Herd - 1994

The original closure was for: *that portion lying east of the Nabesna River and south of the Winter Trail running southeast from Pickerel Lake to the Canadian border - The taking of caribou is prohibited on public lands.*

Regulatory History

Mentasta Caribou Herd (MCH)

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 customary and traditional use determination for the Nelchina Caribou Herd (NCH) in Unit 12 (OSM 1991a). Dates for the September season have remained unchanged since then, however, some of the area has been closed to the harvest of caribou due to conservation concerns.

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 (OSM 1991b) and S91-08 closed it on Dec. 9 after subsistence needs had been met (OSM 1991c).

In 1992, the Board rejected Proposals P92-105 (OSM 1992a) and P92-106 (OSM 1992b) 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 fall 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 (OSM 1992c).

In 1993, the Board adopted Proposal P93-034 to close the area west of the Nabesna River within the drainages of Jack Creek, Platinum Creek, and Totschunda Creek to caribou hunting to protect the declining Mentasta Caribou Herd population (OSM 1993). There has been no Federal open season since 1993 for Unit 12 west of the Nabesna River and Nabesna Glacier.

Chisana Caribou Herd (CCH)

Because of its small population size, the CCH has never supported a large harvest. Between 1989 and 1994 under State regulations, the harvest limit was 1 bull caribou and the annual harvest ranged between 16–34 animals (Gross 2005). The Federal subsistence regulation from 1989 to 1994 was one bull, Sept. 1- 20. By 1991, due to declining population numbers, the harvest was reduced through voluntary compliance by guides and local hunters. In 1994, the bull portion of the population declined below the ADF&G's management objective and hunting of Chisana caribou was closed by both the Alaska Board of Game (BOG) and the Federal Subsistence Board (Board). There was no legal harvest of CCH in Alaska between 1994 and 2011.

In 1989 and 1990 the reported harvest of Chisana caribou in the Yukon was 18 and 11 animals and in Alaska was 34 and 34 animals, respectively (Gross 2005). Gross (2005) also reported that the estimated unreported harvest of Chisana caribou between 1989 through 2002 ranged from 1 – 20 in the Yukon and

1-3 animals in Alaska each year. After 2001, Yukon First Nation members voluntarily stopped harvesting Chisana caribou and there continues to be no legal harvest of Chisana caribou in the Yukon.

In 1994, the caribou hunt areas in Unit 12 were split from two areas: 1) Unit 12- that portion lying west of the Nabesna River within the drainages of Jack, Platinum, and Totschunda creeks and 2) Unit 12-remainder, to three hunt areas: 1) Unit 12 west of the Nabesna River within the drainages of Jack, Platinum, and Totschunda creeks, 2) Unit 12- that portion lying east of the Nabesna River and south of the Winter Trail running southeast from Pickerel Lake to the Canadian border, and 3) Unit 12-remainder (OSM 1994). In 1994, the Board adopted Proposal P94-71, which closed the area east of the Nabesna River to the Canadian border to the harvest of caribou (OSM 1994). The closure for the Mentasta Caribou Herd remained in effect for the area west of the Nabesna River, and the area east of Nabesna River was closed primarily to protect the declining Chisana Caribou Herd (CSH), resulting in the following hunt areas:

Unit 12 – That portion west of the Nabesna River within the drainages of Jack Creek, Platinum Creek, and Totschunda Creek.

Unit 12 – That portion lying east of the Nabesna River and south of the Winter Trail running southeast from Pickerel Lake to the Canadian border.

In 2000, the areas previously designated west and east of the Nabesna River were combined into one area in Proposal P00-59 (OSM 2000):

Unit 12 – That portion of the Nabesna River drainage within the Wrangell-St. Elias National Park and Preserve and all Federal lands south of the Winter Trail running southeast from Pickerel Lake to the Canadian border.

In 2010, the BOG approved a hunt for residents and nonresidents from September 1 through 30 on the CCH for one bull by drawing permit. The hunt was authorized in the portion of Unit 12 within the White River drainage and that portion within the Chisana River drainage upstream from the winter trail that runs southeast from Pickerel Lake to the Canadian Border. However, on Federal public lands the Federal closure supersedes the existing State regulation and thus Federal public lands effectively remained closed to hunting of the CCH under State regulations at this time.

The entire area remained closed to caribou hunting in the Federal subsistence regulations until 2012, when the areas west and east of the Nabesna River were once again split out into two areas (OSM 2012a).

Unit 12 – that portion within the Wrangell-St-Elias National Park that lies west of the Nabesna River and the Nabesna Glacier.

Unit 12 – that portion east of the Nabesna River and the Nabesna Glacier and south of the Winter Trail running southeast from Pickerel Lake to the Canadian border.

In 2012, the combined proposals WP10-104 and WP12-65/66 were addressed by the Board (OSM 2012a). Proposal WP10-104 requested establishment of a joint Federal/State draw permit for the CCH in Unit 12 with a harvest limit of one bull and a season of Sept. 1–Sept. 30. Proposal WP12-65 requested establishment of a Federal registration hunt for the CCH with a harvest limit of one bull and a season of Aug. 10 – Sept. 30, while WP12-66 requested establishment of a Federal registration hunt with a harvest limit of one bull and a season of Sept. 1–Sept. 30, with the hunt restricted to Federal public lands in Unit 12 east of the Nabesna River and the Nabesna Glacier. OSM noted in its justification for WP12-66 that restricting the hunt west of the Nabesna River and Nabesna Glacier would protect the MCH with minimal impact to subsistence hunters wanting to harvest caribou from the CCH (OSM 2012a). The Board took no action on WP10-104 and WP12-65 and adopted WP12-66 with modification to list the communities allowed to harvest caribou in Unit 12, that portion east of the Nabesna River and Nabesna Glacier, and lands south of the Winter Trail running southeast from Pickerel Lake to the Canadian border: Northway, Mentasta, Tetlin, Tok, Chisana, and Chistochina. The authority to manage the Federal hunt was granted by delegation of authority to the Wrangell-St. Elias National Park and Preserve Superintendent. The CCH was considered stable in 2010 and the bull:cow and calf:cow ratios were above the minimums set by the Draft Management Plan, which was finalized in the fall of 2011 (OSM 2012a, Chisana Caribou Herd Working Group 2012).

The Board adopted Proposal WP12-68, submitted by the Cheesh’na Tribal Council, which requested the residents of Chistochina be added to the Unit 12 caribou customary and traditional use determination (OSM 2012b).

In 2014, the Board adopted Proposal WP14-15/45 to expand the list of communities eligible to participate in the caribou hunt from the CCH to also include residents of the hunt area and those living in Unit 12 along the Nabesna Road (mileposts 25-46) (OSM 2014a).

In 2014, the Board also adopted Proposal WP14-49 with modification to change the fall season dates from Sept. 1-Sept. 30 to Aug. 10-Sept. 30, so that the bulls would be less likely to be in the rut, and thus, ensure the quality of the meat (OSM 2014b). In 2016, the Board adopted Proposal WP16-60 opening Federal public lands east of the Nabesna Glacier and south of the Winter Trail running from Pickerel Lake to the Canadian border to all Federally qualified users hunting under these regulations (OSM 2016).

Federal public lands comprise approximately 61% of Unit 12 and consists of 48% National Park Service (NPS) managed lands, 11% U.S. Fish and Wildlife Service managed lands (FWS), and 2% Bureau of Land Management (BLM) managed lands (**Map 1**).

Closure last reviewed:

Mentasta Caribou Herd: 1993 – P93-034

Chisana Caribou Herd: 2014 – WP16-60

Justification for Original Closure (ANILCA Section 815 (3) criteria):

Section §815(3) of ANILCA states:

Nothing in this title shall be construed as – (3) authorizing a restriction on the taking of fish and wildlife for nonsubsistence uses on public lands (other than national parks and park monuments) unless necessary for the conservation of healthy populations of fish and wildlife, for the reasons set forth in section 816, to continue subsistence uses of such populations, or pursuant to other applicable law; ...

The justifications given for the original closure for the MCH and CCH was:

Mentasta Caribou Herd

Council Recommendation for Original Closure:

The Federal Subsistence Board’s April 1993 decision, which closed Federal public lands to caribou hunting in Unit 11 and a portion of Unit 12, occurred prior to the establishment of the Federal Subsistence Regional Advisory Councils.

State Recommendation for Original Closure:

ADF&G supported the closure because the State season for Mentasta caribou in this area had been closed for several years (OSM 1993).

From 1985-1992, the MCH decreased from a peak population of 3,100 caribou to 1,300 and the fall calf:cow ratio had fallen below the threshold level required to balance the mortality of the adults (≈15%) during the previous 2-3 years. The near total reproductive failure in 1991 and 1992 resulted in the population age structure to be skewed towards the older age classes, which generally results in delayed recovery. Another factor that may have contributed to the population declines was the relatively poor lichen conditions noted throughout a large portion of their range.

Although the fall harvest is relatively easy to track, the MCH is subject to unknown harvest when it mixes with the NCH during the winter. In addition, the extent of the illegal harvest is unknown, but considering the number of small rural communities they pass through during migration, it is likely high. Thus, the potential for over-harvest of this small herd is high. Most subsistence users also have access to the much larger neighboring NCH.

Thus, closing the subsistence hunt on the MCH was necessary to assure the herd’s continued viability.

Chisana Caribou Herd:

Council Recommendation for Original Closure:

The Eastern Interior Council concluded that the Chisana caribou herd should be protected from all hunting to stop the population decrease (OSM 1994). The justification for their decision was based on the following:

- Over the past 3 years (1990-1993) the CCH population had declined from 1850 to 900 animals.
- The fall calf:cow ratio was below that which is required to balance the natural mortality of adults ($\approx 15\%$) for at least 4 consecutive years
- The potential for overharvest of this small herd was considered high since they cross international boundaries and are subject to an unknown amount of unreported harvest.
- This proposal (Wildlife Proposal 14-49) is intended to protect the continued viability of the CCH and allow them to recover more quickly.

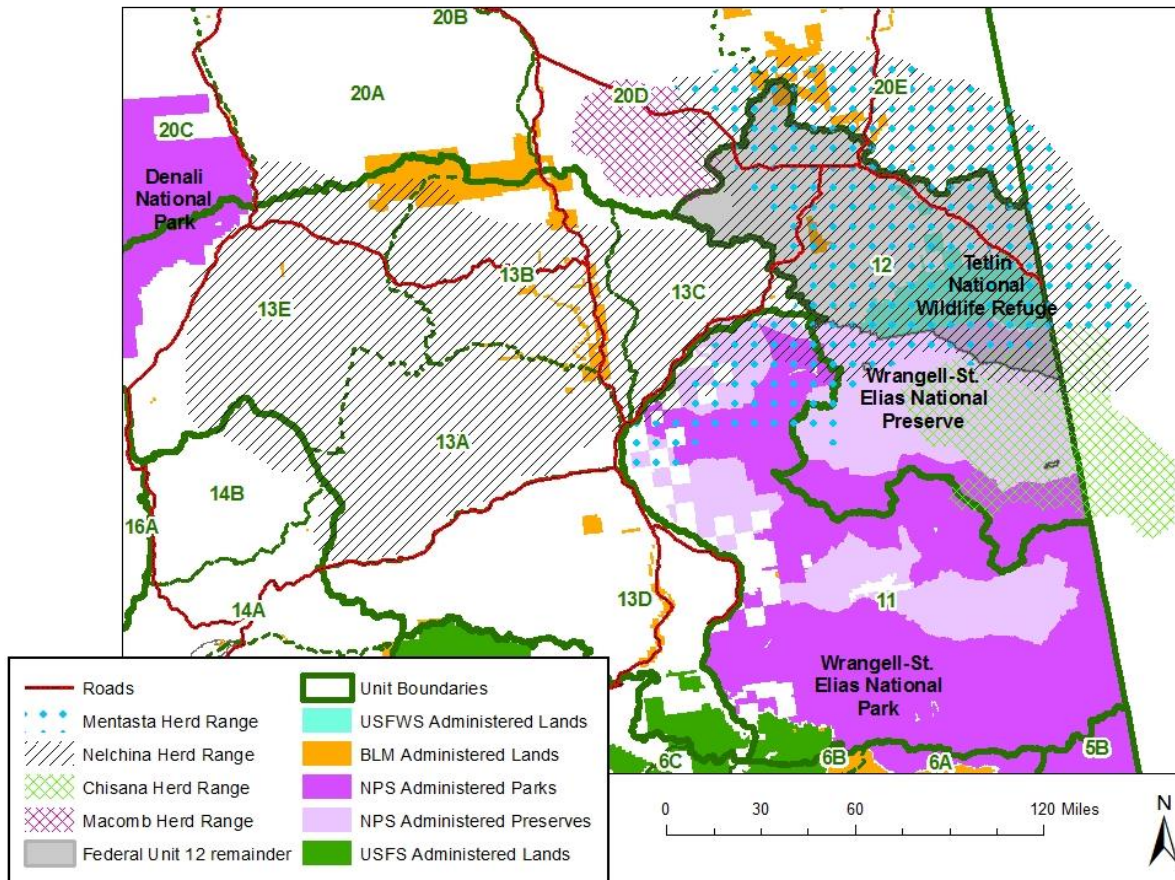
State Recommendation for Original Closure:

The Alaska Department of Fish and Game (ADF&G) and the Yukon Department of Natural Resources supported closure to caribou hunting of the CCH until calf:cow and bull:cow ratios increased.

Biological Background

The ranges of the Mentasta, Chisana, and Nelchina caribou herds overlap in Unit 12 (**Map 1**). As of July 2018 the NCH is declining and is at the lower end of the State population objectives (ADF&G 2018, Hatcher 2018, pers. comm.). The MCH occurs primarily in the northern portion of Unit 12 (Unit 12-remainder) and the northern portion of Unit 11 within Wrangell-St. Elias National Park and Preserve (WRST). While the NCH and MCH are considered distinct herds because females calve in separate areas, the herds mix during some breeding seasons, resulting in male-mediated gene flow (Roffler et al. 2012). Therefore, the Nelchina and Mentasta herds function as a genetic metapopulation, although Nelchina and Mentasta cows have discrete mitochondrial DNA (Roffler et al. 2012). However, since there are no closures associated with the NCH, the NCH is not considered further in this analysis.

The CCH is a shared population between Alaska and Southern Yukon, Canada. Since this international herd ranges across multiple jurisdictions, multiple land agencies are involved and responsible for the management of the CCH. In Alaska the CCH occurs primarily on Federal public lands within the WRST, although there is some overlap with Tetlin National Wildlife Refuge (TNWR) and adjacent State lands. In the Yukon, the CCH ranges within the boundaries of Kluane Wildlife Sanctuary and Asi Keyi Natural Environmental Park. Since the overlap between the CCH and MCH is minimal, each population will be considered separately in this analysis. The Management Plan for the Chisana Caribou Herd (Chisana Caribou Herd Working Group 2012) is currently being reviewed and updated.



Map 1. Ranges of the Nelchina, Mentasta, Macomb, and Chisana caribou herds.

Mentasta Caribou Herd

The MCH, the primary herd within Unit 11, calves and summers within the upper Copper River Basin and the northern and western flanks of the Wrangell Mountains (OSM 2018). Barten et al. (2001) found that parturient female caribou from the Mentasta herd used birth sites that lowered the risk of predation and traded-off forage abundance for increased safety. Minimizing risk of predation of neonates may result in ungulates selecting habitats that compromise their ability to optimize foraging (Bowyer et al. 1999, Barten et al. 2001). Female Mentasta herd caribou used sites at higher elevations with sub-optimal forage, presumably to avoid predators, and, when <10 day old neonates were lost, females descended from the higher elevations to join other nonparturient females. In addition, females with neonates >10 days old also descended to join the larger group of females, which coincides with moving out of the riskiest period of predation on ungulate neonates (Adams et al. 1995a).

The calving grounds for the MCH are located in northern Unit 11 within WRST (MCH Mgmt. Plan 1995, **Map 1**). The MCH disperses across Unit 12 and southern Unit 20E in winter, often intermingling with the NCH (MCH Mgmt. Plan 1995).

In 1995, Federal and State biologists completed the Mentasta Herd Cooperative Management Plan, which specifies the following management objectives (MCH Mgmt. Plan 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 Management Plan (1995) states “an annual fall harvest quota will be established between 15 and 20 percent of the previous 2-year mean calf recruitment as long as such recruitment is at least 80 calves. In addition, at population levels below 2,000 the harvest limit will be limited to “bulls only” and will be closed if the 2-year mean bull:cow ratio drops below 35 bulls:100 cows.” When quotas are below 30, a Section 804 analysis will determine the allocation of permits among the Federally qualified subsistence users. Since 2000, managers at the TNWR have used a 20:1 mixing ratio of Nelchina caribou to Mentasta caribou as the minimum threshold for considering winter season openings. The TNWR monitors these herds and determines the mixing ratios from aerial surveys of radio-collared caribou. Currently, there are no more than 10 active radio-collared Mentasta caribou, which is not enough to adequately monitor the location and movements of the MCH or determine a reliable mixing ratio with the NCH. Lack of availability of the drugs used in the captures prevented WRST staff from collaring additional animals in 2016 and 2017, but WRST staff expect to be able to collar approximately 5-7 animals in fall 2018 with assistance from ADF&G biologists. Population and composition surveys are also planned for the fall of 2018 (Putera 2018, pers. comm.).

The MCH population declined from an estimated 3,160 caribou in 1987 to an estimated 429 caribou in 2017 (**Table 1**). The extremely low calf :cow ratio of 2-6 calves: 100 cows from 1991 to 1993 (OSM 1992d) resulted in a complete failure of fall recruitment of young in the MCH (Jenkins and Barton 2005). Dale (2000) postulated that this may have been due to poor condition from poor forage quality in the summer. Poor forage quality in the summer can cause cow caribou to skip a breeding season to regain body condition due to being nutritionally stressed. The resulting decrease in body condition in female caribou can have a negative effect on productivity by causing lower weight gain or survival in calves (Crete and Huot 1993, Dale 2000). Between 1990 and 1997, Jenkins and Barten (2005) confirmed predation, particularly by gray wolves (*Canis lupus*) and grizzly bears (*Ursus arctos horribilis*), as the proximate cause of the MCH population decline. Grizzly bears were the most important predators of neonates and gray wolves mostly preyed on older juvenile caribou in the MCH. The combined predation by bears and wolves was 86% during the neonate and summer periods. In comparison,

predation of calves in the Denali Caribou Herd from 1984 to 1987 by wolves and bears, during the same time period, was only 53% (Adams et al. 1995b). Factors such as the timing of birth and habitat at the birth site, particularly snow patterns, affected the vulnerability and survival of neonates and birth mass affected the survival of juveniles through summer (Jenkins and Barten 2005). The MCH declined at the greatest rate from 1990-1993 compared to 1994-1997. Winter severity was postulated to decrease the birth mass of neonates and, thus, the survival and vulnerability of neonates and juveniles (Jenkins and Barton 2005). The MCH population has remained stable at relatively low levels since 2004 as evidenced by low calf productivity (Putera 2017a, pers. comm.). Between 1987 and 2017, the bull:cow ratio has fluctuated widely, ranging from 35-120 bulls:100 cows and averaging 58 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 1**, OSM 2018). Low calf production and survival and high cow mortality from 1987 and 2009 were the primary causes for the population declines in the MCH. The number of cows observed during the fall surveys declined from 2,065 in 1987 to 79 in 2009 (OSM 2012c).

Fall surveys conducted within the same 23-year period also revealed severe declines in total observed Mentasta bulls from 847 in 1987 to 68 in the fall 2013 survey (**Table 1**). Although observed fall bull:cow ratios appear high, the number of cows observed is small and the bull component likely includes a significant number of Nelchina bulls. While Nelchina bulls have wintered within the range of the Mentasta herd (OSM 2018), the range of the Nelchina herd has varied widely due to burns and their effect on lichen availability within their traditional area (Collins et al 2011). Thus, there is limited ability to predict the extent or frequency of mixing between Nelchina and Mentasta bulls, and it is impossible to discern whether the harvest of a bull would be from the Nelchina or Mentasta herd. Higher numbers of adult bulls in the population are important as it helps maintain synchrony in parturition. Holand et al. (2003) showed that skewed sex ratio and increased young male age structure of reindeer could result in fewer adult females conceiving during the first estrous cycle due to their hesitation to mate with young bulls. Maintaining synchrony in parturition also provides increased survival chances for calves since parturition is typically timed with the start of plant growth (Bergerud 2000). Late-born offsprings have been shown to have lower body mass than caribou offspring produced earlier in the season (Holand et al. 2003), which can lead to lower juvenile survival rates due to density dependent factors of winter food limitation (Skogland 1985) and deep snows (Bergerud 2000).

The MCH is considered a sedentary and low density ecotype (Bergerud 1996, Hinkes et al. 2005) versus a migratory and high density ecotype, such as the Nelchina herd, and thus more susceptible to extreme random events. The term ecotype designates populations of the same species that evolved different demographic and behavioral adaptations to cope with specific ecological constraints. A key factor in distinguishing between two ecotypes is whether animals were dispersed or aggregated when young were born (Seip 1991, Bergerud 2000). The chronic low calf productivity and recruitment for the Mentasta caribou could make random environmental events a primary driver for a more severe population decline (Tews et al. 2006). Increased winter mortality due to icing events may result in malnutrition and starvation for more susceptible calves and bulls with depleted energy reserves following the rut (Dau 2011, Miller and Gunn 2003). Bull caribou die at a higher rate than cows due to greater energy demands

during early winter rutting activities, which greatly reduce their body reserves (Russell et al. 1993, Miller and Gunn 2003).

Table 1. Population size and composition of the Mentasta caribou herd (OSM 2012c, 2018; FWS 2018, Putera 2017a, pers. comm.).

Year	June Calves:100 Cows ^a	Fall Cows	Fall Calves	Fall Bulls	Fall Calves: 100 cows	Fall Bulls: 100 cows ^b	Fall Population Estimate ^c
1987	18	2065	248	847	12	41	3,160
1988	34	1540	277	662	18	43	2,480
1989	31	1615	727	258	16	45	2,600
1990	-	-	-	-	-	-	-
1991	3	1347	27	566	2	42	1,940
1992	16	973	58	399	6	41	1,430
1993	9	683	27	260	4	38	970
1994	19	591	65	224	11	38	880
1995	26	541	119	189	22	35	850
1996	16	534	59	187	11 ^d	35 ^d	780
1997	15	432	23	159	5	40	610
1998	13	350	35	150	10	42	540
1999	13	230	22	177	10	77	430
2000	1	297	0	175	0	59	470
2001	11	228	12	150	5	66	586 ^g
2002	21	190	55	86	29	45	410 ^g
2003	17	223	38	101	16	46	522 ^g
2004	8	-	-	-	5 ^e	-	293 ^f
2005	23	113	17	78	15	69	261
2006	-	66	20	51	30	77	-
2007	23	93	27	72	29	77	280
2008	14	89	18	65	20	73	319 ^h
2009	12	79	8	68	10	86	421 ^h
2010	25	88	22	106	25	120	336 ^h
2011	-	101	29	40	29	40	-
2012	-	58	20	49	34	84	-
2013	38	88	20	68	23	77	512
2014	-	-	-	-	-	-	-
2015	-	60	20	44	33	73	-
2016	-	54	18	77	33	142	-
2017	11	91	18	79	18	87	429

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

^bObserved high bull:cow ratios likely due to presence of Nelchina bulls.

^cPopulation estimates between 2008 and 2017 are based on a June census of cows corrected for sightability, the fall calf:cow ratio, and a fall ratio of 30 bulls:100 cows.

^d1996 fall composition count was not conducted, because of early mixing with the NCH. Fall calf/cow was estimated from postcalving calf/cow ratio and survival radio-collared cows (0.70; 30 June – 30 September).

^e2004 Fall composition count was not conducted due to budget restraints. Fall calf/cow ratio estimated from post-calving calf:cow ratio and average (1987-2003) calf survivorship (0.63).

^f2004 population estimate is based on extrapolation from June census, adjusted for average calf survivorship and average bull ratios.

^g September population estimates are adjusted based on sighting probabilities.

^hSeptember population estimates are adjusted based on sightability probabilities and assuming a ratio of 30 bulls: 100 cows within the MCH to adjust for mixing with the NCH.

Chisana Caribou Herd

The CCH is a small herd that occurs on the Klutan Plateau and near the headwaters of the White River in southwest Yukon Territory and east central Alaska. During the summer the CCH spends most of their time in WRST and during the winter in the Kluane Wildlife Sanctuary and the Asi Keyi Natural Environmental Park (Chisana Caribou Herd Working Group 2012).

The CCH is a genetically distinct population (Zittlau et al. 2000, Zittlau 2004). Genetic analysis of the CCH found large genetic distances between the CCH and the other 5 adjacent herds, which suggests that the herd has been unique for thousands of years and that the CCH is correctly classified as a woodland caribou (Zittlau et al. 2000). The CCH acts and looks like woodland caribou, but the herd's classification is ambiguous. Behaviorally, the CCH is typical of other mountain herds, particularly with respect to calving females, where, rather than aggregating in certain areas, they disperse up in elevation away from other calving females as an anti-predator strategy (Farnell and Gardner 2002). In Canada, the CCH is classified as woodland caribou, whereas in Alaska the CCH is classified a barren-ground caribou (Miller 2003). Occasionally the CCH mix with the Nelchina and Mentasta caribou herds during the winter in Alaska and Yukon in the vicinity of Beaver Creek, Yukon Territory. For example in 1989/1990, a large portion of the CCH shifted northeast into the upper and middle portions of Beaver Creek, where some mixing between the CCH, Nelchina, and Mentasta caribou herds occurred (Lieb et al. 1994).

In Canada, the Canadian Wildlife Service (CWS) has designated the Northern Mountain Caribou population, which includes the CCH, as a species of "Special Concern" under the Canadian Federal Species at Risk Act (SARA). In 2002, the CCH was designated as "Specially Protected" under the Yukon Wildlife Act, which prohibits all licensed harvest of the CCH and requires a regulation change to initiate a harvest. A cooperative draft CCH Management Plan and Yukon CCH Recovery Plan were developed for the CCH in 2001 and 2002, respectively. In 2009, a working group consisting of members from the Government of Yukon, ADF&G, White River First Nation, Kluane First Nation, the National Park Service, and the U.S. Fish and Wildlife Service developed a five-year management Plan for the CCH (Chisana Caribou Herd Working Group 2012). The working group is now in the process of updating the plan.

The CCH Management Plan guidelines for harvest are:

- A bull:cow ratio greater than 35 bulls: 100 cows
- A calf:cow ratio greater than 15 calves: 100 cows based on a 3-year average
- A stable or increasing population trend

The Management Plan guidelines for a harvest include a maximum allocation of 2% of the herd size, a bull-only harvest, and an allocation equally distributed between Yukon Territory and Alaska (Chisana Caribou Herd Working Group 2012).

Information about the CCH prior to 1970s is limited. The population estimate from first survey conducted in 1977 was about 1000 caribou (Kellyhouse 1990). In 1988, the CCH reached a peak of 1,900 caribou (Kellyhouse 1990) and then declined to an estimated low of 315 in 2002 (Farnell and Gardner 2002). Since 1988, a majority of the CCH have been located east of the Nabesna River (Bentzen 2011). Adverse weather conditions, poor habitat, predation, and harvest pressure were factors for the low calf recruitment and high adult mortality associated with the decline (Farnell and Gardiner 2002). From 2003-2006, a recovery effort, which included an intensive captive rearing program to increase recruitment and calf survival, was conducted by the U.S. Geological Survey and CWS. The recovery effort involved capturing pregnant cows and enclosing them in holding pens during the last weeks of gestation and for a few weeks following calving. An intensive radio-collaring program was also initiated in 2003 along with the captive rearing program, which resulted in more reliable population and composition data. Therefore, sex and age composition and herd size estimates prior to 2003 are not directly comparable to those after 2003 (**Table 2**) (Bentzen 2011, 2013; Gross 2015, Putera 2017b). In 2010, the CCH population was stable at 696 animals and the 3-year average for the bull:cow and calf:cow ratios were 45: 100 cows and 20: 100 cows, respectively (Bentzen 2011, Gross 2015). The 2017 bull:cow ratio of 32 bulls per 100 cows was below the minimum threshold of 35 bulls:100 cows set by the Chisana Caribou Management Plan, triggering a meeting of the management authorities. This occurred as part of the conversations regarding updating the plan, and the consensus of the group was that a 3 year running average was a more appropriate threshold and that the 2018 hunt could occur (Cellarius 2018a). The calf:cow ratio of 21 calves:100 cows was above the minimum threshold set by the Plan of 15 calves: 100 cows (Chisana Caribou Herd Working Group, 2012).

Table 2. Fall sex and age composition of the Chisana Caribou Herd, 2000-2013 (Chisana Caribou Herd Working Group 2012, Gross 2015, Putera 2014, 2017b, Taylor 2018).

Regulatory Year	Total Bulls:100 Cows	Calves :100 Cows	Calves (%)	Cows (%)	Bulls (%)	Composition Sample Size	Estimated Herd Size
2000 ^a	20	6	5	80	15	412	425
2001 ^a	23	4	3	79	18	356	375
2002 ^a	25	13	10	72	18	258	315
2003 ^b	37	25	15	62	23	603	720
2005 ^b	46	23	14	59	27	646	706
2006 ^b	48	21	13	59	28	628	N/A ^c
2007 ^b	50	13	8	61	30	719	766
2008	44	21	13	61	27	532	N/A
2009	48	15	9	61	30	505	N/A
2010	42	23	14	61	25	622	697
2011	38	16	14	66	25	542	N/A
2013	49	16	N/A	N/A	N/A	631	N/A
2014	40	23	N/A	N/A	N/A	528	N/A
2015	40	19	N/A	N/A	N/A	399	N/A
2016	46	28	N/A	N/A	N/A	534	N/A
2017	32	21	N/A	N/A	N/A	540	N/A

^a Surveys conducted by ADF&G based on a visual search of the herd range.

^b USGS survey results.

^c Not available.

Harvest History

Mentasta Caribou Herd

There has been no Federal open season since 1993 for the area west of the Nabesna River and Nabesna Glacier in Unit 12. There has been no reported harvest from the MCH since 1998 as there has been no State or Federal season. However, some incidental harvest of Mentasta caribou may take place during winter hunts targeting the NCH and Forty-mile caribou herd in Unit 12-remainder. 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 (MCH Management Plan 1995). In 2012, the Board excluded the area west of the Nabesna River and Nabesna Glacier to protect the MCH, when it established a Federal registration hunt for the CCH in Unit 12 east of the Nabesna River and Nabesna Glacier (OSM 2012a).

Chisana Caribou Herd

The CCH has historically been an important food source for the Athabascans of Alaska and the First Nations of the Yukon in Canada (Gross 2007). During the early to mid-1900s, the CCH was used as a subsistence food source by the Ahtna and Upper Tanana Athabascans. Although subsistence hunting has declined in recent years, the CCH continues to be an important aspect of Upper Tanana and Ahtna Athabascan culture. Subsistence use of the CCH declined after 1929. For the last 60 years, few people in Alaska or the Yukon have depended on the CCH as a food source (Bentzen 2011), although First Nation members continued to harvest from the CCH in the Yukon through the 1990s.

In addition to providing an important subsistence resource, in the late 1920s, Chisana caribou became economically important to local hunters as guided hunting became common in the Chisana area. Caribou from the Chisana herd were harvested by nonresident hunters guided by local guides until 1994, when hunting was closed. Primarily five guide/outfitters hunted the herd (4 operated in Alaska and 1 in the Yukon). Bulls were desired by sport hunters, because of their large stature. From 1990 to 1994, 43% of the hunters participating in hunting were nonresidents, who were responsible for 58% of the harvest. Local subsistence users accounted for 9% of the harvest during that time period (Gross 2005).

