



EASTERN INTERIOR ALASKA
SUBSISTENCE REGIONAL
ADVISORY COUNCIL
Meeting Materials

March 1 - 2, 2023
Fairbanks



What's Inside

Page

1	Agenda
4	Roster
5	Fall 2022 Draft Council Meeting Minutes
19	North American Caribou Workshop and Arctic Ungulate Conference Information
25	Copies of Correspondence
34	Fall 2022 Circle Hunter Liaison Report
35	WCR24-21 Portion of Unit 25A closed to sheep hunting by NFQUs (Arctic Village Sheep Management Area)
61	WCR24-35 Portion of Unit 12 closed to caribou hunting by NFQUs (Chisana caribou)
77	WCR24-42 Portion of Unit 12 closed to caribou hunting by all users (Mentasta caribou)
92	How to Change Federal Subsistence Regulations Handout
95	NPS Proposed Rule for Hunting and Trapping in National Preserves
103	Annual Report Guidelines
105	Draft FY2022 Annual Report
109	Arctic National Wildlife Refuge Report
125	Yukon Flats National Wildlife Refuge Report
144	Tetlin National Wildlife Refuge Report

On the cover...

Moonset over the boreal forest of Interior Alaska. Yukon Flats National Wildlife Refuge.



USFWS photo by Lisa Hupp

What's Inside

- 149 Fall 2023 Meeting Calendar
- 150 Winter 2024 Meeting Calendar
- 151 Fall 2024 Meeting Calendar
- 152 Region 9 - Eastern Interior Alaska Region Map
- 153 Council Charter for Review

EASTERN INTERIOR ALASKA SUBSISTENCE REGIONAL ADVISORY COUNCIL

Venue to be determined
Fairbanks, AK
March 1-2, 2023
convening at 9:00am daily

TELECONFERENCE: call the toll-free number: 1-866-326-9183, then when prompted enter the passcode: 48576438

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. The Chair will identify the opportunities to provide public comments. 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. **Meeting Announcements** (*Council Coordinator*)..... 4
- 5. **Welcome and Introductions** (*Chair*)
- 6. **Review and Adopt Agenda*** (*Chair*)..... 1
- 7. **Election of Officers**
 - Chair (*Council Coordinator*)
 - Vice-Chair (*New Chair*)
 - Secretary (*New Chair*)
- 8. **Review and Approve Previous Meeting Minutes*** (*Chair*) 5
- 9. **Reports**
 - Council Member Reports
 - Chair’s Report
- 10. **Public and Tribal Comment on Non-Agenda Items** (available each morning)

11. Old Business (Chair)

- a. Follow up on May 2023 North American Caribou Workshop and Arctic Ungulate Conference (OSM Wildlife)..... 19
- b. Council Correspondence Update (Council Coordinator)..... 21
- c. Hunter Ethics Education and Outreach Initiative Update (Council Coordinator) 31
- d. The Board’s 805(c) Report to the Council – Summary (Council Coordinator)

12. New Business (Chair)

- a. Regional Wildlife Reports
 - i. Fortymile Caribou Herd Update (BLM)
 - ii. Wood Bison Reintroduction Update (ADF&G)
- b. Wildlife Closure Reviews (OSM)
 - i. WCR24-21 Portion of Unit 25A closed to sheep hunting by non-federally qualified users (Arctic Village Sheep Management Area)..... 35
 - ii. WCR24-35 Portion of Unit 12 closed to caribou hunting by NFQUs (Chisana caribou) 61
 - iii. WCR24-42 Portion of Unit 12, closed to caribou hunting by all users (Mentasta caribou) 77
- c. Call for Federal Wildlife Proposals* (OSM Wildlife) 92
- d. Call for Alaska Board of Game Proposals for Interior Region (Council Coordinator)
- e. Denali National Park and Preserve Individual Customary and Traditional Use Determination Analyses* (NPS)
- f. Proposed Changes to 2020 Hunting and Trapping Regulation on National Preserves in Alaska* (NPS)..... 95
- g. 2021 Council Charter Review* (Council Coordinator)..... 153
- h. Review and approve FY2022 Annual Report* (Council Coordinator) 103
- i. Federal Subsistence Board Updated Draft Council Correspondence Policy* (OSM)
- j. Fisheries Resource Monitoring Program Update (OSM Fisheries)
- k. Partners for Fisheries Monitoring Program Update (OSM Fisheries)
 - i. Partners Presentation (TCC)
- l. Regulatory Cycle Update (OSM Fisheries)

13. Agency and Organization Reports

(Time limit of 15 minutes unless approved in advance)

- a. North Pacific Fishery Management Council

- b. Yukon River Drainage Fisheries Association Update
- c. Alaska Department of Fish and Game
 - i. Division of Subsistence
- d. Fish and Wildlife Service
 - i. Arctic National Wildlife Refuge 109
 - ii. Yukon Flats National Wildlife Refuge..... 125
 - iii. Tetlin National Wildlife Refuge..... 144
 - iv. 2023 Yukon River Salmon Fisheries Outlook
- e. National Park Service
 - i. Yukon-Charley Rivers National Preserve
 - ii. Denali National Park and Preserve
 - iii. Wrangell-St. Elias National Park and Preserve
- f. Bureau of Land Management - Eastern Interior Field Office
- g. Office of Subsistence Management

14. Future Meeting Dates*

- a. Confirm Fall 2023 meeting date and location 149
- b. Select preferred Winter 2024 All Council Meeting dates 150
- c. Select Fall 2024 meeting date and location 151

15. Closing Comments

16. Adjourn (Chair)

To teleconference into the meeting, call the toll-free number: 1-866-326-9183, then when prompted enter the passcode: 48576438

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 Brooke McDavid, 907-891-9181, brooke_mcdavid@fws.gov, or 800-877-8339 (TTY), by close of business on 2/22/22.

REGION 9
Eastern Interior Alaska Subsistence Regional Advisory Council

Seat	Year Appointed <i>Term Expires</i>	Member Name and Community
1	2001 2025	Susan L. Entsminger Mentasta Chair
2	2022 2025	Eva D. Burk Fairbanks/Nenana
3	2020 2025	Linda M. Evans Rampart
4	2022 2025	Amanda M. Pope Circle
5	2005 2023	William L. Glanz Central
6	2002 2023	Andrew W. Bassich Eagle
7	2017 2023	Robert C. Wright, Sr. Rampart Vice Chair
8	2017 2024	Charlie Jagow Porcupine River
9	2004 2024	Donald A. Woodruff Eagle
10	2024	Vacant Horsfeld

EASTERN INTERIOR ALASKA SUBSISTENCE REGIONAL ADVISORY COUNCIL

Meeting Minutes

Pike's Waterfront Lodge
Fairbanks, AK
October 5-6, 2022

Invocation:

Linda Evans provided an invocation.

Call to Order, Roll Call, and Quorum Establishment:

The meeting was called to order Wednesday, October 5, 2022, at 9:02am. Council members Sue Entsminger, Donald Woodruff, Jody Potts-Joseph, Linda Evans, Robert Wright, Charlie Jagow, and Andrew Bassich were present in person. Will Koehler was present via teleconference. William Glanz and Nicholas Henry were not present and were not excused. With 8 out of 10 seated Council members present, the quorum was established.

Attendees:

* Denotes attended telephonically

- Office of Subsistence Management (OSM): Brooke McDavid, Katya Wessels, Dr. Brent Vickers, Tom Plank, Liz Williams, Cory Graham, Orville Lind*, Scott Ayers*, Dr. Jason Roberts*, George Pappas*, Justin Koller*
- National Park Service: Regional Office – Dr. Kim Jochum, Maija Lukin, Andee Sears, Dylan Patterson*; Yukon-Charley Rivers NPP - Mark Dowdle, Jeff Rasic, Kyle Joly, Marcy Okada, Matt Cameron, Matt Sorum; Wrangell-St. Elias NPP – Dr. Barbara Cellarius, Kyle Cutting, Dave Sarafin; Denali NPP - Pat Owen, Amy Craver
- U.S. Fish and Wildlife Service: Fisheries & Ecological Services - Holly Carroll, Gerald Maschmann, Keith Ivy, and Randy Brown; Yukon Flats NWR - Jimmy Fox; Arctic NWR - Nathan Hawkaluk
- Bureau of Land Management: Eastern Interior Field Office - Jim Herriges; Regional Office - Chris McKee*
- Alaska Department of Fish and Game: Wildlife Conservation - Mark Burch*, Todd Rinaldi*, Tom Seaton; Commercial Fisheries - Deena Jallen*, Sam Decker*, Shane Ransbury*; Sport Fisheries - Lisa Stuby*, Andy Gryska*; Subsistence - Jesse Coleman
- Other Organizations: Tanana Chiefs Conference - Nicole Farnham, Dr. Jim Simon; Yukon River Drainage Fisheries Association - Catherine Moncrieff, Serena Fitka, and Gabe Canfield; Resident Hunter of Alaska - Mark Richards; Fairbanks Advisory Council - Gale Vick, Virgil Umphenour

- Public: Al Barrette, Jan Woodruff, Amanda Pope*, Sonya Fields*, Bruce Ervin*, Rochelle Adams*

Review and Adopt Agenda:

- Motion by Member Woodruff, seconded by Member Bassich, to adopt the agenda as read.

The motion passed unanimously.

Review and Approve Previous Meeting Minutes:

- Motion by Member Bassich, seconded by Member Woodruff, to approve the Winter 2022 Meeting minutes as presented.

The motion passed unanimously.

- Motion by Member Bassich, seconded by Vice Chair Wright, to approve the March 16, 2022 Joint Southcentral-Eastern Interior Council Meeting minutes as presented.

The motion passed unanimously.

Council Member and Chair Reports:

Charlie Jagow of Porcupine River reported that the summer started hot and dry with fires in Porcupine River region. It started to get colder in July and some rains helped to put out fires. Water levels were very low at the start of fall, which surprised him due to heavy snow during previous winter. Around September 10th, intense rains caused flash floods on the Colleen and Sheenjek rivers. A couple days later, the Porcupine River rose to the highest water levels he's ever seen in the area. This made it very difficult for moose hunters because all gravel bars were covered, and water was up in the trees. He also reported that fishers in his region were having a difficult time just like the rest of the Yukon River drainage, a continuing trend over the last few years. He recently spoke to folks who have been living up on the Sheenjek River for 15 years, and they reported they'd seen only three spawned out salmon so far this fall in an area where you can normally see the dead fish all along the gravel bars in a normal year. Unlike the Porcupine, the Sheenjek ecosystem is very salmon dependent and there's just not much out there anymore without the big fish runs. The lack of salmon is a drastic change in a short period of time.

Andy Bassich of Eagle reported that declines in salmon, caribou, and moose are impacting peoples' abilities to meet their subsistence needs. He emphasized the importance of fall Chum Salmon to residents of the upper Yukon River because there are no other species of salmon and not enough nonsalmon species that can be used as a replacement when fall Chum Salmon runs fail. He is afraid that continued low fall Chum Salmon runs will "be the nail in the coffin" for the lifestyle of having dog teams. Member Bassich stated that king (Chinook) salmon are smaller and have been carrying less eggs, but management has not increase escapement goals to compensate for it. He requested that fisheries managers set long-term goals

instead of focusing on one year at a time. People in Eagle are not meeting their needs for caribou, the second most relied upon subsistence resource after salmon. He voiced frustration for Fortymile Caribou Herd management decision aimed to drastically reduce the herd because he feels that the herd has been trying to expand its range. He has observed that it is staying warmer longer into the fall, and moose are not going into rut during the open hunting season. Mr. Bassich barely saw any birds of any type this year and stated that it is a major concern that should be monitored. He ended by stating that we need to make subsistence living more viable and attractive for young people, not only to be out on the land but to serve on the Council to help foster their future.

Robert (Charlie) Wright of Rampart reported that the snow has been very deep the last couple of years on the Yukon making it difficult conditions for trapping. The moose population is way down because of predation by wolves that more easily travel in deep snow conditions. He voiced concerns that there have not been moose population surveys near Rampart in a long time. Member Wright emphasized the hardships that lack of salmon on the Yukon has had on residents all along the river. People are crying for salmon and elders say that they do not know what to do. The lack of kings (Chinook) and Chum salmon impacts the entire ecosystem. Climate change is also impacting things. He concurred with Member Bassich's observation of less birds and Member Evans' observation of less berries. Mr. Wright shared that caribou migrated back to Rampart for first time in one hundred years. He said that we have to be very careful with caribou management and not try to control them too much like increasing harvest on the Steese Highway when there are signs of nutritional stress. Caribou will manage themselves as they have for thousands of years. They adapt and move for food. Member Wright later added to his report that in Tanana there were wolves coming into the community and killing chained up dogs. Both Tanana and Rampart awarded hunters and trappers \$500 for each wolf killed to help offset gas money and it seemed to help out some with the wolf numbers.

Jody Potts-Joseph of Eagle Village reported that declines in salmon and caribou have been greatly impacting people's food security in Eagle Village. She is trying to teach her children how to live off the land and pass on traditional cultural practices, but it is increasingly difficult when there are hardly any resources to harvest. Traditional foods are important for wellness, and elders especially need them to maintain their health. Member Potts-Joseph has noticed some impacts from climate change such as massive landslides in the Upper Yukon Valley. For the last three years, the Fortymile Caribou Herd has not come through Eagle during the open hunting season. Her parents and family used to live off caribou. Caribou have come through during July the last few years. She noted, with agreement from Member Woodruff, that is very unusual and not their normal migration timing. This year, her family is going into the winter without salmon, caribou, or moose. They also have no blueberries. Before she moved back to Eagle in the spring, she didn't see any migratory birds down in the Yukon Flats Refuge. She also has not seen any bears this summer while on the river. She only caught a few whitefish, and they were small. She stated that she is concerned about the future and the ability for Indigenous peoples to continue their traditional ways of life.

Don Woodruff of Eagle reported that trapping season was very poor because the hare cycle is low and lynx and martin numbers are also down. He was able to set a whitefish net for 10 days during the summer

and only caught enough to feed his family for those 10 days. Mr. Woodruff feels it may be necessary to consider designating Chinook Salmon as a threatened species to ensure greater protection. He noted that first pulse protection really seemed to help during the years it was used as a management tool, and he feels it is critical to re-implement it whenever runs are large enough again to allow some fishing opportunity. He shared that this summer at Eagle Sonar, they were doing lethal sampling of Chinook Salmon for an *Ichthyophonus* study. They were hoping for a sample size of 160 fish, but the Commissioner of Fisheries and Oceans Canada came down and visited the sonar site and asked them to stop sampling due to the dire condition of the run. They ultimately got 50 samples.

Linda Evans of Rampart began her report by saying she would like to reiterate what other members said about the lack of resources that we all use and need along the Yukon River. She further noted a lack of berries, seagulls, bears, and salmon. Her family has not been fishing on Yukon for three years now. She said it is her job to teach her nephews and nieces about cultural traditions so they can carry on Native ways of knowing, but that it is very difficult when there are no resources to do that. Her son had to go fishing in Kenai River to get some salmon. They were able to share a little bit of it with others, which she pointed out is also an important traditional practice. She said things are changing so much and people do not know what to do about it.

Will Koehler of Delta Junction/Horsfeld reported that the two resources he sees drying up the most are sheep and young people who want to live a subsistence life in rural Alaska. He has noticed sheep declines over the past three years with the deep snow last winter particularly impacting survival. Member Koehler stated that the most influential parts of his life have been time spent in the bush and expressed appreciation for those experiences. He tries to hire local youth to work as hunting guides and packers, but unfortunately has not had any success the past several years. This has forced him to hire from out of state. He noted that the Council is always looking for young people to get involved and it is getting harder and harder to find interest. If there is no interest, he warned that there is also not going to be much interest in conserving and bringing back compromised resources. The bright side is that there has never been a better time to be out in the bush: with fewer people out there than ever before, it's quiet and nice out there. He followed up by saying he has seen an increase in non-local hunters targeting sheep.

Sue Entsminger of Mentasta Pass reported that this fall she saw double or triple the number of non-local hunters in areas where she usually does not see many people. She suggested that the increase might be attributed to the rise in readily available access information through apps like onX Hunt. The increase in non-local hunters is causing increased competition in her area of the region. She has seen non-locals using Sherp ATVs, which cost more than a pickup, are amphibious, and can probably carry out six moose. Chair Entsminger believes they should be outlawed in Alaska. The heavy snowfall over the last three years has taken an effect on the animals, in particular wiping out older age classes of sheep. There were not many blueberries this year, but the cranberries were amazing. She noted that there are many bears where she is, which has been good for her guiding business. She stated that locals like when they hunt bears and trap wolves because it helps the local moose population. She reiterated what other Council members said about needing more young people to get involved. She ended by saying the most important

thing is that all user groups need to be working together because she thinks we all have the same concern and that is the animals in Alaska.

Service Awards:

Dr. Kim Jochum, Subsistence Program Analyst with the NPS Regional Office and ISC Member, presented three Council members with Service Awards for their time on the Council: Charlie Wright – 5 years; Charlie Jagow – 5 years; and Andy Bassich – 20 years. Chair Entsminger was also presented a Certification of Appreciation at the meeting because she reached her 20-year service milestone during the Covid-19 pandemic and was previously only recognized via teleconference.

Public and Tribal Comment on Non-Agenda Items:

The Council heard public comments from Dr. Jim Simon, Amanda Pope, Michael Peter, Kathleen Demientieff, Sonya Fields, and Rochelle Adams on Day 1 of the meeting. Public comments were given by Virgil Umphenour, Al Barrette, and Karen Linnell on Day 2 of the meeting.

Old Business:

The Council received presentations on the following topics:

- The Federal Subsistence Board (Board) 805(c) Report summary by Brooke McDavid, Council Coordinator
- Board FY2021 Annual Report Reply summary by Ms. McDavid
 - Vice Chair Wright reiterated the low moose numbers in the Tanana, Rampart, and Notwitna areas as mentioned the Council's 2021 Annual Report. Member Bassich expressed that he would like to see more action taken by the Federal Subsistence Management Program to address the concerns raised by the Council in the Annual Reports, such as funding moose surveys when there are observed population declines.
- Council Correspondence update by Ms. McDavid
 - Member Bassich requested information about what groups are organizing efforts to address Area M interception of Yukon River salmon so that the Council could be informed and support those efforts if appropriate. Serena Fitka from YRDEA provided information about their work on that issue. Jim Simon noted that TCC and Kuskokwim River Intertribal Fish Commission submitted State Board of Fisheries proposals on the issue. Member Bassich also requested information about what government agency can engage with other Bering Sea nations to address impacts that international hatchery fish have on Yukon River salmon in the Bering Sea but no one in attendance had that information.
- Special Actions update for FSA22-01/02/03/04 by Cory Graham, OSM Fisheries Biologist, and for FSA22-05 by Liz Williams, OSM Anthropologist
- Request for Reconsideration update for RFR22-01 by Dr. Brent Vickers, OSM Anthropology Division Supervisor
- Hunter Ethics Education and Outreach Initiative update by Ms. McDavid

- Motion by Member Bassich, seconded by Member Evans, to request the Board and OSM fully support the Hunter Ethics Education program and help the Council to fully develop it within the Eastern Interior region. The motion passed on a unanimous vote.

The Council discussed the importance of fostering good communication and respect between all user groups, especially as populations in the State continue to grow. They consider the Hunter Ethics Education program as a way to reduce conflict. They also spoke to the need to have funding and programmatic support to do outreach about hunting ethics and meat salvage techniques. The Council wants to see the program continue to expand beyond the two current hunter liaison positions.

New Business:

Fisheries Management Reports:

2022 Yukon Salmon Management Update

U.S. Fish and Wildlife Service (USFWS) Yukon River Manager Holly Carroll provided the Council with a review of the 2022 salmon fishing season. There were no salmon fishing opportunities in 2022 due to the lowest Chinook Salmon runs ever recorded. Summer and fall Chum Salmon runs were also too small to fish. Ms. Carroll also told the Council about an *Ichthyophonus* sampling project aimed to help better understand in-river mortality and about how the USFWS is trying to offer more opportunities for Government-to-Government consultations with Tribes.

Member Bassich suggested that the Alaska Department of Fish and Game (ADF&G) and USFWS need to have some internal discussions about changing how salmon are managed and moving toward a more long-term, holistic approach as opposed to season by season.

Bering Sea Salmon Research Update

Sabrina Garcia from the ADF&G Salmon Ocean Ecology Program presented an update on Bering Sea salmon research including juvenile salmon abundance estimates and factors impacting marine survival. She stated the most important takeaway from the research is that whatever is causing good or bad future run sizes of Yukon River Chinook Salmon is occurring very early in their life stage, either during the year they spend in the fresh water, their first few months in the ocean, or a combination of those two life stages. She also told the Council that she is working on a habitat model for Chinook Salmon in the Bering Sea as part of her PhD dissertation.

2022 Copper River Fisheries Report

Dave Sarafin, the Fisheries Management Biologist at Wrangell-St. Elias National Park and Preserve, presented a Copper River fisheries update to the Council. He shared that the Copper River salmon run began weak, but then increased in strength as season progressed. Harvest opportunities continued throughout the season and were on track to meet escapement goals. He shared preliminary data about harvest and participation in the new lower Copper River subsistence fishery.

Fisheries Proposals and Closure Reviews:

Regional:

FP23-02 Revise customary and traditional use determination for Yukon River salmon

Motion by Member Bassich, seconded by Vice-Chair Wright, to support fisheries proposal FP23-02 as written.

The Council **supported FP23-02**. The Council noted that these communities have a longstanding customary and traditional practice of utilizing salmon for subsistence. Adoption of this proposal would benefit the subsistence users in these communities and would allow regulations to be applied more fairly across all user groups.

The motion passed on a unanimous vote.

FCR23-05 Review closure to subsistence harvest of all fish in the Delta River

Motion by Member Bassich, seconded by Member Evans, to defer fisheries closure review FCR23-05 due to the need for more public input and information.

The Council **supported deferring FCR23-05**. The Council stated they need to hear from more local residents that will be affected by rescinding this closure before making a decision, including from the Delta Advisory Committee who had not yet discussed the closure review at the time of the Council meeting. Although the Council supported the notion of increasing subsistence opportunity, they expressed conservation concerns due to a lack of harvest monitoring and potential for overharvest if the closure were lifted with no regulations in place to limit harvest. Because of these conservation concerns, the Council suggested deferring this closure review until such a time that it would align with the fisheries regulatory cycle and a concurrent proposal could be submitted to put harvest restrictions in place. This would also give time for more local residents to weigh in on the issue.

The motion passed on a unanimous vote.

Crossover:

FP23-01 Rescind Jim River nonsalmon closure, institute Arctic Grayling harvest limit

Motion by Member Bassich, seconded by Chair Entsminger, to support FP23-01 to allow harvest of nonsalmon fish in the Jim River drainage by rod and reel with an Arctic grayling harvest and possession limit of 10 per day.

The Council **supported FP23-01**. The Council noted there is no conservation concern related to the lifting the closure and adopting the proposed regulation that will benefit subsistence needs of people in the area by creating additional harvest opportunity for nonsalmon species. Additionally, they noted that the closure to nonsalmon harvest in the Jim River was a carryover from State regulations when the Federal regulations first came into place.

The motion passed on a unanimous vote.

FCR23-02 Review closure to subsistence harvest of all fish in the Kanuti River

Motion by Member Bassich, seconded by Member Jagow, to modify the Kanuti River closure (FCR25-02) by rescinding the closure to nonsalmon species only.

The Council voted to **rescind the closure to nonsalmon species only**. The Council was concerned about Yukon River salmon stocks and additional harvest on those stocks but wanted to support nonsalmon subsistence harvest opportunity for local residents since there are no conservation concerns for nonsalmon species in the Kanuti River.

The motion passed on a unanimous vote.

FCR23-03 Review closure to subsistence harvest of all fish in Bonanza Creek

Motion by Member Bassich, seconded by Member Jagow, to modify the Bonanza Creek closure (FCR25-02) by rescinding the closure to nonsalmon species only.

The Council voted to **rescind the closure to nonsalmon species only**. The Council was concerned about Yukon River salmon stocks and additional harvest on those stocks but wanted to support nonsalmon subsistence harvest opportunity for local residents since there are no conservation concerns for nonsalmon species in the Bonanza Creek.

The motion passed on a unanimous vote.

FP23-14 Revise customary and traditional use determination for Chitina Subdistrict salmon

The Council **took no action** on this proposal, noting that they were not familiar enough with the specific area involved to deliberate on it.

FP23-15/16 Revise customary and traditional use determination for Chitina Subdistrict salmon

Motion by Member Bassich, seconded by Member Jagow, to support Proposal FP23-15/16 with modification to extend the area under consideration for customary and traditional use determination further along the Alaska Highway to include the community of Dry Creek.

The Council considered the proposal, with modification, to include the community of Dry Creek, which was suggested for inclusion via public comment. The Council **opposed FP23-15/16 as modified**, noting that they were not in favor of recognizing the customary and traditional use of new communities/areas that have not demonstrated the same long-term, traditional subsistence harvest patterns shown those with recognized customary and traditional use determinations. The Council discussed the possibility of increased harvest pressure on the resource if the customary and traditional use determination were expanded. The Council noted that area residents who live in communities or areas without a customary and traditional use determination for salmon in the Chitina Subdistrict have harvest opportunities there under State regulations.

The motion failed with 2 votes in favor and 5 against.

Other

FP23-19 Lower Copper River

The Council decided not to provide a comment to the Board on FP23-19, noting that not enough time had passed since the new subsistence fishery was started to properly evaluate its effects and that the home region would be best suited to review it.

2024 Fisheries Resource Monitoring Program (FRMP):

Liz Williams, OSM Anthropologist, provided information to the Council about the upcoming 2024 FRMP funding opportunity. She reviewed the draft list of Yukon Region Priority Information Needs with the Council.

Motion made by Member Bassich, seconded by Vice Chair Wright, to support the PINs outlined in the 2024 Fisheries Resource Monitoring Program presentation. The Council thought that all the areas of research listed would produce information beneficial to management.

Partners for Fisheries Monitoring Program

Ms. Williams provided information to the Council about the upcoming funding opportunity for the Partners for Fisheries Monitoring Program.

Harvest of Wildlife for Sport Purposes in National Preserves

Maija Lukin, Alaska Native and Tribal Affairs Program Manager for the Alaska Region, National Park Service, and Andee Sears, Regional Chief Ranger, presented to the Council about a proposed rule regarding the Harvest of Wildlife for Sport Purposes in National Preserves. The proposed rule had not yet been published in the Federal Register for official comment, but they requested feedback from the Council on various issues, such as whether non-Federally qualified users should be allowed to bait bears in National Preserves.

Member Bassich noted the importance of making sure that rural residents are allowed to continue harvest practices that existed long before the National Park Service had a presence in the State. He voiced concern for increasing human population in the State and the increasing harvest pressure as a result. Additionally, he noted that more liberalized methods and means could attract more people to hunt in rural areas and result in overharvest and reduced resources for Federally qualified subsistence users.

Chair Entsminger voiced concern about the public comment period not aligning with Council meeting dates; therefore, not giving the Councils a chance to provide an official comment on the rule. She also noted that she baits bears and does not see the potential for increased conflict if it is allowed. She

expressed comments from rural Alaskans should be weighted more heavily than comments received in mass via form letters.

Member Potts-Joseph requested that in the future that presenters provide written handouts so that Council members not familiar with such issues have reference materials.

Joint meeting: North American Caribou Workshop and Arctic Ungulate Conference in May 2023

Tom Plank, OSM Wildlife Biologist, presented to the Council about the North American Caribou Workshop and Arctic Ungulate Conference to be held in May 2023 in Anchorage. Mr. Plank requested that the Council provide input into topics and issues that should be discussed during a facilitated discussion about State and Federal ungulate management. Topics suggested included 1) traditional indigenous management practices like letting the lead caribou pass, 2) whether nutritional stress leads to crashes or encourages caribou to expand into peripheral or new territories, 3) hunter ethics issues and poor meat salvage techniques in road accessible caribou hunts, 4) food security, 5) climate impacts on caribou migration and health. Member Potts-Joseph also recommended that the conference planning committee needs to include subsistence users and Indigenous folks. Several Council members suggested that the Conference have a virtual attendance option.

Mr. Plank notified the Council that OSM would pay for one Council member to attend the conference and asked the Council to choose a member to represent them. Member Woodruff volunteered and Mr. Bassich volunteered as an alternate.

Motion by Member Bassich, seconded by Member Jagow, to send Donald Woodruff as a delegate to the North American Caribou Workshop and Arctic Ungulate Conference, with Andy Bassich as an alternate.

The motion passed on a unanimous vote.

Council Member reimbursement for telephonic/internet expenses related to Council teleconference meetings

Ms. McDavid notified Council members that they are able to be reimbursed for telephone and internet expenses for Council meetings attended via teleconference that are in excess of their normal plan charges. Receipts or bills showing excess charges can be submitted to OSM for reimbursement.