At its January 2012 meeting, the Board authorized a limited harvest of the CCH consistent with the herd's management plan. The Board delegated authority to the Wrangell-St. Elias National Park and Preserve Superintendent to open and close the season to announce the harvest quota, the number of permits to be issued and the reporting period. Based on the estimated population size and the guidance in the management plan, the harvest quota for the 2012 was set at seven animals.

The National Park Service met with participating communities and associated tribal governments and other stakeholders to ask for their input regarding permit distribution. As a result, a decision was made to allocate two permits to each of the four eligible communities with Federally recognized tribal governments (Chistochina, Mentasta Lake, Northway, and Tetlin) with the understanding that all community residents, not just tribal members, would be considered for permit distribution. Any

remaining permits would be made available to Tok and Chisana residents on a first come-first served basis. The number of permits was limited to fourteen and the reporting period requirement was set at within three days of harvest. In 2017, nine permits were issued, three people hunted, and no animals were harvested (FWS 2018). Currently the CCH appears stable at approximately 700 animals and the quota for the 2018-2019 Federal subsistence hunt for the CCH is set at seven bull caribou (Cellarius 2018b). Preliminary reports (as of October 5, 2018) indicate that six permits were issued in 2018 and two caribou were harvested (FWS 2018).

Since 2012, ten caribou have been taken (**Table 3**).

Table 3. Summary of the caribou harvest in the southeast portion of Unit 12 (FC1205) (FWS 2018).

	2012	2013	2014	2015	2016	2017 ^a	2018 ^b
Permits Issued	9	9	11	11	8	9	6
Individuals Hunting	8	7	8	7	8	3	2
Caribou Harvest	2	3	2	0	1	0	2
Success Rate^c	25.0	42.9	25.0	0	12.5	0	100.0

^a 2017 data as of March 20, 2018.

^b 2018 data as of October 5, 2018.

^c Success rate is calculated based on the number of individuals hunting, not total permits issued.

OSM Preliminary Recommendation:

- X **maintain status quo – *Maintain closure for the MCH and the limited hunt for the CCH***
- _ **initiate proposal to modify or eliminate the closure**
- _ **other recommendation**

Justification

Mentasta Caribou Herd:

The Mentasta Caribou herd, as currently defined, exists in low numbers and their distribution is small groups in the summer and winter ranges has resulted in a fragmented population. Because of this, total numbers and composition can be significantly affected by sightability when searching for small groups of caribou over vast terrain. Mixing of the Nelchina and Mentasta caribou bulls makes interpreting fall composition surveys difficult and there is limited ability to predict the extent, timing or frequency of mixing between the two herds. It would be impossible for most hunters to discern whether the bull was from the Mentasta herd or the Nelchina herd. In addition, there is the possibility of increased winter mortality due to icing events, which may result in malnutrition and starvation for more susceptible bulls with depleted energy reserves following the rut furthering the decline of the Mentasta caribou population. Calf production and survival remain critically low and have resulted in low numbers of adult cows and bulls observed during recent fall population surveys. Calf production and recruitment in particular

remains below the management objective. These declines are indicative of low production, poor recruitment, and low survival rates among cohorts within the population.

In addition, the MCH has not increased much, despite a moratorium on hunting since 1993. This may be due to a variety of factors including low calf production and recruitment due to relatively poor range quality, predation, and susceptibility to severe weather events. The MCH population has remained at relatively low levels of approximately 400 (mean = 413) caribou since 1998 (**Table 1**). The relatively low number of active collars presently in the MCH (≈ 10) makes it difficult for biologists and managers to adequately monitor the location and movements of the MCH in relation to the much more numerous NCH. Without a reliable mixing ratio, Federal public lands within WRST in Unit 12 should continue to remain closed to caribou hunting, west of the Nabesna River and Nabesna Glacier, for the conservation of a healthy population.

Chisana Caribou Herd:

Historically very few Chisana caribou have migrated west of the Nabesna River and Nabesna Glacier in Unit 12. Restricting the current hunt to east of the Nabesna River and Nabesna Glacier will protect the Mentasta Caribou herd with minimal impact to subsistence hunters wanting to harvest a caribou from the CCH. The relatively few caribou harvested from the CCH in WRST since 2012 do not seem to be having a negative population level effect on the CCH. In addition, the WRST Superintendent has Delegated Authority to open and close the season, and to announce the harvest quota, the number of permits and the reporting period. Thus, the current season and limited harvest by Federally qualified subsistence users in that portion east of Nabesna River and the Nabesna Glacier and south of the winter trail running southeast from Pickerel Lake to the Canadian border in Unit 12 are consistent with recommendations and management guidelines in the CCH Management Plan (Chisana Caribou Herd Working Group 2012).

Literature Cited

Adams, L. G., F.J. Singer, and B.W. Dale. 1995a. Caribou calf mortality in Denali National Park, Alaska. *Journal of Wildlife Management* 59:584-594.

Adams, L.G., B.W. Dale, B. Shults, and L.D. Mech. 1995b. Wolf predation on caribou calves in Denali National Park, Alaska. *in Ecology and conservation of wolves in a changing world*. Eds. S.H. Fritz, and D.R. Seip. Occasional Publications No. 35., Canadian Circumpolar Institute, University of Alberta, Edmonton. Pp. 245-260.

Alaska Department of Fish and Game (ADF&G). 2018. News Release: 04-07-18 – Winter Seasons closed for the Nelchina Caribou Hunts RC561, RC562, and DC485. ADF&G, Glenallen, AK.

Barten, N.L., R.T. Bowyer, and K.J. Jenkins. 2001. Habitat use by female caribou: tradeoffs associated with parturition. *Journal of Wildlife Management* 65:77-92.

Bentzen, T.W. 2011. Unit 12 caribou. Pages 60-73 *in* P. Harper, editor. Caribou management report of survey and inventory activities 1 July 2008-30 June 2010. Alaska Department of Fish and Game. Project 2.0. Juneau, AK.

Bentzen, T.W. 2013. Unit 12 caribou. Pages 76-88 *in* P. Harper, editor. Caribou management report of survey and inventory activities 1 July 2010-30 June 2012. Alaska Department of Fish and Game, Species Management Report ADF&G/DWC/SMR-2013-3, Juneau, AK.

Bergerud, A.T. 1996. Evolving perspectives on caribou population dynamics, have we got it right yet? *Rangifer* 9:95–115.

Bergerud, A.T. 2000. Caribou. Pages 658–693 in S. Demarais and P.R. Krausman, editors. *Ecology and Management of Large Mammals in North America*. Prentice Hall Press. Upper saddle River, NJ. 778 pages.

Bowyer, R.T., V. Van Ballenberghe, J.G. Kie, and J.A.K. Maier. 1999. Birth-site selection in Alaska moose: maternal strategies for coping with a risky environment. *Journal of Mammalogy* 80: 1070-1083.

Cellarius, B. 2013. Fall Subsistence Report. Wrangell-St. Elias National Park and Preserve. Copper Center, AK. 3 pp.

Cellarius, B. 2018a. Cultural Anthropologist. Personal communication: e-mail. Wrangell-St. Elias National Park and Preserve. Copper Center, AK

Cellarius, B. 2018b. News Release. NPS announces plans for 2018 Federal subsistence hunt of Chisana Caribou Herd. Wrangell-St. Elias National Park and Preserve, Copper Center, AK.

Chisana Caribou Herd Working Group. 2012. Management Plan for the Chisana Caribou Herd: 2010-2015. Government of Yukon, Department of Environment, Whitehorse, YT. 48 pp.

Collins, W.B., B.W. Dale, L.G. Adams, D.E. McElwain, and K. Joly. 2011. Fire, grazing history, lichen abundance, and winter distribution of caribou in Alaska's Taiga. *Journal of Wildlife Management* 75:369-377.

Crete, M. and J. Huot. 1993. Regulation of a large herd of caribou: Summer nutrition affects calf growth and body reserves of dams. *Canadian Journal of Zoology* 71:2291-2296.

Dale, B. 2000. The influence of seasonal spatial distribution on growth and age of first reproduction of Nelchina caribou with comparisons to the Mentasta herd, Research Performance Report. 1 July 1999 – 30 June 2000. Federal Aid Annual Performance Report Grant W-27-3. Study 3.44. Anchorage, AK.

Dau, J. 2011. Units 21D, 22A, 22B, 22C, 22D, 22E, 232, 24, and 26A caribou management report Pages 187-250 in P. Harper, editor. Caribou management report of survey and inventory activities 1 July 2008-30 June 2010. Alaska Department of the Fish and Game, Juneau, AK.

Farnell, R., and C. Gardner. 2002. Chisana caribou herd-2002. Yukon Department of Environment. Whitehorse, Yukon, Canada.

FWS. 2018. Harvest database. Office of Subsistence Management, USFWS, Anchorage, AK.

Gross, J.A. 2005. Unit 12 caribou management report. Pages 61-69 in C. Brown, editor. Caribou management report of survey and inventory activities 1 July 2002-30 June 2004. Alaska Department of Fish and Game, Division of Wildlife Restoration, Project 3.0. Juneau, AK.

Gross, J.A. 2007. Unit 12 caribou. Pages 56-64 in P. Harper, editor. Caribou management report of survey and inventory activities 1 July 2004-30 June 2006. Alaska Department of Fish and Game, Project 3.0. Juneau, AK.

Gross, J.A. 2015. Unit 12 caribou. Chapter 7, Pages 7-1 through 7-11 in P. Harper and L.A. McCarthy, editors. Caribou management report of survey and inventory activities 1 July 2012-30 June 2014. Alaska Department of Fish and Game, Species Management Report ADF&G/DWC/SMR-2015-4, Juneau, AK.

Hatcher, Heidi. 2018. 2018 Nelchina Caribou Herd minimum count and population estimate. Alaska Department of Fish and Game, Glennallen, AK. 4 pp.

Hinkes, M.T., G.H. Collins, L.J. Van Daele, S.D. Kovach, A.R. Aderman, J.D. Woolington, R.J. Seavoy. 2005. Influence of Population Growth on Caribou Herd Identity, Calving Ground Fidelity, and Behavior. *Journal of Wildlife Management* 69(3):1147–1162.

Holand, O., K.H. Roed, A. Mysterud, J. Kumpula, M. Nieminen, and M.E. Smith. 2003. The effect of sex ratio and male age structure on reindeer calving. *Journal of the Wildlife Management* 67:25-33.

Jenkins, K.J., N.L. Barten. 2005. Demography and decline of the Mentasta caribou herd in Alaska. *Canadian Journal of Zoology*. 83: 1174-1188.

Kellyhouse, D.G. 1990. Unit 12 caribou. Pages 46-54 in C. Healy, editor. Caribou annual report of survey and inventory activities 1 July 1988-30 June 1989. Alaska Department of Fish and Game. Project 3.0. Juneau, AK

Lieb, J.W., B.W. Cella and R.W. Tobey 1994. Population dynamics of the Mentasta caribou herd. Alaska Department of Fish and Game, Division of Wildlife Conservation, Research Final Report, Juneau, AK. 72 pp.

Mentasta Caribou Herd Cooperative Management Plan. 1995. Wrangell St.-Elias National Park and Preserve, Glennallen, AK 17 pp.

Miller, F.L. 2003. Caribou. Pages 965-977 in G.A. Feldhamer, B.C. Thompson, and J.A. Chapman eds. *Wild Mammals of North America*, Second edition. John Hopkins University Press, Baltimore, MD.

Miller, F.L. and A. Gunn. 2003. Catastrophic Die-off of Peary Caribou on the Western Queen Elizabeth Islands, Canadian High Arctic. *Arctic* 56:381–390.

OSM 1991a. Staff analysis P91-130. Pages 35-36 in Federal Subsistence Board Meeting Materials March 4–8, 1991. Office of Subsistence Management, FWS. Anchorage, AK. 246 pp.

OSM. 1991b. Staff analysis S91-05. Office of Subsistence Management, FWS. Anchorage, AK.

OSM. 1991c. Staff Analysis S91-08. Office of the Subsistence Management, FWS. Anchorage, AK.

OSM 1992a. Staff analysis P92-105. Pages 584-585 in Federal Subsistence Board Meeting Materials April 6–10, 1992. Office of Subsistence Management, FWS. Anchorage, AK. 1254 pp.

OSM 1992b. Staff analysis P92-106. Pages 592-593 in Federal Subsistence Board Meeting Materials April 6–10, 1992. Office of Subsistence Management, FWS. Anchorage, AK. 1254 pp.

OSM 1992c. Staff analysis P92-107. Pages 588-589 in Federal Subsistence Board Meeting Materials April 6–10, 1992. Office of Subsistence Management, FWS. Anchorage, AK. 1254 pp.

OSM 1992d. Staff analysis P92-18. Pages 94-95 in Federal Subsistence Board Meeting Materials April 6–10, 1992. Office of Subsistence Management, FWS. Anchorage, AK. 1254 pp.

OSM. 1993. Staff analysis P93-034. Pages 283–290 in Federal Subsistence Board Meeting Materials April 5–8, 1993. Office of Subsistence Management, FWS. Anchorage, AK. 622 pp.

- OSM. 1994. Staff analysis P94-71. Pages 593–600 in Federal Subsistence Board Meeting Materials April 11–15, 1994. Office of Subsistence Management, FWS. Anchorage, AK. 726 pp.
- OSM. 2000. Staff analysis P00-59. Pages 628–638 in Federal Subsistence Board Meeting Materials May 2–4, 2000. Office of Subsistence Management, FWS. Anchorage, AK. 661 pp.
- OSM. 2012a. Staff analysis WP10-104 and WP12-65/66. Pages 255–274 in Federal Subsistence Board Meeting Materials January 17–20, 2012. Office of Subsistence Management, FWS. Anchorage, AK. 1021 pp.
- OSM. 2012b. Staff analysis WP12-68. Pages 275–287 in Federal Subsistence Board Meeting Materials January 17–20, 2012. Office of Subsistence Management, FWS. Anchorage, AK. 1021 pp.
- OSM. 2012c. Staff analysis WP12-24. Pages 575–588 in Federal Subsistence Board Meeting Materials January 17–20, 2012. Office of Subsistence Management, FWS. Anchorage, AK. 1021 pp.
- OSM. 2014a. Staff analysis WP14-15/45. Pages 465–484 in Federal Subsistence Board Meeting Materials April 15–17, 2014. Office of Subsistence Management, FWS. Anchorage, AK. 680 pp.
- OSM. 2014b. Staff analysis WP14-49. Pages 322–335 in Federal Subsistence Board Meeting Materials April 15–17, 2014. Office of Subsistence Management, FWS. Anchorage, AK. 680 pp.
- OSM 2016. Staff analysis WP18-60. Pages 354-370 in Federal Subsistence Board Meeting Materials April 12-14, 2016. Office of Subsistence Management, FWS, Anchorage, AK 948 pp.
- OSM 2018. Staff analysis WP18-54. Pages 1195-1227 in Federal Subsistence Board Meeting Materials April 10-13, 2018. Office of Subsistence Management, FWS, Anchorage, AK 1488 pp.
- Putera, J. 2014. Wrangell-St.-Elias National Park and Preserve March 2014 Wildlife Report. Wrangell-St. Elias National Park and Preserve. Copper Center, AK.
- Putera, J. 2017a. Wildlife Biologist. Personal communication: e-mail. Wrangell-St. Elias National Park and Preserve. Copper Center, AK.
- Putera, J. 2017b. Wrangell-St. Elias National Park and Preserve Fall 2017 Wildlife Report. Wrangell-St. Elias National Park and Preserve, Copper Center, AK. 5 pp.
- Putera, J. 2018. Wildlife Biologist. Personal communication: e-mail, phone Wrangell-St. Elias National Park and Preserve. Copper Center, AK.
- Roffler, G.H., L.G. Adams, S.L. Talbot, G.K. Sage, and B.W. Dale. 2012. Range overlap and individual movements during breeding season influence genetic relationships of caribou herds in south-central Alaska. *Journal of Mammalogy* 93(5): 1318-1330.
- Russell, D.E., A.M. Martell, and W.A.C. Nixon. 1993. Range ecology of the porcupine caribou herd in Canada. *Rangifer Special Issue* 8:1– 167.
- Seip, D.R. 1991. Predation and caribou populations. *Rangifer* 7:46–72.
- Skogland, T. 1985. The effects of density-dependent resource limitations on the demography of wild reindeer. *Journal of Animal Ecology* 54:359–374.

Taylor, S. 2018. Kluane Regional Biologist. Personal communication: e-mail. Yukon Environment – Fish and Wildlife Branch, Yukon, Canada.

Tews, J., M.A.D. Ferguson, L. Fahrig. 2006. Potential net effects of climate change on High Arctic Peary caribou: Lessons from a spatially explicit simulation model. *Ecological Modelling* 207:85–98.

Zittlau, K.J. Coffin, R. Farnell, G. Kuzyk, and C. Strobeck. 2000. Genetic relationships of the Yukon woodland caribou herds determined by DNA typing. *Rangifer Special Issue* 12:59-62.

Zittlau, K. 2004. Population genetic analyses of North American caribou (*Rangifer tarandus*). Ph.D. Dissertation. University of Alberta, Edmonton, Canada.



Federal Subsistence Board News Release



U.S. Fish and Wildlife Service
Bureau of Land Management
National Park Service
Bureau of Indian Affairs

Forest Service

For Immediate Release:
January 31, 2019

Contact: Caron McKee
(907) 786-3880 or (800) 478-1456
caron_mckee@fws.gov

Call for Proposals to Change Federal Subsistence Hunting and Trapping Regulations

The Federal Subsistence Board (Board) is accepting proposals through March 27, 2019 to change Federal regulations for the subsistence harvest of wildlife on Federal public lands for the July 1, 2020–June 30, 2022 regulatory years. The Board will consider proposals to change Federal subsistence hunting and trapping seasons, harvest limits, methods of harvest, and customary and traditional use determinations.

Submit proposals:

- **By mail or hand delivery**
Federal Subsistence Board
Office of Subsistence Management – Attn: Theo Matuskowitz
1011 East Tudor Road, MS-121
Anchorage, AK 99503-6199
- **Online at <https://www.regulations.gov>**
Search for docket number FWS-R7-SM-2018-0015.
- **At any Federal Subsistence Regional Advisory Council meeting**
A current list of meeting dates and locations can be found at <https://www.doi.gov/subsistence/regions>, or by contacting the Office of Subsistence Management at the phone number or email address below. Due to the recent lapse in funding for the Federal government budget, some of the meeting dates published in the proposed rule (84 FR 623; January 31, 2019) have been changed. Revised meeting dates and locations will be announced in subsequent news releases as they become available.

The proposed rule, *Subsistence Management Regulations for Public Lands in Alaska—2020–21 and 2021–22, Subsistence Taking of Wildlife Regulations*, published in the Federal Register on January 31, 2019 (84 FR 623).

You may call the Office of Subsistence Management at 800-478-1456 or email subsistence@fws.gov with questions.

Additional information on the Federal Subsistence Management Program may be found on the web at www.doi.gov/subsistence or by visiting www.facebook.com/subsistencealaska.

Missing out on the latest Federal subsistence issues? If you'd like to receive emails and notifications on the Federal Subsistence Management Program you may subscribe for regular updates by emailing fws-fsb-subsistence-request@lists.fws.gov.

-###-

1011 East Tudor Road MS-121 • Anchorage, Alaska 99503-6199 • subsistence@fws.gov • (800) 478-1456 / (907) 786-3888
This document has been cleared for public release #20601312019.



U.S.C. 4321–4370f), and have made a preliminary determination that this action is one of a category of actions that do not individually or cumulatively have a significant effect on the human environment. This proposed rule involves a safety zone lasting for 2 hours that will prohibit entry within 100-yards of swim participants. Normally such actions are categorically excluded from further review under paragraph L63(a) of Appendix A, Table 1 of DHS Instruction Manual 023–01–001–01, Rev. 01. A preliminary Record of Environmental Consideration supporting this determination is available in the docket where indicated under **ADDRESSES**. We seek any comments or information that may lead to the discovery of a significant environmental impact from this proposed rule.

G. Protest Activities

The Coast Guard respects the First Amendment rights of protesters. Protesters are asked to contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section to coordinate protest activities so that your message can be received without jeopardizing the safety or security of people, places, or vessels.

V. Public Participation and Request for Comments

We view public participation as essential to effective rulemaking, and will consider all comments and material received during the comment period. Your comment can help shape the outcome of this rulemaking. If you submit a comment, please include the docket number for this rulemaking, indicate the specific section of this document to which each comment applies, and provide a reason for each suggestion or recommendation.

We encourage you to submit comments through the Federal eRulemaking Portal at <http://www.regulations.gov>. If your material cannot be submitted using <http://www.regulations.gov>, contact the person in the **FOR FURTHER INFORMATION CONTACT** section of this document for alternate instructions.

We accept anonymous comments. All comments received will be posted without change to <https://www.regulations.gov> and will include any personal information you have provided. For more about privacy and the docket, visit <https://www.regulations.gov/privacyNotice>.

Documents mentioned in this NPRM as being available in the docket, and all public comments, will be in our online docket at <https://www.regulations.gov>

and can be viewed by following that website's instructions. Additionally, if you go to the online docket and sign up for email alerts, you will be notified when comments are posted or when a final rule is published.

List of Subjects in 33 CFR Part 165

Harbors, Marine safety, Navigation (water), Reporting and recordkeeping requirements, Security measures, Waterways.

For the reasons discussed in the preamble, the Coast Guard is proposing to amend 33 CFR part 165 as follows:

PART 165—SAFETY ZONE; TANAPAG HARBOR, SAIPAN, CNMI

■ 1. The authority citation for part 165 continues to read as follows:

Authority: 46 U.S.C. 70034 (previously codified in 33 U.S.C. 1231); 46 U.S.C. 70051 (previously codified in 50 U.S.C. 191); 33 CFR 1.05–1, 6.04–1, 6.04–6, and 160.5; Department of Homeland Security Delegation No. 0170.1.

■ 2. Add § 165.T14–0020 to read as follows:

165. T14–0020 Safety Zone; Tanapag Harbor, Saipan, CNMI.

(a) *Location.* The following area, within the Guam Captain of the Port (COTP) Zone (See 33 CFR 3.70–15), all navigable waters within a 100-yard radius of race participants in Tanapag Harbor, Saipan. Race participants, chase boats and organizers of the event will be exempt from the safety zone.

(b) *Effective Dates.* This rule is effective from 6:30 a.m. to 8:30 a.m. on March 31, 2019.

(c) *Enforcement.* Any Coast Guard commissioned, warrant, or petty officer, and any other COTP representative permitted by law, may enforce this temporary safety zone.

(d) *Waiver.* The COTP may waive any of the requirements of this rule for any person, vessel, or class of vessel upon finding that application of the safety zone is unnecessary or impractical for the purpose of maritime security.

(e) *Penalties.* Vessels or persons violating this rule are subject to the penalties set forth in 46 U.S.C. 70036 (previously codified in 33 U.S.C. 1232) and 46 U.S.C. 70052 (previously codified in 50 U.S.C. 192).

Dated: January 23, 2019.

Christopher M. Chase,

Captain, U.S. Coast Guard, Captain of the Port, Guam.

[FR Doc. 2019–00563 Filed 1–30–19; 8:45 am]

BILLING CODE 9110–04–P

DEPARTMENT OF AGRICULTURE

Forest Service

36 CFR Part 242

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 100

[Docket No. FWS–R7–SM–2018–0015; FXFR13350700640–190–FF07J00000; FBMS#4500129154]

RIN 1018–BD11

Subsistence Management Regulations for Public Lands in Alaska—2020–21 and 2021–22 Subsistence Taking of Wildlife Regulations

AGENCIES: Forest Service, Agriculture; Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: This proposed rule would establish regulations for hunting and trapping seasons, harvest limits, and methods and means related to taking of wildlife for subsistence uses during the 2020–21 and 2021–22 regulatory years. The Federal Subsistence Board is on a schedule of completing the process of revising subsistence taking of wildlife regulations in even-numbered years and subsistence taking of fish and shellfish regulations in odd-numbered years; public proposal and review processes take place during the preceding year. The Board also addresses customary and traditional use determinations during the applicable cycle. When final, the resulting rulemaking will replace the existing subsistence wildlife taking regulations. This rule would also amend the general regulations on subsistence taking of fish and wildlife.

DATES:

Public meetings: The Federal Subsistence Regional Advisory Councils will hold public meetings to receive comments and make proposals to change this proposed rule on several dates between February 5 and March 12, 2019, and then will hold another round of public meetings to discuss and receive comments on the proposals, and make recommendations on the proposals to the Federal Subsistence Board, on several dates between September 19 and November 5, 2019. The Board will discuss and evaluate proposed regulatory changes during a public meeting in Anchorage, AK, in April 2020. See **SUPPLEMENTARY INFORMATION** for specific information on dates and locations of the public meetings.

Public comments: Comments and proposals to change this proposed rule must be received or postmarked by March 27, 2019.

ADDRESSES:

Public meetings: The Federal Subsistence Board and the Federal Subsistence Regional Advisory Councils' public meetings will be held at various locations in Alaska. See **SUPPLEMENTARY INFORMATION** for specific information on dates and locations of the public meetings.

Public comments: You may submit comments by one of the following methods:

- *Electronically:* Go to the Federal eRulemaking Portal: <http://www.regulations.gov> and search for FWS–R7–SM–2018–0015, which is the docket number for this rulemaking.
- *By hard copy:* U.S. mail or hand-delivery to: USFWS, Office of Subsistence Management, 1011 East Tudor Road, MS 121, Attn: Theo Matuskowitz, Anchorage, AK 99503–6199, or hand delivery to the Designated Federal Official attending any of the Federal Subsistence Regional Advisory Council public meetings. See **SUPPLEMENTARY INFORMATION** for additional information on locations of the public meetings.

We will post all comments on <http://www.regulations.gov>. This generally means that we will post any personal information you provide us (see the Public Review Process section below for more information).

FOR FURTHER INFORMATION CONTACT: Chair, Federal Subsistence Board, c/o U.S. Fish and Wildlife Service, Attention: Thomas C.J. Doolittle, Office of Subsistence Management; (907) 786–3888 or subsistence@fws.gov. For questions specific to National Forest System lands, contact Thomas Whitford, Regional Subsistence Program Leader,

USDA–Forest Service, Alaska Region; (907) 743–9461 or twhitford@fs.fed.us.

SUPPLEMENTARY INFORMATION:

Background

Under Title VIII of the Alaska National Interest Lands Conservation Act (ANILCA) (16 U.S.C. 3111–3126), the Secretary of the Interior and the Secretary of Agriculture (Secretaries) jointly implement the Federal Subsistence Management Program. This program provides a rural preference for take of fish and wildlife resources for subsistence uses on Federal public lands and waters in Alaska. The Secretaries published temporary regulations to carry out this program in the **Federal Register** on June 29, 1990 (55 FR 27114), and final regulations were published in the **Federal Register** on May 29, 1992 (57 FR 22940). The Program has subsequently amended these regulations a number of times. Because this program is a joint effort between Interior and Agriculture, these regulations are located in two titles of the Code of Federal Regulations (CFR): Title 36, “Parks, Forests, and Public Property,” and Title 50, “Wildlife and Fisheries,” at 36 CFR part 242.1–28 and 50 CFR part 100.1–28, respectively. The regulations contain subparts as follows: Subpart A, General Provisions; Subpart B, Program Structure; Subpart C, Board Determinations; and Subpart D, Subsistence Taking of Fish and Wildlife.

Consistent with subpart B of these regulations, the Secretaries established a Federal Subsistence Board to administer the Federal Subsistence Management Program. The Board comprises:

- A Chair appointed by the Secretary of the Interior with concurrence of the Secretary of Agriculture;
- The Alaska Regional Director, U.S. Fish and Wildlife Service;

- The Alaska Regional Director, National Park Service;
- The Alaska State Director, Bureau of Land Management;
- The Alaska Regional Director, Bureau of Indian Affairs;
- The Alaska Regional Forester, USDA–Forest Service; and
- Two public members appointed by the Secretary of the Interior with concurrence of the Secretary of Agriculture.

Through the Board, these agencies and public members participate in the development of regulations for subparts C and D, which, among other things, set forth program eligibility and specific harvest seasons and limits.

In administering the program, the Secretaries divided Alaska into 10 subsistence resource regions, each of which is represented by a Federal Subsistence Regional Advisory Council (Council). The Councils provide a forum for rural residents with personal knowledge of local conditions and resource requirements to have a meaningful role in the subsistence management of fish and wildlife on Federal public lands in Alaska. The Council members represent varied geographical, cultural, and user interests within each region. Members are appointed by the Secretary of the Interior with the concurrence of the Secretary of Agriculture.

Public Review Process—Comments, Proposals, and Public Meetings

The Councils have a substantial role in reviewing this proposed rule and making recommendations for the final rule. The Federal Subsistence Board, through the Councils, will hold public meetings on this proposed rule at the following locations in Alaska, on the following dates:

Region 1—Southeast Regional Council	Wrangell	February 12, 2019.
Region 2—Southcentral Regional Council	Anchorage	February 26, 2019.
Region 3—Kodiak/Aleutians Regional Council	Kodiak	February 21, 2019.
Region 4—Bristol Bay Regional Council	Naknek	February 12, 2019.
Region 5—Yukon–Kuskokwim Delta Regional Council	Bethel	March 12, 2019.
Region 6—Western Interior Regional Council	Anchorage	February 20, 2019.
Region 7—Seward Peninsula Regional Council	Nome	March 5, 2019.
Region 8—Northwest Arctic Regional Council	Kotzebue	February 27, 2019.
Region 9—Eastern Interior Regional Council	Fairbanks	March 5, 2019.
Region 10—North Slope Regional Council	Utqiagvik	February 13, 2019.

During April 2019, the written proposals to change the subpart D, take of wildlife regulations, and subpart C, customary and traditional use determinations, will be compiled and distributed for public review. During a

subsequent public comment period, written public comments will be accepted on the distributed proposals. The Board, through the Councils, will hold a second series of public meetings in September through November 2019,

to receive comments on specific proposals and to develop recommendations to the Board at the following locations in Alaska, on the following dates:

Region 1—Southeast Regional Council	Petersburg	October 8, 2019.
Region 2—Southcentral Regional Council	Seward	October 2, 2019.

Region 3—Kodiak/Aleutians Regional Council	Kodiak	September 19, 2019.
Region 4—Bristol Bay Regional Council	Dillingham	November 5, 2019.
Region 5—Yukon—Kuskokwim Delta Regional Council	Bethel	October 12, 2019.
Region 6—Western Interior Regional Council	Aniak	October 8, 2019.
Region 7—Seward Peninsula Regional Council	Nome	October 22, 2019.
Region 8—Northwest Arctic Regional Council	Kotzebue	October 28, 2019.
Region 9—Eastern Interior Regional Council	Fairbanks	October 15, 2019.
Region 10—North Slope Regional Council	Utqiagvik	October 22, 2019.

Prior to both series of meetings, notices will be published of specific dates, times, and meeting locations in local and statewide newspapers, along with announcements on radio, television and social media sites. Locations and dates may change based on weather or local circumstances. The amount of work on each Council's agenda determines the length of each Council meeting, but typically the meetings are scheduled to last 2 days. Occasionally a Council will lack information necessary during a scheduled meeting to make a recommendation to the Board or to provide comments on other matters affecting subsistence in the region. If this situation occurs, the Council may announce on the record a later teleconference to address the specific issue when the requested information or data is available. These teleconferences are open to the public, along with opportunities for public comment; the date and time will be announced during the scheduled meeting and that same information will be announced through news releases and local radio, television, and social media ads.