Identify Issues for FY2022 Annual Report

- Sheep population declines
- Management of Fortymile Caribou Herd
- Need for updated moose counts along Yukon River corridor
- Continued salmon declines and record low return of Chinook Salmon

- Food insecurity
- Need for hunter ethics education requirement
- Incorporating local and traditional knowledge into management/Co-management
- Climate change impacts
- Experiential subsistence education and culture camps for children and youth

Fall 2022 Council application/nomination open season:

Ms. McDavid notified the Council that the Board is currently accepting applications and nominations to serve on Subsistence Regional Advisory Councils with a deadline of February 21, 2023.

The Council discussed the desire to have a youth seat on the Council to help younger people interested in resource management and hunting and fishing gain experience and better prepare them to get involved in the regulatory process.

Motion by Member Bassich, seconded by Member Potts-Joseph, to write a letter to the Board to ask if there is the ability to incorporate an honorary youth seat on the Council.

The motion passed on a unanimous vote.

Emergency Wildlife Special Action WSA22-03 Summary

Mr. Plank notified the Council that the Board received an emergency special action request. WSA22-03 was submitted by Shawn Bayless, the Refuge Manager at Tetlin National Wildlife Refuge, on behalf of the Northway Village Council and Northway Maintenance Corporation and requested that the 2022 moose season in the Federal hunt, FM1203, areas of Unit 12 be extended to September 30th. The Board adopted WSA22-03 with the modification to extend the season until October 10th.

State of Alaska Board of Fisheries proposals:

Proposal 140

Motion by Member Bassich, seconded by Member Woodruff, to support Board of Fisheries Proposal 140, which seeks to amend the South Unimak and Shumagin Islands June Salmon Management Plan to reduce commercial salmon fishing time.

The Council supports this proposal because there is a major conservation concern for Yukon River salmon that are intercepted caught in this fishery. As shown by previous genetic sampling projects, this fishery can intercept half of the summer Chum Salmon bound for Western Alaska and the Yukon River. Interception of Yukon River salmon severely impacts the ability of people to meet subsistence needs on the Yukon River and other Western Alaska drainages. Summer Chum Salmon are a primary food source for Yukon River residents, especially for residents of the lower and middle Yukon River. The Yukon has been closed to subsistence fishing for several years, while commercial fishers have been allowed to

harvest the same stock of concern. This does not adhere to the subsistence priority. Management needs to occur across the entire salmon ecosystem and should not ignore what happens in this fishery and its negative impacts on subsistence users in other regions.

The motion passed on a unanimous vote.

Proposal 165

Motion by Member Bassich, seconded by Member Woodruff, to support Board of Fisheries Proposal 165, which seeks to prohibit compensation for guide services in subsistence fisheries.

The Council supports this proposal because using commercial guide services is contrary to what it means to practice subsistence. Subsistence by definition is noncommercial and the Council does not feel guides should profit from it.

The motion passed on a unanimous vote.

Proposal 80

Motion by Member Potts-Joseph, seconded by Member Bassich, to support Board of Fisheries Proposal 80, which seeks to restrict subsistence king salmon harvest in the middle and upper Yukon River.

The Council does not support this proposal and feels that its intentions are divisive, aiming to pit lower river and upper river users against each other. Further, it seeks to place a priority on commercial fishing in the lower river, while restricting subsistence fishing in the upper river. This goes against a subsistence priority. There is no evidence to support the proponent's claims that up to 100,000 Chinook Salmon are being illegally harvested by upper river fishers. The Council feels it is important for all users to work together to conserve salmon and to equally share the burden of doing so.

The motion failed on a unanimous vote.

Council Representation at Upcoming Board of Fisheries Meetings

Motion by Member Bassich, seconded by Member Woodruff, to send a member of the Council to testify at each of the Board of Fisheries meetings where the three proposals the Council made recommendations on will be taken up.

The motion passed on a unanimous vote.

Reports:

- *Yukon River Drainage Fisheries Association Update* by Serena Fitka, Executive Director, and Catherine Moncrieff, Anthropologist
- *Ahtna Intertribal Resource Commission Update* by Karen Linnell, Executive Director
- *Tetlin National Wildlife Refuge Update* by Shawn Bayless, Refuge Manager, and Brent Jamison, Wildlife Biologist
- *Denali National Park and Preserve Update* by Amy Craver, Subsistence Coordinator, and Pat Owen, Wildlife Biologist
- Motion by Member Bassich, seconded by Member Woodruff, to reappoint Vice Chair Charlie Wright to represent the Council on the Denali Subsistence Resource Commission.

The motion passed with unanimous consent.

- *Wrangell-St. Elias National Park and Preserve Update* by Dr. Barbara Cellarius, Anthropologist, and Matt Cameron, Wildlife Biologist
- *Yukon-Charley Rivers National Preserve Update* by Mark Dowdle, Superintendent, Matt Cameron, Wildlife Biologist, Matt Sorum, Wildlife Biologist, and Marcy Okada, Subsistence Coordinator
- *BLM Eastern Interior Field Office Update* by Jim Herriges, Wildlife Biologist
- *ADF&G Division of Wildlife Conservation Update on Nelchina Caribou and Wood Bison* by Todd Rinaldi, Region IV Management Coordinator, and Tom Seaton, Wood Bison Restoration Project Biologist
- *Office of Subsistence Management Update* by Dr. Brent Vickers, Anthropology Division Supervisor

Future Meeting Dates:

The Council confirmed their winter 2023 meeting dates as March 1-2, 2023, in Arctic Village.

The Council confirmed their fall 2023 meeting dates as October 4-5, 2023, in Tok.

Brooke McDavid, Designated Federal Officer
USFWS Office of Subsistence Management

Susan Entsminger, Chair
Eastern Interior Alaska Subsistence Regional Advisory Council

These minutes will be formally considered by the Eastern Interior Alaska Subsistence Regional Advisory Council at its Winter 2023 meeting in Arctic Village, and any corrections or notations will be incorporated in the minutes at that meeting.

For a more detailed report of this meeting, copies of the transcript and meeting handouts are available upon request. Call Brooke McDavid, Council Coordinator, at 1-800-478-1456 or 907-891-9181, or email brooke_mcdavid@fws.gov.

DRAFT

2023 NORTH AMERICAN CARIBOU WORKSHOP & ARCTIC UNGULATE CONFERENCE

Anchorage, Alaska ■ May 8-12, 2023

Come to the conference to share your knowledge and learn from others! Join an international group of managers, biologists, Indigenous and Local Knowledge holders, and others to share knowledge of caribou, muskoxen, Dall's sheep, moose, and reindeer. The meeting will provide opportunities for exchanging viewpoints, concerns, and recommendations regarding the health, stewardship, use, and study of these important species.

The theme for the joint meeting is *Crossing Boundaries*. Arctic ungulates regularly cross landscape boundaries, connecting ecosystems and peoples, necessitating partnerships and collaboration across management and political boundaries. A critical component of such partnerships involves crossing the boundaries of Western science and Indigenous knowledges to identify creative opportunities to sustain Arctic ungulate populations in a changing world. We will explore these themes across four days of research talks, storytelling, workshops and panel discussions. Join us!

For more information visit www.nacw-auc-2023.org or e-mail info@nacw-auc-2023.org.





Feedback from Regional Advisory Councils on the State and Federal Ungulate Management in Alaska Symposium

At the North American Caribou Workshop and
Arctic Ungulate Conference www.nacw-auc-2023.org

Description: This session is intended as a neutral forum for Federal Regional Advisory Council (Council) members, State Fish and Game Advisory Committee members, Federal and State agency staff, and any other interested parties to discuss ungulate management in Alaska, specifically regarding harvest regulations. The format will be facilitated discussion where participation by all attendees is encouraged. Specific topics will be determined after the Councils provide input during their fall 2022 and winter 2023 meetings.

Potential Topics

1. The effectiveness and impact of antler restrictions in moose harvest management (i.e. do spike-fork and brow-tine restrictions actually provide more subsistence harvest opportunity or is it just an easy way to manage moose populations).
2. How to manage young growth forests for moose
3. Regulations that conflict with each other and across user groups (e.g. State community hunts)
4. How biological data is collected (e.g. population surveys)
5. Habitat changes (natural, manmade, and from climate change) and their effects on ungulates
6. Predator Control
7. Identification, viability, and utilization of resident caribou herds (vs. migratory)
8. Effects of climate change, disease and overgrazing on ungulate populations
9. Summer vs. winter diet of caribou (e.g. protein intake)
10. Bull caribou harvest during the rut
11. Effects of hunting pressure on caribou movements and migration routes
12. Effects of roads/development on caribou distribution and movements
13. Population thresholds for caribou herd recovery
14. Wanton waste of meat
15. The importance of funding wildlife surveys and receiving timely reports
16. Muskox harvest management
17. Honoring and incorporating Traditional Ecological Knowledge into harvest management (i.e. letting the leaders pass and ensuring uninterrupted caribou migrations)
18. Harvest management strategies when caribou populations are too high (e.g. showing signs of nutritional stress).
19. Unsafe and disrespectful hunting practices; need for better hunter education
20. Food security
21. Climate change impacts on ungulates, particularly caribou migration routes
22. Caribou distribution patterns in relation to village harvest needs; and exploring new ways to address the needs of villages (e.g. village quota systems)
23. Sport hunter disturbance to caribou and law enforcement
24. Harvest reporting: how to improve



FISH and WILDLIFE SERVICE
BUREAU of LAND MANAGEMENT
NATIONAL PARK SERVICE
BUREAU of INDIAN AFFAIRS

In Reply Refer To
OSM 22112.RL

Federal Subsistence Board

1011 East Tudor Road, MS 121
Anchorage, Alaska 99503 - 6199



FOREST SERVICE

DEC 14 2022

Honorable Deb Haaland
Secretary of the Interior
U.S. Department of the Interior
Office of the Secretary
1849 C Street, Northwest
Washington, DC 20240

Dear Secretary Haaland:

The Federal Subsistence Board (Board) is writing to inform you of concerns raised by the Eastern Interior Alaska Subsistence Regional Advisory Council and Bristol Bay Subsistence Regional Advisory Council (Councils).

Pursuant to Section 805 of the Alaska National Interest Lands Conservation Act (ANILCA), the Councils are empowered to provide a public forum for the expression of opinions and recommendations about management of subsistence fish and wildlife resources in their regions and to provide recommendations concerning policies, standards, guidelines, and regulations affecting this management. During public meetings held in February and March of 2022, the Councils discussed concerns regarding H.R.4716 Refuge from Cruel Trapping Act of 2021. The Councils object to this bill because, from their perspective, it is in direct violation of ANILCA as it does not provide an exception for subsistence uses. Further, they stated H.R.4716 will disrupt the traditional subsistence practices and livelihoods of rural Alaskan and Alaska Native residents, as well as eliminate an important management tool on public lands.

The Councils want to ensure that their concerns and opposition to this bill are clearly heard by decision makers and have requested the Board transmit their letters to you. In addition, the Eastern Interior Council requested the Board elevate their concerns to the Alaska Congressional Delegation and the U.S. House of Representatives Natural Resources Committee. The Bristol Bay Council requested their concerns be shared with the Alaska Congressional Delegation, the Governor of Alaska, and the Bristol Bay Region State legislative representatives. The Board requests you forward the Council letters to these elected officials.

Enclosed you will find a letter from each Council detailing their concerns and opposition.

Sincerely,



Anthony Christensen
Chairman Federal Subsistence Board

Enclosures

cc: Federal Subsistence Board
Interagency Staff Committee
Office of Subsistence Management
Nanci Morris Lyon, Chair, Bristol Bay Regional Advisory Council
Susan L. Entsminger, Chair, Eastern Interior Regional Advisory Council
Martha Williams, Director, US Fish and Wildlife Service
Administrative Record

Eastern Interior Alaska Subsistence Regional Advisory Council

c/o Office of Subsistence Management
1011 East Tudor Road, MS 121
Anchorage, Alaska 99503-6199
Phone: (907) 786-3888, Fax: (907) 786-3898
Toll-Free: 1-800-478-1456

In Reply Refer To:
RAC/EI.22132.BM

DEC 28 2022

Art Nelson, Executive Director
Board of Fisheries
Alaska Department of Fish and Game
Boards Support Section
P.O. Box 115526
Juneau, AK 99811-5526

Dear Mr. Nelson,

I am writing to you on behalf of the Eastern Interior Alaska Subsistence Regional Advisory Council (Council) to provide the Council's comments on three Board of Fisheries proposals that will be discussed at upcoming 2023 meetings.

The Council represents subsistence harvesters of fish and wildlife resources on Federal public lands and waters in Eastern Interior Alaska Region. It was established by the authority in Title VIII of the Alaska National Interest Lands Conservation Act (ANILCA) and is chartered under the Federal Advisory Committee Act. Section 805 of ANILCA and the Council's charter establishes the Council's authority to initiate, review and evaluate proposals for regulations, policies, management plans, and other matters related to subsistence uses of fish and wildlife within the region. The Council also reviews resource management actions occurring outside their regions that may impact subsistence resources critical to communities served by the Council. The Council provides a forum for the expression of opinions and recommendations regarding any matter related to the subsistence uses of fish and wildlife within the region.

The Council held a public meeting on October 5-6, 2022, in Fairbanks. Among the items discussed were various proposed changes to the State of Alaska fishing regulations. The proposals that the Council discussed and our positions on those proposal are listed below by regional meeting.

Arctic / Yukon / Kuskokwim Finfish

Proposal 80 - Restrict subsistence king salmon harvest in the middle and upper Yukon River.

The Council voted to **unanimously oppose Proposal 80**. The Council does not support this proposal and feels that its intentions are divisive, aiming to pit lower river and upper river users against each other. Further, it seeks to place a priority on commercial fishing in the

lower river, while restricting subsistence fishing in the upper river. This goes against a subsistence priority. There is no evidence to support the proponent's claims that up to 100,000 Chinook Salmon are being illegally harvested by upper river fishers. The Council feels it is important for all users to work together to conserve salmon and to equally share the burden of doing so.

Alaska Peninsula / Aleutian Island / Chignik Finfish

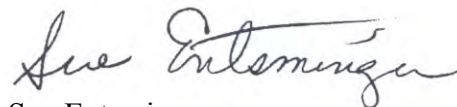
Proposal 140 - Amend the South Unimak and Shumagin Islands June Salmon Management Plan to reduce commercial salmon fishing time. The Council voted to **unanimously support Proposal 140**. The Council supports this proposal because there is a major conservation concern for Yukon River salmon that are intercepted caught in this fishery. As shown by previous genetic sampling projects, this fishery can intercept half of the Summer Chum Salmon bound for Western Alaska and the Yukon River. Interception of Yukon River salmon severely impacts the ability of people to meet subsistence needs on the Yukon River and other Western Alaska drainages. Summer Chum Salmon is a primary food source for Yukon River residents, especially for residents of the lower and middle Yukon River. The Yukon region has been closed to subsistence fishing for several years, while commercial fishers have been allowed to harvest the same stock of concern. This does not adhere to the subsistence priority nor sustainable management practices. Management needs to occur across the entire salmon ecosystem and should not ignore what happens in this fishery and its negative impacts on subsistence users in other regions.