The Board will discuss and evaluate proposed changes to the subsistence management regulations during a public meeting scheduled to be held in Anchorage, Alaska, in April 2020. The Council Chairs, or their designated representatives, will present their respective Councils' recommendations at the Board meeting. Additional oral testimony may be provided on specific proposals before the Board at that time. At that public meeting, the Board will deliberate and take final action on proposals received that request changes to this proposed rule.

Proposals to the Board to modify the general fish and wildlife regulations, wildlife harvest regulations, and customary and traditional use determinations must include the following information:

- a. Name, address, and telephone number of the requestor;
- b. Each section and/or paragraph designation in this proposed rule for which changes are suggested, if applicable;
- c. A description of the regulatory change(s) desired;

d. A statement explaining why each change is necessary;

e. Proposed wording changes; and
 f. Any additional information that you believe will help the Board in evaluating the proposed change.

The Board immediately rejects proposals that fail to include the above information, or proposals that are beyond the scope of authorities in § ____ .24, subpart C (the regulations governing customary and traditional use determinations), and §§ ____ .25 and ____ .26, subpart D (the general and specific regulations governing the subsistence take of wildlife). If a proposal needs clarification, prior to being distributed for public review, the proponent may be contacted, and the proposal could be revised based on their input. Once distributed for public review, no additional changes may be made as part of the original submission. During the April 2020 meeting, the Board may defer review and action on some proposals to allow time for cooperative planning efforts, or to acquire additional needed information. The Board may elect to defer taking action on any given proposal if the workload of staff, Councils, or the Board becomes excessive. These deferrals may be based on recommendations by the affected Council(s) or staff members, or on the basis of the Board's intention to do least harm to the subsistence user and the resource involved. A proponent of a proposal may withdraw the proposal provided it has not been considered, and a recommendation has not been made, by a Council. After that, the Board must approve withdrawal of a proposal. The Board may consider and act on alternatives that address the intent of a proposal while differing in approach.

You may submit written comments and materials concerning this proposed rule by one of the methods listed in **ADDRESSES**. If you submit a comment via <http://www.regulations.gov>, your entire comment, including any personal identifying information, will be posted on the website. If you submit a hardcopy comment that includes personal identifying information, you may request at the top of your document that we withhold this information from public review. However, we cannot guarantee that we will be able to do so.

We will post all hardcopy comments on <http://www.regulations.gov>.

Comments and materials we receive, as well as supporting documentation we used in preparing this proposed rule, will be available for public inspection on <http://www.regulations.gov>, or by appointment, between 8 a.m. and 3 p.m., Monday through Friday, except Federal holidays, at: USFWS, Office of Subsistence Management, 1011 East Tudor Road, Anchorage, AK 99503.

Reasonable Accommodations

The Federal Subsistence Board is committed to providing access to these meetings for all participants. Please direct all requests for sign language interpreting services, closed captioning, or other accommodation needs to the Office of Subsistence Management, 907–786–3888, subsistence@fws.gov, or 800–877–8339 (TTY), at least 7 business days prior to the meeting you would like to attend.

Tribal Consultation and Comment

As expressed in Executive Order 13175, "Consultation and Coordination with Indian Tribal Governments," the Federal officials that have been delegated authority by the Secretaries are committed to honoring the unique government-to-government political relationship that exists between the Federal Government and federally Recognized Indian Tribes (Tribes) as listed in 79 FR 4748 (January 29, 2014). Consultation with Alaska Native corporations is based on Public Law 108–199, div. H, Sec. 161, Jan. 23, 2004, 118 Stat. 452, as amended by Public Law 108–447, div. H, title V, Sec. 518, Dec. 8, 2004, 118 Stat. 3267, which provides that: "The Director of the Office of Management and Budget and all Federal agencies shall hereafter consult with Alaska Native corporations on the same basis as Indian tribes under Executive Order No. 13175."

The Alaska National Interest Lands Conservation Act does not provide specific rights to Tribes for the subsistence taking of wildlife, fish, and shellfish. However, because tribal members are affected by subsistence fishing, hunting, and trapping regulations, the Secretaries, through the Board, will provide federally recognized Tribes and Alaska Native corporations

an opportunity to consult on this proposed rule.

The Board will engage in outreach efforts for this proposed rule, including a notification letter, to ensure that Tribes and Alaska Native corporations are advised of the mechanisms by which they can participate. The Board provides a variety of opportunities for consultation: Proposing changes to the existing rule; commenting on proposed changes to the existing rule; engaging in dialogue at Council meetings; engaging in dialogue at the Board's meetings; and providing input in person, by mail, email, or phone at any time during the rulemaking process. The Board commits to efficiently and adequately providing an opportunity to Tribes and Alaska Native corporations for consultation in regard to subsistence rulemaking.

The Board will consider Tribes' and Alaska Native corporations' information, input, and recommendations, and address their concerns as much as practicable.

Developing the 2020–21 and 2021–22 Wildlife Seasons and Harvest Limit Regulations

Subpart C and D regulations are subject to periodic review and revision. The Federal Subsistence Board currently completes the process of revising subsistence take of wildlife regulations in even-numbered years and fish and shellfish regulations in odd-numbered years; public proposal and review processes take place during the preceding year. The Board also addresses customary and traditional use determinations during the applicable cycle.

The current subsistence program regulations form the starting point for consideration during each new rulemaking cycle. The regulations at § _____.24 pertain to customary and traditional use determinations; the regulations at § _____.25 pertain to general provisions governing the subsistence take of wildlife, fish, and shellfish; and the regulations at § _____.26 pertain to specific provisions governing the subsistence take of wildlife.

The text of the proposed amendments to 36 CFR parts 242.24, 242.25, and 242.26 and 50 CFR parts 100.24, 100.25, and 100.26 is the final rule for the 2018–2020 regulatory period for wildlife (83 FR 50758; October 9, 2018).

These regulations will remain in effect until subsequent Board action changes elements as a result of the public review process outlined above in this document.

Compliance With Statutory and Regulatory Authorities

National Environmental Policy Act

A Draft Environmental Impact Statement that described four alternatives for developing a Federal Subsistence Management Program was distributed for public comment on October 7, 1991. The Final Environmental Impact Statement (FEIS) was published on February 28, 1992. The Record of Decision (ROD) on Subsistence Management for Federal Public Lands in Alaska was signed April 6, 1992. The selected alternative in the FEIS (Alternative IV) defined the administrative framework of an annual regulatory cycle for subsistence regulations.

A 1997 environmental assessment dealt with the expansion of Federal jurisdiction over fisheries and is available at the office listed under **FOR FURTHER INFORMATION CONTACT**. The Secretary of the Interior, with concurrence of the Secretary of Agriculture, determined that expansion of Federal jurisdiction does not constitute a major Federal action significantly affecting the human environment and, therefore, signed a Finding of No Significant Impact.

Section 810 of ANILCA

An ANILCA § 810 analysis was completed as part of the FEIS process on the Federal Subsistence Management Program. The intent of all Federal subsistence regulations is to accord subsistence uses of fish and wildlife on public lands a priority over the taking of fish and wildlife on such lands for other purposes, unless restriction is necessary to conserve healthy fish and wildlife populations. The final § 810 analysis determination appeared in the April 6, 1992, ROD and concluded that the Federal Subsistence Management Program, under Alternative IV with an annual process for setting subsistence regulations, may have some local impacts on subsistence uses, but will not likely restrict subsistence uses significantly.

During the subsequent environmental assessment process for extending fisheries jurisdiction, an evaluation of the effects of this rulemaking process was conducted in accordance with § 810. That evaluation also supported the Secretaries' determination that these rules will not reach the "may significantly restrict" threshold that would require notice and hearings under ANILCA § 810(a).

Paperwork Reduction Act (PRA)

This proposed rule does not contain any new collections of information that require Office of Management and Budget (OMB) approval. OMB has reviewed and approved the collections of information associated with the subsistence regulations at 36 CFR part 242 and 50 CFR part 100, and assigned OMB Control Number 1018–0075, which expires June 30, 2019. An agency may not conduct or sponsor and you are not required to respond to a collection of information unless it displays a currently valid OMB control number.

Regulatory Planning and Review (Executive Order 12866)

Executive Order 12866 provides that the Office of Information and Regulatory Affairs (OIRA) in the Office of Management and Budget will review all significant rules. OIRA has determined that this proposed rule is not significant.

Executive Order 13563 reaffirms the principles of E.O. 12866 while calling for improvements in the nation's regulatory system to promote predictability, to reduce uncertainty, and to use the best, most innovative, and least burdensome tools for achieving regulatory ends. The executive order directs agencies to consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public where these approaches are relevant, feasible, and consistent with regulatory objectives. E.O. 13563 emphasizes further that regulations must be based on the best available science and that the rulemaking process must allow for public participation and an open exchange of ideas. We have developed this rule in a manner consistent with these requirements.

Regulatory Flexibility Act

The Regulatory Flexibility Act of 1980 (5 U.S.C. 601 *et seq.*) requires preparation of flexibility analyses for rules that will have a significant effect on a substantial number of small entities, which include small businesses, organizations, or governmental jurisdictions. In general, the resources to be harvested under this proposed rule are already being harvested and consumed by the local harvester and do not result in an additional dollar benefit to the economy. However, we estimate that two million pounds of meat are harvested by subsistence users annually and, if given an estimated value of \$3.00 per pound, this amount would equate to about \$6 million in food value statewide. Based upon the amounts and

values cited above, the Departments certify that this rulemaking will not have a significant economic effect on a substantial number of small entities within the meaning of the Regulatory Flexibility Act.

Small Business Regulatory Enforcement Fairness Act

Under the Small Business Regulatory Enforcement Fairness Act (5 U.S.C. 801 *et seq.*), this proposed rule is not a major rule. It will not have an effect on the economy of \$100 million or more, will not cause a major increase in costs or prices for consumers, and will not have significant adverse effects on competition, employment, investment, productivity, innovation, or the ability of U.S.-based enterprises to compete with foreign-based enterprises.

Executive Order 12630

Title VIII of ANILCA requires the Secretaries to administer a subsistence priority for rural Alaskan residents on public lands. The scope of this program is limited by definition to certain public lands. Likewise, these proposed regulations have no potential takings of private property implications as defined by Executive Order 12630.

Unfunded Mandates Reform Act

The Secretaries have determined and certify pursuant to the Unfunded Mandates Reform Act, 2 U.S.C. 1502 *et seq.*, that this rulemaking will not impose a cost of \$100 million or more in any given year on local or State governments or private entities. The implementation of this rule is by Federal agencies and there is no cost imposed on any State or local entities or tribal governments.

Executive Order 12988

The Secretaries have determined that these regulations meet the applicable standards provided in §§ 3(a) and 3(b)(2) of Executive Order 12988, regarding civil justice reform.

Executive Order 13132

In accordance with Executive Order 13132, the proposed rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment. Title VIII of ANILCA precludes the State from exercising subsistence management authority over fish and wildlife resources on Federal lands unless it meets certain requirements.

Executive Order 13175

Title VIII of ANILCA does not provide specific rights to tribes for the subsistence taking of wildlife, fish, and

shellfish. However, as described above under *Tribal Consultation and Comment*, the Secretaries, through the Board, will provide federally recognized Tribes and Alaska Native corporations an opportunity to consult on this proposed rule.

Executive Order 13211

Executive Order 13211 requires agencies to prepare Statements of Energy Effects when undertaking certain actions. However, this proposed rule is not a significant regulatory action under E.O. 13211, affecting energy supply, distribution, or use, and no Statement of Energy Effects is required.

Drafting Information

Theo Matuskowitz drafted this proposed rule under the guidance of Thomas C.J. Doolittle, Jr. of the Office of Subsistence Management, Alaska Regional Office, U.S. Fish and Wildlife Service, Anchorage, Alaska. Additional assistance was provided by:

- Daniel Sharp, Alaska State Office, Bureau of Land Management;
- Clarence Summers, Alaska Regional Office, National Park Service;
- Dr. Glenn Chen, Alaska Regional Office, Bureau of Indian Affairs;
- Carol Damberg, Alaska Regional Office, U.S. Fish and Wildlife Service; and
- Thomas Whitford, Alaska Regional Office, USDA–Forest Service.

List of Subjects

36 CFR Part 242

Administrative practice and procedure, Alaska, Fish, National forests, Public lands, Reporting and recordkeeping requirements, Wildlife.

50 CFR Part 100

Administrative practice and procedure, Alaska, Fish, National forests, Public lands, Reporting and recordkeeping requirements, Wildlife.

Proposed Regulation Promulgation

For the reasons set out in the preamble, the Federal Subsistence Board proposes to amend 36 CFR part 242 and 50 CFR part 100 for the 2020–21 and 2021–22 regulatory years.

- The text of the proposed amendments to 36 CFR 242.24, 242.25, and 242.26 and 50 CFR 100.24, 100.25, and 100.26 is the final rule for the 2018–2020 regulatory periods for wildlife (83 FR 50759; October 9, 2018).

Dated: December 21, 2018.

Thomas C.J. Doolittle,

Acting Assistant Regional Director, U.S. Fish and Wildlife Service.

Dated: December 21, 2018.

Thomas Whitford,

Subsistence Program Leader, USDA—Forest Service.

[FR Doc. 2019–00424 Filed 1–30–19; 8:45 am]

BILLING CODE 3411–15–4333–15–P

DEPARTMENT OF VETERANS AFFAIRS

38 CFR Part 17

RIN 2900–AQ47

Urgent Care

AGENCY: Department of Veterans Affairs.

ACTION: Proposed rule.

SUMMARY: The Department of Veterans Affairs (VA) is proposing to amend its regulations that govern VA health care. This rule would grant eligible veterans access to urgent care from qualifying non-VA entities or providers without prior approval from VA. This rulemaking would implement the mandates of the VA MISSION Act of 2018 and increase veterans' access to health care in the community.

DATES: Comments must be received on or before March 4, 2019.

ADDRESSES: Written comments may be submitted through <http://www.Regulations.gov>; by mail or hand-delivery to: Director, Regulation Policy and Management (00REG), Department of Veterans Affairs, 810 Vermont Avenue, North West, Room 1063B, Washington, DC 20420; or by fax to (202) 273–9026. (This is not a toll-free telephone number.) Comments should indicate that they are submitted in response to “RIN 2900–AQ47 Urgent Care.” Copies of comments received will be available for public inspection in the Office of Regulation Policy and Management, Room 1063B, between the hours of 8 a.m. and 4:30 p.m., Monday through Friday (except holidays). Please call (202) 461–4902 for an appointment. (This is not a toll-free telephone number.) In addition, during the comment period, comments may be viewed online through the Federal Docket Management System (FDMS) at <http://www.Regulations.gov>.

FOR FURTHER INFORMATION CONTACT: Joseph Duran, Director of Policy and Planning, 3773 Cherry Creek North Drive, Denver, CO 80209. Joseph.Duran2@va.gov. (303) 370–1637. (This is not a toll-free number.)



U.S. Fish and Wildlife Service
Bureau of Land Management
National Park Service
Bureau of Indian Affairs

Federal Subsistence Board Informational Flyer



Forest Service

Contact: Regulatory Affairs Division Chief
(907) 786-3888 or (800) 478-1456
subsistence@fws.gov

How to Submit a Proposal to Change Federal Subsistence Regulations

Alaska residents and subsistence users are an integral part of the Federal regulatory process. Any person or group can submit proposals to change Federal subsistence regulations, comment on proposals, or testify at meetings. By becoming involved in the process, subsistence users assist with effective management of subsistence activities and ensure consideration of traditional and local knowledge in subsistence management decisions. Subsistence users also provide valuable wildlife harvest information.

A call for proposals to change Federal subsistence fishing regulations is issued in January of even-numbered years and odd-numbered years for wildlife. The period during which proposals are accepted is no less than 30 calendar days. Proposals must be submitted in writing within this time frame.

You may propose changes to Federal subsistence season dates, harvest limits, methods and means of harvest, and customary and traditional use determinations.

What your proposal should contain:

There is no form to submit your proposal to change Federal subsistence regulations. Include the following information in your proposal submission (you may submit as many as you like):

- Your name and contact information (address, phone, fax, or E-mail address)
- Your organization (if applicable).
- What regulations you wish to change. Include management unit number and species. Quote the current regulation if known. If you are proposing a new regulation, please state, “new regulation.”
- Write the regulation the way you would like to see it written in the regulations.
- Explain why this regulation change should be made.
- You should provide any additional information that you believe will help the Federal Subsistence Board (Board) in evaluating the proposed change.

1011 East Tudor Road MS-121 • Anchorage, Alaska 99503-6199 • subsistence@fws.gov • (800) 478-1456 / (907) 786-3888
This document has been cleared for public release #0605132015.

You may submit your proposals by:

1. By mail or hand delivery to:
Federal Subsistence Board
Office of Subsistence Management
Attn: Theo Matuskowitz
1011 E. Tudor Rd., MS-121
Anchorage, AK 99503
2. At any Federal Subsistence Regional Advisory Council meeting (A schedule will be published in the Federal Register and be announced statewide, bi-annually, prior to the meeting cycles)
3. On the Web at <http://www.regulations.gov>

Submit a separate proposal for each proposed change; however, do not submit the same proposal by different accepted methods listed above. To cite which regulation(s) you want to change, you may reference [50 CFR 100](#) or [36 CFR 242](#) or the proposed regulations published in the Federal Register: <http://www.gpoaccess.gov/fr/index.html>. All proposals and comments, including personal information, are posted on the Web at <http://www.regulations.gov>.

For the proposal processing timeline and additional information contact the Office of Subsistence Management at (800) 478-1456/ (907) 786-3888 or go to <http://www.doi.gov/subsistence/proposal/submit.cfm>.

How a proposal to change Federal subsistence regulations is processed:

1. Once a proposal to change Federal subsistence regulations is received by the Board, the U.S. Fish and Wildlife Service, Office of Subsistence Management (OSM) validates the proposal, assigns a proposal number and lead analyst.
2. The proposals are compiled into a book for statewide distribution and posted online at the Program website. The proposals are also sent out the applicable Councils and the Alaska Department of Fish and Game (ADF&G) and the Interagency Staff Committee (ISC) for review. The period during which comments are accepted is no less than 45 calendar days. Comments must be submitted within this time frame.
3. The lead analyst works with appropriate agencies and proponents to develop an analysis on the proposal.
4. The analysis is sent to the Councils, ADF&G and the ISC for comments and recommendations to the Board. The public is welcome and encouraged to provide comments directly to the Councils and the Board at their meetings. The final analysis contains all of the comments and recommendations received by interested/affected parties. This packet of information is then presented to the Board for action.
5. The decision to adopt, adopt with modification, defer or reject the proposal is then made by the Board. The public is provided the opportunity to provide comment directly to the Board prior to the Board's final decision.
6. The final rule is published in the Federal Register and a public regulations booklet is created and distributed statewide and on the Program's website.

A step-by-step guide to submitting your proposal on www.regulations.gov:

1. Connect to www.regulations.gov – there is no password or username required.
2. In the white space provided in the large blue box, type in the document number listed in the news release or available on the program webpage, (for example: FWS-R7-SM2014-0062) and select the light blue “Search” button to the right.

3. Search results will populate and may have more than one result. Make sure the Proposed Rule you select is by the U.S. Fish and Wildlife Service (FWS) and **not** by the U.S. Forest Service (FS).
4. Select the proposed rule and in the upper right select the blue box that says, "Comment Now!"
5. Enter your comments in the "Comment" box.
6. Upload your files by selecting "Choose files" (this is optional).
7. Enter your first and last name in the spaces provided.
8. Select the appropriate checkbox stating whether or not you are providing the information directly or submitting on behalf of a third party.
9. Fill out the contact information in the drop down section as requested.
10. Select, "Continue." You will be given an opportunity to review your submission.
11. If everything appears correct, click the box at the bottom that states, "I read and understand the statement above," and select the box, "Submit Comment." A receipt will be provided to you. Keep this as proof of submission.
12. If everything does not appear as you would like it to, select, "Edit" to make any necessary changes and then go through the previous step again to "Submit Comment."

Missing out on the latest Federal subsistence issues? If you'd like to receive emails and notifications on the Federal Subsistence Management Program you may subscribe for regular updates by emailing fws-fsb-subsistence-request@lists.fws.gov. Additional information on the Federal Subsistence Management Program may be found on the web at www.doi.gov/subsistence/index.cfm or by visiting www.facebook.com/subsistencealaska.

Southcentral Alaska Subsistence Regional Advisory Council

U.S Fish & Wildlife Service
1011 East Tudor Road, MS 121
Anchorage, Alaska 99503-6199
Phone: 907-786-3888 Fax: 907-786-3898
Toll Free: 1-800-478-1456

RAC SC 19002.CJ

Mr. Anthony Christianson, Chair
Federal Subsistence Board
c/o Office of Subsistence Management
1011 East Tudor Road, MS 121
Anchorage, Alaska 99503

Dear Chairman Christianson:

The Southcentral Alaska Subsistence Regional Advisory Council (Council) submits this FY2018 annual report to the Federal Subsistence Board (Board) under the provisions of Section 805(a)(3)(D) of the Alaska National Interest Lands Conservation Act (ANILCA). At its public meeting in Cordova on October 29-30, 2018, the Council identified concerns and recommendations for this report. The Council wishes to share information and raise a number of concerns dealing with implementation of Title VIII of ANILCA and the continuation of subsistence uses in the Southcentral Region.

1. Delegation of Authority

The Federal Subsistence Board has the authority to delegate to agency field officials the authority to set harvest and possession limits, define harvest areas, specify methods and means of harvest, and permit requirements, and open or close specific fish or wildlife harvest seasons within the frameworks established by the Board. The Board sets these scope of delegations within the limits set by established regulations. In Federal conservation units, fishery in-season managers, field managers for the U.S. Fish and Wildlife Service (USFWS), Bureau of Land Management (BLM), and National Park Service (NPS) are issued delegations of authority.

The Council notes that managers are not always present in the field to implement actions necessary to make in-season management decisions in the event of a conservation concern. The Council recommends that in-season managers with delegations of authority be allowed to designate an acting in-season manager if they are not available to enact special actions to meet the requirements of Title VIII of ANILCA. In addition, the Council wonders why consultation with a Regional Advisory Council Chair is not mandated by the delegation of authority letters. The delegation letter addresses consultation with tribes, and in-season managers notify, but not consult, the Council Chair of special

actions being considered. The Council urges the Board to consider requiring consultation with Regional Advisory Council Chairs on any special actions being considered by in-season managers or their designees.

2. Copper River Weir

The Council discussed the importance of continued funding for weirs and counting towers in the Copper River drainage, recognizing that these projects have been losing operation funding. Rural residents in the Copper River Basin are dependent upon Sockeye Salmon as a subsistence resource. Monitoring salmon runs and data collection is necessary to ensure escapement goals are met and to ensure all user groups are afforded opportunities to harvest salmon. The Fisheries Resource Monitoring Program (FRMP) has limited funding available for projects to continue to monitor and collect biological data. Additional funding sources need to be identified.

The Council encourages the Federal Subsistence Board to seek other partners, or to request other State and Federal agencies, to assist in securing funding for weirs/counting towers. Options such as cost sharing or grants from other sources should be explored to continue these important monitoring projects, such as the Long Lake weir project. Weirs and observation towers provide valuable long term data points important to manage fisheries and achieve salmon escapement goals for the Copper River drainage.

3. Chitina Dip Net Fishery

At its December 2017 meeting in Valdez, the Alaska Board of Fisheries (BOF) failed to adopt Proposal 13, which would have prohibited the use of dip nets from boats in the Chitina fishery. Likewise, the Council objects to any dip net fishery from a boat on the Copper River. The Ahtna people have not used dip nets for Sockeye Salmon on the Copper River from a boat. In the past, fishing by the Ahtna people was from fishing platforms during the salmon run.

The Council requests that the Board send a letter to the BOF on behalf of the Council regarding the Council's concerns. The Council is considering submitting a proposal to the BOF to restrict dip netting from a boat on the Copper River. As weirs allow an additional dip net fishery from boats will affect permit holders operating a fish wheel on the river, most likely creating competition among user groups.

4. Nonrural Determination

At its fall meeting, the Council discussed the proposal submitted by the community of Moose Pass to change that community's status from nonrural to rural. As a part of that discussion the Council found the Board's Policy on Nonrural Determination criteria to be vague and lacking meaningful guidance. The Council believes that it will be challenging for the Council and the Board to make supportable decisions as outlined by this Policy. The Council seeks guidance on how to apply the policy and continue supporting the nonrural determination proposal submitted by Moose Pass.

The Council requests that the Office of Subsistence Management (OSM) continue its dialogue with the proponent and that the proponent be provided the opportunity to participate in the discussions on the nonrural determination process. Specific guidance from the Board to apply the criteria to Moose Pass will provide the staff and proponent clear direction and identify unique characteristics to move forward on rescinding the nonrural determination for Moose Pass.

5. More Comprehensive Salmon Research for In-Season Management

Due to the scope of the FRMP, most information needs are focused on salmon in freshwater streams. Real time in-season fishery information is needed to manage salmon stocks, regardless of environment. More research needs to be done in the marine environment.

With the recent poor returns of salmon in the Copper River and Alaska Peninsula, it is important that real time biological data be available to in-season managers. Real time information can be used to manage for genetic diversity of the fishery stock. When a run is slow, or below the average population returns, the information can be applied for conservation concern purposes. Genetic diversity needs to be maintained in returning populations. Managers should not increase harvest during high yield times as there is a risk of skewing populations.

The Council encourages the Board and the State to work together and discuss research ideas with National Oceanic and Atmospheric Administration (NOAA), university systems, and other research firms, to investigate marine conditions in order to predict run timing and size and develop more accurate models for in-season management. Disaster relief from State and Federal agencies for some of the more hard-hit areas may potentially provide funding for research projects designed to broaden knowledge of salmon in all environments. The Board could also consider diverting funds to provide real time information to managers to help the returning stock and to ensure subsistence practices continue.

6. Biological Data

Natural resource managers have had challenges accessing historical biological data collected by the State of Alaska in order to review trends for subsistence and personal use harvests, particularly in the Copper River tributaries.

The Council would like the Board to initiate a plan for improved data sharing between the Alaska Department Fish and Game and Federal resource managers. In the Copper River area, stream data has been requested and the response has been slow. Historical monitoring and harvest data should be available online, in a searchable format, and available to the public, staff and managers in order to understand harvest trends and other data to develop management strategies.

7. Climate Change

Concerns of the effects of climate change on the environment and subsistence resources continue to be of concern for the Council. These concerns include invasive species (in the various ecosystems) disruption in patterns of resource harvest and uses, changes in water temperature and acidification, and erosion.

The Council requests additional informational presentations for itself and its constituents on how to adapt to climate change. Such presentations should provide tools for communities to be better prepared in adapting to these changes. The Council recommends reaching out to the Landscape Conservation Cooperatives to provide updates on recent projects and guidance to communities dealing with climate change.

Chairman Christianson

4

8. All Council Meeting

The Council continues to support and endorse another All Council meeting. The Council suggests that OSM solicit input from Councils on the draft agenda to identify training needs and informational materials to be used in future meetings.

9. Salmon Predation

The Council heard public testimony regarding marine mammals preying on salmon migrating up the Copper River. Marine mammals, such as harbor seals, sea lions, Orcas, and other whales, are staging at the mouth of the Copper River to feed on migrating salmon. At Miles Lake and Abercrombie Rapids at least 600 seals have been observed in the area preying on salmon. The extent of salmon predation on marine mammals is unknown.

The local Tribe in Cordova voiced its concern about sea lion and seal populations and the tremendous amount of salmon these species are consuming. This needs to be investigated and addressed. The Board, in consultation with NOAA, should examine the extent of the impact predation has on the fisheries.

Thank you for the opportunity for this Council to assist the Federal Subsistence Management Program to meet its charge of protecting subsistence resources and uses of these resources on Federal Public lands and waters. We look forward to continuing discussions about the issues and concerns of subsistence users of the Southcentral Region. If you have questions about this report, please contact me via Donald Mike, Subsistence Council Coordinator, with the Office of Subsistence Management at 1-800-478-1456 or (907) 786-3629.

Sincerely,

Richard Greg Encelewski
Chair

cc:

Federal Subsistence Board
Thomas Doolittle, Acting Deputy Assistant Regional Director
Office of Subsistence Management
Dr. Jennifer Hardin, Subsistence Policy Coordinator, Office of Subsistence Management
Katerina "Katya" Wessels, Acting Council Coordination Division Supervisor, Office of
Subsistence Management
Donald Mike, Subsistence Council Coordinator, Office of Subsistence Management
Southcentral Alaska Subsistence Regional Advisory Council
Mark Burch, Special Projects Coordinator, Alaska Department of Fish and Game
Interagency Staff Committee
Administrative Record



Native Village of Eyak
Department of the Environment and Natural Resources

Copper River Chinook Salmon Escapement Monitoring Program 2003– 2018

1	2 (a,c)	3 (a)	4 (b)	5 (b)	6 (c)	7 (a,c)
Year	Total Run Size	Harvest on Copper River Flats	In-river Abundance Estimate	Abundance Estimate Standard Error (SE)	In-river Harvest Estimate	System-wide Escapement
2003	92,485	47,721	44,764	12,506	10,721	34,043
2004	80,405	39,841	40,564	4,650	9,919	30,645
2005	66,007	35,674	30,333	1,529	8,805	21,528
2006	99,604	31,815	67,789	4,779	9,335	58,454
2007	87,582	41,233	46,349	3,283	11,784	34,565
2008	53,705	12,362	41,343	2,166	8,858	32,485
2009	42,996	10,595	32,401	2,365	4,620	27,781
2010	33,181	10,858	22,323	2,492	5,552	16,771
2011	53,889	20,000	33,889	3,329	5,896	27,993
2012	44,312	12,860	31,452	5,242	3,541	27,911
2013	42,885	10,304	32,581	4,425	3,854	28,727
2014	35,322	11,164	24,158	2,100	3,449	20,709
2015	56,174	23,868	32,306	3,977	5,699	26,607
2016	29,243	13,234	16,009	1,193	3,524	12,485
2017	53,848	13,123	40,725	4,187	7,070	33,655
2018	59,689	7,165	52,524	4,034	TBD	TBD

Copper River Sustainable fisheries Escapement Goal (SEG) = 24,000 or more Chinook salmon

- a) Russell, C.W., J.W. Botz, S. Haught, and S. Moffitt. 2017. 2016 Prince William Sound area finfish management report. Alaska Department of Fish and Game, Fishery Management Report No. 17-37, Anchorage.
- b) Piche, M.J., J.C. Whissel, and J.J. Smith. 2018. Estimating the in-river abundance of Copper River Chinook salmon, 2017 Annual Report. U.S. Fish and Wildlife Service - Office of Subsistence Management, Fisheries Resource Monitoring Program (Study No. 14-505) Anchorage, Alaska.
- c) Somerville, M.A. 2017. Fishery management report for the recreational fisheries of the Upper Copper/Upper Susitna River management area, 2016. Alaska Department of Fish and Game, Fishery Management Report No. 17-45, Anchorage.

2003-2018 Inriver Abundance Estimate, Data Collection, Data QC and Data Analyses are conducted by Native Village of Eyak Department of the Environment and Natural Resources (NVE-DENR) and LGL Alaska Research Associates.

Harvest data is obtained by the Wrangell St. Elias National Park Service (Federal Subsistence) and Alaska Department of Fish and Game (Commercial, State Subsistence, Personal Use, and Sport Fishing) through landing tickets, permits and mail out harvest surveys.

Project funding provided by the USFWS Office of Subsistence Management (FRMP & PFMP), Alaska Sustainable Salmon Fund, Alaska Department of Fish and Game Division of Sport Fish and the USFS Chugach National Forest Ranger District.



Daily in-season data available to the public at <http://eyak.fishscan.com/Summary/DailySummary.aspx>
NVE's Chinook Escapement Monitoring Annual Reports available by request from USFW-OSM

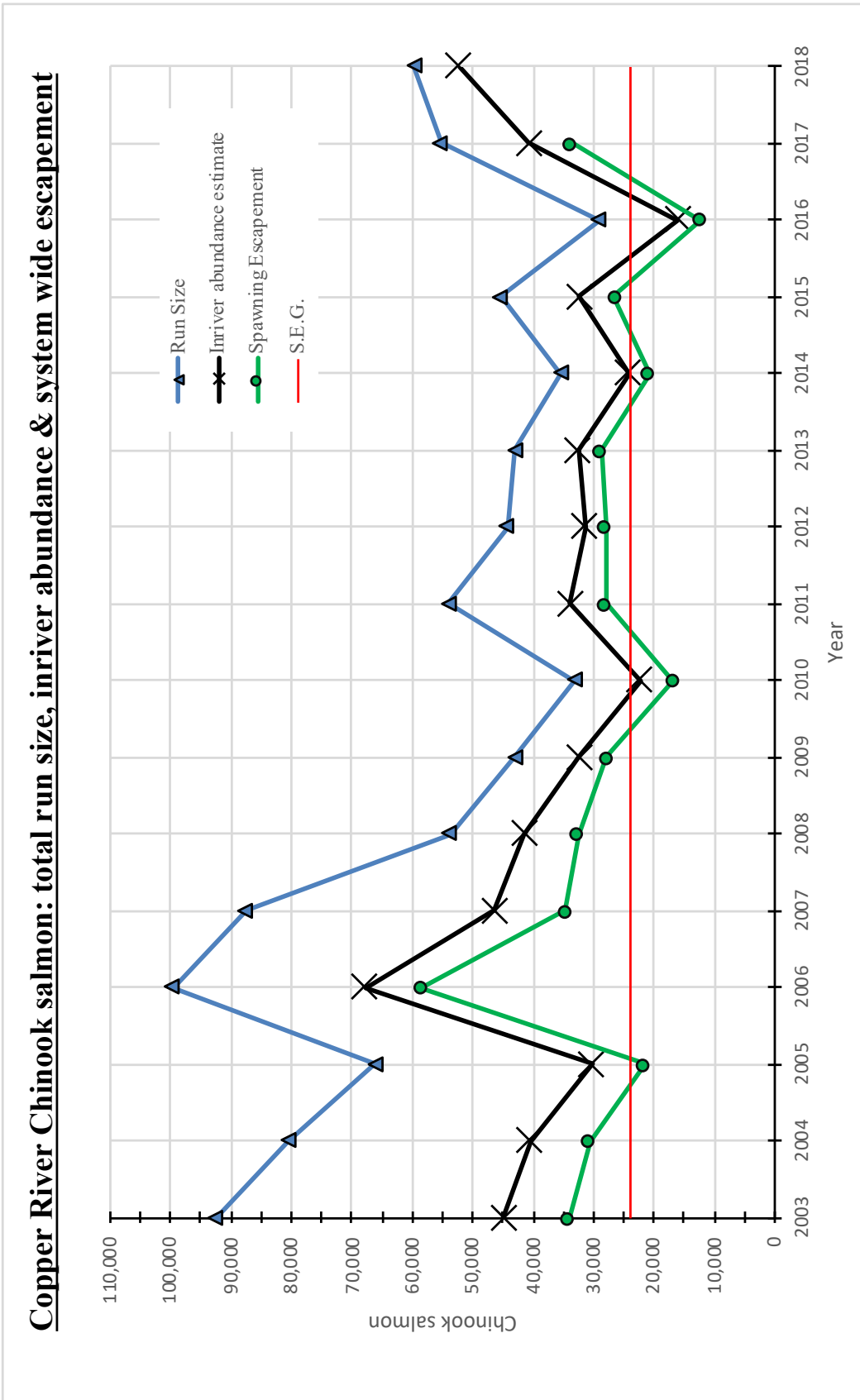


Figure 1. Total run size, inriver abundance, and system wide escapement of Copper River Chinook salmon since the establishment of NVE’s mark-recapture program, 2003-2018. (a, b, c)

Daily in-season data available to the public at <http://eyak.fishscan.com/Summary/DailySummary.aspx>
NVE’s Chinook Escapement Monitoring Annual Reports available by request from USFW-OSM

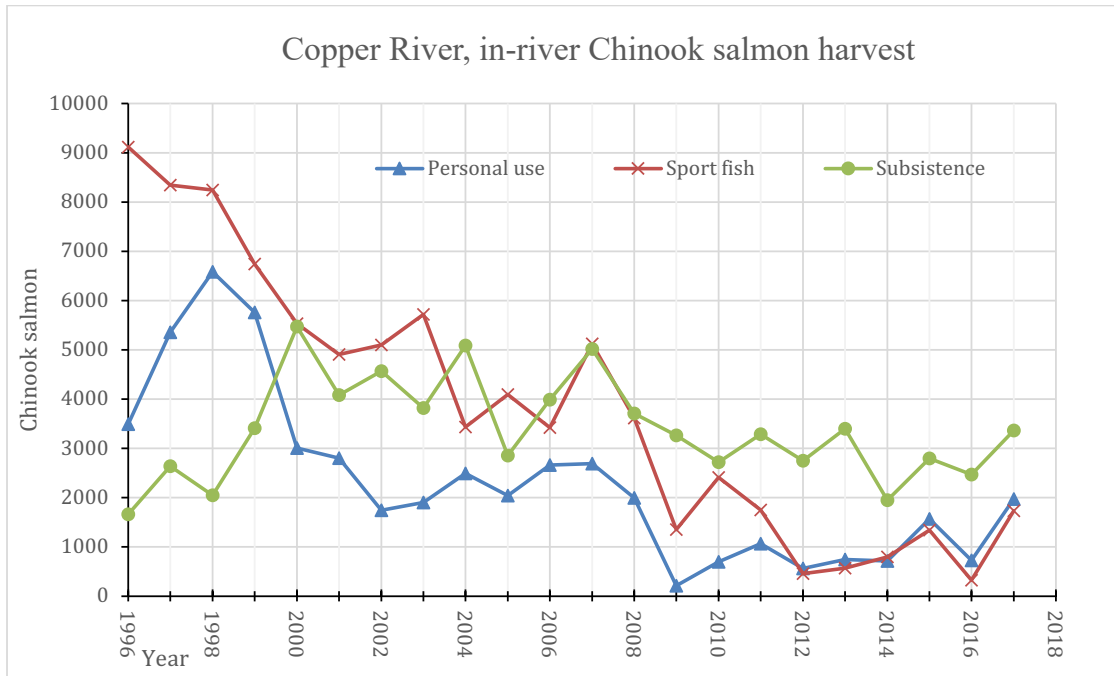


Figure 2. In-river harvest of Copper River Chinook salmon, 1996-2018. (c)



Figure 3. Commercial harvest of Copper River Chinook salmon, 1996-2018. (a)

Daily in-season data available to the public at <http://eyak.fishscan.com/Summary/DailySummary.aspx>
NVE's Chinook Escapement Monitoring Annual Reports available by request from USFW-OSM

THANK YOU



Daily in-season data available to the public at <http://eyak.fishscan.com/Summary/DailySummary.aspx>
NVE's Chinook Escapement Monitoring Annual Reports available by request from USFW-OSM



Forest
Service

Cordova Ranger District

612 2nd Street
P.O. Box 280
Cordova, AK 99574

File Code: 2600
Date: December 19, 2018

Southcentral Alaska Subsistence Regional Advisory Council
c/o U.S. Fish and Wildlife Service
Attn: DeAnna Perry, Council Coordinator
1011 East Tudor Road, MS 121
Anchorage, Alaska 99503

Dear Chairman Encelewski and members of the South Central Subsistence Regional Advisory Committee,

The Chugach National Forest has sent this letter to highlight information to share with the Council during the February 26-27, 2019 South Central Regional Advisory Council meeting.

Special actions

No special actions were taken in 2018

Forest Plan Revision

The draft Chugach Forest Plan went out for public comment August 4 through November 1, 2018. A total of 4,061 public comments were received with 14 additional received after the close of the comment period. Public comments will be incorporated into a final EIS (FEIS) and Land Management Plan to be published in 2019. Publication of the FEIS will begin a 60-day objection period. Alaska Native Tribes and Corporations who engaged in formal consultation during the planning process, and individuals and entities who have submitted substantive formal comments related to the plan or plan revision during this 90-day comment period or during previous opportunities to comment (spring 2015 assessment comment period; winter 2015-16 Proposed Revised Plan scoping comment period) may file an objection. If there are no objections, or after the time allowed for resolution of objections, the Forest Supervisor will sign and publish a Final Record of Decision and the Land Management Plan will be in effect 30 days later.

Gull Egg Harvest Monitoring

Although the harvest of bird eggs in the spring is a traditional harvest practice that has been occurring for thousands of years in Alaska, the permitting of this activity is relatively recent in the Cordova area. As a result, there has been an increase in interest in this activity in the Cordova area and a request from users on advice on how to best select eggs for harvest. To help inform subsistence users new to this opportunity, the Chugach NF entered a partnership agreement with Prince William Sound Science Center in 2018 to evaluate egg harvest on



glaucous-winged gull nest success and to identify sustainable egg harvest recommendations. The preliminary study was conducted in a glaucous-winged gull colony on Egg Island of the Copper River Delta from mid-May through mid-June 2018. Investigators examined the impact of egg collection and human disturbance on hatch success. Egg laying patterns and hatch success were compared across two experimental study plots. In one plot, eggs were removed from incomplete clutches (<3 eggs) and in the other plot, no eggs were removed. Gulls in this study did not increase the number of eggs laid to compensate for eggs experimentally removed from their nests, with only 10% of nests completing a full clutch of three eggs following egg removal. Despite reduced clutch sizes, there were no differences in mean hatch success rates across study plots. While egg harvesting has had impacts to some bird colonies in other areas of the world, there are no current conservation concern for glaucous-winged gull populations near Cordova and the population is likely larger than historic levels due to the availability of fish waste from canneries during the summer. The final report includes recommendations for sustainable harvesting that may be of interest to individuals new to this opportunity.

Prince William Sound Zone

Moose

The Unit 6C moose population was surveyed by ADFG in 2018, aided with USFS funding through the cost share agreement. The population estimate was over 677 moose which is continuing to support the high harvest levels of recent years.

The Chugach NF received 985 applications for the 2018 Federal subsistence moose permit drawing in Unit 6C. Eighty-one Federal permits were issued: 45 bull, 35 cow, and 1 potlatch moose for the Native Village of Eyak. The antlerless moose season concluded on October 31 and 34 of 35 cow moose were harvested. The bull moose season continues through December 31 and final harvest was not available at the time this letter was sent, however in 2017, there was a 91% harvest success for bull moose.

Deer

The Chugach subsistence program continued its partnership with ADFG to monitor deer in Prince William Sound. Deer pellet transects were conducted from May 11 through June 06, 2018. Mild winter conditions returned to Prince William Sound in 2018. Transects results were slightly lower than densities observed in 2017 but still indicate a healthy recovery from the severe winter of 2011/12.

Mountain goats

The Chugach supported ADFG monitoring efforts in Unit 6D in 2018. Surveys were completed in subunits RG242 and RG249. Reports for work in 2018 are in preparation.

Black bear

Work has continued with ADFG on the cooperative Prince William Sound Black Bear project. Trapping took place on Knight Island and Esther Islands in 2018, completing the planned trapping efforts for the project. Over the last 3 seasons, 96 individual bears were captured and 53 GPS/satellite radio collars were deployed. Over 34,000 locations have been collected from collared bears. Some collars will continue to collect data through fall 2021. The Forest Service in collaboration with ADFG have begun data analysis.

Salmon

Ninety-six Federal freshwater fishing permits were issued by Cordova office for the Copper River Delta in 2018. Harvest by this year's permit holders will not be known until reports are returned this winter. In 2017, 555 Coho and 234 sockeye were reported harvested on Copper River Delta fresh waters in this fishery.

Kenai Zone

Moose

Public meetings were held in Hope and Cooper Landing prior to the beginning of the Unit 7 moose and caribou seasons. Thirty-eight moose permits for Unit 7 were issued and 2 moose was harvested.

Caribou

Public meetings were held in Hope and Cooper Landing prior to the beginning of the Unit 7 moose and caribou seasons. Thirty-one caribou permits for Unit 7 were issued and 1 caribou of the quota of 5 caribou have been harvested to date. The season runs through December 31.

Salmon

Public meetings were held in Hope and Cooper Landing prior to the beginning of the Russian River dip net season. 130 permits were issued to residents of both communities. Harvest is tracked and reported by the USFWS.

Personnel updates

The Chugach Forest Supervisor, Terri Marceron retired at the end of December. The Cordova District Ranger, Robert Skorkowsky, will transfer to a new position within the Alaska Region in January 2019. Both positions will be filled within the year.

If you need additional information on the Chugach National Forest subsistence program please contact Milo Burcham; mburcham@fs.fed.us; 907-424-4759

Sincerely,

/s/Robert Skorkowsky
ROBERT SKORKOWSKY
District Ranger

Enclosure: Report on EFFECTS OF EGG HARVEST ON GLAUCOUS-WINGED GULL HATCH
SUCCESS

cc: Terri Marceron, Sharon Labrecque, Robert Skorkowsky, Francisco Sanchez, Tim Charnon,
Tom Whitford, Deyna Kuntzsch, Bret Christensen, Milo Burcham, David Pearson, Jordan
Rymer, Andy Morse

EFFECTS OF EGG HARVEST ON GLAUCOUS-WINGED GULL HATCH SUCCESS

FINAL REPORT

Prepared for Cordova Ranger District, USDA Forest Service

Prepared by Anne Schaefer, Mary Anne Bishop, and Kirsti Jurica

Prince William Sound Science Center, Cordova, Alaska 99574

ABSTRACT

We examined the impact of egg collection and human disturbance on hatch success in a Glaucous-winged Gull colony in southcentral Alaska from mid-May through mid-June 2018. We compared egg laying patterns and hatch success across two experimental study plots. In one plot we removed eggs from incomplete clutches (<3 eggs) and in the other we walked through the plot to create disturbance in the colony. Gulls in this study did not increase the number of eggs laid to compensate for eggs experimentally removed from their nests, with only 10% ($n = 2$) of nests completing a full clutch of three eggs following manipulation. Despite reduced clutch sizes, there were no differences in mean hatch success rates across study plots.

INTRODUCTION

Glaucous-winged Gulls *Larus glaucescens* breed in dense colonies along the Pacific coast from northwestern Oregon to western Alaska. Similar to other ground-nesting gulls, Glaucous-winged Gulls are indeterminate egg layers (Parsons 1976), meaning when eggs are depredated or taken from the nest during the egg-laying period the female continues laying replacement eggs until the clutch is complete (3 eggs on average; Verbeek 1993). If the clutch is

lost or removed during incubation (typically 27 days; Verbeek 1993), the female must wait 12-13 days for follicle development before laying a replacement clutch (Vermeer 1963).

Previous research has demonstrated that human disturbance and egg harvest can negatively impact gull nest success. For example, a Glaucous-winged Gull colony in the Queen Charlotte Islands failed completely after egg collection occurred throughout both the laying and incubation periods (Vermeer et al. 1991) Additionally, human activity in Western Gull *L. occidentalis* (Robert and Ralph 1975) and Herring Gull *L. argentatus* colonies (Hunt 1972) led to reduced hatch success. In contrast, other studies suggest that infrequent harvests early in the breeding season can have minimal impact on the hatch success of gulls (Zador 2001, Zador and Piatt 2007).

Glaucous-winged Gull eggs have long been traditionally harvested in Alaska for subsistence purposes all along the coastline from the panhandle in the southeast to the Pribilof Islands in the west. After the passage of the Migratory Bird Treaty Act in 1918, collection of migratory bird eggs became illegal. Legal mechanisms allowing for subsistence egg take have been implemented on a regional basis beginning in 2003 (USFWS 2002). Since 2014, gull eggs can be legally harvested for subsistence purposes on the Copper River Delta in southcentral Alaska from 1-31 May by all residents of the nearby town of Cordova (USFWS 2014). Harvesters are required to obtain a permit prior to egg collection, however there are no limits or reporting requirements.

One aspect of Glaucous-winged Gull breeding ecology that has not been investigated in southcentral Alaska is the impact of subsistence egg collection on clutch replacement and hatch success within accessed colonies. For this study, we examined the effects of egg removal and human disturbance on hatch success of Glaucous-winged Gulls breeding at Egg Island (Figure

1). Our study will offer recommendations for management of the newly implemented subsistence egg harvest and will provide information on the role of human disturbance and egg removal on Glaucous-winged Gull hatch success.

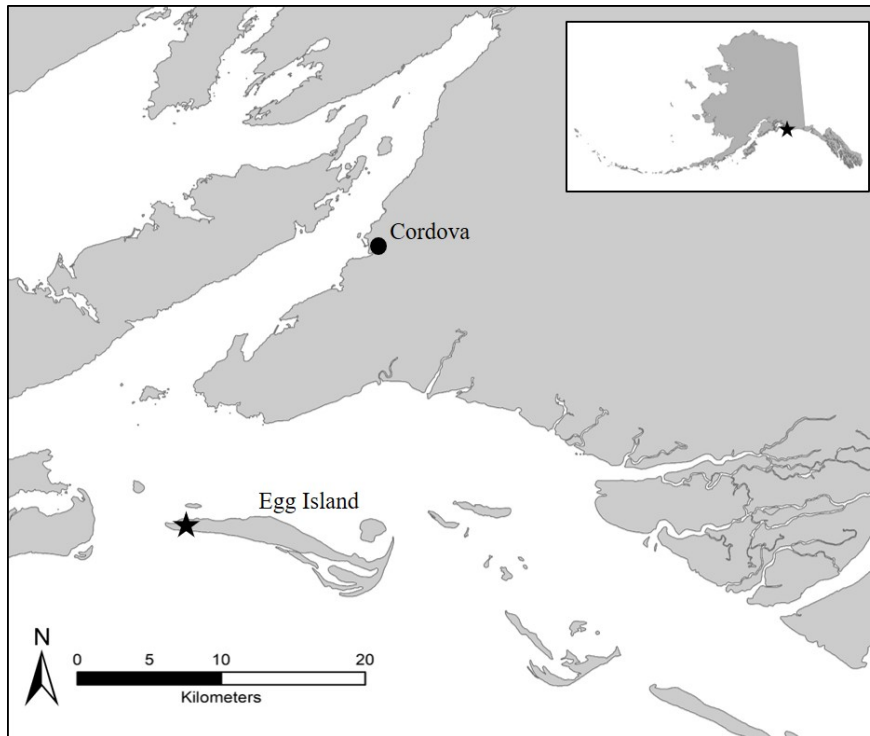


Figure 1: Our experiment was conducted on Egg Island, a barrier island near the town of Cordova in southcentral Alaska. The location of our study plots on Egg Island is indicated by the star.

STUDY AREA AND METHODS

Study area

Our experiment took place 14 May–12 June 2018 in a large (>1000 birds) Glaucous-winged Gull colony on Egg Island, a barrier island on the western edge of the Copper River Delta in southcentral Alaska (Fig. 1). Egg Island is uninhabited by humans and hosts the second highest density of Glaucous-winged Gulls in the Gulf of Alaska after Middleton Island (data

from North Pacific Seabird Data Portal, www.seabirds.net). We conducted our study in a gull colony on the southwestern tip of the island, an area which is visited infrequently by locals, reducing confounding effects of outside disturbance.

Nest disturbance and manipulation

On Egg Island, three treatments (Plot A, Plot B, and Plot C) were applied to three study plots of approximately the same size located in non-contiguous areas of the gull colony.

Plot A (egg removal & human disturbance):

During the laying period, we removed one egg from 20 nests with incomplete clutches (<3 eggs) to mimic traditional harvest practices.

Each nest was marked with a GPS location and a small, flagged stake placed 2-3 m away. We labeled eggs not selected for removal with a

felt-tipped marker. We then monitored nests twice during egg-laying and four times during

incubation. At each nest visit, we recorded the number of eggs and/or chicks in each nest and floated eggs to determine incubation stage and viability (following Schreiber 1968). We also noted any potential nest predators observed in the area and documented instances of nest predation following Anthony *et al.* (2004).



In each plot, we first selected 20 nests with incomplete clutches for manipulation and monitoring.

We planned to determine hatch success (number of viable/hatched eggs in nest ÷ number of eggs laid in nest) on our final visit to the study site, which was scheduled to occur just prior to onset of chick hatching. Due to inclement weather, our last trip was delayed by two days, and by the time we arrived on 12 June many chicks had already hatched and were mobile. Thus, we were unable to determine if empty nests had failed or had successfully hatched chicks that were now hiding under nearby logs and debris. Therefore, we instead used nest content data from our penultimate (3 June) and final (12 June) visits to estimate maximum and minimum hatch success rates for each nest.



We placed a flagged stake 2-3 m from each monitored nest.

Plot B (human disturbance): In Plot B, we did not remove any eggs from nests, but we marked and monitored 20 nests with incomplete clutches using the same methods as Plot A. We created a disturbance in this plot by walking through the gull nests for approximately the same amount of time spent in Plot A. Hatch success was calculated following the same methods as Plot A.

Plot C (control area): We visited Plot C briefly at the beginning of the study to mark plot boundaries and ensure there were at least 20 nests within the plot. This site was not entered again until the final visit, during which nests were to be evaluated for hatch success. This treatment was to serve as a control plot and allow us to evaluate the impact of natural predation on hatch success.

Statistical methods

We used R version 2.12.1 (R Development Core Team 2010) to perform Mann-Whitney-Wilcoxon tests (Mann and Whitney 1947) to determine if differences in the mean total number of eggs laid per nest, mean final clutch size, and mean hatch success (using values from 3 June and 12 June) were statistically significant ($p\text{-value} \leq 0.05$) between study plots. All means are reported with the standard error in parentheses unless otherwise specified.

RESULTS

Nest disturbance

We made four trips to Egg Island between 14 May – 12 June 2018, during which we visited Plots A and B seven times and Plot C twice. Nests in all three sites were visited once to delineate plot boundaries (14 May), then nests in Plots A and B were monitored twice during the laying phase (14 May, 15 May) and four times during the incubation phase (23 May, 24 May, 3 June, 12 June). Plot C was visited for the second and final time on 12 June. We spent a total of 247 min in Plot A (mean = 35.29 min/visit, range = 12 – 65 min). In Plot B, we spent a total of 236 min (mean = 33.71 min/visit, range = 11 – 60 min). We spent 33 minutes total in Plot C (13 min during first visit, 20 min during final visit). Overall, gulls were not overly disturbed by our presence within the colony during the laying and incubation phases. Adults flushed and flew in a cloud above us upon our initial entry into each plot but settled down as we worked from nest to nest. In contrast, gulls were highly disturbed by our presence in the colony on our final 12 June visit due to the presence of hatched and mobile chicks.

Nest manipulation

In Plot A, we removed a single egg from ten one-egg nests and ten two-egg nests. Eggs were removed from the one-egg nests within two days of laying, while eggs were removed from two-egg nests within four days of laying. Within 24 hours of egg removal, 35% ($n = 7$) of the nests were abandoned. All abandoned nests were one-egg nests that became empty nests upon manipulation. Pairs continued to lay on average 0.80 (0.21) eggs after egg removal. On average, gulls in Plot A laid on average 2.30 (0.24) eggs total and achieved a mean final clutch size of 1.30



Only two nests in Plot A completed a three-egg clutch, compared to 15 three-egg clutches in Plot B.

(0.24) eggs (Table 1, Fig. 2). In all, only two of 20 monitored nests in Plot A achieved a complete clutch of three eggs by laying a fourth egg. Both were one-egg nests at the time of egg removal.

In Plot B, we did not remove any eggs from nests, but monitored 12 one-egg nests and eight two-egg nests. Most pairs (85%) continued to lay one to three more eggs after our initial visit, with fifteen nests (75%) achieving a complete clutch. Two nests were abandoned within the 24-hour period following our visit and remained empty for the duration of the study. Pairs laid on average 2.75 (0.16) eggs total and achieved a mean final clutch size of 2.65 (0.15) eggs (Table 1, Fig. 2).

Hatch success

In Plot A, a total of 46 eggs were laid in the 20 manipulated nests (including experimentally removed eggs). After experimental egg removal and abandonment of seven nests, 26 eggs were available to hatch in 13 nests. On 3 June, all 26 eggs were still available to hatch. By our final 12 June visit, 22 eggs had hatched or were still viable and four eggs were of unknown status, meaning the eggs or hatched chicks could not be located. For the 13 nests with eggs, mean hatch success ranged from 0.81 (0.11; 12 June) to 1.0 (0.00; 3 June) (Table 1, Fig. 2). When including the seven abandoned nests, mean hatch success ranged from 0.53 (0.11; 12 June) to 0.65 (0.11; 3 June) (Table 1, Fig. 2).

A total of 55 eggs were laid in the 20 non-manipulated nests in Plot B. On 3 June, there were 50 eggs available to hatch in 18 nests (five eggs lost to predation or other natural causes, two nests abandoned). On 12 June, 60% ($n = 33$) of the eggs had hatched or were still viable, leaving 40% ($n = 17$) eggs with unknown status. For the 18 active nests, mean hatch success ranged from 0.62 (0.09; 12 June) to 0.95 (0.03; 3 June) (Table 1, Fig. 2). When including the two abandoned nests, mean hatch success ranged from 0.58 (0.09; 12 June) to 0.88 (0.07; 3 June) (Table 1; Fig. 2).

We found no significant differences between the total number of eggs laid per nest (p-value = 0.18) or either value of hatch success when including all nests (3 June: p-value = 0.21, 12 June: p-value = 0.83) or when excluding abandoned nests (3 June: p-value = 0.24, 12 June: p-value = 0.13; Fig. 2).



Gull chicks had begun hatching by our final 12 June visit to Egg Island.

However, the final clutch size in Plot B was significantly larger than final clutch size in Plot A (p-value = 5.30e-05; Fig. 2).

Unfortunately, at our control plot (Plot C), many chicks had already hatched and left the nest by our final 12 June visit to the field site. Therefore, we were unable to determine whether empty nests had failed or had successfully hatched chicks.

Table 1: Comparison of Glaucous-winged Gull nest manipulation experiment results across the manipulated (Plot A) and non-manipulated (Plot B) study plots on Egg Island, Alaska, May–June 2018.

	Plot A (<i>n</i> = 20)	Plot B (<i>n</i> = 20)
Num. eggs removed	20	0
Num. nests immediately abandoned	7	2
Num. nests achieving complete clutch	2	15
Total num. eggs laid	46*	55
Mean num. eggs/nest	2.30 (± 0.24)	2.75 (± 0.16)
Mean final clutch size	1.30 (± 0.24)	2.65 (0.15)
Minimum mean hatch success (12 June)	0.81 (± 0.11)	0.62 (± 0.09)
Maximum mean hatch success (3 June)	1.00 (0.00)	0.95 (0.03)
Plot comparison with abandoned nests removed	Plot A (<i>n</i> = 13)	Plot B (<i>n</i> = 18)
Num. depredated eggs/nests	0/0	5/4
Minimum mean hatch success (12 June)	0.53 (± 0.11)	0.58 (± 0.09)
Maximum mean hatch success (3 June)	0.65 (± 0.11)	0.88 (± 0.07)

*Includes experimentally removed eggs

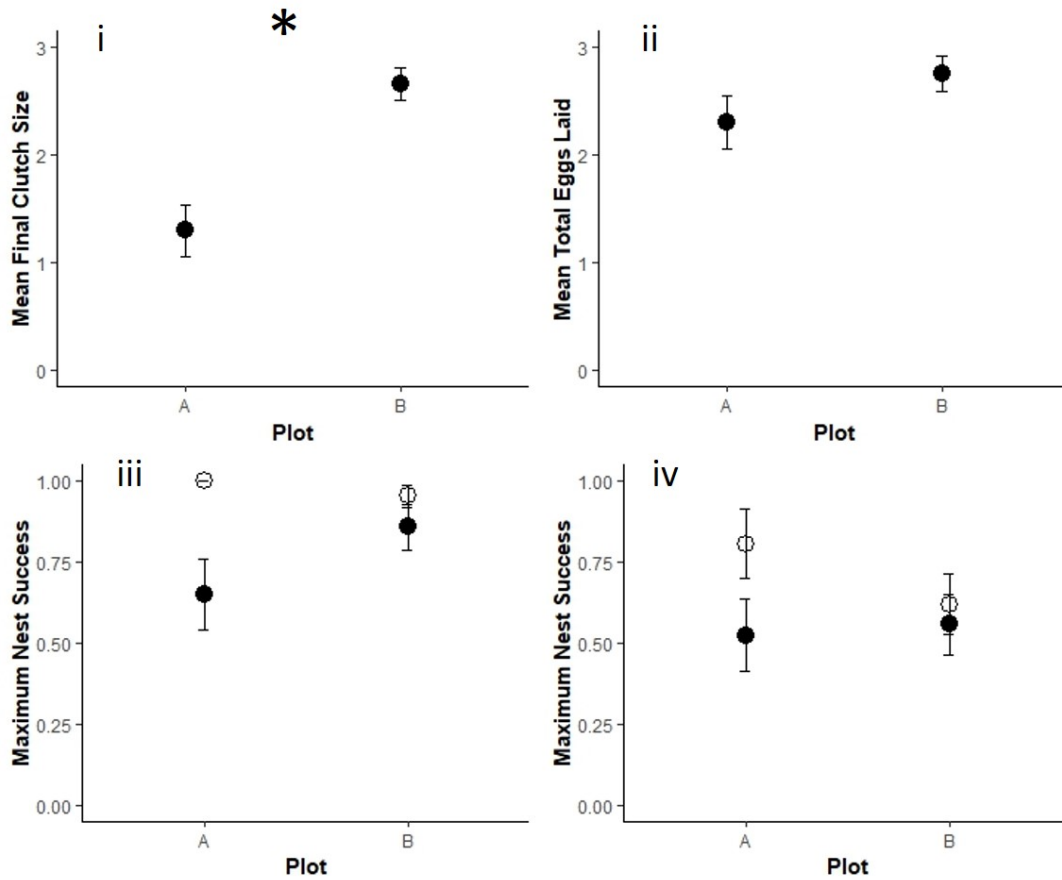


Figure 2: Results from experimental nest manipulation comparing Plot A (manipulated) and Plot B (non-manipulated): i) final clutch size, ii) mean total eggs laid, iii) mean minimum hatch success, and iv) mean maximum hatch success. Points represented by a black circle include all nests ($n = 20$) in the estimate. Points represented by an open circle (iii, iv) exclude nests that were immediately abandoned in the estimates (Plot A: $n = 13$, Plot B: $n = 18$). Statistical significance ($p\text{-value} \leq 0.05$) as determined Mann-Whitney-Wilcoxon tests is indicated by an asterisk.

Natural predation

Over the course of the study, no eggs from monitored nests in Plot A were lost to predation or other natural causes. In Plot B, we documented five instances of egg loss from monitored nests. Immediately after the first nest visit (14 May), four nests (three one-egg nests and one two-egg nest) each lost an egg. No shells or egg remnants were left in or around nests. The gull pair from the depredated two-egg nest laid one more egg and achieved a final clutch size of two eggs. Two of the one-egg nests were abandoned after predation and remained empty for the remainder of the study. The other depredated one-egg nest subsequently achieved a full clutch of three eggs by 23 May, but then again had lost an egg when we visited the nest on 3 June. No shell fragments were found in the nest, but a bloody half-shell was found ~4-5 m away.