Statewide Finfish and Supplemental Issues

Proposal 165 - Prohibit compensation for guide services in subsistence fisheries. The Council voted to **unanimously support Proposal 165**. The Council supports this proposal because using commercial guide services is contrary to what it means to practice subsistence. Subsistence by definition is noncommercial, and the Council does not feel guides should profit from it.

The Council thanks you for the opportunity to comment on these proposals. If you have any questions or would like to follow up, please contact me through our Subsistence Council Coordinator Brooke McDavid at (907) 891-9181 or brooke_mcdavid@fws.gov.

Sincerely,



Sue Entsminger
Chair Regional Advisory Council
Eastern Interior Region

cc: Federal Subsistence Board
Eastern Interior Alaska Subsistence Regional Advisory Council Members

Copies of Correspondence

Office of Subsistence Management

Interagency Staff Committee

Benjamin Mulligan, Deputy Commissioner, Alaska Department of Fish and Game

Mark Burch, Special Projects Coordinator, Alaska Department of Fish and Game

Administrative Record

Eastern Interior Alaska Subsistence Regional Advisory Council

c/o Office of Subsistence Management
1011 East Tudor Road, MS 121
Anchorage, Alaska 99503-6199
Phone: (907) 786-3888, Fax: (907) 786-3898
Toll-Free: 1-800-478-1456

In Reply Refer To:
RAC/EI22131.BM

JAN 10 2023

Anthony Christianson, Chair
Federal Subsistence Board
1011 East Tudor Road, MS 121
Anchorage, Alaska 99503-6199

Dear Chair Christianson,

The Eastern Interior Alaska Subsistence Regional Advisory Council (Council) kindly requests the Federal Subsistence Board (Board) establish an honorary Young Adult Developmental Seat on our Council.

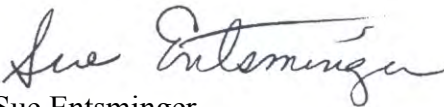
The Council held a public meeting on October 5-6, 2022, during which we discussed the need to help teach young people about the Federal Subsistence Management Program and how Subsistence Regional Advisory Councils operate. Council members tend to be older, in part due to the appointment process that favors applicants with years of experience and leadership. This can be a barrier for younger individuals to serve on the Council. We feel it is extremely important to actively encourage the next generation of leaders to become involved, especially considering all of the issues climate change is going to bring in their future. The regulatory process is complicated, and it can take a long time for new Council members to master the basics of their positions and learn how the regulatory process operates. Establishing an honorary Young Adult Developmental Seat would give valuable hands-on experience to interested youth that would better prepare them to serve as appointed Council members in the future. This great outreach tool will help encourage younger and more diverse candidates to apply to the Council. If successful, it could be expanded in other regions.

The honorary young adult member will attend our meetings, become familiar with Roberts' Rules of Order, participate in discussions about subsistence issues, and learn how to develop proposals and recommendations to the Board. Ideally, applicants or nominees for the youth member position would be 18-25 years of age, permanent residents in the Eastern Interior Alaska region, and actively participate in subsistence activities or be studying a resource management related field in school. The call for applicants for the Young Adult Developmental seat can be issued together with the regular call for applications for vacant and expiring Council seats. Applicants can be interviewed using the typical Interagency Nomination Panel process with the Interagency Staff Committee making a recommendation to the Board. The selectee for this seat

would be a non-voting member but would be encouraged to share their position with the Council on matters we deliberate. Establishment of a Young Adult Developmental Seat on our Council would require a modest amount of additional funding to cover travel to Council meetings and trainings.

The Council kindly asks you to please discuss this request, and we thank you in advance for your consideration. If you have any questions or would like to follow up, please contact me through our Council Coordinator, Brooke McDavid, at (907) 891-9181 or brooke_mcdavid@fws.gov.

Sincerely,



Sue Entsminger
Chair, Regional Advisory Council
Eastern Interior Region

cc: Federal Subsistence Board
Office of Subsistence Management
Eastern Interior Alaska Subsistence Regional Advisory Council Members
Interagency Staff Committee
Administrative Record

Eastern Interior Alaska Subsistence Regional Advisory Council

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Toll-Free: 1-800-478-1456

In Reply Refer To:
RAC/EI22127.BM

DEC 28 2022

Anthony Christianson, Chair
Federal Subsistence Board
1011 East Tudor Road, MS 121
Anchorage, Alaska 99503-6199

Dear Chair Christianson,

The Eastern Interior Alaska Subsistence Regional Advisory Council (Council) writes to you to kindly request that the Federal Subsistence Board (Board) reaffirm their support for the Hunter Ethics Education and Outreach initiative that our Council spearheaded and was actively working on prior to the COVID-19 pandemic.

The Council held a public meeting on October 5-6, 2022, during which we discussed the desire to resume work on this initiative. Our Council first brought our request for a hunter ethics education program to the Board in our 2010 Annual Report. Since that time, hunter ethics education has been a major priority of our Council because we believe it will help reduce conflict among user groups in our region, create greater respect for the resources upon which we depend for subsistence, and potentially serve as an example of fostering respect and promoting cross-cultural understanding in other subsistence regions across Alaska. Our Council envisioned an initiative that would strive to:

1. create partnerships and collaboration between Federal agencies, State of Alaska, Tribal organizations, hunter organizations, military bases, as well as guide and transport services;
2. be inclusive and move forward in a positive way; and
3. create a dialog between subsistence and commercial/sport users.

In 2016, the Board gave its full support for a hunter ethics education initiative, and in 2017, approved an action plan developed by the Office of Subsistence Management (OSM) in cooperation with our Council and a number of stakeholder groups. Together, OSM and stakeholders developed overall goals for the Hunter Ethics Education and Outreach Initiative:

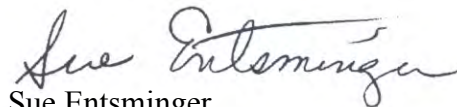
1. work towards better hunter ethics and respect in the field among all user groups,
2. reduce conflict between user groups through education and outreach, and
3. strive towards understanding and tolerance for different cultural hunting values.

In 2017 and 2018, OSM organized workshops that attracted participation of representatives from over 40 different groups and organizations. Through these workshops, participants developed concepts for a few pilot projects that included Local Community Hunter Liaisons to engage with hunters in the field and an outreach campaign called “Hunt Like an Alaskan” aimed to initially engage military personnel new to Alaska at bases in the Eastern Interior region (Fort Wainwright Army Base and Eielson Air Force Base). Smaller working committees formed to move various pilot projects forward. Unfortunately, changes in OSM staffing and then the COVID-19 pandemic, slowed much of the progress being made on this initiative.

The Council now seeks the Board’s support to continue this initiative that received so much public interest and is of critical importance as increasingly diverse user groups continue to vie for scarce resources. We also enquire if any of the Federal agencies represented on the Board would be able to provide modest funding (see attached estimate) to resume the work associated with the “Hunt Like an Alaskan” pilot projects. Finally, we would like to offer our appreciation to the U.S. Fish and Wildlife Service and National Park Service who have continued to support seasonal Local Community Hunter Liaison positions in the Arctic and Yukon Flats National Wildlife Refuges, which was one of the pilot projects developed through this hunter ethics initiative.

The Council thanks you in advance for considering our request to resume this important initiative. We look forward to continuing discussions about the hunter ethics education and outreach and how the program may be further expanded. If you have any questions or would like to follow up, please contact me through our Council Coordinator, Brooke McDavid, at (907) 891-9181 or brooke_mcdavid@fws.gov.

Sincerely,



Sue Entsminger
Chair Regional Advisory Council
Eastern Interior Region

Enclosure

cc: Federal Subsistence Board
Eastern Interior Alaska Subsistence Regional Advisory Council Members
Office of Subsistence Management
Interagency Staff Committee
Administrative Record

**Estimates for Funds
Needed to Resume Hunter Ethics Education and Outreach Initiative**

Goals:

1. Refine the pilot project “Hunt Like an Alaskan” hunter ethics outreach strategy
2. Develop and distribute printed and video outreach products
3. Hold outreach events on Wainwright and Eielson bases
4. Critique and explore expansion of Local Hunter Liaison project in other areas of the region

Expense category	Total cost	Notes
Finalize and print 2018 workshop report	\$3000	The report captures thoughts and ideas provided by the 40+ workshop participants, but requires significant editing
Workshop to re-commit interested stakeholders and refine “Hunt Like An Alaskan” strategy and messaging	\$12,000	Includes travel and facilitation; workshop goal to review and refine “Hunt Like An Alaskan” strategy and messaging, determine needed outreach products, and define roles
Outreach product design	\$5,000	Includes contractor fees
Outreach product printing	\$5,000	Brochures, posters
Video outreach products	\$5,000	Videographer, editing
Outreach travel costs	\$5,000	For staff and rural residents to attend in-person outreach events at Fort Wainwright and Eielson bases
Workshop to review and explore expansion of Local Hunter Liaison project	\$12,000	Review success of current Hunter Liaison pilot project positions and explore opportunities to expand into other areas of the EI region such as the Taylor and Elliot highways, Arctic Village
	\$48,000.00	

2022 Hunting Liaison Report

(August 20th, 2022, to September 20th, 2022)



(Picture courtesy of Sonya Fields)

A program provided under the
Council of Athabascan Tribal Government (CATG) &
Yukon Flats National Wildlife Refuge Annual Funding Agreement
&
The Eastern Interior Subsistence Management Board

Submitted by Sonya Fields at Circle Alaska

Report Through: Bruce Thomas, CATG Natural Resources Director

My name is Sonya Fields and I currently reside in Circle Alaska. I have two daughters, a son in-law and three grandchildren whom I spend most of my time learning and sharing the subsistence way of life. I have noticed that this year there were not as much hunters as last year, due to gas prices or Covid-19. I am employed as a Community Hunter Liaison for the Council of Athabascan Tribal Government (CATG), Yukon Flats National Wildlife Refuge, and The Eastern Interior Subsistence Management Board.

I enjoyed the interaction of interviewing hunters from all over Alaska and the Lower 48. I distributed pamphlets to show the privately owned land around Circle that is regional corporation lands such as Doyon, Dazhit Hanlaih' (Circle) Corporation, Native allotments, and Private lands that are all closed to hunting.

This was my first time in this position as a community hunter liaison for CATG. I learned about State and Federal Subsistence regulations that I have been sharing with hunters. I was raised to respect our culture and traditional ways of hunting and gathering of our native food and berries etc. There is no wanton waste of meat left behind when I was growing up. I made sure to inform them that the meat or any meat taken from the field was to be donated to any program in the nearest Yukon Flats village if they were sport hunters or could not take all the meat home.

I interviewed thirty-eight people total; they reported only seeing cows. Most hunters who flew in airplanes or traveled by boats went to the units 25C, 25B, and 20E. All hunters mentioned the weather was too warm of weather for moose hunting.

Below are the Numbers of Hunters from each group

Total # of Instate Hunters

- 27 Instate hunters including locals
- 5 locals declined to be interviewed but did hunt

Total # of Out of State Hunters

- 11 Non-resident hunters
- Zero declined to answer questions

South of Circle & Upriver from Circle are units: 25C, 25B, 20E.

Total # of People who hunted this area: **11 people went to this area**

Harvested animals from these units in this area: **2 moose and 2 caribou**

North of Circle & Downriver from Circle are units: 25D, 25B, 25A

Total number of people who hunted these areas: **27 people went to this area**

Harvested animals from these units in this area: 1 moose

Southeast along the Steese Highway are units: 25C and 20B

Did not interview any due to no hunters along the highway

Thank You for this opportunity to work with you all and I would love to do it again next Season.

FEDERAL WILDLIFE CLOSURE REVIEW

WCR24-21

Issue: Wildlife Closure Review WCR24-21 reviews the closure to sheep hunting in the Arctic Village Sheep Management Area (AVSMA) in Unit 25A, except by rural Alaska residents of Arctic Village, Venetie, Fort Yukon, Kaktovik, and Chalkyitsik.

Closure Location and Species: Unit 25A, Arctic Village Sheep Management Area—Sheep (**Figure 1**)

Current Federal Regulation

Unit 25A—Sheep

Unit 25A, Arctic Village Sheep Management Area – 2 rams by Federal registration permit only. Aug. 10–Apr. 30

Federal public lands are closed to the taking of sheep except by rural Alaska residents of Arctic Village, Venetie, Fort Yukon, Kaktovik, and Chalkyitsik hunting under these regulations.

Closure Dates: Year-round

Current State Regulation

Unit 25A—Sheep

Residents: Unit 25A, Eastern Brooks Range Management Area –1 ram with full-curl horn or larger, by youth hunt only. HT Aug. 1–5

OR

Residents: Unit 25A, Eastern Brooks Range Management Area –1 ram with $\frac{3}{4}$ curl horn or less every four regulatory years by permit available online at <http://hunt.alaska.gov> or in person in Fairbanks and Kaktovik beginning Sept. 8. RS595 Oct. 1–Apr. 30

The use of aircraft for access to hunt and to transport harvested sheep is prohibited in this hunt area except into and out of the Arctic Village and Kaktovik airports. No motorized access from Dalton Highway.

Regulatory Year Initiated:

1991: AVSMA established by Board, closed to non-federally qualified subsistence users. AVSMA does not initially include Cane and Red Sheep Creek drainages.

1995: AVSMA expanded to include Cane and Red Sheep Creek drainages, closed to non-federally qualified subsistence users.

2007: AVSMA closure partially rescinded, Cane and Red Sheep Creek drainages open to harvest by non-federally qualified subsistence users Aug. 10-Sept. 20.

2012: Closure of Cane and Red Sheep Creek drainages to non-federally qualified subsistence users reestablished.

Extent of Federal Public Lands

Federal public lands comprise approximately 99% of the Arctic Village Sheep Management Area in Unit 25A and consist 100% of U.S. Fish and Wildlife Service (USFWS) managed lands that are within the Arctic National Wildlife Refuge (**Figure 1**).

Customary and Traditional Use Determination

Rural residents of Arctic Village, Chalkyitsik, Fort Yukon, Kaktovik, and Venetie have a customary and traditional use determination for sheep in Unit 25A.

Regulatory History

Regulatory history for Closure Review WCR24-21 is extensive and is described in **Appendix 1**.

Closure last reviewed: 2020 – WP20-49

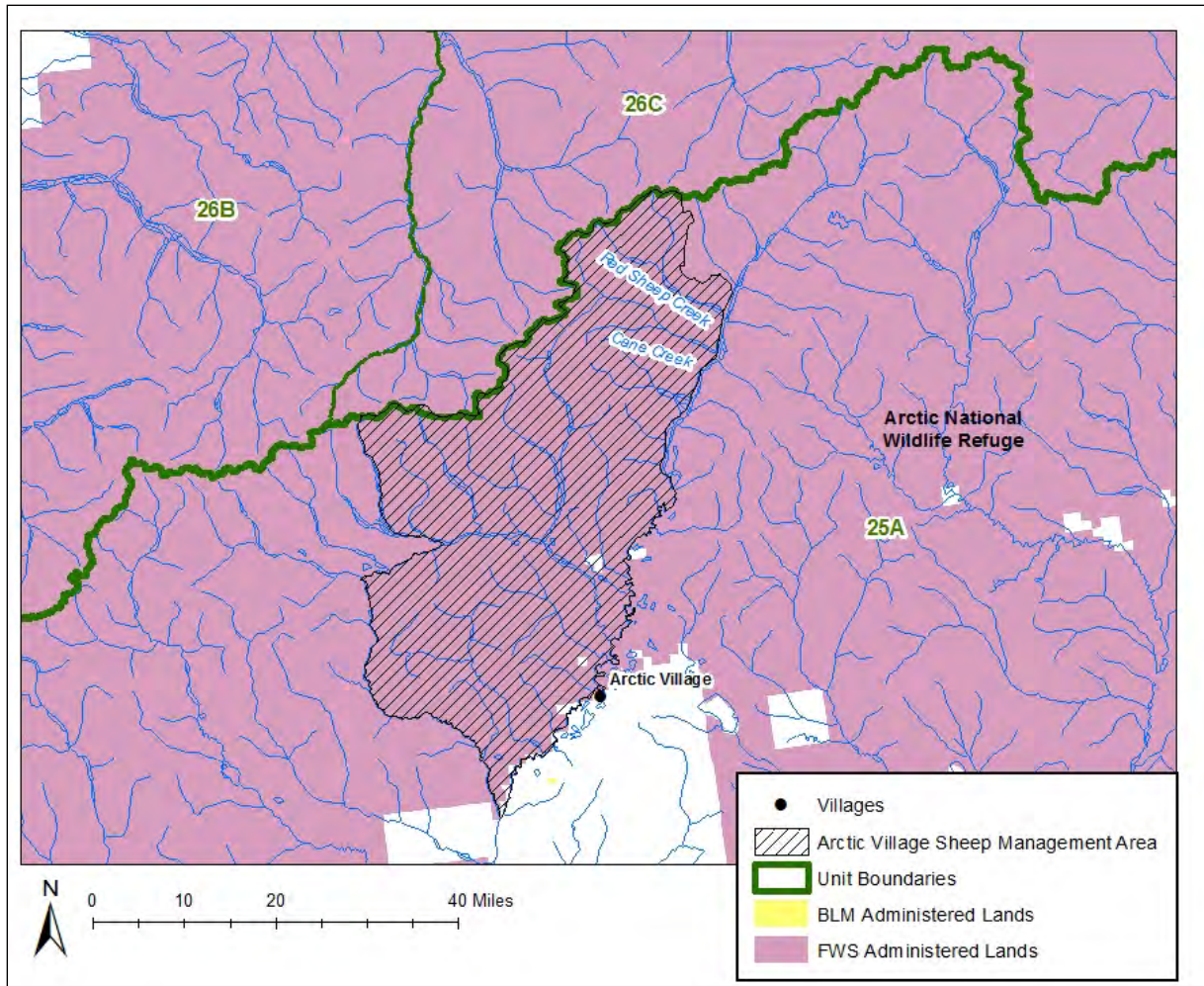


Figure 1. The Arctic Village Sheep Management Area in Unit 25A.

Justification for Original Closure:

§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 established the AVSMA in 1991 (56 Fed. Reg. 73 15433 [April 16, 1991]; 56 Fed. Reg. 123 29344 [June 26, 1991]) in response to concerns raised by residents of Arctic Village, who felt that non-federally qualified hunters interfered with sheep hunting by local residents and to address concerns about sheep population health (FSB 1991a: 302; FSB 1991b: 161).

In 1995, the Board extended the original boundary of the AVSMA to include the Cane and Red Sheep Creek drainages to protect the opportunity for subsistence harvest of Dall sheep (60 Fed. Reg. 115 31545 [June 15, 1995]; 60 Fed. Reg. 157 42127 [August 15, 1995]).

In 2007, the Board rescinded the closure of Cane and Red Sheep Creek drainages from Aug. 10-Sept. 20 because it concluded that maintaining the closure to non-subsistence hunting of sheep was no longer necessary for conservation of a healthy sheep population, to provide for continued subsistence use of sheep, for public safety, or for administration (72 Fed. Reg. 247 73248 [December 27, 2007]).

In 2012, the Board re-established the closure to sheep hunting by non-federally qualified users in the Cane and Red Sheep Creek drainages because while the Board said there was no conservation concern, the closure was needed to ensure the continuation of traditional subsistence uses of sheep by Arctic Village hunters (OSM 2012b:7; 77 Fed. Reg. 114 35485 [June 13, 2012]).

Council Recommendation for Original Closure:

Federal Subsistence Regional Subsistence Advisory Councils had not yet been established in March 1991 when the AVSMA was created and closed to non-federally qualified users. Therefore, there was no recommendation from a Regional Council during the December 1990 or June 1991 Board meetings.

In 1995, the Eastern Interior and North Slope Regional Advisory Council recommendations on Proposal P95-54 were in support of the Arctic Village position to maintain the closure to non-federally qualified users and to expand the closure to the Cane and Red Sheep Creek drainages within the AVSMA.

In 2007, when the closure was partially rescinded, the Eastern Interior Council recommended deferral of Proposal WP07-56 for one year because they wanted to form a working group to negotiate the terms of harvest opportunity for non-federally qualified subsistence users, including a cultural awareness briefing requirement. The North Slope Council opposed Proposal WP07-56; the Council stated there was no evidence that adoption of the proposal would not impact villages.

In 2012, when the closure was re-established for the fall season within the Cane and Red Sheep Creek drainages, the Eastern Interior Council supported Proposal WP12-76 because of public testimony about non-subsistence users interfering with subsistence users. The North Slope Council supported Proposal WP12-57 because the closure was needed to ensure the continuation of the traditional subsistence uses of sheep by Arctic Village hunters (OSM 2012b:7).

State Recommendation for Original Closure:

In 1991, after the Board adopted Proposal 100A to create the AVSMA, the representative from the State said, “The State does not support the exclusion of other hunters in this area, particularly in view of the very low level of harvest that occurs there” (FSB 1991b:20). The State subsequently submitted a Request for Reconsideration of the Board decision to adopt the AVSMA closure and a proposal to rescind it. Since then, the State has continued to demonstrate support for opening the AVSMA to non-federally qualified hunters (please refer to Appendix I for detailed regulatory history).

Biological Background

Sheep populations across the eastern Brooks Range of Alaska have appeared relatively stable at low densities since the late 1990s (Caikoski 2014). However, geographic barriers such as large valleys and rivers naturally limit sheep movements and distribution, resulting in discrete subpopulations (Arthur 2013, Caikoski 2014). Therefore, repeated, fine-scale surveys are necessary to understand sheep population status and trends in a specific area such as the AVSMA.

State management goals and objectives for sheep in Unit 25A (Caikoski 2014) include:

- Protect, maintain, and enhance the sheep population and its habitat in concert with other components of the ecosystem.
- Provide for continued general sheep harvest and subsistence use of sheep.
- Provide an opportunity to hunt sheep under aesthetically pleasing conditions.
- Maximize hunter opportunity using a full-curl harvest strategy.
- Maintain an average harvest of rams ≥ 8 years old.

The State manages sheep using a full-curl harvest strategy, a conservative approach (ADF&G 2017a). Once sheep are eight years old, their chances of surviving each additional year is much lower. Harvesting older, full-curl rams (8+ years old) allows younger rams in their prime to continue breeding, assuming consistent recruitment (ADF&G 2017a; Heimer and Watson 1986).

The Arctic NWR conducts periodic aerial sheep surveys of the AVSMA and surrounding areas. Due to differences in survey areas, comparisons across years are difficult. Sheep densities within the AVSMA have generally been low compared to some other areas in the Brooks Range (Payer 2006 *in* OSM 2014a). Within the AVSMA, sheep densities north of Cane Creek have been much higher than sheep densities south of Cane Creek, presumably because of habitat quality (Mauer 1990 *in* OSM 2014a; Wald 2012). This is probably related to shale formations supporting more vegetation and therefore more sheep forage north (versus south) of Cane Creek, (Smith 1979 *in* OSM 2014a). The presence of mineral licks south of Cane Creek also influences sheep densities as most sheep observed by Mauer (1996) and Payer (2006) south of Cane Creek were clustered around such licks (OSM 2014a).

In 1991, sheep densities in the AVSMA north and south of Cane Creek averaged 2.25 sheep/mi² and 0.2 sheep/mi², respectively (Mauer 1996 *in* OSM 2014a). In 2006, sheep density north of Cane Creek averaged 1.7 sheep/mi² (Wald 2012). The observed decline in density is thought to be weather related (OSM 2014).

The sheep population in the AVSMA likely declined between 2012 and 2015 due to several years of poor lamb production and severe winters (particularly the winters of 2012-2013 and 2013-2014). In 2012, surveys within and near the AVSMA indicated an average sheep density of 0.79 sheep/mi² and 27 lambs:100 ewes (Arthur 2017, pers. comm.). Density north and south of Cane Creek ranged from 1.5–1.8 sheep/mi² and 0.25–0.7 sheep/mi², respectively (Wald 2012). In 2015, estimated sheep density for the same areas averaged 0.67 sheep/mi² and the lamb:ewe ratio was 34 lambs:100 ewes. The 2015 survey also indicated a decline in rams of all age classes (Arthur 2017, pers. comm.).

In 2016, a larger area was surveyed, including the Hulahula River drainage in Unit 26C, which contains higher sheep densities than the AVSMA. While the 2016 overall sheep density averaged 0.86 sheep/mi², density within the AVSMA was likely 0.70-0.75 sheep/mi² (Arthur 2017, pers. comm.). The ram:ewe ratio for the entire survey area averaged 28 rams:100 ewes, and the density of full-curl rams was 0.005/mi². Due to improved lamb production in 2015 and 2016 (>30 lambs:100 ewes), the sheep population in the AVSMA likely did not decline below 2015 levels, although mature (8+ year old) ram abundance was depressed for at least 3-5 years (Arthur 2017, pers. comm.; 2019 pers. comm.).

Dan Shelden (Pilot) and William Leacock (Biologist) conducted a minimum count sheep survey in the AVSMA from August 8 through August 13, 2020. Operations were based out of the Arctic National Wildlife Refuge Visitor Station at Arctic Village. The AVSMA was broken down into 5 survey areas, roughly Red Sheep Creek to Cane Creek, Cane Creek to Flatrock Creek, Chandalar River to Water Creek, Water creek to Spring Creek, and the Junjik River to Crow Nest Creek. A total of 279 sheep were documented within the AVSMA: 129 ewe, 66 lambs, 59 rams, and 25 unclassified sheep. The lamb:ewe ratio was 51 lambs:100 ewe (Hawkaluk 2022, pers. comm.).

Cultural Knowledge and Traditional Practices

The communities of Arctic Village and Venetie are unique in Alaska because they opted out of the Alaska Native Claims Settlement Act and chose to obtain title to their reserve lands. Steven Dinero, Professor of Human Geography, argues that this is an outgrowth of Nets'ain Gwich'in's cultural heritage of nomadism and independence (2005). This is important context for the history of this closure and the Arctic Village Council's request for government-to-government consultation regarding the AVSMA. There are many pages of testimony in Board and RAC transcripts from the Arctic Village Council regarding the AVSMA. Most pointed, however, is the repeated emphasis by members of Arctic Village Council, Venetie Village Council, Native Village of Venetie Tribal Government and Tanana Chiefs Conference (TCC) and some Council members that the issue of the AVSMA should be addressed through formal government-to-government consultation (EIRAC 2019: 50, 64, 66, 117). Evon Peter, former Chief of Arctic Village stated:

...I think it is really important for us to recognize that we have three sovereigns at work in Alaska and those are the Federal government, the State government and Tribal governments. As I began looking at the letter that was sent out to Arctic Village, I think it was addressed to our council or our chief, and it refers to just Arctic Village residents, but that doesn't really adhere to the frameworks of those three government-to-government relationships between our Tribe, the State and the Federal government (EIRAC 2019: 47).

Tribal consultation between members of the Arctic Village Council and some Board members occurred in November 2019 (FSB 2020:608-609). At the 2020 Board meeting, Charlene Sterne, then Vice-President of Tanana Chiefs Conference, stated, "...any proposed changed to the management of sheep [in AVSMA] must be discussed in advance consultation with the Arctic Village Council and Venetie Village Council and Native Village of Venetie Tribal Government" (FSB 2020: 580-583).

The statement above serves as “current” context to the cultural history of the AVSMA which was traditionally occupied by the Neets’ aii Gwich’in. Their traditional territory included the northern reaches of the East Fork Chandalar, Kones, and Sheenjek rivers. Neets’ aii Gwich’in continued their nomadic way of life into the 1950s when they established more permanent settlements at Arctic Village and Venetie, taking extended trips to seasonal harvesting sites (McKenna 1965).

Neets’ aii Gwich’in follow(ed) routes to the arctic coast that were situated within the AVSMA. Gwich’in regularly visited the arctic coast for the purposes of trade (Burch 1979). Ethnographer, Frederick Hadleigh-West, visiting in the late 1950s, spoke with people who had made the trip over the Brooks Range to the arctic coast. They said that families went into the mountains to hunt sheep and caribou. This travel varied from year to year depending on the migration routes of caribou and the availability of other resources. Traders traveled to the Barter Island area to exchange hides for Western goods from whalers. Hadleigh-West reported people preferred the Phillip Smith Mountains for sheep hunting, where many East Fork Chandalar tributaries originate, including Cane and Red Sheep Creek drainages and other drainages situated within the AVSMA. This trade continued irregularly until 1928 (Hadleigh-West 1963).