A bloody shell fragment was found 4-5 m away from a depredated Glaucous-winged Gull nest.

Bald Eagles *Haliaeetus leucocephalus*

appeared to be the primary nest predators of Glaucous-winged Gulls on Egg Island. There was an eagle nest located ~500 m southeast of the study plots and we observed 3-6 eagles flying around the island throughout the study.

Bald Eagle pressure on the gull colonies appeared to vary temporally, peaking during gull egg hatching. We did not observe any

direct Bald Eagle harassment of our study plots until the final visit (12 June). During this visit, we recorded three disturbance events by Bald Eagles in our study plots during the 42 min we were in the plots. While other potential predators are present on the island (e.g. Common Raven *Corvus corax*, Short-eared Owl *Asio flammeus*), the only other instance of direct colony

disturbance we observed was a female Northern Harrier *Circus hudsonius* harassing a separate gull colony on the northeastern side of the island.

DISCUSSION

Nest manipulation

Given that *Larid* gulls are reported to lay indeterminately, we expected gull pairs in the manipulated plot to lay more eggs to compensate for the removal of an egg during the egg laying phase. At a colony in southeastern Alaska, Glaucous-winged Gulls with their first egg experimentally removed completed a clutch of three by laying a fourth egg in 78% of manipulated nests (Zador 2001). Additionally, pairs with their first egg removed laid 1.24 and 1.06 more eggs (over two years of the study) than gulls in the non-manipulated group. Similarly, Parsons (1976) reported that Herring Gulls with first eggs removed laid a fourth egg in 59% of nests. In contrast, we found that Glaucous-winged Gull pairs laid significantly smaller clutches in the manipulated plot compared to the non-manipulated plot, with mean clutch size in the non-manipulated plot more than double that of the manipulated plot. Further, only two nests in the manipulated plot achieved a complete clutch of three eggs compared to 15 nests in the non-manipulated plot.

Forage availability is a limiting factor of seabird reproductive success (Cairns 1988, Suryan et al. 2002), including that of Glaucous-winged Gulls (Murphy et al. 1984, Blight 2011). Egg production is energetically costly for gulls (Houston et al. 1983) which are capital breeders, meaning females obtain the resources for egg production prior to and during the breeding season. Therefore, the inability of gulls to compensate for removed eggs in this study could be related to limited forage availability. Immediately prior to the breeding season, gulls in this area congregate in the town of Cordova to feed on fish offal discharged from local fish processing

plants. Once nesting commences, breeding gulls leave town and remain near their colonies on barrier islands of the Copper River Delta (Bishop, unpublished data). These barrier islands are located at the northern extent of the Pacific Ocean, a region which recently experienced a dramatic multi-year marine heatwave (Di Lorenzo and Mantua 2016). The persistently warm water upset food web dynamics and coincided with seabird colony failures across the Gulf of Alaska (Dragoo et al. 2017, 2018, Suzuki et al. *in press*), including the Egg Island Glaucous-winged Gull colonies (Bishop, unpublished data). While the Egg Island colony did not fail during the 2018 breeding season, reduced clutch sizes of gulls with manipulated nests could indicate that marine food web dynamics are still recovering.

Unfortunately, we were unable to track whether gulls that had abandoned their nests after manipulation continued laying at another location. In a study in southeastern Alaska, 46% of Glaucous-winged Gull pairs with their first eggs experimentally removed re-nested in a separate scrape within 2.2 m of the original nest (Zador 2001). Additionally, 27% of Glaucous-winged Gulls with eggs experimentally removed in Washington continued to lay eggs in a separate nest. We did note that four of our abandoned nests had active nests located within 2-3 m. However, we had no way to determine whether these were re-nesting efforts within the scope of this study.

Hatch Success

Due to inclement weather, we were unable to obtain fate data for eggs prior to onset of hatching, which complicated our estimates of hatch success. Therefore, we calculated minimum and maximum hatch success rates for each plot including and excluding nests that were immediately abandoned after our initial visit. Including abandoned nests will tend to bias our estimates of hatch success low, while excluding abandoned nests will bias estimates high. Despite these challenges, our hatch success rates are comparable to other studies reporting

Glaucous-winged Gull hatch success in Alaska (Patten 1974, Hatch and Hatch 1990, Dragoo et al. 2017, 2018). Although we observed large differences between minimum and maximum hatch success rates in this study, nest manipulation did not significantly impact hatch success of gulls. In fact, when excluding abandoned nests from estimates of hatch success, gulls in the manipulated plot appeared to do slightly better than gulls in the non-manipulated plot (Table 1).

Natural predation

Although there are limited reports of mammalian predators on Egg Island (e.g. Brown Bear *Ursus arctos*, Coyote *Canis latrans*), Bald Eagles seem to be the primary nest predators on the Copper River Delta, exerting pressure on nesting Dusky Canada Geese *Branta canadensis occidentalis* (Anthony et al. 2004) and Semipalmated Plovers *Charadrius semipalmatus* (Bishop unpublished data). Similarly, Bald Eagles were the main predators of gull eggs in our study, as has also been documented in other areas (Zador 2001, Cowls et al. 2012). Egg loss to depredation did not seem to be a major concern for the nests in our study, with only five instances of egg loss from four out of 40 monitored nests. As has been recorded elsewhere (White et al. 2006), eagle attendance at the gull colony peaked during the chick hatching phase. Interestingly, we only observed predation of eggs within the non-manipulated plot, which was slightly farther away from the eagle nest, compared to the manipulated plot.

Conclusions and future work

Given the ~15,000 Glaucous-winged Gulls breeding on the Copper River Delta (data from North Pacific Seabird Data Portal, www.seabirds.net), pressure from subsistence egg collection in this area appears to be quite low. Since 2014, the number of households registered for the subsistence bird and egg harvest, as well as the estimated number of eggs collected, has

remained low and relatively stable (Fig. 3) (Naves 2016, AMBCC 2017, ADFG unpublished data).

However, given the new harvest pressure in these colonies, continued research and monitoring is warranted. Future studies should incorporate a larger sample size of monitored nests, conduct transect surveys of nests within study plots to calculate plot nest density, limit variability (e.g. nest density) between plots, and evaluate how varying levels of human disturbance (e.g. group size, time in colony, walking pace, etc.) affects the colony. Further, having the ability to track whether gulls are re-nesting in separate nests after manipulation would improve our understanding how egg removal impacts breeding gulls and refine estimates of hatch success.

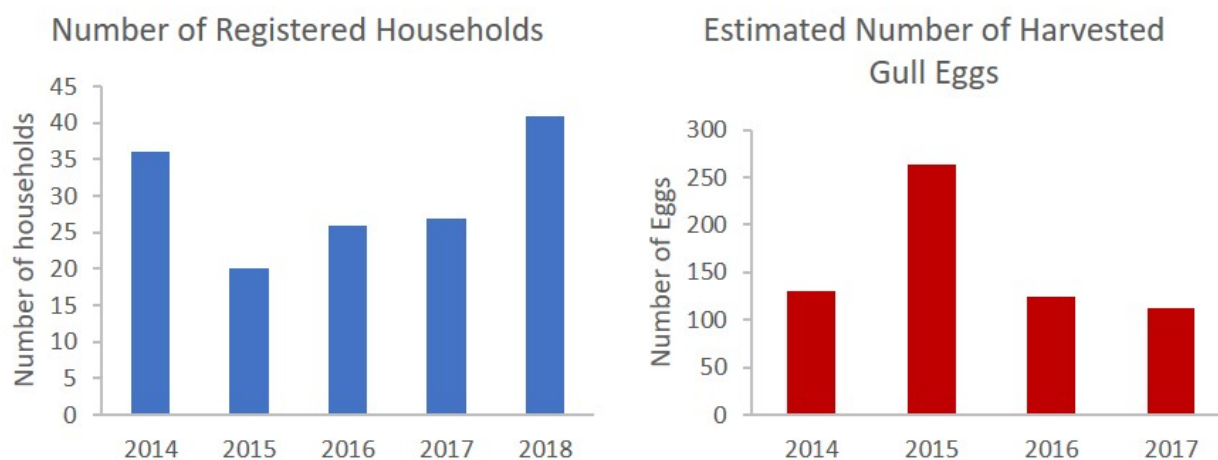


Figure 3: Migratory bird and egg subsistence harvest practices of Cordova, Alaska (data available from Alaska Migratory Bird Co-management Council). Number of households registered for the subsistence harvest, as well as the estimated number of harvested gull eggs, has remained relatively low and stable.

Recommendations for management

From the results from this study and others, we make the following recommendations for management of the subsistence Glaucous-winged Gull egg harvest on the Copper River Delta:

1. Encourage egg harvesters to target two-egg clutches and remove a single egg from each nest.

Focusing on nests with two-eggs reduces the likelihood of nest abandonment while also ensuring the freshness of eggs.

2. Provide a brief egg-floating guide along with permits so egg collectors can confirm egg freshness (Appendix I).

3. Harvest eggs in small groups and move slowly and calmly through the colony.

4. Educate the public about obtaining a permit prior to egg collection and encourage harvesters to respond to voluntary harvest survey.

ETHICS STATEMENT

This research was conducted under the Prince William Sound Science Center IACUC protocol number PWSSC2018-01, USFWS permit number MB75979C-0, and ADFG permit number 18-154.

ACKNOWLEDGEMENTS

We are grateful to the USDA Forest Service Cordova Ranger District for funding this research, to the Native Village of Eyak for providing information regarding traditional harvest practices, and to Alaska Wilderness Air for safe transport to and from Egg Island.

LITERATURE CITED

- Anthony, R. M., J. B. Grand, T. F. Fondell, and B. F. J. Manly. 2004. A quantitative approach to identifying predators from nest remains. *Journal of Field Ornithology* 75:40–48.
- Blight, L. K. 2011. Egg production in a coastal seabird, the Glaucous-winged Gull (*Larus glaucescens*), declines during the last century. *PLoS One* 6:e22027. Published online 2011 Jul 18. Doi: 10.1371/journal.pone.0022027.
- Cairns, D. K. 1988. Seabirds as indicators of marine food supplies. *Biological Oceanography* 5:261–271.
- Cowles, D. L., J. G. Galusha, and J. L. Hayward. 2012. Negative interspecies interactions in a Glaucous-winged Gull colony on Protection Island, Washington. *Northwestern Naturalist* 93:89–100.
- Di Lorenzo, E. and N. Mantua. 2016. Multi-year persistence of the 2014/15 North Pacific marine heatwave. *Nature Climate Change* 6:1042–1047.
- Dragoo, D. E., H. M. Renner, and R. S. A. Kaler. 2018. Breeding status and population trends of seabirds in Alaska, 2017. U.S. Fish and Wildlife Service Report AMNWR 2018/02. Homer, Alaska.
- Dragoo, D. E., H. M. Renner, and R. S. A. Kaler. 2017. Breeding status and population trends of seabirds in Alaska, 2016. U.S. Fish and Wildlife Service Report AMNWR 2017/06. Homer, Alaska.
- Hatch, S. A. and M. A. Hatch. 1990. Components of breeding productivity in a marine bird community: key factors and concordance. *Canadian Journal of Zoology* 68:1680–1690.
- Houston, D. C., P. J. Jones, and R. M. Sinly. 1983. The effect of female body condition on egg laying in Lesser Black-backed Gulls *Larus fuscus*. *Journal of Zoology* 200:509–520.
- Hunt, G. L., Jr. 1972. Influence of food distribution and human disturbance on the reproductive success of Herring Gulls. *Ecology* 53:1051–1061.
- Mann, H. B. and D. R. Whitney. 1947. On a test of whether one of two random variables is stochastically larger than the other. *Annals of Mathematical Statistics* 18:50–60.
- Murphy, E. C., R. H. Day, K. L. Oakley, and A. A. Hoover. 1984. Dietary changes and poor reproductive performance in Glaucous-winged Gulls. *Auk* 101:532–541.
- Murphy, E. C., A. A. Hoover-Miller, R. H. Day, and K. L. Oakley. 1992. Intracolony variability during periods of poor reproductive performance at a Glaucous-winged Gulls colony. *Condor* 9:598–607.
- Naves, L. C. 2016. Alaska subsistence harvest of birds and eggs, 2015. Alaska Migratory Bird Co-Management Council. Alaska Department of Fish and Game Division of Subsistence Technical Paper No. 422, Anchorage, Alaska.
- Parsons, J. 1976. Factors determining the number and size of eggs laid by the herring gull. *Condor* 78:481–492.
- Patten, S. M., Jr. 1974. Breeding ecology of the Glaucous-winged Gull (*Larus glaucescens*) in Glacier Bay, Alaska. M.Sc. thesis, University of Washington, Seattle, WA.

- R Development Core Team. 2010. R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. ISBN 3-900051-07-0, URL <http://www.R-project.org/>.
- Reid, W. V. 1988. Population dynamics of the glaucous-winged gull. *Journal of Wildlife Management* 52:763–770.
- Robert, H. C. and C. J. Ralph. 1975. Effects of human disturbance on the breeding success of gulls. *Condor* 77:495–499.
- Schreiber, R. W. 1968. Breeding biology of Western Gulls (*Larus occidentalis*) on San Nicolas Island, California, 1968. *The Condor* 72:133–140.
- Suzuki, Y., M. A. Bishop, D. D. Roby, and K. S. Bixler. *In press*. Colony connectivity and the rapid growth of a Caspian Tern (*Hydroprogne caspia*) colony on Alaska’s Copper River Delta, USA. *Waterbirds*.
- United States Fish and Wildlife Service, Department of the Interior. 2002. Final rule, “Procedures for Establishing Spring/Summer Subsistence Harvest Regulations for Migratory Birds in Alaska,” *Federal Register* 67, no. 159 (August 16, 2002): 53511–53520. <https://www.gpo.gov/fdsys/pkg/FR-2002-08-16/pdf/02-20717.pdf>.
- United States Fish and Wildlife Service, Department of the Interior. 2014. Final rule, “Migratory Bird Subsistence Harvest in Alaska; Harvest Regulations for Migratory Birds in Alaska During the 2014 Season,” *Federal Register* 79, no. 67 (April 8, 2014): 19454–19460. <http://www.fws.gov/alaska/ambcc/Regs/2014-07824.pdf>.
- Verbeek, N. A. M. 1993. Glaucous-winged Gull (*Larus glaucescens*). In *The Birds of North America*, No. 59 (A. Poole and F. Gill, Eds.). Philadelphia: The Academy of Natural Sciences; Washington, D.C.: The American Ornithologists Union.
- Vermeer, K., K. H. organ, G. E. J. Smith, and B. A. York. 1991. Effects of eggging on the reproductive success of Glaucous-winged Gulls. *Colonial Waterbirds* 14:158–165.
- Vermeer, K. 1963. The breeding ecology of the Glaucous-winged Gull (*Larus glaucenscens*) on Mandarte Island. MSc thesis. Vancouver: University of British Columbia.
- White, A. F., J. P. Heath, and B. Gisborne. 2006. Seasonal timing of Bald Eagle attendance and influence on activity budgets of Glaucous-winged Gulls in Barkley Sound, British Columbia. *Waterbirds* 29:497–500.
- Zador, S. G. and J. Piatt. 2007. Simulating the effects of predation and egg-harvest at a gull colony. In: Piatt, J. F. and S.M. Gende (Eds.) *Proceedings of the Fourth Glacier Bay Science Symposium, 2004*. U.S. Geological Survey Scientific Investigations Report 2007-5047. Reston, VA: US Geological Survey. pp. 188-192.
- Zador, S. G. 2001. Reproductive and physiological consequences of egg predation for Glaucous-winged Gulls. M.Sc thesis, University of Washington, Seattle, WA.

APPENDIX I

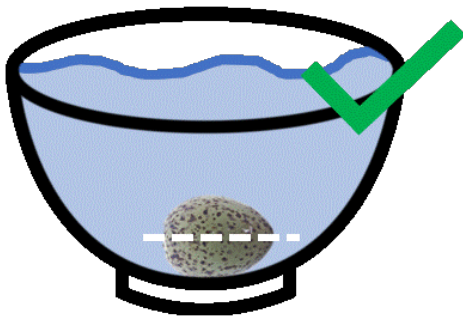
Egg Flotation Guide for Subsistence Gull-Egg Harvest

What you will need:

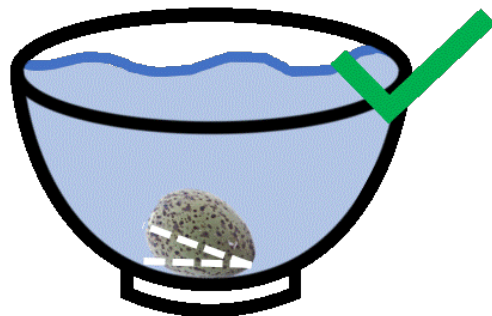
- 1 clear container
- Luke-warm water (not hot or cold)

What to do:

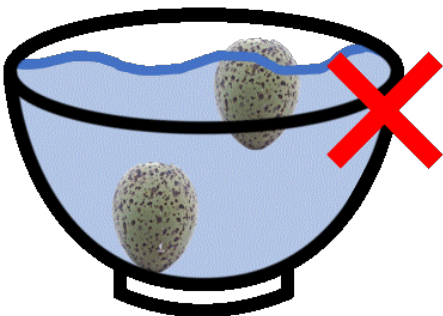
1. Fill a clear container with water.
2. Gently place the egg in the water and release.
3. Observe how the egg floats in the container.



Freshly laid eggs will sink immediately and rest on the bottom of the container.



Within 3-5 days, the large rounded end will begin to float upwards. The egg is still good to eat if the angle of the egg is $\sim 25^\circ$ or less.

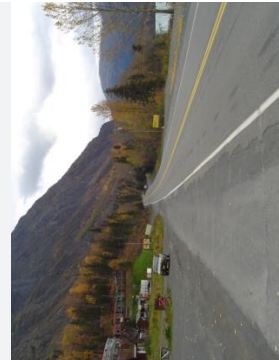


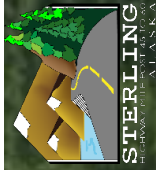
Eggs that float vertically or are suspended in the water have embryos developing inside. **Do not harvest!**



WELCOME

Sterling Highway MP 45-60 Project





Final EIS and Decision



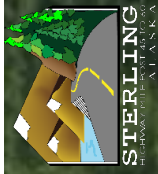
U.S. Department of Transportation
Federal Highway Administration



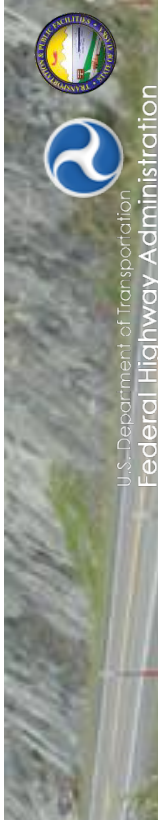
Final Environmental Impact Statement And Final Section 4(f) Evaluation

- *Approved for public review March 7, 2018*
- *Record of Decision May 31, 2018*
- *Statute of limitations expired November 5, 2018*





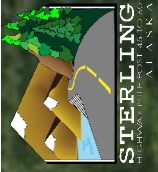
Project Purpose



U.S. Department of Transportation
Federal Highway Administration



- **Reduce Highway Congestion**
- **Meet Current Highway Design Standards**
- **Improve Highway Safety**



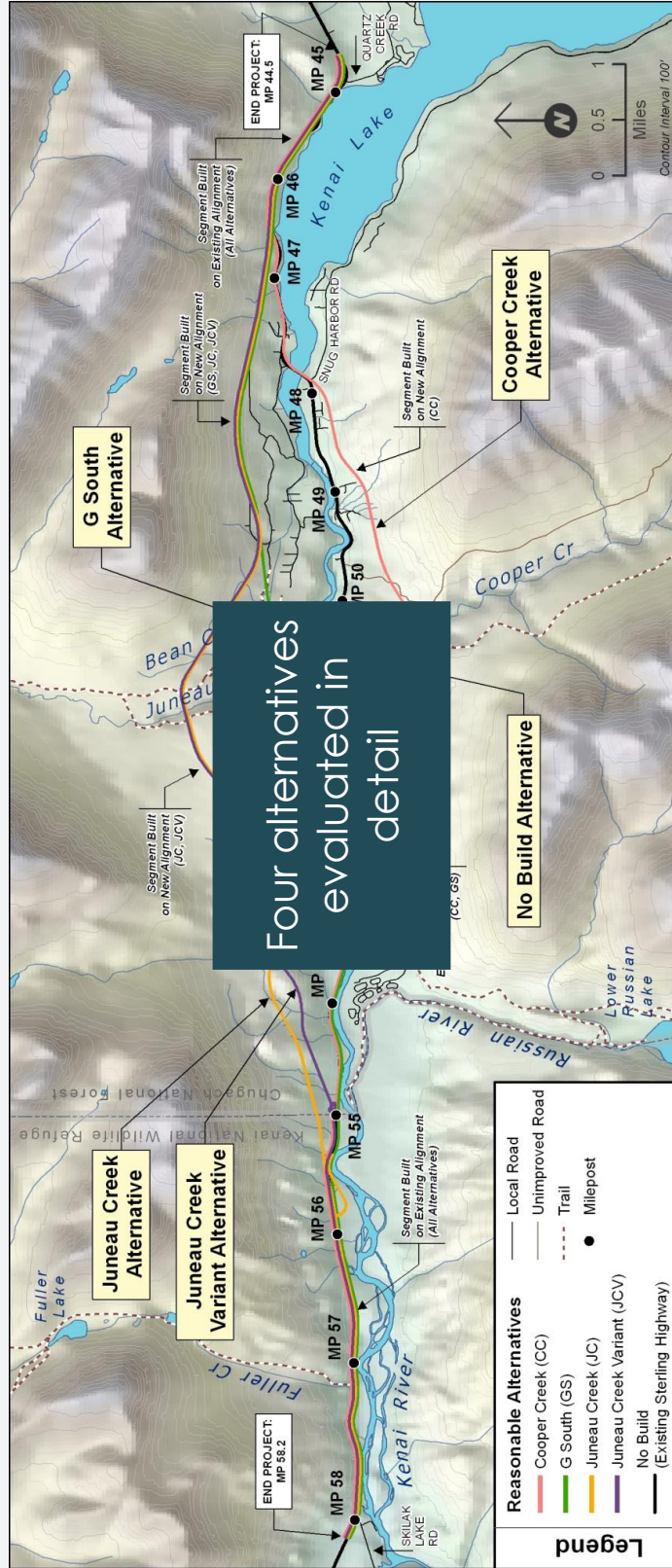
Challenges



U.S. Department of Transportation
Federal Highway Administration

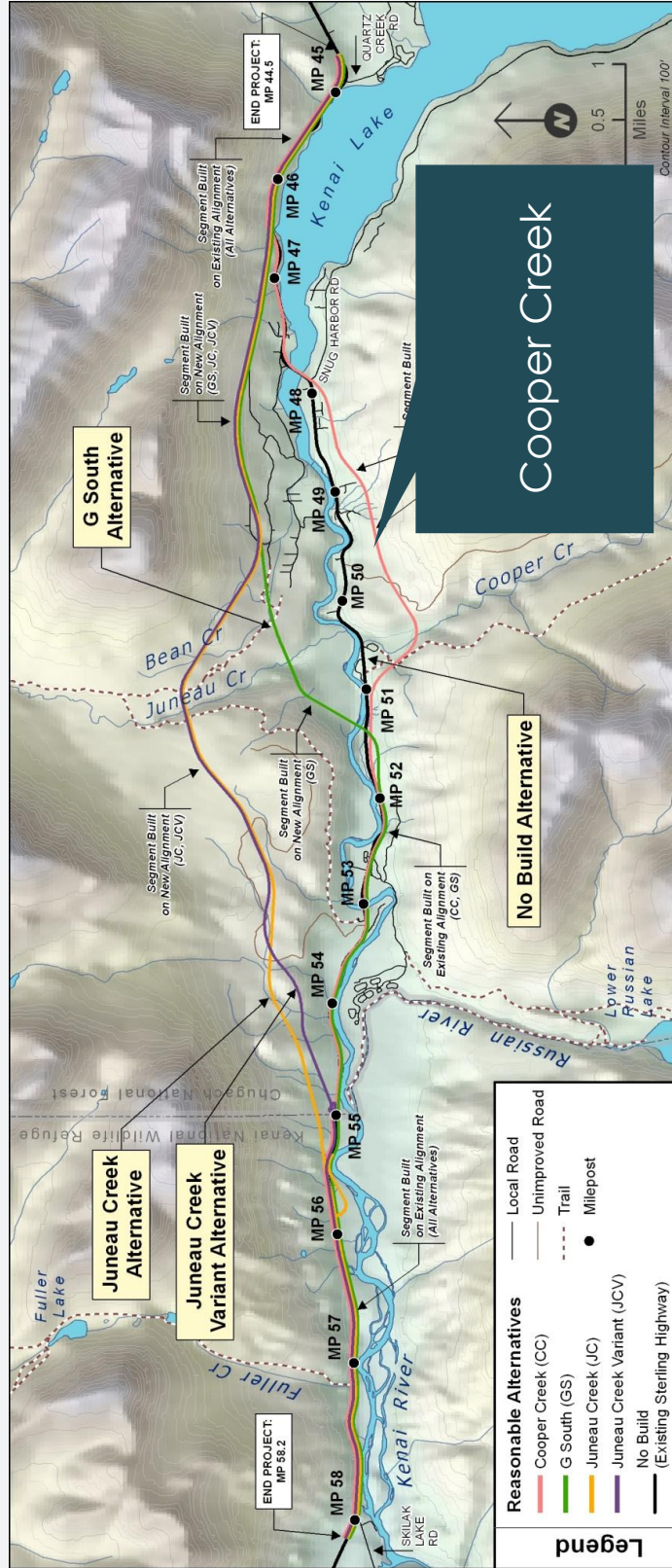
- **Narrow, curvy highway**
- **Many driveways and side roads**
- **Local traffic combined with high-speed through traffic**
- **Steep valley between Kenai River and mountains**
- **Scenery, world-class fishing**
- **Numerous cultural and recreational resources**

Alternatives
 U.S. Department of Transportation
 Federal Highway Administration

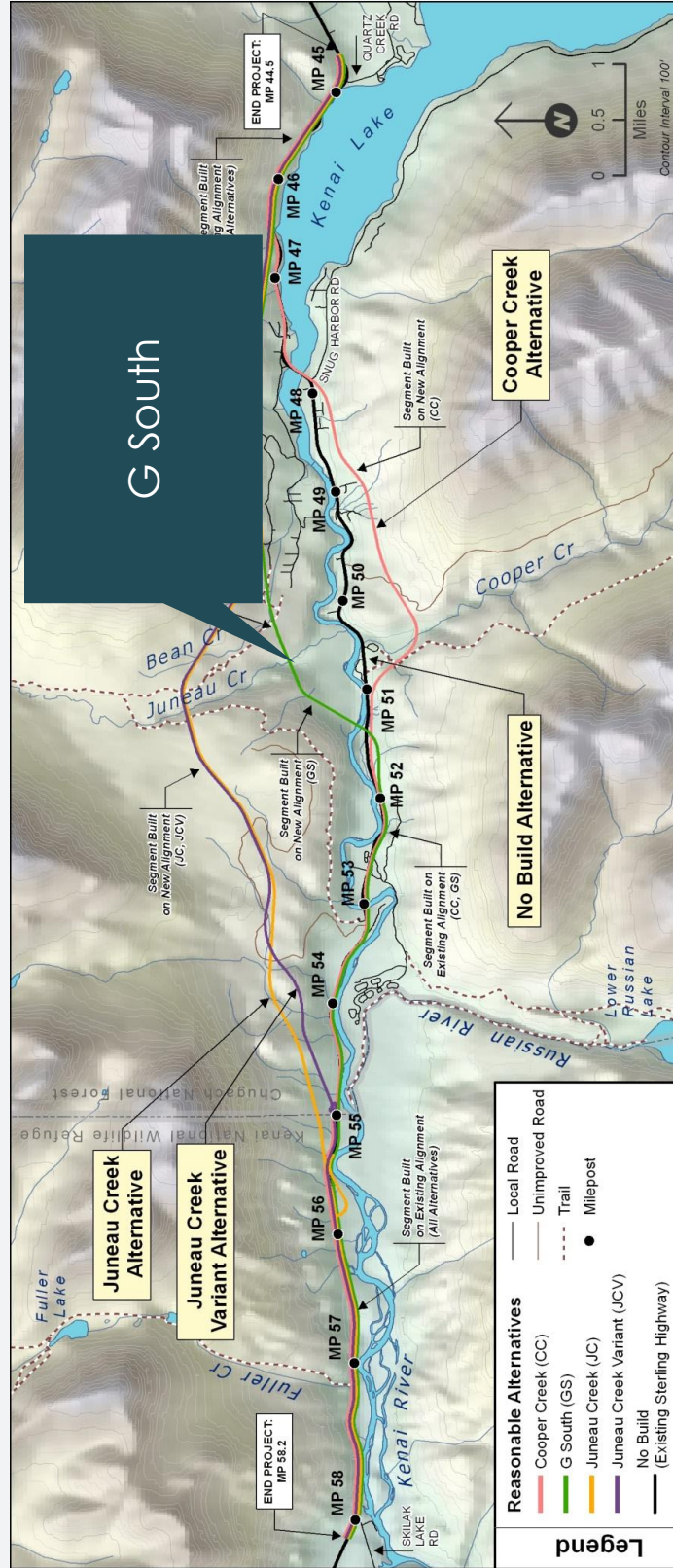



Alternatives – Cooper Creek

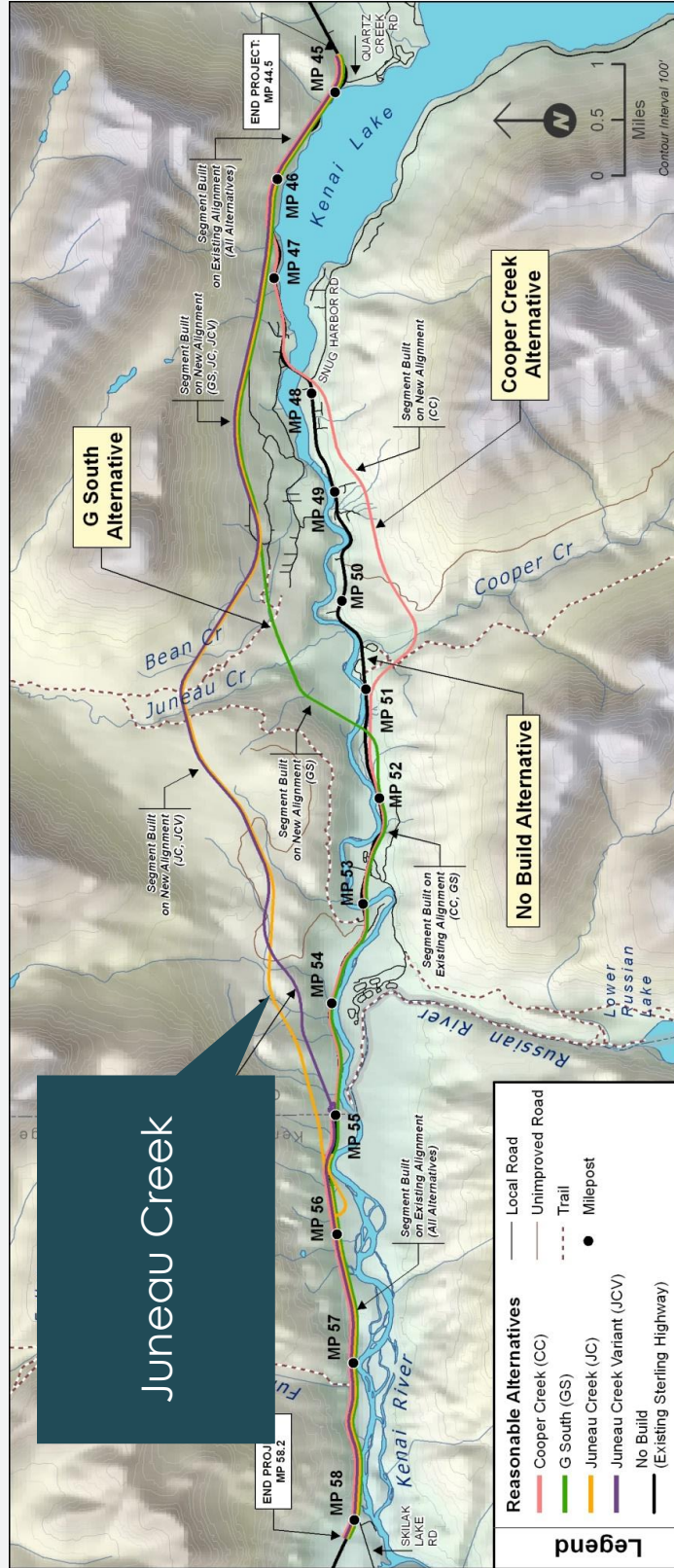
U.S. Department of Transportation
Federal Highway Administration