Red Sheep Creek was a recognized favorite sheep hunting area of the Neets’ aii Gwich’in, on one of their routes to the Arctic Coast (Hadleigh-West 1963: 257). At the Eastern Interior Council meeting in 2017, the Arctic National Wildlife Refuge (ANWR) deputy manager recalled a 2005 conversation with Trimble Gilbert, long-term First Chief of Arctic Village Council, Episcopalian village priest and Gwich’in Athabascan Elder (Dinero 2005: 141). Mr. Gilbert said that food and tools were cached in the mountains in the Red Sheep Creek drainage for traders returning from the Arctic Coast and for future trips, indicating the cultural importance of the area (EIRAC 2017: 286)

While located approximately 45 miles north of Arctic Village, Red Sheep Creek is situated well within the historical territory of Neets’ aii Gwich’in. Native allotments cover the confluence of Cane and Red Sheep Creeks with the East Fork Chandalar River; a Native allotment is situated further up Red Sheep Creek, and a native allotment is situated upriver at the confluence of an unnamed creek and the East Fork Chandalar River. The Red Sheep Creek allotments were not conveyed until 1996 (FWS 2019). Prior to this time, the confluence was the site of a large guiding camp; however, currently ANWR does not assign guides to this area because it is closed to non-federally qualified users (EIRAC 2017). The allotment contains a large airstrip identifiable from the air. Another, smaller airstrip is situated between the two Red Sheep Creek Native allotments (Arthur 2019, pers. comm.). A source of community concerns is that guides and hunters create air and foot traffic in areas with prehistoric cultural and scientific value.

Neets’ aii Gwich’in possessed specialized skills for traveling in mountainous areas, as described below by Hadleigh-West (1963):

The extent to which the Neets’ aii Kutchin are adapted to their mountainous environment is evidenced by the willingness and agility with which they attack it. Hiking trails usually take the shortest route between two points. This always entails

some climbing. Another evidence is inherent in their knowledge of the country; it is “impossible” to become lost in *Netsai*ⁿ. Hunting mountain sheep, nowadays viewed as a kind of family outing, often demands of the hunter an agility approaching that of the quarry. In this connection, too, the former use of a special climbing staff, surely is indicative of a mountaineering people (Hadleigh-West 1963:270).

Traditionally, after caribou, Dall sheep were the most important large land mammal for food. Moose were scarce (Hadleigh-West 1963: 172). Neets’aii Gwich’in relied upon sheep as a food source primarily in late summer or whenever caribou were scarce. Hadleigh-West (1963: 138) identified four very specific sheep hunting areas used by Arctic Village residents along the Junjik River, East Fork Chandalar River, Cane Creek, and Red Sheep Creek. All are within the AVSMA.

The customary and traditional use determination (C&T) for sheep in Unit 25A, including the AVSMA, consists of five communities: Arctic Village, Chalkyitsik, Fort Yukon, Kaktovik and Venetie. The approximate combined population of these five communities is 1,100 people according to the 2020 U.S. Census. Of the five communities with C&T for sheep in Unit 25A, the residents of Arctic Village have the strongest ties to and are the primary users of the AVSMA (Reed et al. 2008; Gustafson 2004; Dinero 2003; OSM 1993). Sheep hunting is a longstanding tradition of Arctic Village residents (EIRAC 2006:110–137, 2007, 2011; Gustafson 2004; Dinero 2003; Caulfield 1983:68), and the Cane and Red Sheep Creek drainages have been a longstanding focus of this activity. Sheep are a prestigious subsistence resource and providing sheep meat to the community is highly respected (Dinero 2003; Caulfield 1983). Sheep are also known as an important “hunger food;” that is, a food source that is critical when caribou are unavailable (Dinero 2011, pers. comm.; Gilbert 2011, pers. comm.; Caulfield 1983). Local people report increasing uncertainty of caribou migrations in recent years (recent years is not clearly defined but some people refer to the construction of the Trans-Alaska crude oil pipeline as a turning point), declining quality of caribou meat, and increasing difficulty and travel distances to obtain moose. In light of this, local residents say that sheep are an increasingly important resource (Gilbert 2011, pers. comm.; Swaney 2011, pers. comm.). As noted by one prominent elder, “When we have no caribou, that’s the time we have to go up [to get sheep]” (Gilbert 2011, pers. comm.).

The public record demonstrates that Arctic Village residents have a long history of using the Cane and Red Sheep Creek drainages which continue to be culturally significant areas. Extensive discussion included in previous proposal analyses (OSM 2020; 2018; 2014a; 1995a; 1993) and testimony received during Council and Board meetings (FSB 2020; EIRAC 2019, 2017, 2011, 2007, 2006) demonstrate regular use of these drainages by residents of Arctic Village. Gustafson (2004), in a study of traditional ecological knowledge, discusses the importance and continued use of the Red Sheep Creek drainage for sheep hunting. Discussions with Refuge Information Technicians from Arctic Village, other ANWR staff, researchers working in the area, and subsistence hunters from Arctic Village all confirm continued sheep hunting in the Cane and Red Sheep Creek drainages (Bryant 2011, pers. comm.; Dinero 2011 pers. comm.; Mathews 2011, pers. comm.; John 2011, pers. comm.).

The trip from Arctic Village to Red Sheep Creek and back is about 90 miles, requiring great effort both physically and economically, to hunt sheep in this area (Bryant 2011, pers. comm.; John 2011, pers.

comm.; Gilbert 2011, pers. comm.; Swaney 2011, pers. comm.). Residents of Arctic Village have repeatedly expressed concerns about non-federally qualified users hunting sheep in Cane and Red Sheep Creek drainages. These residents have provided testimony and public comment at numerous Council and Board meetings to attest to the importance of Red Sheep Creek, to describe their use of the area, and to explain that the presence of non-federally qualified users has affected their access and reduced their harvest opportunities (OSM 2020, 2014a, 2007a, 2006b, 1996, 1995a,; EIRAC 2019, 2017, 2011, 2007, 2006; Swaney 2011, pers. comm.; Gilbert 2011, pers. comm.; John 2011, pers. comm.; FSB 1991a: 291-311, 1995, 2006a, 2007:292–306, 2012, 2020).

Among the Gwich'in, there is a story about how Red Sheep Creek was named, which illustrates the link between subsistence and religious practices and beliefs. It also underscores the importance of this area to the residents of Arctic Village. The story relates Red Sheep Creek to the Episcopalian Church, an influential factor in establishing Arctic Village in the late 19th century and sheds some light on why Arctic Village residents consider Red Sheep Creek a revered, sacred place (Dinero 2011, pers. comm.; Dinero 2007). The story begins with people who were hungry. One day at the church, someone spotted caribou moving in the brush. Upon closer inspection people realized they were looking at unusual sheep with red markings, or what many say were crosses on their coats. The next day, people followed these red sheep far into the mountains where they were finally able to harvest them. The hides of these sheep were kept and passed down because of their distinctive markings (Dinero 2011, pers. comm.). The story of the red sheep links a prestigious subsistence resource (sheep) to traditional and modern beliefs and practices, and demonstrates the complementary nature of subsistence to place, tradition, culture, and modern beliefs.

Traditionally, Arctic Village residents harvested sheep in early fall (late August or early September) or in early winter (November) (FSB 2007:292–306; Caulfield 1983). “Sheep taste best in the fall,” as documented in earlier research (OSM 1995a:353). Residents generally travel to hunt sheep by boat, then by foot from hunting camps in the fall or by snowmachine in late fall, but not in winter given the dangerous terrain and winter weather (OSM 1993).

In his 1963 dissertation, ethnographer Hadleigh-West described Neets'aiti Kutchin sheep hunting:

Sheep hunting methods, both in the past when the bow was the weapon used, and at present with the rifle, are essentially the same. Men hunted singly by stalking sheep; the technique was to get above the sheep because that animal when frightened will seek higher ground. Since sheep are skittish, usually one shot at a time was possible and hence only one animal was down at one time (141-142).

Hadleigh-West's account provides context for the AVSMA closure and sheds light on the descriptions of user conflict provided in Council and Board testimony. Arctic Village residents have commented that allowing non-federally qualified users to harvest sheep in the Cane and Red Sheep Creek drainages at the same time that Arctic Village residents customarily and traditionally harvest sheep affects their ability to continue their subsistence harvest in this important sheep hunting area. Since 1993, Arctic Village residents have told the Board that airplanes used by non-federally qualified users

has interfered with their ability to successfully hunt sheep in the Cane and Red Sheep Creek drainages. Residents reported that plane fly-overs “spooked” sheep and that “older rams can climb to higher elevations, making them more difficult to hunt” (OSM 1993, see also OSM 1995a for additional discussion). Gideon James from Arctic Village explained that the Cane and Red Sheep Creek drainages are both very narrow valleys, and consequently, flights through the area disturb sheep (FSB 2012:201). These disturbances have also been described by ANWR staff (Mathews 2011, pers. comm.), and local residents (Swaney 2011, pers. comm., John 2011 pers. comm.; Gilbert 2011, pers. comm.). This phenomenon was documented by Alejandro Frid (2003), Ecology Professor at University of Victoria, who found that fixed-wing aircraft disrupted resting or caused fleeing behavior in Dall sheep in the Yukon Territory during overflights.

Harvest History

A Federal closure to the harvest of sheep by non-federally qualified users in the AVSMA has been in effect since 1991. In 1995, the AVSMA was expanded north to include the Cane and Red Sheep Creek drainages. The closure to non-federally qualified users was rescinded in these drainages from Aug. 10-Sept. 30 in 2007 (and by special action in 2006) and re-established in 2012. Therefore, the only sheep hunting that has occurred within the AVSMA under State regulations since 1995 was between 2006 and 2011 in the Cane and Red Sheep Creek drainages.

From the 1983 to 1990 regulatory years, before most of this area was closed to the harvest of sheep by non-federally qualified users in 1991, approximately 61 sheep harvests (about 8 sheep annually) were reported on State harvest tickets and permits in an area approximating the AVSMA (OSM 2019).

From 1983 to 1994 regulatory years, approximately 27 sheep harvests (about 2 sheep per year) were reported on State harvest tickets and permits in the area north of Cane Creek and in the Red Sheep Creek drainage, before it closed to the harvest of sheep by non-federally qualified users in 1995 (OSM 2019, none was reported by federally qualified subsistence users).

From 2006 to 2010 regulatory years, approximately 22 sheep harvests (about 4 sheep annually) were reported on State harvest tickets and permits in the area north of Cane Creek and within the Red Sheep Creek drainage, while it was open to the harvest of sheep from Aug. 10-Sept. 30 by non-federally qualified users (OSM 2019, harvest site information is not readily available after the 2010 regulatory year).

Data on the reported harvest of the AVSMA by federally qualified subsistence users is sparse, and the number of sheep harvested by federally qualified subsistence users in the AVSMA is unknown. It is likely that many Gwich'in hunters have not reported their harvest efforts. There are multiple reasons that may account for low and non-reporting in rural communities. Most of these reasons are cultural and include lack of information as to who uses harvest data and how, group hunts that result in shared harvests, and “super households” who specialize in a type of harvest, providing food to multiple households in addition to their own (Van Lanen et al. 2012: 5; Andersen and Alexander 1992).

Since 1995, federally qualified subsistence users have been required to get a Federal registration permit (FS2502) to hunt for sheep in the AVSMA. **Table 1** shows Federal permit data from 1995 through 2020. During this time period, a total of 40 permits were issued to residents of Arctic Village and Fort Yukon, and nine sheep were reported harvested. Only some hunters submitted harvest reports, so these data are incomplete. Hunters did not always report areas they used to hunt for sheep within the AVSMA. Of these incomplete data, three hunters reported using the Red Sheep Creek drainage to hunt for sheep, and the harvest of one sheep was reported. Sixteen hunters reported the type of transportation they used to reach hunt areas: one by boat, 14 by airplane, and one reported using no transportation, perhaps walking or hiking. Of those reporting, hunting trips lasted an average of 5 days (OSM 2019).

ADF&G maintains a harvest reporting database where hunting efforts by users hunting under State regulations are recorded (ADF&G 2019a). Complete records were not kept until the mid-1980s, and it is likely that some Gwich'in hunters have not reported their harvest efforts or have reported their harvest efforts on Federal permits (see above). ADF&G data includes all of Unit 25A, not just the AVSMA. From the 1983 to 2017 regulatory years, a total of 3,310 harvest tickets/permits were issued and the harvest of 1,726 Dall sheep was reported, approximately 50 sheep annually. Of the 3,310 harvest tickets/permits issued, 14 were issued to federally qualified subsistence users and 11 reported sheep harvest. Alaska residents received 1,934 harvest tickets/permits and 786 of these reported sheep harvest. Non-residents received 1,362 harvest tickets/permits and 1,746 reported sheep harvest (ADF&G 2019a).

Table 1. Federal permit FS2502 data for the Arctic Village Sheep Management Area from 1995 through 2020 regulatory years, cumulative (OSM 2022).

Community	Issued	Hunted	Harvest
Arctic Village	36	14	8
Fort Yukon	7	6	4
Total	43	20	12

Effects

Continuation of this closure will allow for the continuation of culturally important subsistence uses of sheep by federally qualified subsistence users without competition or disturbance from non-federally qualified users, preventing user conflicts. It will also help protect the AVSMA sheep population whose current status is unknown. In 2020, in response to proposal WP20-49, the Board stated that there is still a significant conservation concern, and that user group conflicts have not yet been resolved (FSB 2020: 615-620).

If the closure were rescinded, non-federally qualified users would be able to hunt sheep in the AVSMA, potentially resulting in conservation concerns. This could result in increased user conflicts and interfere with sheep harvest by federally qualified subsistence users.

If the closure were extended to all users, it would disconnect federally qualified subsistence users from an important and culturally significant subsistence resource, sheep. It would interrupt intergenerational transmission of knowledge and the reciprocal spiritual/cultural relationship that federally qualified subsistence users have with all of the resources upon which they depend, particularly sheep within the AVSMA.

OSM CONCLUSION:

- Retain the Status Quo**
- Rescind the Closure**
- Modify the closure to . . .**
- Defer Decision on the Closure or Take No Action**

Justification

The current closure is still necessary to continue subsistence uses of the AVSMA for federally qualified subsistence users, especially the residents of Arctic Village and Venetie. Additionally, the current status of the AVSMA sheep population is uncertain due to lack of recent surveys, suggesting possible conservation concerns. Rationale for the closure has consistently included user conflict, concerns about the health of the AVSMA Dall sheep population, and the importance of the area for the continuation of subsistence uses.

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APPENDIX 1 REGULATORY HISTORY

At the beginning of the Federal Subsistence Management Program in Alaska in 1990, existing State regulations were adopted into Temporary Subsistence Management Regulations (55 Fed. Reg. 126. 27117 [June 29, 1990]). The customary and traditional use determination for sheep in Unit 25A was and continues to be residents of Arctic Village, Chalkyitsik, Fort Yukon, Kaktovik, and Venetie. In 1990, the Board was operating under the assumption that the State would soon resume fish and wildlife management on Federal public lands in Alaska (FSB 1991c: 164-168).

The Board established the Arctic Village Sheep Management Area (AVSMA) in March 1991 (56 Fed. Reg. 73 15433 [April 16, 1991]; 56 Fed. Reg. 123 29344 [June 26, 1991]) in response to concerns raised by residents of Arctic Village who felt that non-federally qualified users interfered with sheep hunting by local residents and to address concerns about the health of sheep populations (FSB 1991a: 302; FSB 1991b: 161). In 1991, Proposal 75 was submitted by the Yukon Flats Fish and Game Advisory Committee and Proposal 100A by the ANWR. Proposal 100A requested that the Board create the AVSMA in Unit 25A and that it be closed to non-federally qualified subsistence users. This proposal also requested modification of sheep harvest regulations from 3 sheep, Oct. 1-Apr. 30 and 1 ram with 7/8 curl horn or larger, Aug. 20-Sept. 20, to 2 rams, Aug. 10-Apr. 20, by registration permit. The northern boundary of the area was the mainstem of Cane Creek. The area did not include areas north of Cane Creek, including Red Sheep Creek. Regional Subsistence Advisory Councils (Councils) did not meet until fall 1993, so there were no Council recommendations for the Board to consider. The Board adopted the Interagency Staff Committee recommendation and adopted the proposal with modification. The modification was to close the area to the harvest of sheep except by federally qualified subsistence users and extend the hunting season to April 30. The justification was that portions of the area did not appear to have the habitat necessary to support higher sheep populations than were currently present. The population of sheep in the Red Sheep Creek drainage was of much higher density and could continue to support existing seasons and harvest limits; the Red Sheep Creek drainage received quite a bit more effort than other areas of Unit 25A, and the remainder of Unit 25A supported a substantial opportunity for all hunters (FSB 1991b:150–164; 56 Fed. Reg. 123. 29344 [June 26, 1991]).

Proposal 75 (1991) requested the Board close an area of Unit 25A encompassing most of the contemporary AVSMA to the harvest of sheep, except by federally qualified subsistence users. The northern boundary of the area was the Red Sheep Creek drainage. The Board adopted the Interagency Staff Committee recommendation and rejected the proposal because of its earlier action taken on Proposal 100A, described above (FSB 1991b:164–168).

In June 1991, the Board met and considered proposals received during the public comment period on wildlife regulations that included actions taken by the Board at its March 1991 meeting, described above (56 Fed. Reg. 73 15433 [April 16, 1991]). Proposals 09, 10, and 11 (1991) were submitted by the Arctic Village Council and Proposal 21 (1991) was submitted by Brooks Range Arctic Hunts. In Proposal 09, the Arctic Village Council requested the Board to include Cane and Red Sheep Creek

drainages in the AVSMA. The proponent said that the area set aside (the AVSMA) did not include all of the areas that must be included to accommodate customary and traditional uses of sheep by residents of Arctic Village (OSM 1991). The Board adopted the Interagency Staff Committee recommendation and rejected the proposal. The Board said Arctic Village residents used Cane Red Sheep Creek drainages only for a short time when air taxi service was available and concluded that these two areas could support both subsistence and sport harvest (FSB 1991a:297–299). Proposal 10 requested that the Board eliminate harvest limits in the AVSMA, and Proposal 11 requested an increase in the harvest limit to 3 sheep. The Board adopted the Interagency Staff Committee recommendations and rejected both proposals. The Board said the sheep population in the AVSMA was extremely low and the proposed regulations would jeopardize the continuation of healthy populations of sheep (FSB 1991a:299–301). The Board adopted the Interagency Staff Committee recommendation and also rejected Proposal 21, which requested the Board to open the AVSMA to the harvest of sheep by non-federally qualified users. The Interagency Staff Committee said that the sheep population was extremely low, and subsistence users must be afforded a priority (OSM 1991).

In 1992, Request for Reconsideration (RFR) 23 was submitted by the Arctic Village Council requesting that the Board reconsider its decision on Proposal 9, that would have added the Cane and Red Sheep Creek drainages to the AVSMA. The Office of Subsistence Management incorporated the request into Proposal 58 of the 1993 regulatory cycle, described below (OSM 1993). The Arctic Village Council made the same request during the 1992 regulatory cycle in Proposals 118A and 118B, seeking to eliminate harvest limits in the AVSMA or alternatively to increase the harvest limit from 2 rams to 3 sheep. In Proposal 118B, the Arctic Village Council requested the Board to include Cane and Red Sheep Creek drainages to the AVSMA. The Board adopted Proposal 118A with modification, in the remainder of Unit 25A, outside of the AVSMA, to lengthen the season from Aug. 10 – Sept. 20 and Oct. 1 – Apr. 30 to Aug. 10 – Apr. 30 and to modify the harvest limit from 1 ram with 7/8 curl horn during the fall season to 3 sheep throughout the season (57 FR 103, 22557 [May 28, 1992]). Furthermore, the Board directed the staff to seek alternatives to a Federal registration permit before the opening of the 1992 season for implementation at that time. The Board followed the Interagency Staff Committee recommendation and rejected Proposal 118B because biological data indicated that the sheep population in the Cane and Red Sheep Creek drainages could support both sport and subsistence use. The Board stated that the Council had not provided adequate justification that subsistence sheep hunting opportunities were being limited. (FSB 1992:59–99).

In 1993, Proposal 58 (OSM 1993:1) was received from the Arctic Village Council, requesting that the Board add the Cane and Red Sheep Creek drainages to the AVSMA; replace individual harvest limits with a community harvest limit for Arctic Village to be established in consultation with the village; and to establish, in consultation with Arctic Village, an appropriate harvest reporting method that would avoid the need for registration permits and harvest tickets, relying instead on a community harvest report of an appropriate nature. At its meeting in April 1993, the Board adopted the Interagency Staff Committee recommendation and rejected the proposal. The Board said that Cane and Red Sheep Creek drainages supported adequate sheep to support harvest by non-federally qualified users and that not enough data was available on harvest levels to support community harvest or reporting systems (FSB 1993:140–512).

In 1995, the Board extended the original boundary of the AVSMA to include the Cane and Red Sheep Creek drainages to protect the opportunity for subsistence harvest (60 Fed. Reg. 115 31545 [June 15, 1995]; 60 Fed. Reg. 157 42127 [August 15, 1995]). Proposal 54, submitted by the Arctic Village Council requested that the Board add the Cane Red Sheep Creek drainages to the AVSMA. The Eastern Interior Council took no action on the proposal (EIRAC 1995:88–97, OSM 1995a:359). The North Slope Council recommended that the Board adopt the proposal (NSSRAC 1995:206, OSM 1995a:359). After Board discussion of Proposal 54, the Board Chair stated, “If the Board votes to adopt this we are voting to accept the recommendations of the Eastern Interior and North Slope Regional Councils... with only exception that we will revisit this issue again in another year” (FSB 1995:693-694). The Board adopted the proposal as stated by the Chair. The Board said that although there was no biological reason for closing Cane and Red Sheep Creek drainages to the harvest of sheep except by federally qualified subsistence users, it had heard substantial testimony regarding the fact that due to the customary and traditional hunting practices of the residents of Arctic Village, not adopting the proposal would deny a subsistence opportunity to the residents of Arctic Village (FSB 1995:611–634, 686–694; 60 Fed. Reg. 115, 31545 [June 15, 1995]).

In 1995, Request for Reconsideration RFR95-06 was submitted by the Alaska Department of Fish and Game (ADF&G) requesting that the Board reconsider its decision on Proposal 54. The Board rejected the request in July 1995 (OSM 1995b). The Board determined that the request did not meet the threshold criteria for accepting an RFR (i.e. based on information that was not previously considered by the Board, the existing information used by the Board was incorrect, or the Board’s interpretation of information, applicable law, or regulation was in error or contrary to existing law) (50 CFR 100.20).

In 1996, ADF&G submitted Proposal 55, requesting that the Board open Cane and Red Sheep Creek drainages to the harvest of sheep by non-federally qualified users. The Eastern Interior Council recommended opposing the proposal because it had heard no compelling evidence to overturn recent Board action closing these drainages. Opposition to the proposal came before the Council from an Arctic Village resident’s testimony, a letter from the Arctic Village Council, and from the Eastern Interior Council’s representative from Arctic Village. The Eastern Interior Council affirmed its support for the existing AVSMA. The North Slope Council recommended deferring action for one year until more information concerning Kaktovik residents’ use of AVSMA was available; however, the Council expressed desire to “defer to wishes of their neighbors to the south” (OSM 1996:12). The Board rejected the proposal referring to its action on Proposal 54 in 1995 and because there had been no dialogue between the State and Arctic Village (FSB 1996:20).

This Regulatory History contains more information on each regulatory proposal below than above. This is because official records of Council and Board justifications were kept after 1995. Justification for Board actions that were provided in letters to the Councils, as mandated in ANILCA Section 805(c), were reviewed and compared to transcripts and provide an accurate description of the Board’s justifications.

In 2005, Proposal WP06-57 was submitted by ADF&G. It requested that the Board open the AVSMA to the harvest of sheep by non-federally qualified users. The Eastern Interior Council recommended

opposing the proposal and said that it needed to see results from sheep population surveys before considering reopening to non-federally qualified users. The Council said that people of Arctic Village were totally dependent on the land for food and for their nutritional and cultural needs. The Council said managers cannot only depend on harvest tickets for harvest information. It continued that there was a problem with transporters throughout the region. Transporters brought people up to this area, and they did not clean up after themselves. The Eastern Interior Council heard testimony from Arctic Village residents during their fall 2005 meeting that sheep have been harvested but not reported by subsistence users in this area. The Council indicated there was a need for a meeting with the people of Arctic Village and a need for more work on this issue before the area was opened to non-federally qualified users. The Council said there was no biological reason given to support this proposal, and this was an opportunity for the people in the area to work with non-subsistence users before submitting a proposal (OSM 2006b:452–453). The North Slope Council recommended deferring the proposal to get more information on the status of the sheep population and more harvest information. The Council said it would feel very uncomfortable making a decision that might be detrimental when there was a lack of information (OSM 2006a:452–453). The Board rejected the proposal. The Board said it had listened to public testimony on this proposal and was unable to pass a motion to allow non-federally qualified users to hunt sheep in the Cane and Red Sheep Creek drainages or to defer action on the proposal with respect to the remainder of the AVSMA. The Board did not see a need for action at this time because of the commitment of the ANWR staff to conduct sheep surveys in the area the following summer (FSB 2006:261–283, OSM 2006a:6).

In 2006, Wildlife Special Action Request WSA06-03 was submitted by the U.S. Fish and Wildlife Service. It requested that the Board open Cane and Red Sheep Creek drainages to the harvest of sheep by non-federally qualified users from Aug. 10-Sept. 20, 2006. The Board approved the request, having reviewed new information on sheep abundance in the AVSMA from a survey conducted by the USFWS in June 2006, the results of which were presented in an assessment report.

In 2007, Proposal WP07-56 was submitted by ADF&G. It requested that the Board open Cane and Red Sheep Creek drainages to the harvest of sheep by non-federally qualified users from Aug. 10 - Sept. 20. The Eastern Interior Council recommended the Board defer action on the proposal for one year to allow formation of a working group of representatives from affected villages, hunting interests, and agencies to decide what an acceptable sheep harvest or number of sheep hunters would be in this area, and then draft a proposal to the Alaska Board of Game (BOG) for its March 2008 meeting. The Council said the proposal could contain the number of non-federally qualified users allowed to hunt in the Cane and Red Sheep Creek drainages. The Council said the working group timeline would give the Board time to monitor the progress of the working group, the BOG proposal(s), and the actions of the BOG before the Board met later in the spring of 2008. The Council said it had received testimony from Arctic Village sheep hunters, local elders, and Arctic Village Tribal Council members and all requested that the closure of the Cane and Red Sheep drainages to non-federally qualified users remain in effect. Testimony included the cultural importance of the area because of burial sites, allotments, and a traditional area where they hunt sheep, and that they would not be able to compete with other hunters if the area was opened to non-federally qualified users. The Council said testimony also included the high cost of accessing the area and the difficulty reaching the area other than by aircraft. Council members

discussed the relationship of caribou migrations and the need to hunt for sheep, as well as the desired time to harvest sheep. When caribou and moose are plentiful, local hunters do not hunt for sheep, but when caribou and moose are not plentiful, they depend on sheep. The Council shared that the last time a similar proposal to open the area to other hunters was submitted, the Council had unanimously opposed it but was overridden by the Board. The Council sympathized with Arctic Village concerns but believed the closure of the Cane and Red Sheep Creek drainages would be lifted by the Board based on its approval of WSA06-03. Several Council members worked with Arctic Village Council members to consider ways to limit the number of other hunters allowed to hunt in the area; hence, the recommendation to defer to a working group (OSM 2007a). The North Slope Council recommended the Board oppose the proposal. The Council said that there was no evidence that passage of this proposal would not impact villages. The Council said resource needs should be assessed to ensure subsistence users' needs were being met at each village. The sheep population was so small, it could not support additional harvest by commercial and sport hunters (OSM 2007a).

The Board adopted the proposal. The Board said that Section 815(3) of ANILCA only allows restrictions on the taking of fish and wildlife for non-subsistence uses on Federal public lands if necessary for the conservation of healthy populations of fish and wildlife, to continue subsistence uses of such populations, or pursuant to other applicable law. Maintaining the Federal closure to non-subsistence hunting of sheep in the Cane and Red Sheep Creek drainages was no longer necessary for the conservation of a healthy sheep population. Allowing sheep hunting by non-federally qualified users in these drainages would not adversely affect the sheep population because these hunters would be limited to taking one full-curl ram during the fall season. Removal of some full-curl rams from the population was not expected to reduce the reproductive success of the sheep population. Maintaining the closure to non-subsistence hunting of sheep in these drainages was also not necessary to provide for continued subsistence use of sheep. The sheep population could support harvest by both subsistence and non-subsistence hunters. The existing closure was also not justified for reasons of public safety, administration, or pursuant other applicable law (OSM 2007b).

In 2012, the Board re-established the closure to sheep hunting by non-federally qualified users in the Cane and Red Sheep Creek drainages during the fall because the Board said that although there was no conservation concern, the closure was needed to ensure the continuation of traditional subsistence uses of sheep by Arctic Village hunters (OSM 2012b:7; 77 Fed. Reg. 114 35485 [June 13, 2012]). Proposal WP12-76 was submitted by the Eastern Interior Council, which recommended the Board support the proposal. The Council said the proposal enhanced the ability of the residents of Arctic Village to pursue subsistence opportunities and might reduce incidents of trespass and resource damage. The Council said it appreciated the information provided during public testimony and recognized the powerful connection between residents of Arctic Village and the subject area as one that was deeply culturally rooted. The Council said it was compelled by extensive and detailed public testimony and that subsistence users were concerned that non-subsistence users were interfering with subsistence users, particularly with Arctic Village residents. The North Slope Council also recommended the Board support the proposal. The Council said that the travel time by rural residents was a concern due to the long distance required and the cost of fuel. The Board adopted the proposal (OSM 2012a:355).