Alternatives – G South
 U.S. Department of Transportation
 Federal Highway Administration

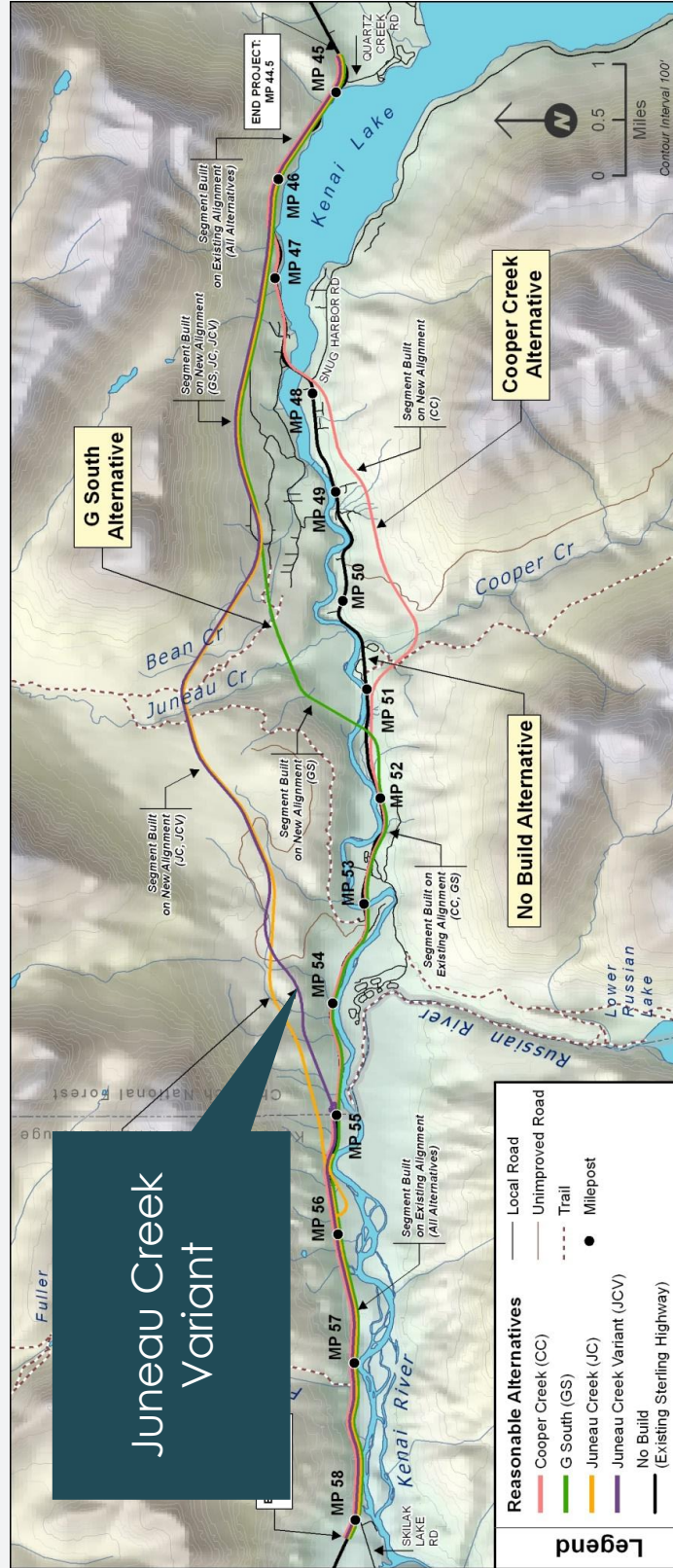


Alternatives – Juneau Creek
 U.S. Department of Transportation
 Federal Highway Administration



Alternatives – Juneau Creek V

U.S. Department of Transportation
Federal Highway Administration

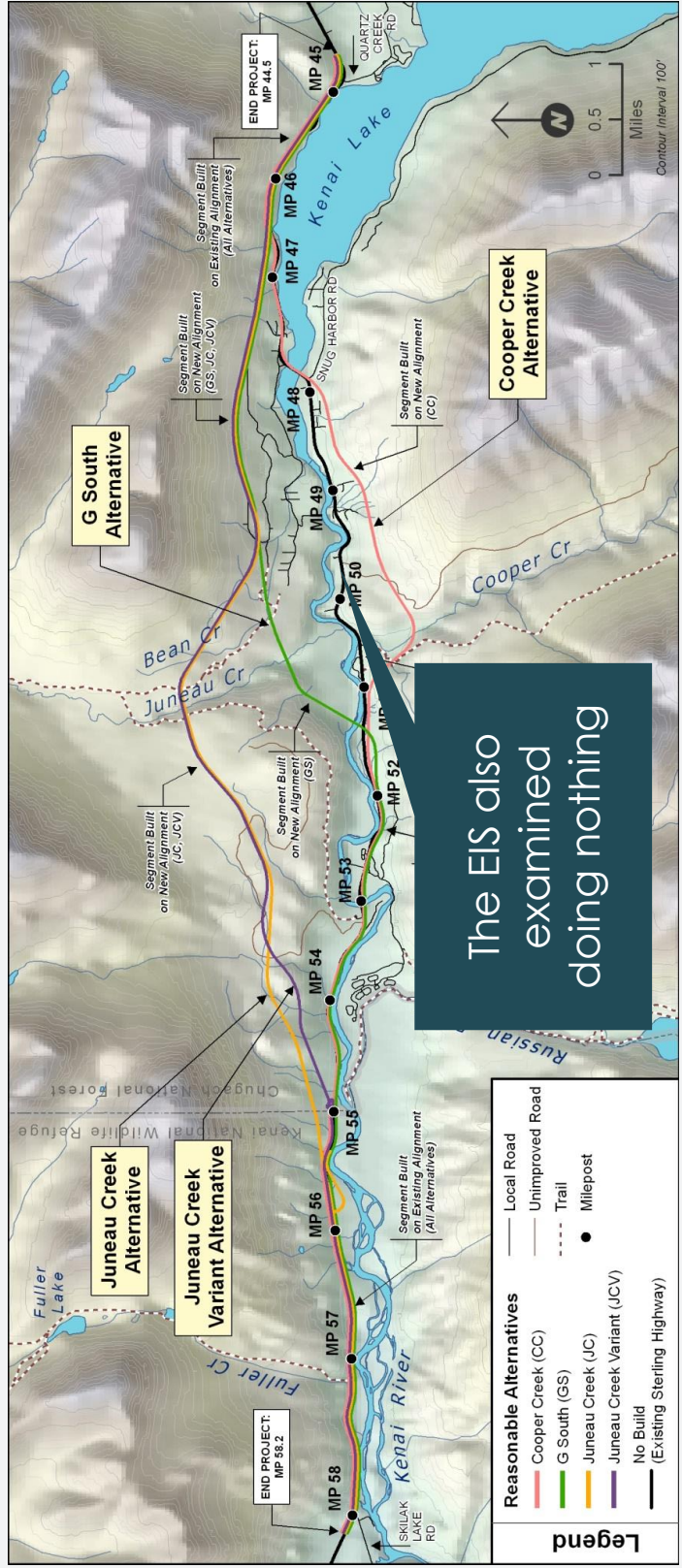


Alternatives – No Build



U.S. Department of Transportation
Federal Highway Administration

STERLING
HIGHWAY ALASKA





Which alternative is best?

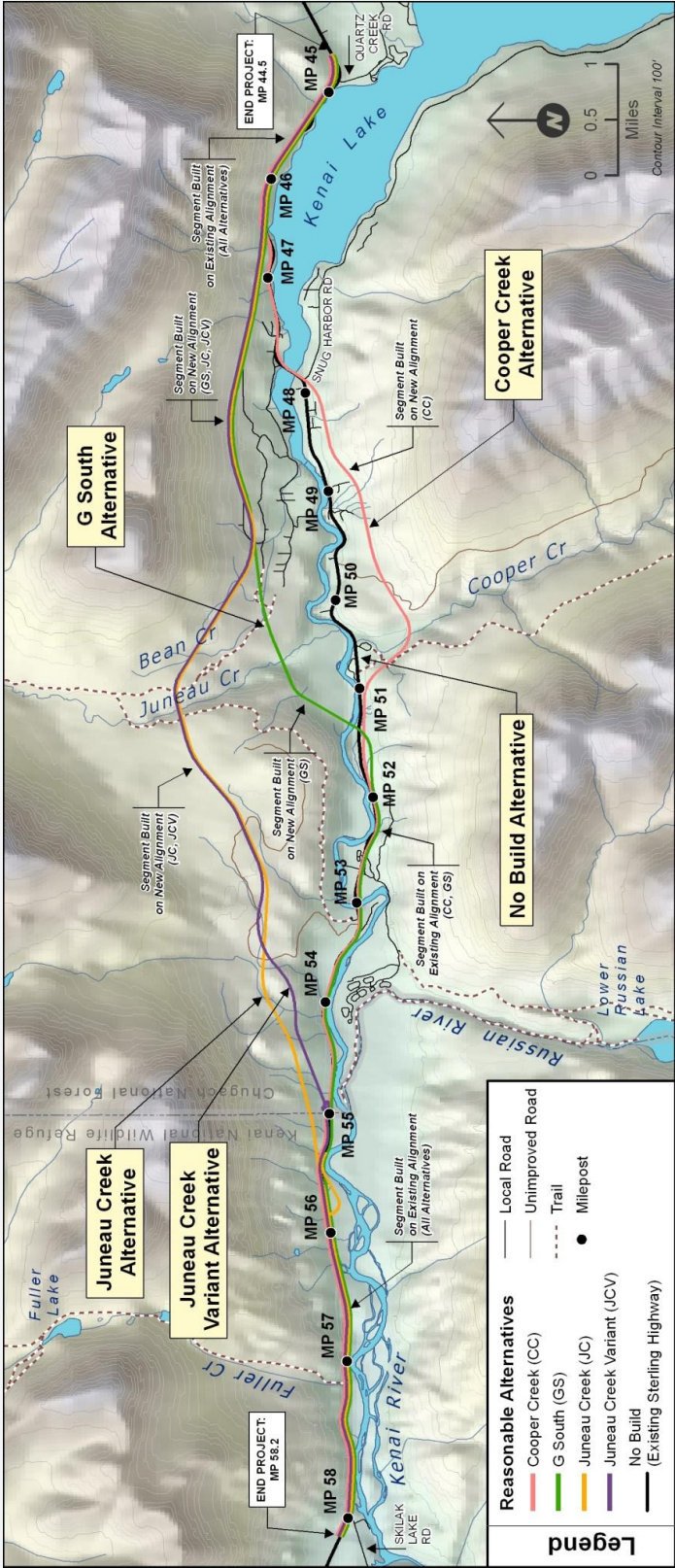


U.S. Department of Transportation
Federal Highway Administration



- Evaluate the benefits
- Evaluate the impacts
- Find the solution with the least overall harm



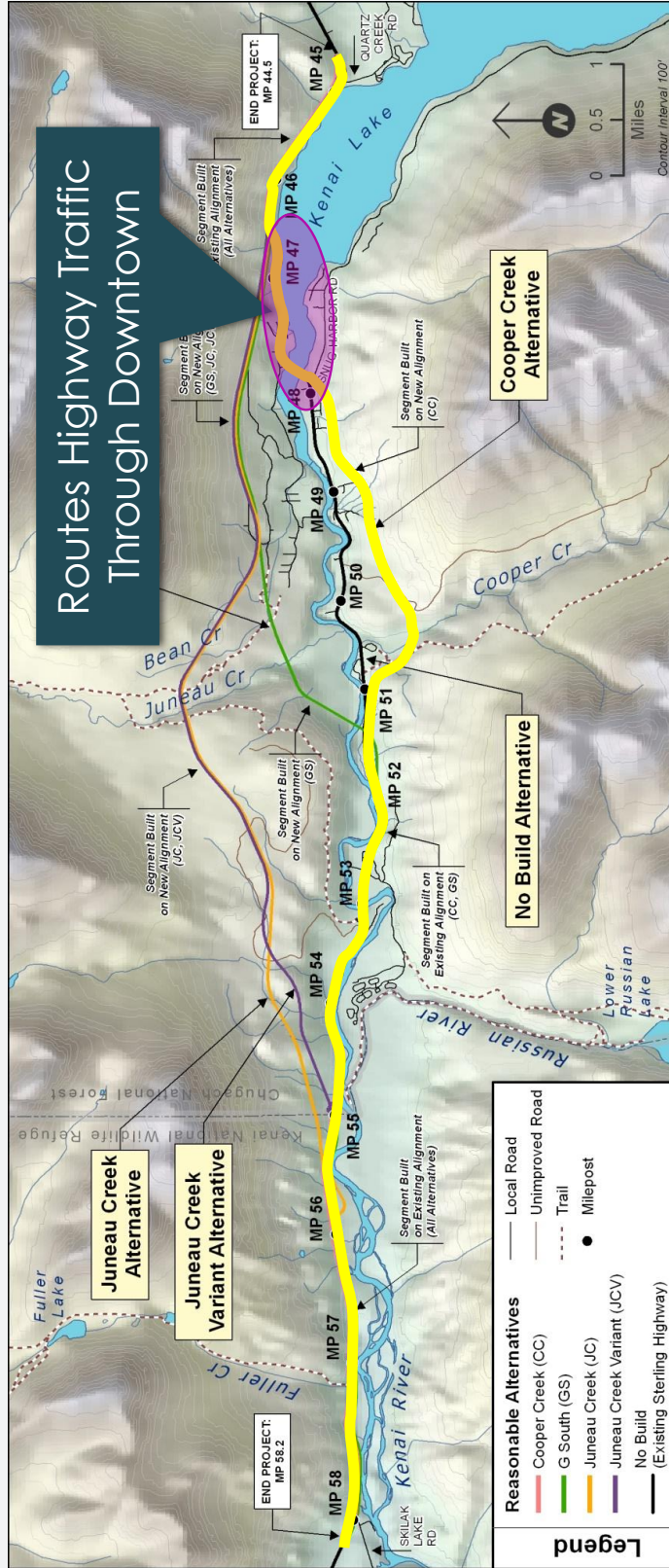


- There is no obvious good solution.
- All alternatives create important impacts.
- DOT&PF and FHWA weighed and balanced the issues.

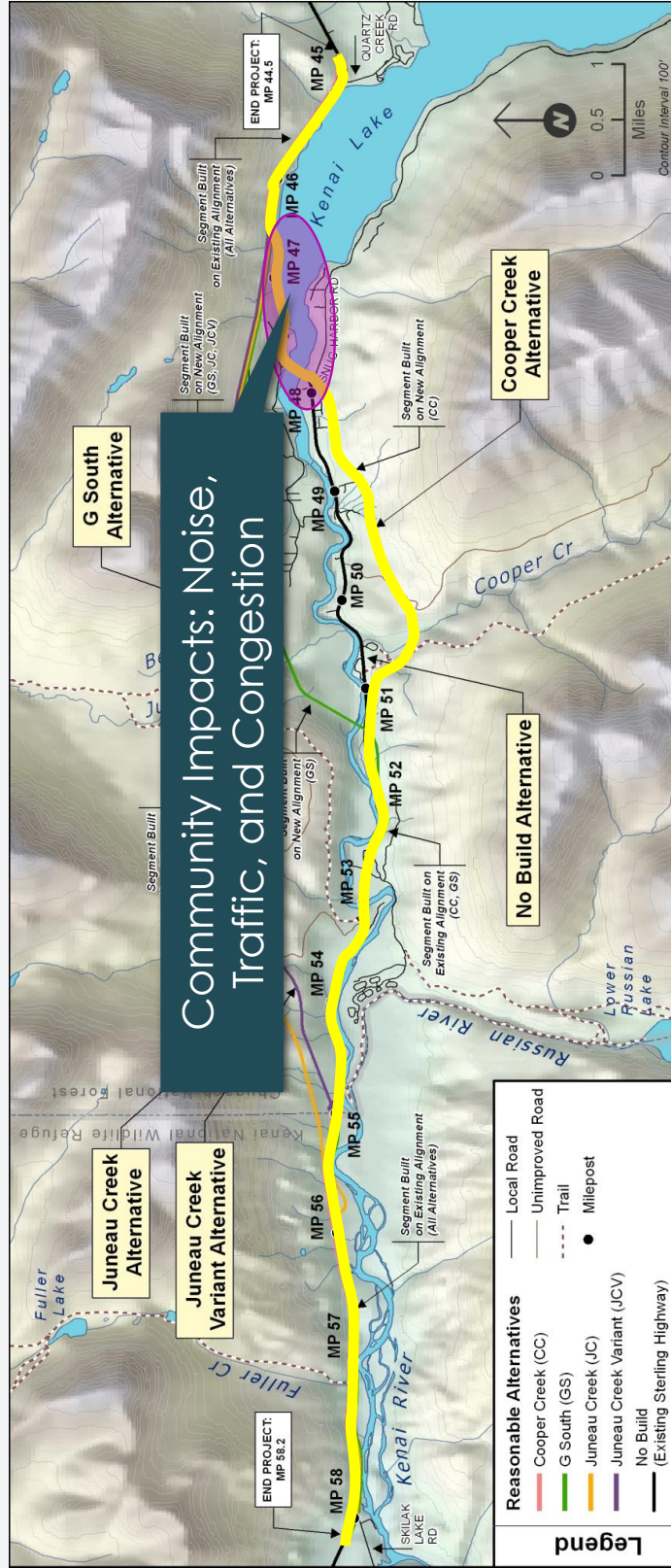
Why not the Cooper Creek Alternative?
 U.S. Department of Transportation
 Federal Highway Administration



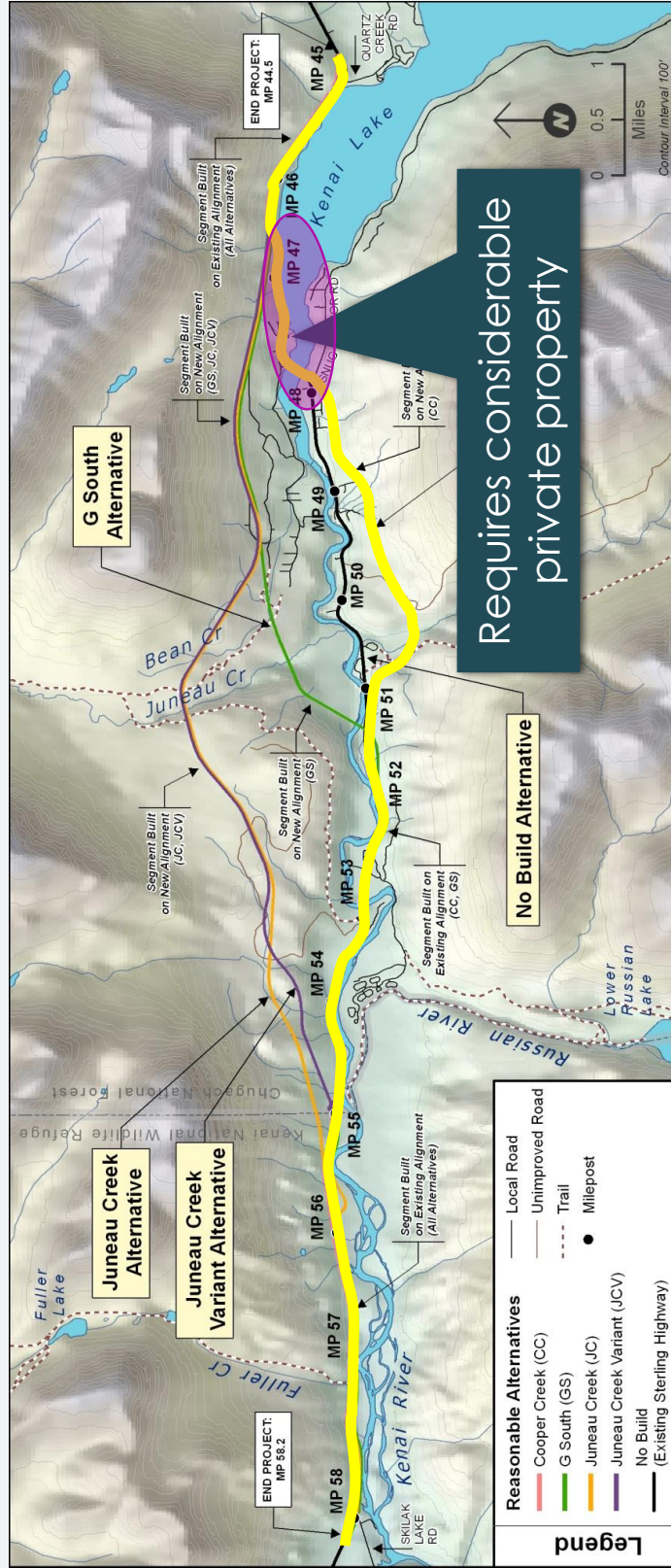

STERLING
HIGHWAY
ALASKA



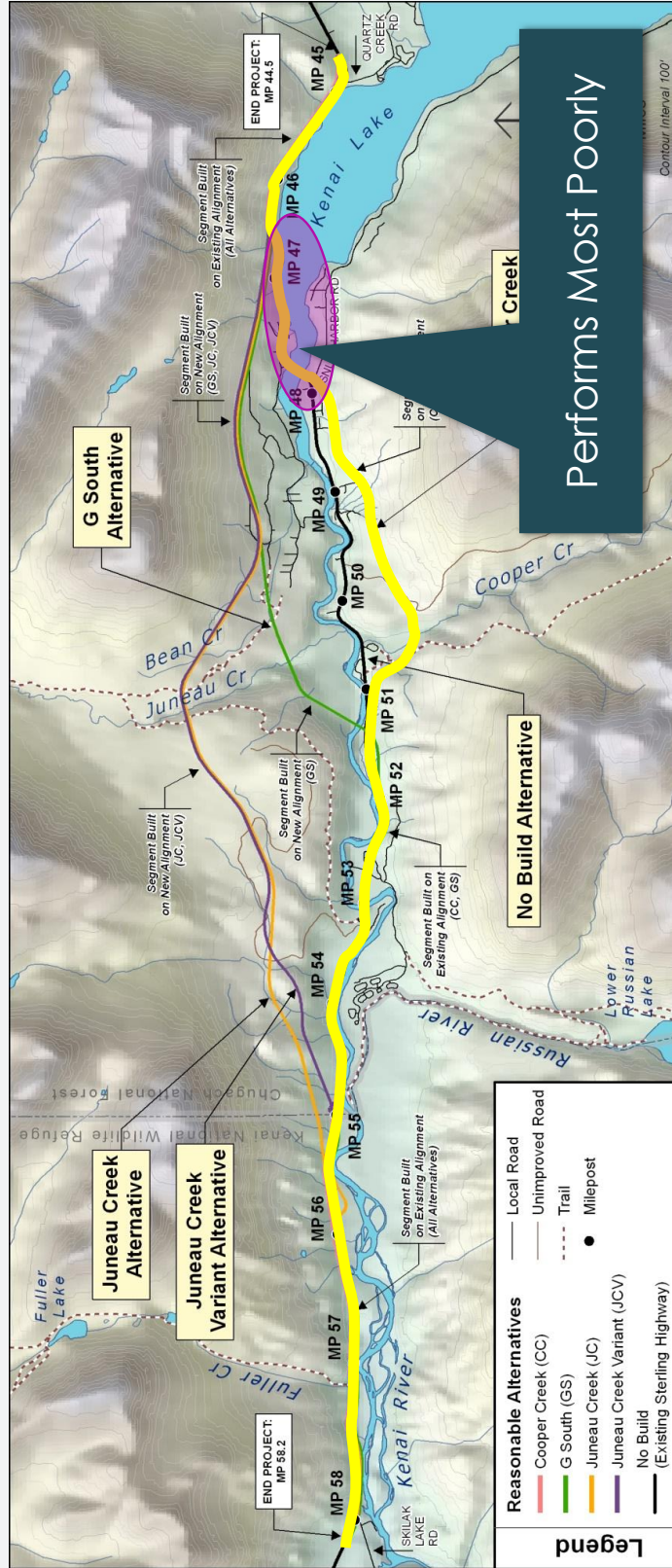
- Proximity to River
- Noise and Relocations
- Traffic/Congestion
- Worst Performance



- Proximity to River
- Noise and Relocations
- Traffic/Congestion
- Worst Performance



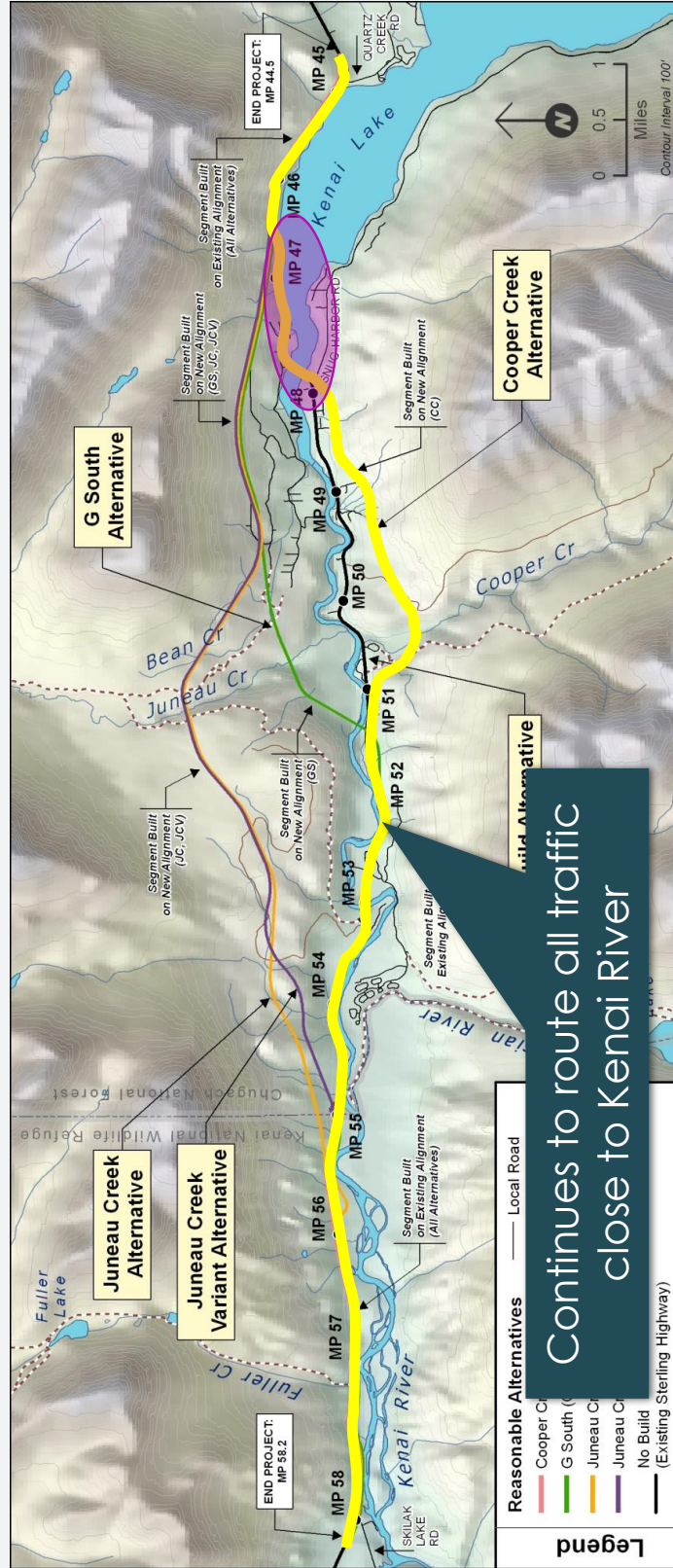
- Proximity to River
- Noise and Relocations
- Traffic/Congestion
- Worst Performance



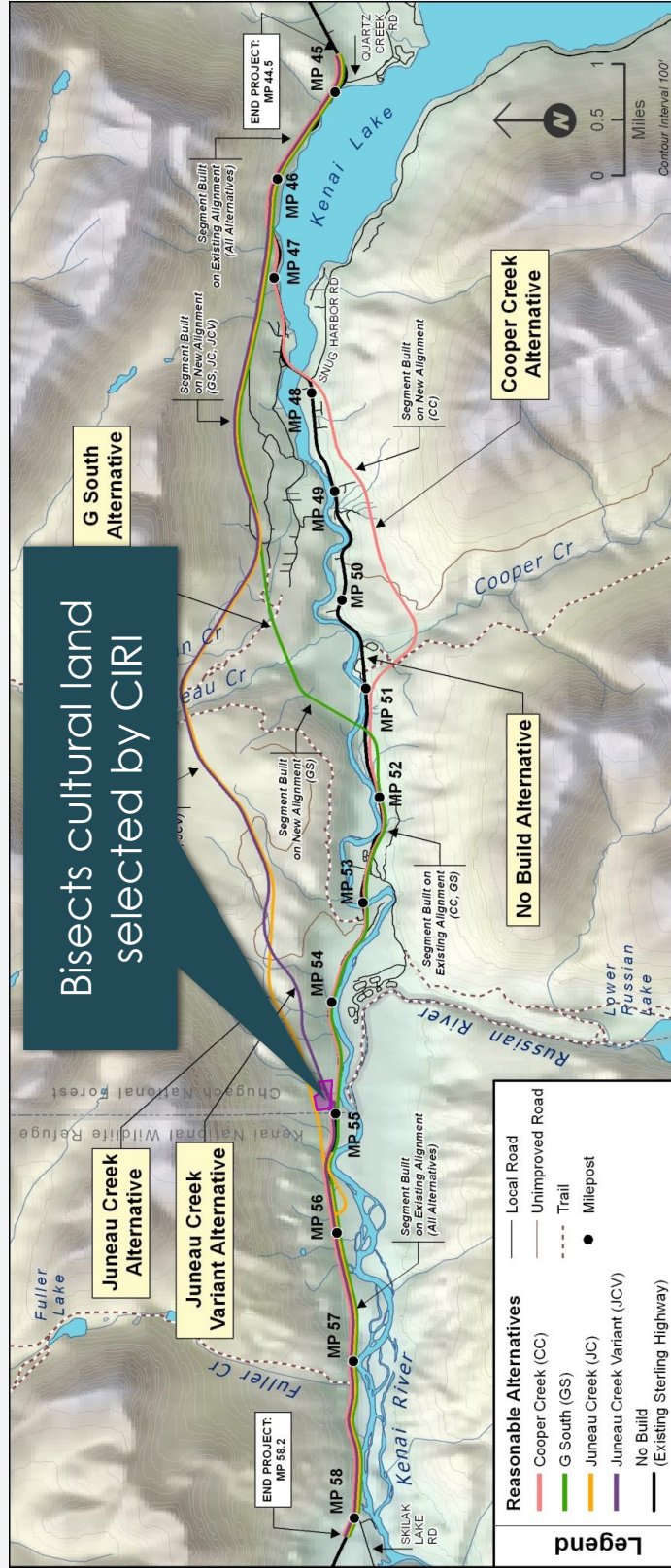
- Proximity to River
- Noise and Relocations
- Traffic/Congestion
- Worst Performance

Why not the Cooper Creek Alternative?
 U.S. Department of Transportation
 Federal Highway Administration

STERLING
 HIGHWAY
 ALASKA



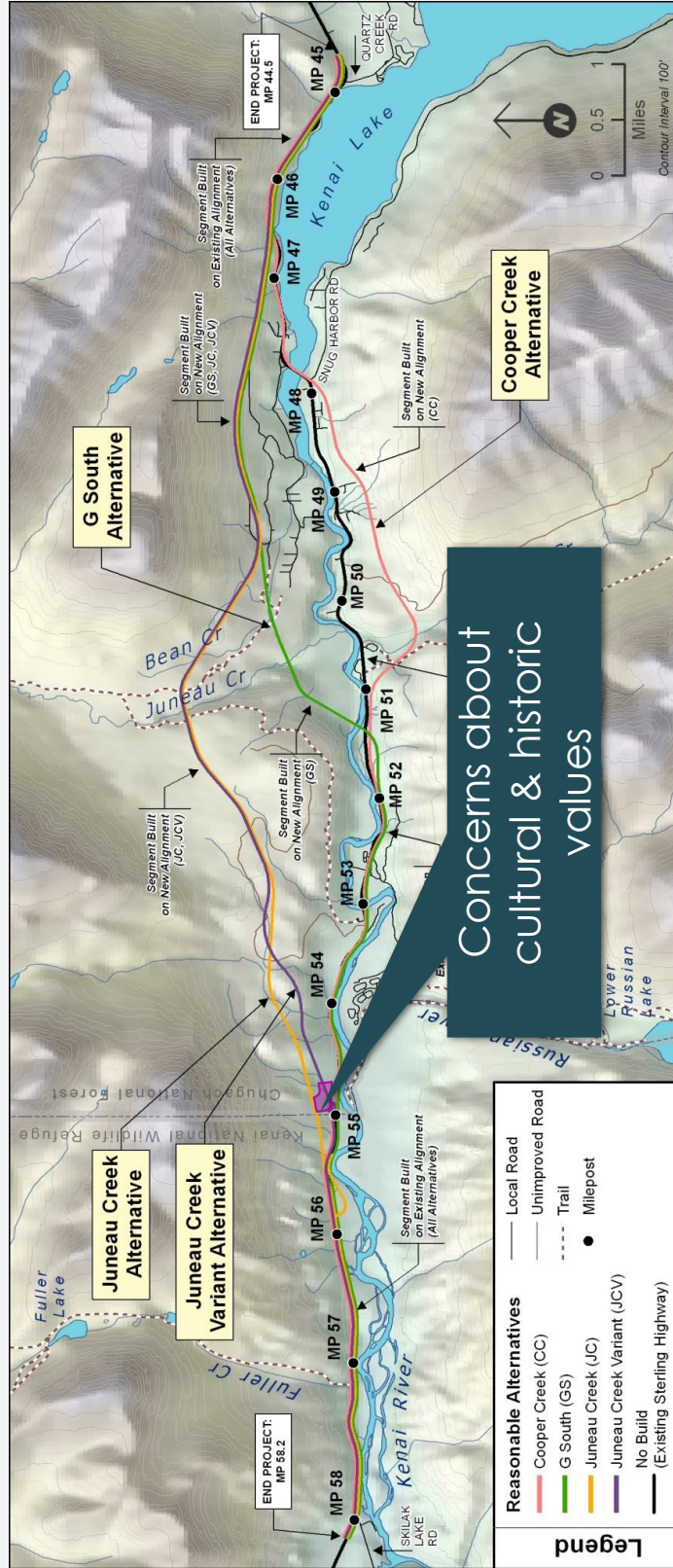
- Proximity to River
- Noise and Relocations
- Traffic/Congestion
- Worst Performance



Bisects cultural land selected by CIRI

- Heart of Sqilantnu-Russian River Confluence Site.
- Land is not replaceable.
- Agencies and Tribes indicate it “can’t be mitigated.”

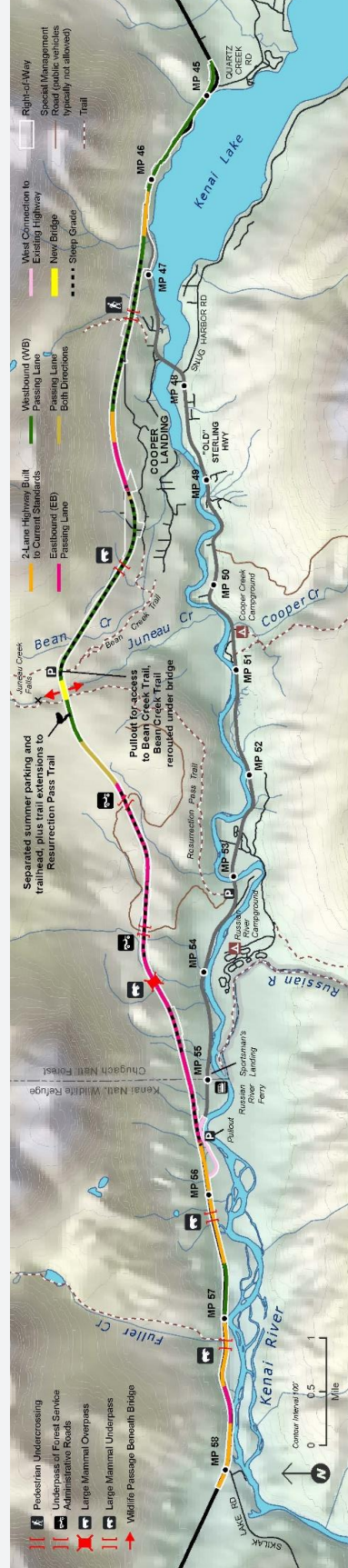
Why not the Juneau Creek Variant?
 U.S. Department of Transportation
 Federal Highway Administration



- Heart of Sqilantnu-Russian River Confluence Site.
- Land is not replaceable.
- Agencies and Tribes indicate it “can’t be mitigated.”

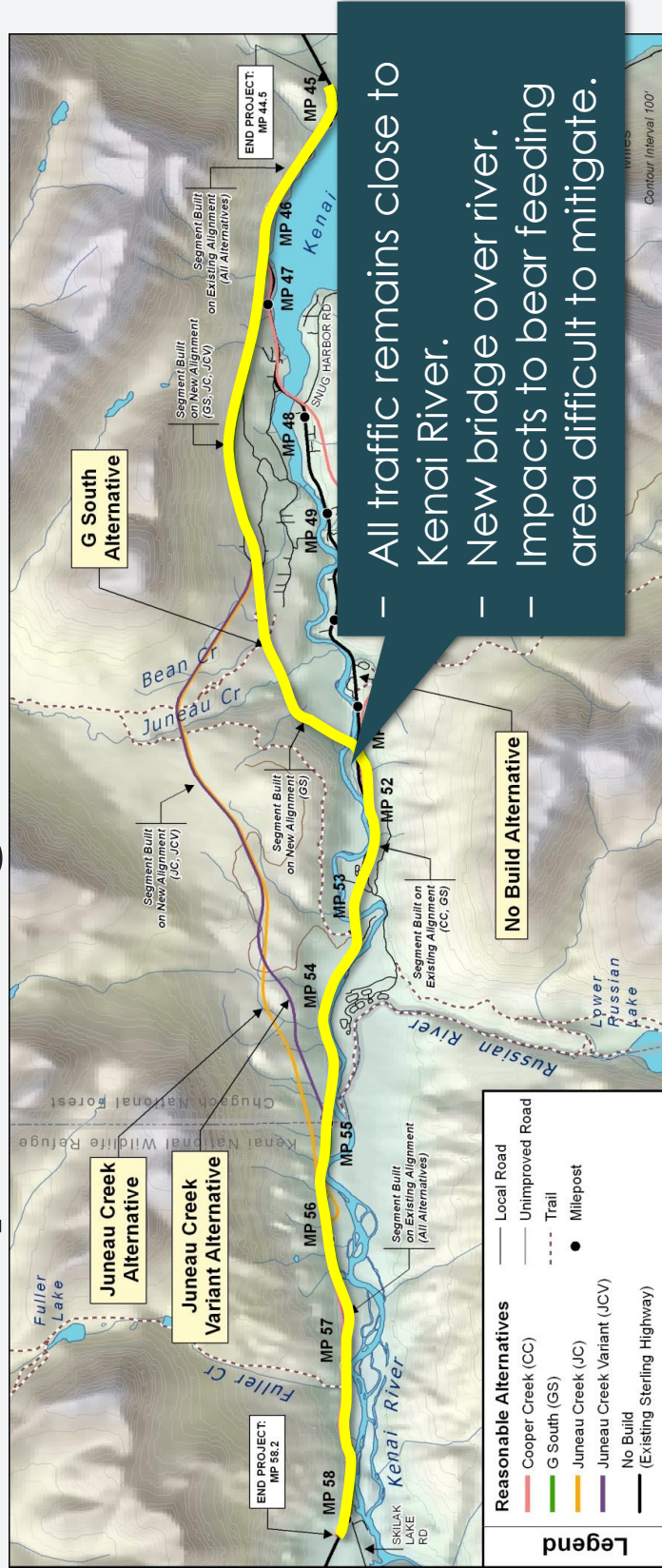


- In 2015, G South was identified as the preferred alternative
- In the FEIS, March 2018, Juneau Creek was identified as the preferred alternative.





Why no longer Preferred?



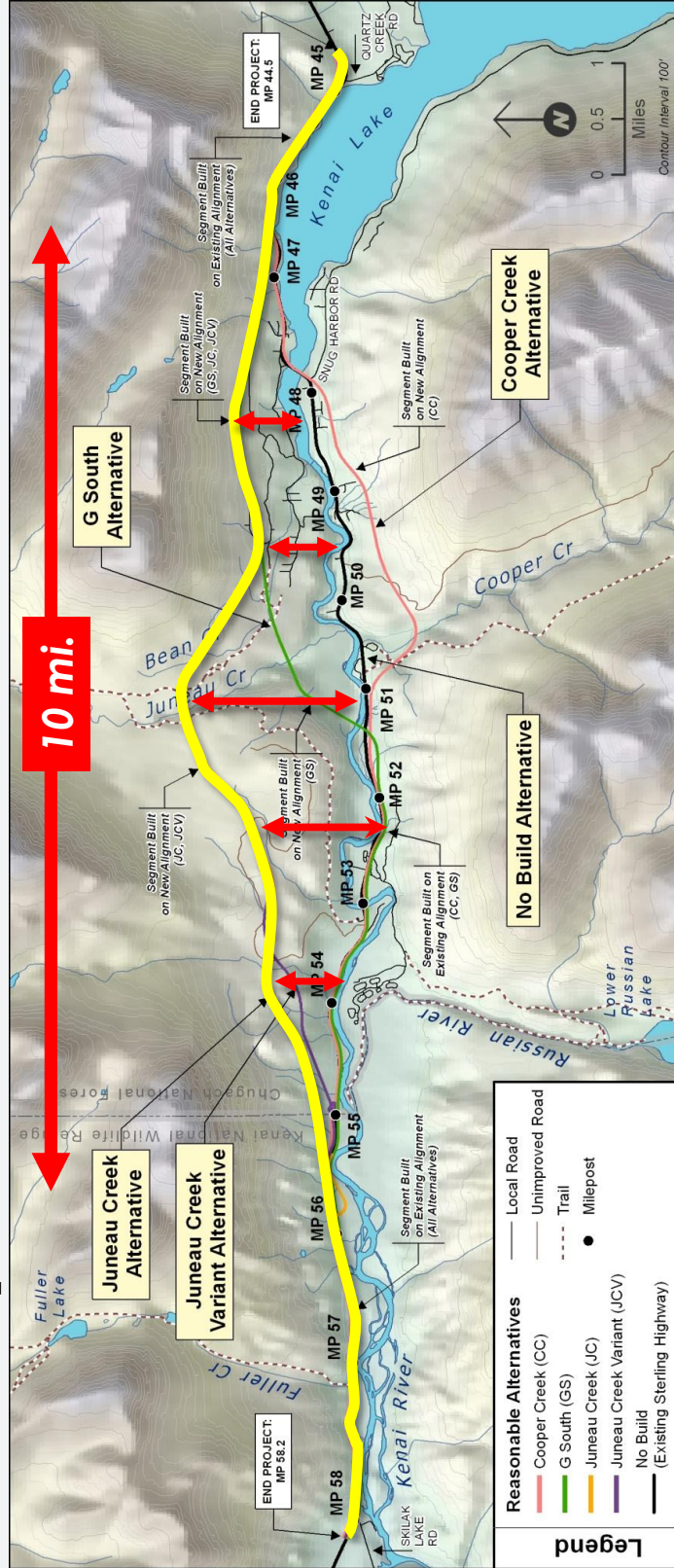
- Identified as preferred in 2015.
- Subsequent comments altered weighting of concern about Kenai River.



- **Moves highway traffic away from Kenai River.**
- **Separates local community and recreation traffic from through traffic.**
- **Largely avoids impacts to:**
 - *Kenai National Wildlife Refuge designated wilderness*
 - *CIRI selected cultural land*
 - *Private property (including noise impacts)*
- **Performs best for traffic.**



Separation from Kenai River

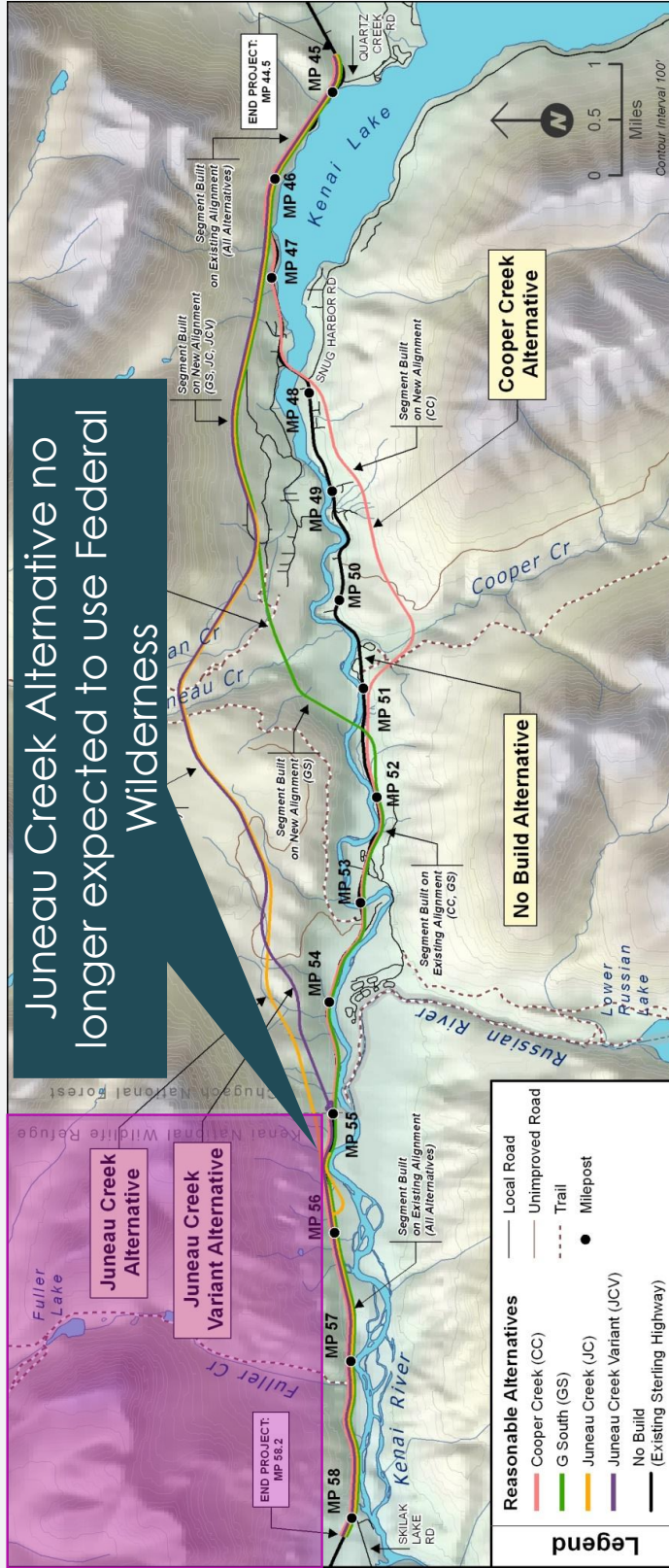


- Moves traffic farthest from the Kenai River.
- Moves traffic away over nearly 10 miles.



Juneau Creek Alternative

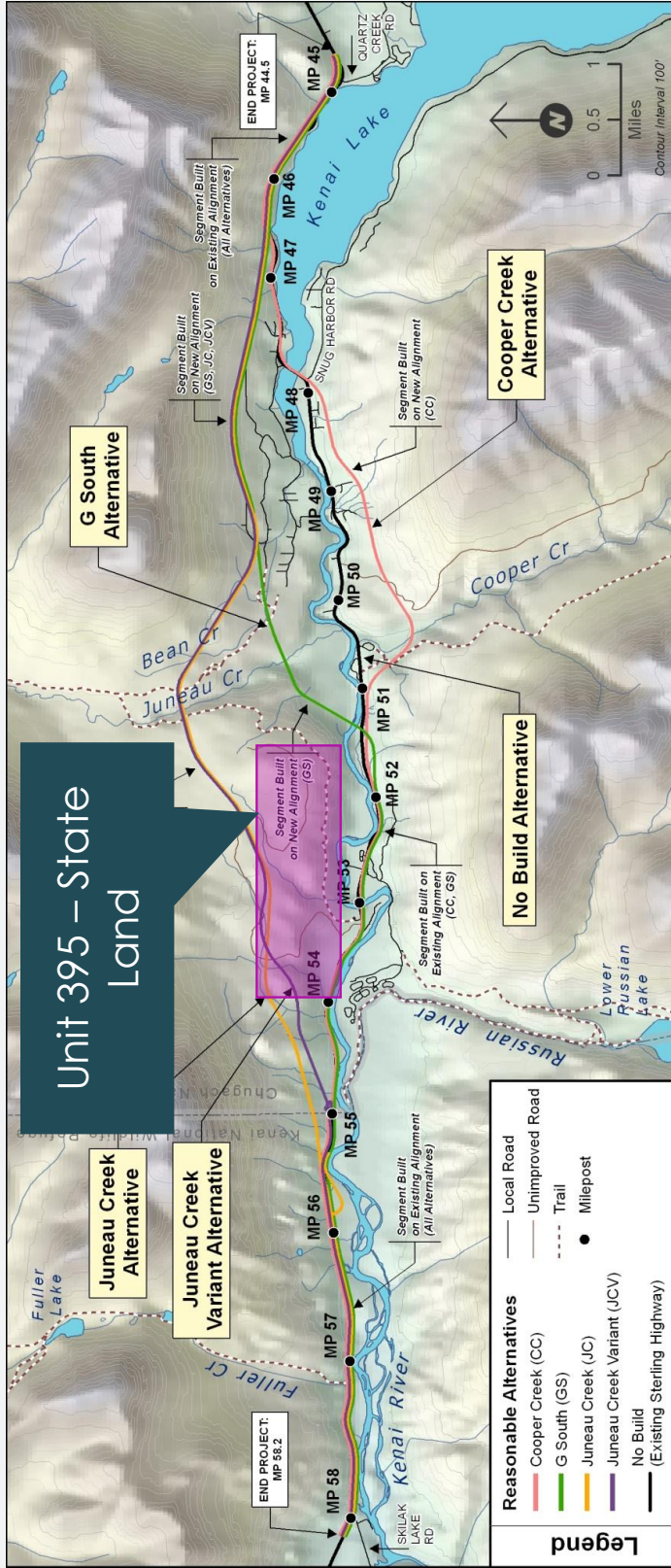
Wilderness



- An unrelated land swap pre-approved by Congress had not occurred.
- Land swap now reasonably foreseeable.
- Alternative would use land in private ownership instead of Wilderness.



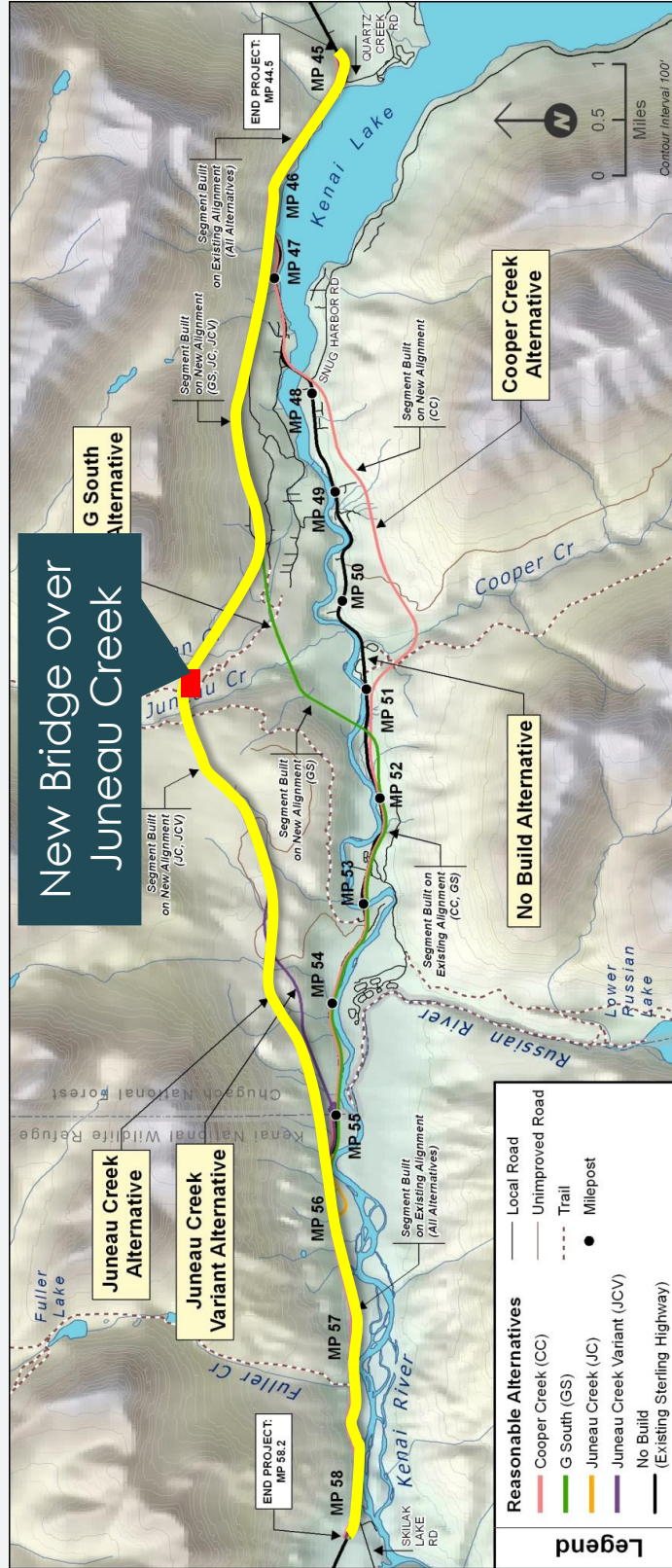
Land selection



- **Concern:** Would highway route selection steer DNR’s decision to select land for development?
- **Decision made:** DNR decided in 2015 to pass Unit to Borough regardless of this project.



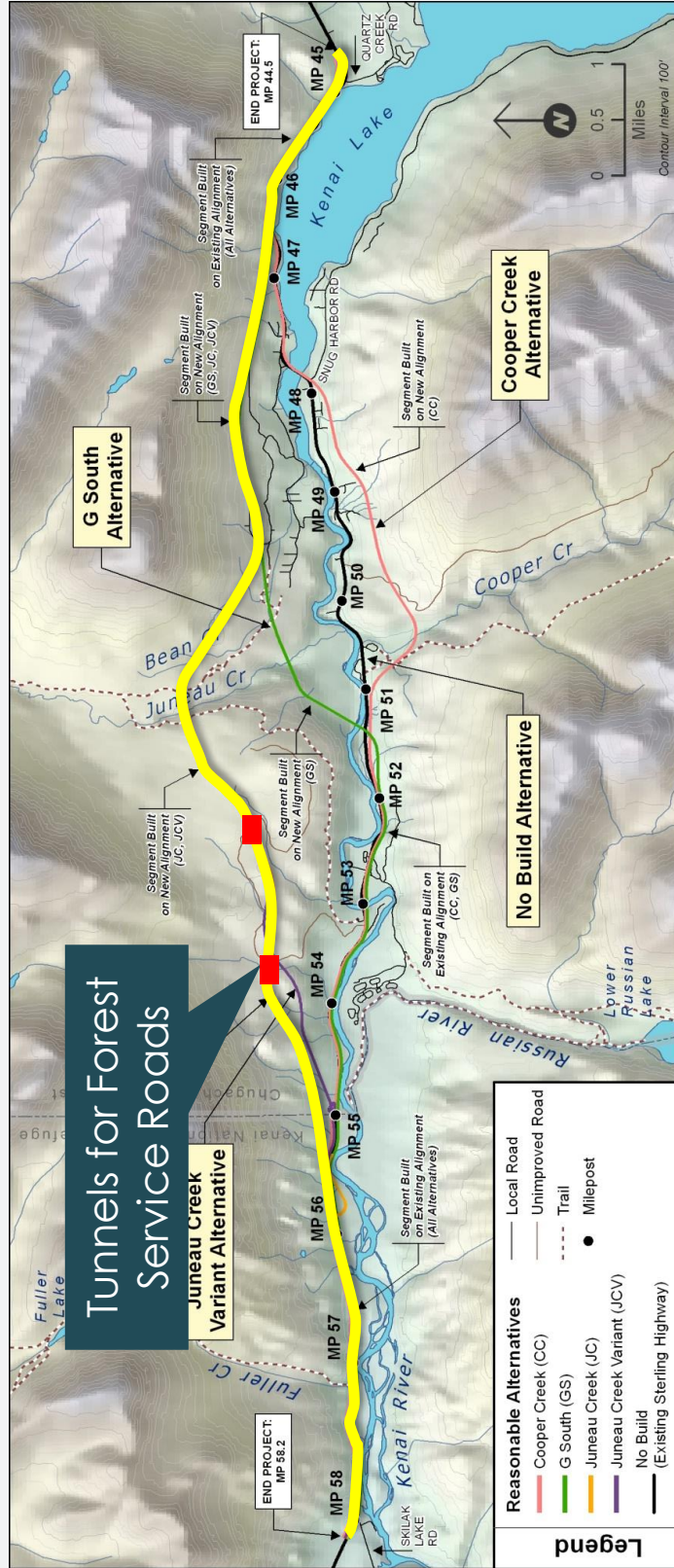

Juneau Creek Alternative



Juneau Creek Alternative
 U.S. Department of Transportation
 Federal Highway Administration

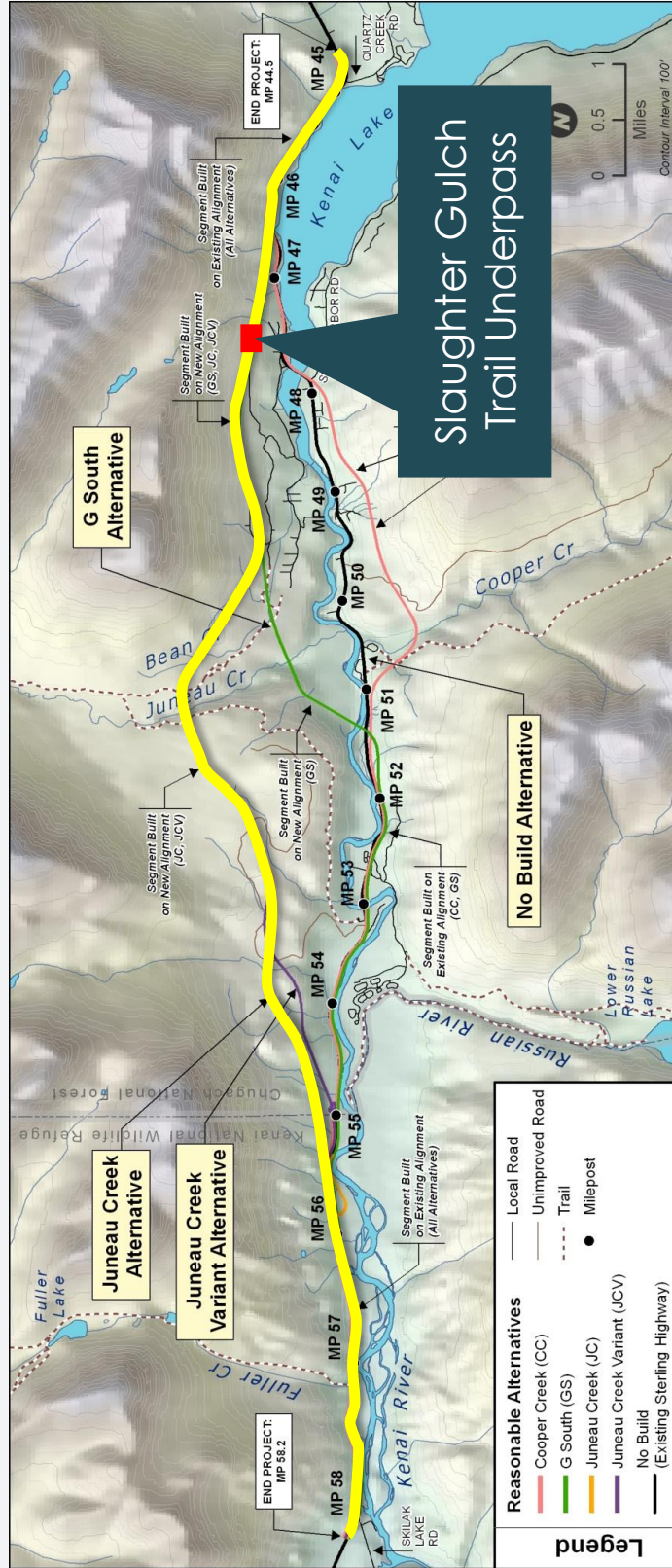



STERLING
HIGHWAY PROJECT
ALASKA



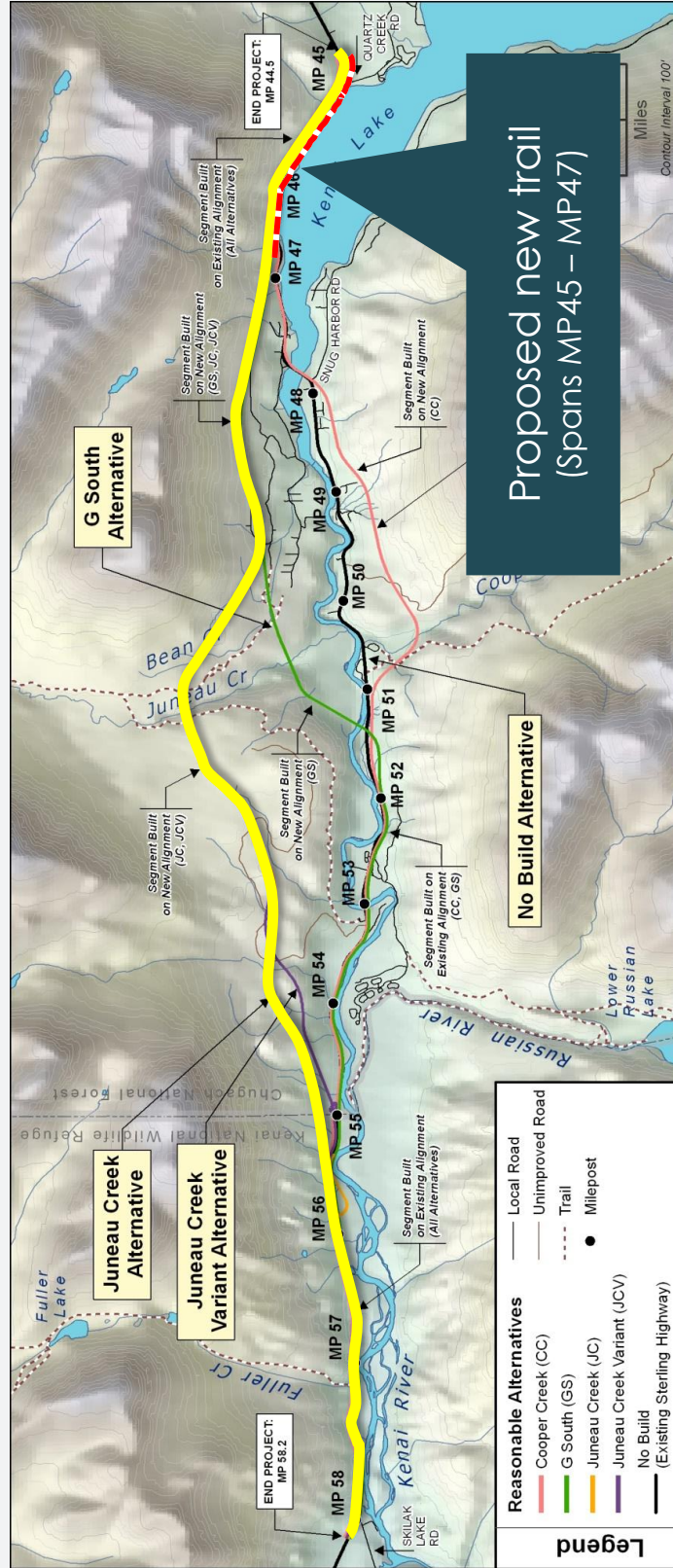



Juneau Creek Alternative



Juneau Creek Alternative
 U.S. Department of Transportation
 Federal Highway Administration

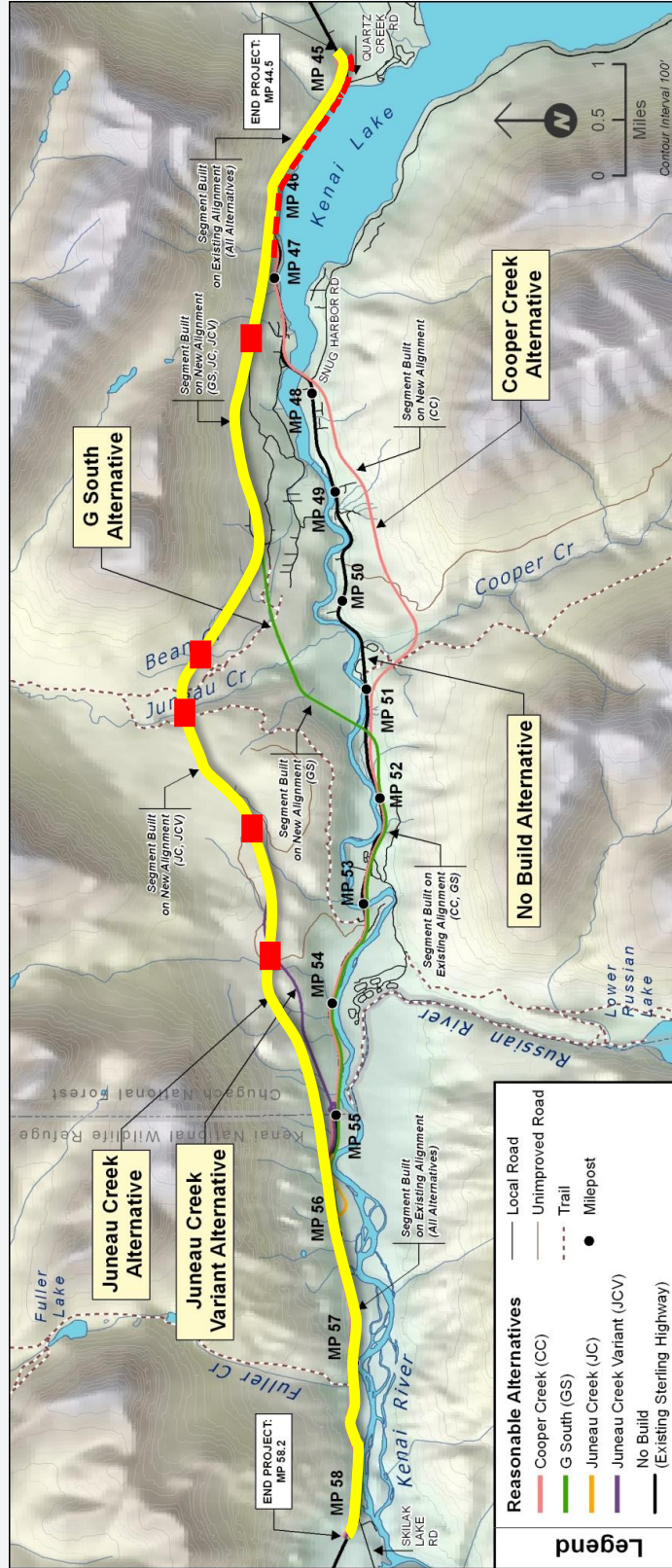


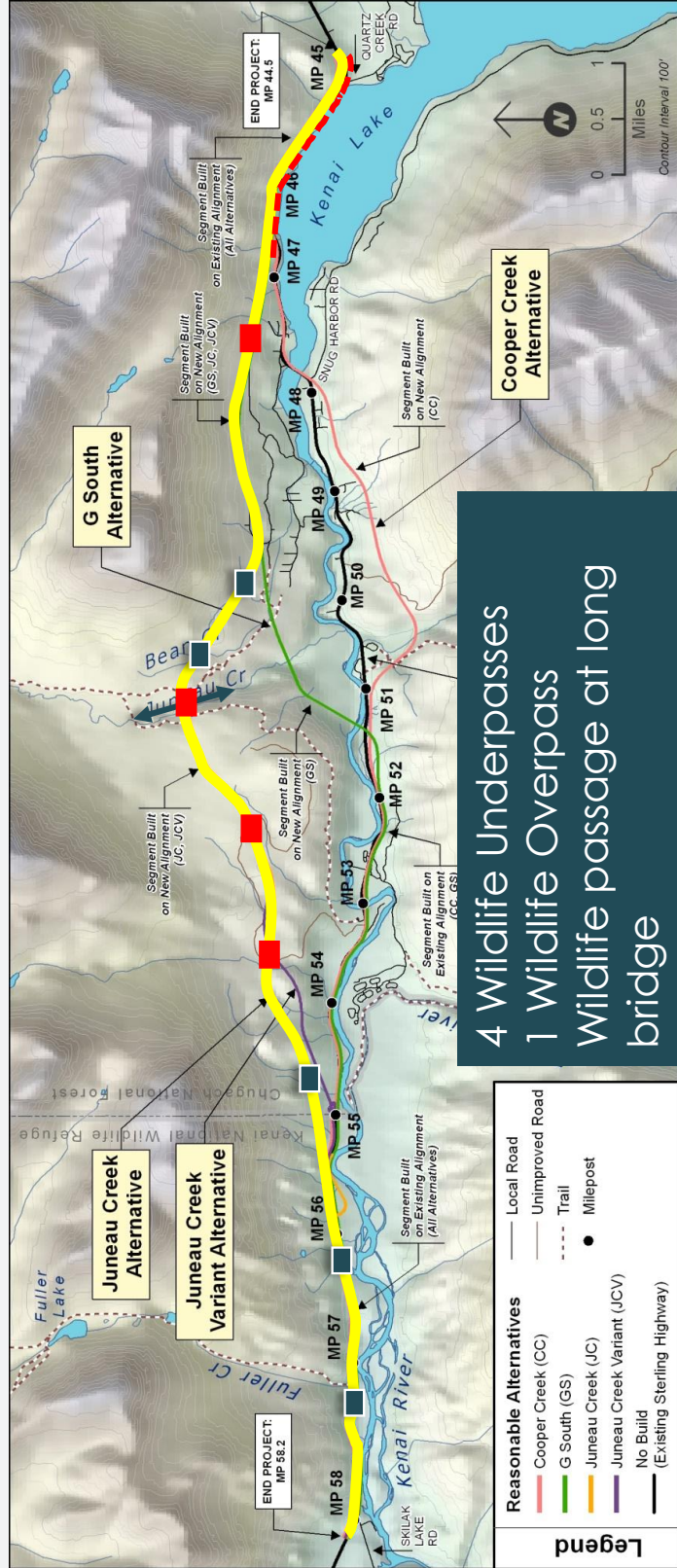
Juneau Creek Alternative

U.S. Department of Transportation
Federal Highway Administration

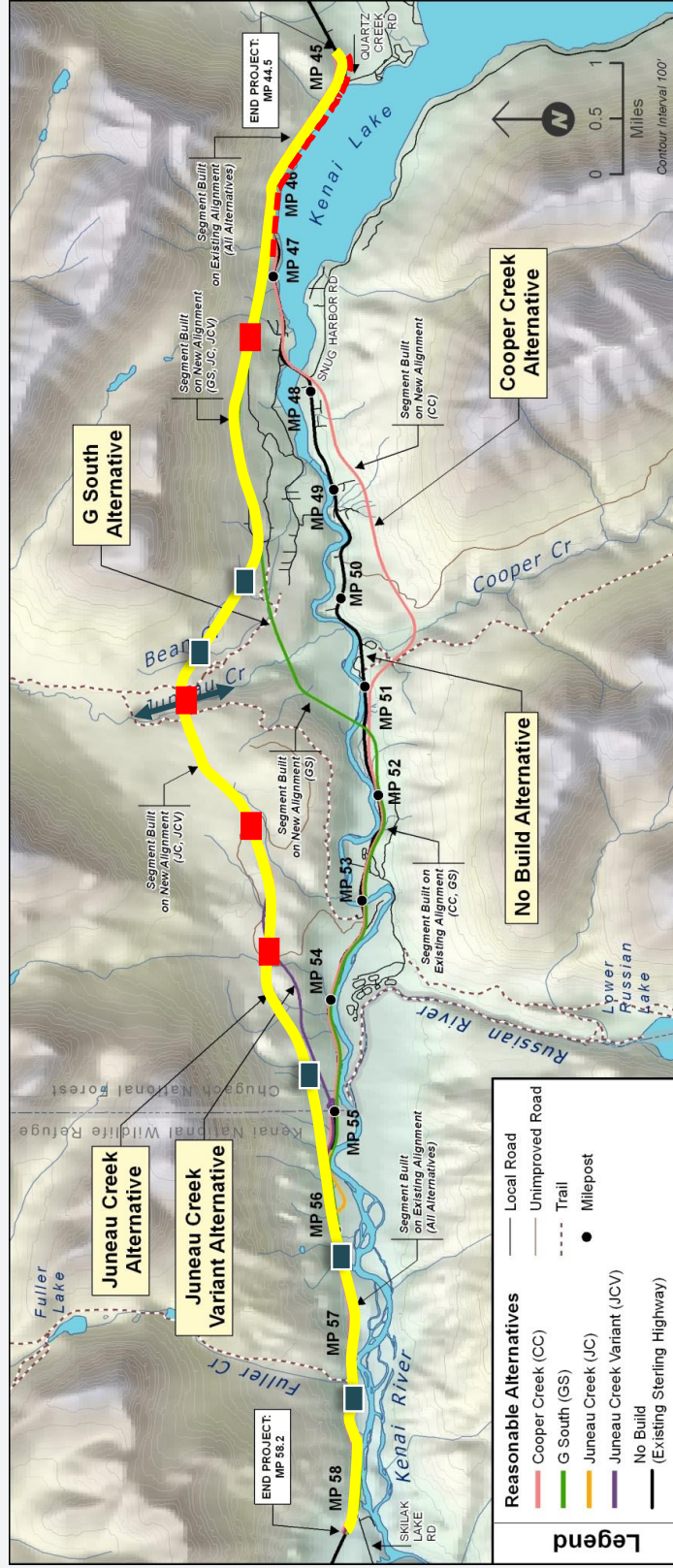


Juneau Creek Alternative
 U.S. Department of Transportation
 Federal Highway Administration

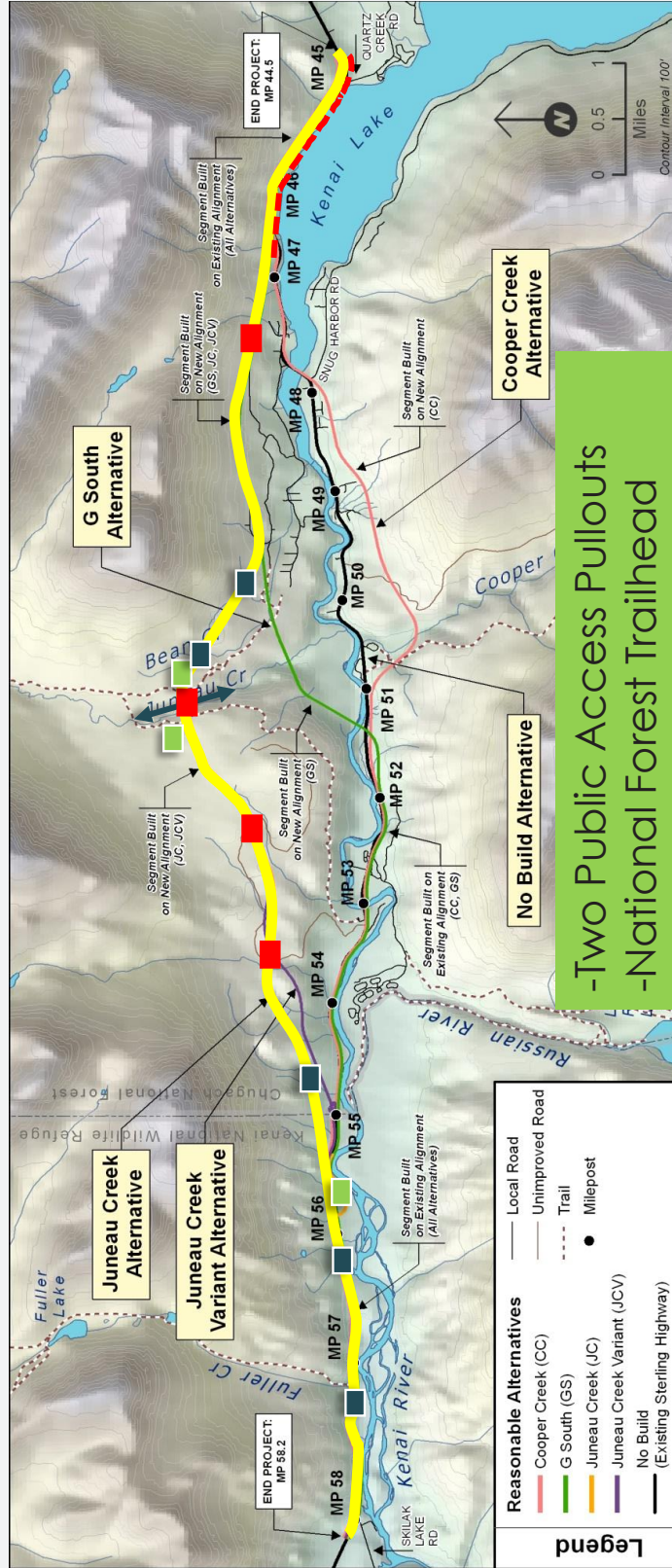



Juneau Creek Alternative
 U.S. Department of Transportation
 Federal Highway Administration

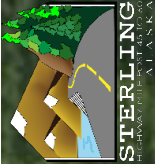


Juneau Creek Alternative
 U.S. Department of Transportation
 Federal Highway Administration



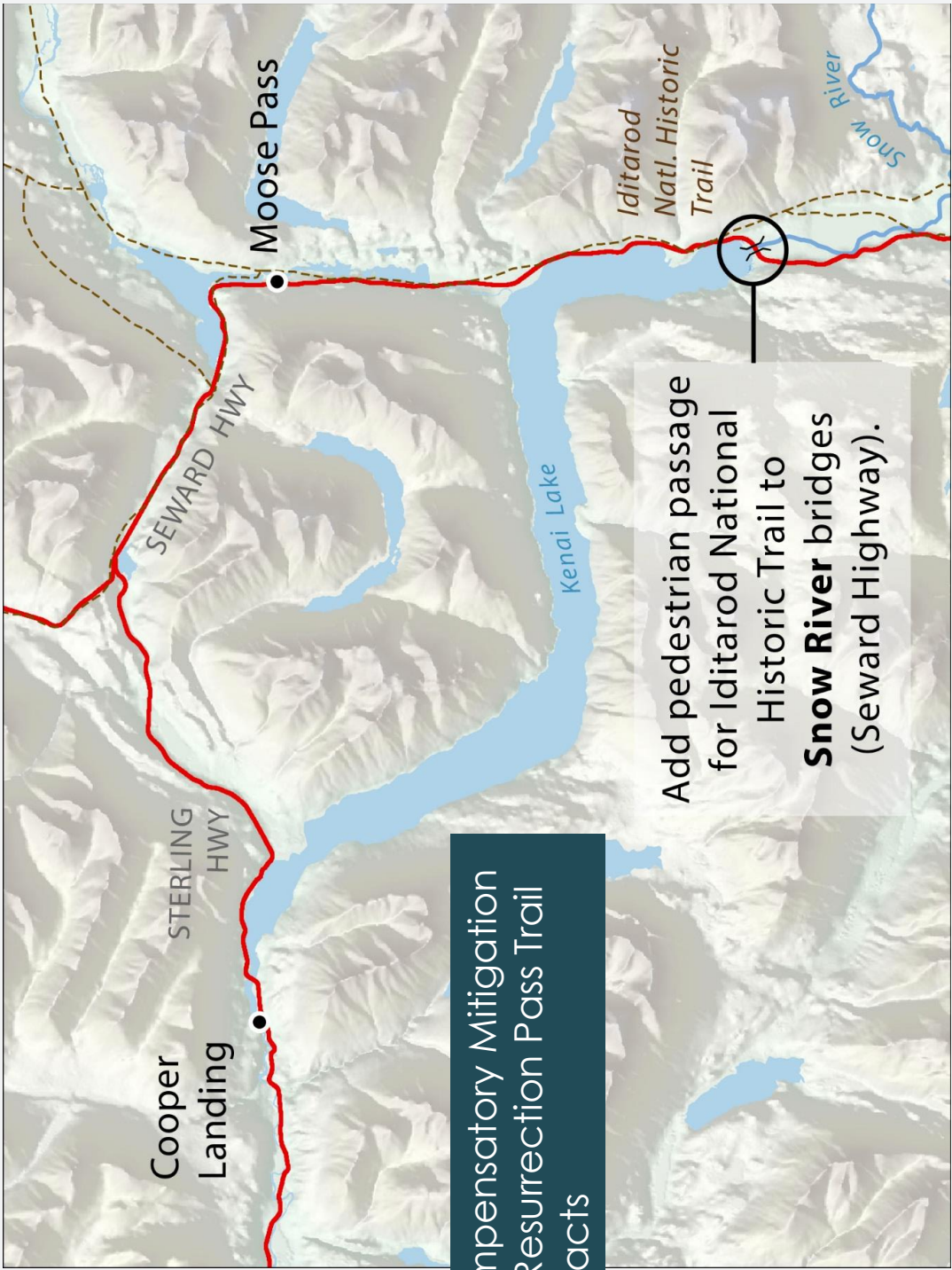
-Two Public Access Pullouts
 -National Forest Trailhead



Juneau Creek Alternative



U.S. Department of Transportation
Federal Highway Administration





Construction



- **Construction Cost: \$280.1 Million**
- **Construction could begin in 2020**
- **Likely built in phases based on available funding and permit restrictions.**



Next Steps



U.S. Department of Transportation
Federal Highway Administration



- **Record of Decision issued May 31, 2013**
- **Statute of Limitation ended November 5, 2018**
- **Design starting in 2019**
- **Construction**



- **Fill out a comment sheet**
- **Visit the website www.sterlinghighway.net**



Thank you. Questions?

Fall 2019 Regional Advisory Council Meeting Calendar

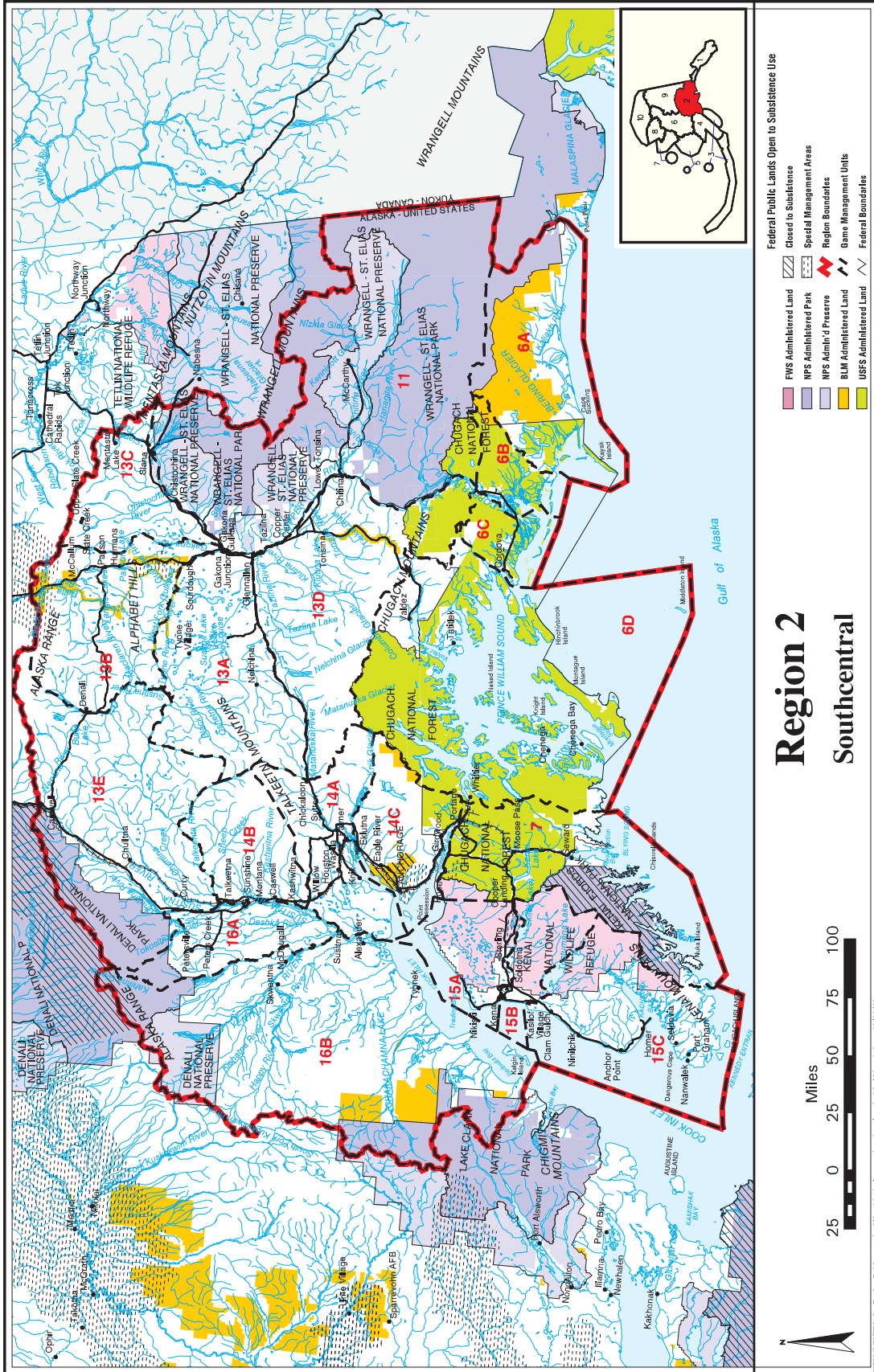
Due to travel budget limitations placed by Department of the Interior on the U.S. Fish and Wildlife Service and the Office of Subsistence Management, the dates and locations of these meetings will be subject to change.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Aug. 18	Aug. 19	Aug. 20	Aug. 21	Aug. 22	Aug. 23	Aug. 24
Aug. 25	Aug. 26	Aug. 27	Aug. 28	Aug. 29	Aug. 30	Aug. 31
Sept. 1	Sept. 2 LABOR DAY HOLIDAY	Sept. 3	Sept. 4	Sept. 5	Sept. 6	Sept. 7
Sept. 8	Sept. 9	Sept. 10	Sept. 11	Sept. 12	Sept. 13	Sept. 14
Sept. 15	Sept. 16	Sept. 17	Sept. 18	Sept. 19 K/A — Cold Bay	Sept. 20	Sept. 21
Sept. 22	Sept. 23	Sept. 24	Sept. 25	Sept. 26	Sept. 27	Sept. 28
Sept. 29	Sept. 30	Oct. 1	Oct. 2 SC — Seward	Oct. 3	Oct. 4	Oct. 5
Oct. 6	Oct. 7	Oct. 8 WI — Aniak	Oct. 9 SE — Petersburg	Oct. 10	Oct. 11	Oct. 12
Oct. 13	Oct. 14 COLUMBUS DAY HOLIDAY	Oct. 15 EI — Fairbanks	Oct. 16	Oct. 17 AFN — Fairbanks	Oct. 18	Oct. 19
Oct. 20	Oct. 21	Oct. 22 NS — Utqiagvik	Oct. 23 SP — Nome	Oct. 24	Oct. 25	Oct. 26
Oct. 27	Oct. 28 NW — Noatak	Oct. 29	Oct. 30	Oct. 31	Nov. 1	Nov. 2
Nov. 3	Nov. 4	Nov. 5 YKD — Bethel	Nov. 6 BB — Dillingham	Nov. 7	Nov. 8	Nov. 9

Winter 2020 Regional Advisory Council Meeting Calendar

Due to travel budget limitations placed by Department of the Interior on the U.S. Fish and Wildlife Service and the Office of Subsistence Management, the dates and locations of these meetings will be subject to change.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<i>Feb. 2</i>	<i>Feb. 3</i> <i>Window Opens</i>	<i>Feb. 4</i>	<i>Feb. 5</i>	<i>Feb. 6</i>	<i>Feb. 7</i>	<i>Feb. 8</i>
<i>Feb. 9</i>	<i>Feb. 10</i>	<i>Feb. 11</i>	<i>Feb. 12</i>	<i>Feb. 13</i>	<i>Feb. 14</i>	<i>Feb. 15</i>
<i>Feb. 16</i>	<i>Feb. 17</i> PRESIDENT'S DAY HOLIDAY	<i>Feb. 18</i>	<i>Feb. 19</i>	<i>Feb. 20</i>	<i>Feb. 21</i>	<i>Feb. 22</i>
<i>Feb. 23</i>	<i>Feb. 24</i>	<i>Feb. 25</i>	<i>Feb. 26</i>	<i>Feb. 27</i>	<i>Feb. 28</i>	<i>Feb. 29</i>
<i>Mar. 1</i>	<i>Mar. 2</i>	<i>Mar. 3</i>	<i>Mar. 4</i>	<i>Mar. 5</i>	<i>Mar. 6</i>	<i>Mar. 7</i>
<i>Mar. 8</i>	<i>Mar. 9</i>	<i>Mar. 10</i>	<i>Mar. 11</i>	<i>Mar. 12</i>	<i>Mar. 13</i> <i>Window Closes</i>	<i>Mar. 14</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 (Council).
2. **Authority.** The Council is renewed by virtue of the authority set out in the Alaska National Interest Lands Conservation Act (ANILCA) (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.** Council duties and responsibilities, where applicable, are as follows:
 - 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 decision-making 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.
 - i. Provide recommendations for implementation of Secretary's Order 3347: Conservation Stewardship and Outdoor Recreation, and Secretary's Order 3356: Hunting, Fishing, Recreational Shooting, and Wildlife Conservation Opportunities and Coordination with States, Tribes, and Territories. Recommendations shall include, but are not limited to:
 - (1) Assessing and quantifying implementation of the Secretary's Orders, and recommendations to enhance and expand their implementation as identified;
 - (2) Policies and programs that:
 - (a) increase outdoor recreation opportunities for all Americans, with a focus on engaging youth, veterans, minorities, and other communities that traditionally have low participation in outdoor recreation;
 - (b) expand access for hunting and fishing on Bureau of Land Management, U.S. Fish and Wildlife Service, and National Park Service lands in a manner that respects the rights and privacy of the owners of non-public lands;
 - (c) increase energy, transmission, infrastructure, or other relevant projects while avoiding or minimizing potential negative impacts on wildlife; and
 - (d) create greater collaboration with states, tribes, and/or territories.

- j. Provide recommendations for implementation of the regulatory reform initiatives and policies specified in section 2 of Executive Order 13777: Reducing Regulation and Controlling Regulatory Costs; Executive Order 12866: Regulatory Planning and Review, as amended; and section 6 of Executive Order 13563: Improving Regulation and Regulatory Review. Recommendations shall include, but are not limited to:

Identifying regulations for repeal, replacement, or modification considering, at a minimum, those regulations that:

- (1) eliminate jobs, or inhibit job creation;
- (2) are outdated, unnecessary, or ineffective;
- (3) impose costs that exceed benefits;
- (4) create a serious inconsistency or otherwise interfere with regulatory reform initiative and policies;
- (5) rely, in part or in whole, on data or methods that are not publicly available or insufficiently transparent to meet the standard for reproducibility; or
- (6) derive from or implement Executive Orders or other Presidential and Secretarial directives that have been subsequently rescinded or substantially modified.

At the conclusion of each meeting or shortly thereafter, provide a detailed recommendation meeting report, including meeting minutes, to the Designated Federal Officer (DFO).

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 \$170,000, 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:

- (a) Approve or call all of the advisory committee's and subcommittees' meetings;
- (b) Prepare and approve all meeting agendas;
- (c) Attend all committee and subcommittee meetings;
- (d) Adjourn any meeting when the DFO determines adjournment to be in the public interest; and
- (e) 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 Council or subcommittee deliberations or votes relating to a specific party matter before the Department or its bureaus and offices including a lease, license, permit, contract, grant, claim, agreement, or litigation in which the member or the entity the member represents has a direct financial interest.
14. **Subcommittees.** Subject to the DFOs 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. 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

DEC 01 2017

Date Signed

DEC 04 2017

Date Filed

Follow and “Like” us on Facebook!
www.facebook.com/subsistencealaska