In 2013, Proposal WP14-51 was submitted by ADF&G. It requested the Board open the Cane and Red Sheep Creek drainages to the harvest of sheep by non-federally qualified users from Aug. 10 - Sept. 20. Additionally, ADF&G requested the requirement that those who wanted to hunt in the Cane and Red Sheep Creek drainages must possess proof of completion of an ADF&G-approved course on hunter ethics and orientation, including land status and trespass information. The Eastern Interior Council recommended the Board oppose the proposal. The Council said it had heard extensive testimony from Tribal officials from Arctic Village Council, Venetie Village Council, Native Village of Venetie Tribal Government, TCC and community members who expressed the importance of sheep in this area to their culture and community. The Council said public testimony also noted that air traffic disturbance and hunter activity was pushing sheep further away and higher. The Council said that the cultural importance of the sheep and the area to Arctic Village and other residents was their overriding concern. The North Slope Council also recommended the Board oppose the proposal. The Council said deflection or disturbance of sheep by sport hunters and aircraft flights made it difficult for Arctic Village residents to reach sheep for subsistence hunting. The Council said these sheep were a very important subsistence food shared within the community, and even if local harvest numbers were not high, effort to reach the animals was considerable and the sharing of the meat and organs was widespread and important. The Council said these sheep and this location had special cultural and medicinal value due to their history and relationship with the community as well the mineral licks that the sheep frequented in this area, which gave the meat contain unique qualities (OSM 2014a: 350).

The Board rejected Proposal WP14-51. The Board rejected this proposal based on the OSM analysis and conclusion, the recommendations of the North Slope and Eastern Interior Councils, and overwhelming public comment over the years, including the testimony presented to the Board in 2012 during consideration of a similar proposal. The Board referenced extensive public testimony of local community concerns and the cultural importance of this area, and the long-established administrative record on this issue. The Board recognized the cultural importance of the Cane and Red Sheep Creek drainages for subsistence uses of sheep by the residents of Arctic Village and Venetie. The Board said the importance of this area was also demonstrated by the number and location of Native allotments, cultural sites, and ethnographic studies documenting the long history of use in this area (OSM 2014b:3).

Furthermore, the Board heard testimony and reports that aircraft and non-subsistence hunter activity may have interfered with subsistence users' attempts to harvest sheep in this area. The Board concurred with this testimony—that non-federally qualified user activities had resulted in the displacement of sheep, pushing them out of range and preventing subsistence hunters from being able to harvest them. The Board supported keeping the closure in place to help ensure the continued subsistence uses of sheep for residents of Arctic Village, Venetie, and the other villages with C&T for sheep in this area: Chalkyitsik, Fort Yukon, and Kaktovik. The Board said that this closure was based on ANILCA Section 815(3), which allows for a restriction on the taking of fish and wildlife for non-subsistence uses on public lands when necessary to continue Federal subsistence uses (OSM 2014b:3).

In 2014, WRFR14-01 was submitted by the State of Alaska requesting that the Board reconsider its actions on Proposal WP14-51, described above. In September 2015, the Board denied the request

(OSM 2017). The Board determined that none of the claims in the request met the criteria to warrant further reconsideration, as set forth in 50 CFR Part 100.20.

In 2018, Proposal WP18-56 was submitted by Richard Bishop of Fairbanks, requesting that the Board open the AVSMA to the harvest of sheep by non-federally qualified users. The Eastern Interior Council supported the proposal with modification to open the area north of Cane Creek only. The Council said that the only legitimate reasons under Title VIII of ANILCA to restrict or eliminate the use of a resource on Federal public lands by non-subsistence users are conservation concerns and/or detrimental effects on the satisfaction of subsistence needs. The Council recognized that the issue was of cultural concern and felt that “cultural or social issues” are not a legitimate reason to close the area under provisions of ANILCA. The closing of the AVSMA to the harvest of sheep by non-subsistence users only affects sheep hunters. All other types of visitors to the area, including hikers, wildlife photographers, and flight site-seers, have been allowed to use the area. The Council stated that they consider this issue to be a “political football” and were very disappointed to find out that it was not resolved and was on the table again. The Council felt that sheep conservation was very important and encouraged Federal and State government agencies to work together on this regulatory issue. The Council also suggested requiring a specially designed, respectful hunter education course for users who would hunt in this area. The Council felt that learning respect for other people’s uses and for the resource is very important, as well as learning and understanding other cultures. The Red Sheep Creek area is an important cultural place, and Alaska Native cultures value the world and wildlife very differently than Euro-American culture. The importance of a certain area in the Alaska Native culture does not have to manifest itself in a substantial harvest. To alleviate some potential conservation concerns, the Council modified the proposal to only open the area north of Cane Creek, including the Red Sheep Creek drainage (OSM 2018a).

The North Slope Council opposed Proposal WP18-56. The Council found this proposal alarming in that it could potentially take away a very important subsistence priority on Federal public lands that, despite being small in size, has been vital to the community of Arctic Village for generations and was very important to other rural communities in the region with cultural and traditional use of sheep in this area. The Council said opening the AVSMA to hunting by non-federally qualified users would be detrimental to subsistence users, and it was necessary to restrict these other uses in order to provide for subsistence needs. The Council highlighted that there is a considerable amount of historical discussion, and the importance of this area to the local communities is well-supported. There was need for stability and for food security in these communities. The importance of protecting the subsistence opportunity in this area was well documented and recognized through repeated proposal reviews. The historic and contemporary hunting patterns exist to provide food security to the community, and the closure had allowed for the continued traditional harvest of sheep. The Council also stressed that the concern was not only the harvest of sheep by non-federally qualified users, but also the deflection of these sheep by nonresident hunting and plane activity pushing sheep further and higher up into the mountains, displacing them away from the local community. The Council stated it had heard testimony from Arctic Village as well as Kaktovik in the past. It noted that hunters from Kaktovik hunted in the AVSMA when other animals were not available, and it was an important area because sheep have been reliably found around the natural mineral formations in that small area (OSM 2018a).

North Slope Council members spoke to the cultural importance of this area and that the sheep not only provided important subsistence food but were also considered medicinal, providing minerals and special nourishment for elders and were helpful for recovery from illness. It noted that sheep are an important survival food when caribou do not come around the community, and even if harvest is low in some years, it is critical to maintain the sheep population for food security when people need to shift harvest to more sheep in low caribou years. The Council stressed that the sheep population needs to be higher before opening up the hunt, and the census data was incomplete and unreliable. It was noted that even though non-federally qualified users would be required to take a full-curl ram, the pressure of numerous hunters traveling into the area to harvest those rams would displace animals that locals would otherwise have been able to hunt. Additionally, the breeding impact of that lone, full-curl ram was important in a sheep population that was struggling, and when there are concerns about recruitment and stabilizing the population (OSM 2018a).

The Board rejected Proposal WP18-56. The Board stated that the AVSMA needs to remain closed because of the significant spiritual/cultural importance of the area and to support the continuation of the subsistence uses by the area's residents. The Board also encouraged the State to come up with suggestions or a proposal to resolve this issue during the next wildlife regulatory cycle (OSM 2018b).

In 2019, ADF&G submitted Proposal WP20-49, which requested re-opening the AVSMA in Unit 25A to the harvest of sheep by non-federally qualified users. ADF&G stated that the closure to non-federally qualified users was not necessary to accommodate local subsistence uses because harvest records indicate (according to the proponent) that residents of the communities rarely hunt sheep. Further, ADF&G claimed that there were no conservation concerns with reopening this hunt and that because of the full-curl ram harvest limit during the fall hunting season, there would be no effect on the sheep population. ADF&G continued that it was unknown if federally qualified subsistence users would be impacted by adoption of this proposal and, based on biological data, federally qualified subsistence users would retain opportunity to meet their subsistence needs if non-federally qualified users regained opportunity to harvest sheep in the AVSMA. The Eastern Interior and North Slope Councils opposed, and the Board rejected this proposal. The Board stated that there is still a significant conservation concern and the user group conflicts have not yet been resolved (85 Fed. Reg. 226 74798 [November 23, 2020]).

As stated above, the Eastern Interior Council opposed the proposal. However, prior to their October 2019 meeting, the Council attempted to address issues to decrease tension between ADF&G and the Board in regard to the AVSMA closure by submitting Proposal 82 to the BOG (EIRAC 2019: 69-70). In this proposal, the Council stated that it "...intends for this proposal to become a joint effort between the State Board of Game, the Federal Subsistence Board and Arctic Village residents to find a workable solution to a historically contentious issue and build mutual respect between parties" (BOG 2020: 95). Proposal 82 requested that the BOG establish a new hunt area akin to the AVSMA with the following hunts: 1) a draw permit hunt for residents and non-residents in the fall (Aug. 10-Sept. 20) with a harvest limit of one ram with full-curl horn or larger every four regulatory years; 2) a registration permit (RS595) hunt for residents in the winter (Oct. 1-Apr. 30) with a harvest limit of one ram with full-curl horn or larger every four regulatory years; and 3) a youth hunt by harvest

ticket in August (Aug. 1-5) with a harvest limit of one ram with full-curl horn or larger. These proposed harvest limits were intended as a compromise to reduce sheep harvest by non-federally qualified subsistence users. It was not intended as a harvest limit for federally qualified subsistence users. The Council also requested elimination of the nonresident youth hunt in the AVSMA. The Council expressed hope that the BOG would develop a hunter ethics and orientation course for non-federally qualified hunters that included land status and trespass information. According to Proposal 82, the BOG "...addressed this issue by requiring sheep hunters in this area to complete a department approved" course which it required (5 AAC 92.003(i)) but had not implemented because the AVSMA had been closed to non-federally qualified users (BOG 2020: 97).

In 2019, the Eastern Interior Council discussed the need to form a working group or subcommittee to bring all stakeholders to the table to address the Cane and Red Sheep Creek drainages. Stakeholders include Arctic Village Council, Venetie Village Council, Native Village of Venetie Tribal Government, TCC, ADF&G and the EIRAC. (EIRAC 2019: 5, 63-67, 581). This idea was the result of an informal meeting that occurred the night before the fall 2019 Council meeting began and led to Tribal government officials attending the Council meeting and providing extensive testimony in a roundtable discussion (EIRAC 2019). Much of the discussion focused on the issue of harvest data and how lack of data definitely does not indicate lack of harvest or need (EIRAC 2019: 102, 105, 111, 115). Extensive traditional knowledge was shared, including the sacredness of Red Sheep Creek, sharing of sheep meat with other villages, traditional management, which includes direction from a hunting chief as to when it is and is not appropriate to hunt and observations of extremely low numbers of sheep in the Cane and Red Sheep Creek drainages (EIRAC 2019: 42-49, 51-54). Most pointed, however, was the repeated emphasis by Tribal officials and some Council members that the issue of the AVSMA must be addressed through formal government-to-government consultation (EIRAC 2019: 50, 64, 66, 117). Evon Peter, former Chief of Arctic Village stated:

...I think it is really important for us to recognize that we have three sovereigns at work in Alaska and those are the Federal government, the State government and Tribal governments. As I began looking at the letter that was sent out to Arctic Village, I think it was addressed to our council or our chief, and it refers to just Arctic Village residents, but that doesn't really adhere to the frameworks of those three government-to-government relationships between our Tribe, the State and the Federal government (EIRAC 2019: 47).

As noted above, the Eastern Interior Council voted unanimously to oppose WP20-49.

The North Slope Council also voted to oppose WP20-49 in support of Arctic Village and Venetie and in acknowledgement of the importance of the subsistence sheep harvest. The North Slope Council stated that it is important to protect customary and traditional uses of sheep and the opportunity to hunt without conflict (FSB 2020: 607).

In March 2020, the BOG voted to amend Proposal 82, resulting in the current State regulations. It created the Eastern Brooks Range Management Area (EBRMA) which covers

the same area as the AVSMA, and a requirement to take a hunter education course specifically for non-federally qualified hunters planning to hunt in the AVSMA/EBRMA. This course has not been created because the AVSMA has remained closed to non-federally qualified users (EIRAC 2019: 66). Harvest limits were changed under the winter registration permit hunt (RS595) from three sheep to one ram with $\frac{3}{4}$ -curl horn or less every four years and a draw permit fall hunt was established for residents and non-residents as proposed (FSB 2020: 562). Much like at the Eastern Interior Council meeting, Tribal government officials from Arctic Village Council and Venetie Village Council, Native Village of Venetie Tribal Government and TCC shared traditional ecological knowledge, information about the sacredness of sheep and the low numbers of sheep within the Red Sheep Creek drainage during the BOG meeting (BOG 2020). Again, Tribal officials, including the Charlene Stern, the then Vice-President of TCC repeatedly emphasized that the path to addressing the AVSMA is formal, government-to-government consultation (BOG 2020).

In April 2020, the Board voted to reject Proposal WP20-49. Much of the Board discussion covered the same points as the Eastern Interior Council's discussion. Tribal officials from Arctic Village Council, Venetie Village Council, Native Village of Venetie Tribal Government, TCC and residents of Arctic Village and Venetie provided testimony on the very low numbers of sheep in the Cane and Red Sheep Creek drainages (FSB 2020). While Federal and State officials talked of working groups and subcommittees, Tribal officials repeatedly emphasized their desire for formal, government-to-government consultation to address the AVSMA (FSB 2020: 565, 567, 581). Charlene Stern, then Vice-President of TCC, stated:

TCC opposes Proposal WP20-49 and any attempt to open a non-subsistence hunt in the Arctic Village Sheep Management Area. As a tribal member, citizen of Arctic Village, the men in my family, including my grandfather and uncles, were raised with sheep hunting as part of their seasonal subsistence cycle. The Gwich'in people of Arctic Village have intergenerational knowledge about the sheep of Red Sheep Creek and Cane Creek areas and have consistently opposed efforts to open it to non-subsistence hunting. This area is included in our customary and traditional use area and is a critical historical and spiritual site including burial grounds. Any proposed change to the management of sheep must be discussed in advance in Tribal consultation with the Arctic Village Council and Venetie Village Council and Native Village of Venetie Tribal Government (FSB 2020: 581).

**FEDERAL WILDLIFE CLOSURE REVIEW
WCR24-35**

Issue: Wildlife Closure Review WCR24-35 reviews the closure to caribou hunting in the southeastern portion of Unit 12 where Federal public lands are closed to caribou hunting, except by Federally qualified subsistence users. The closure targets the Chisana Caribou Herd (CCH).

Closure Location and Species: 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—caribou (**Map 1**).

Current Federal Regulation

Unit 12–Caribou

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 –Caribou

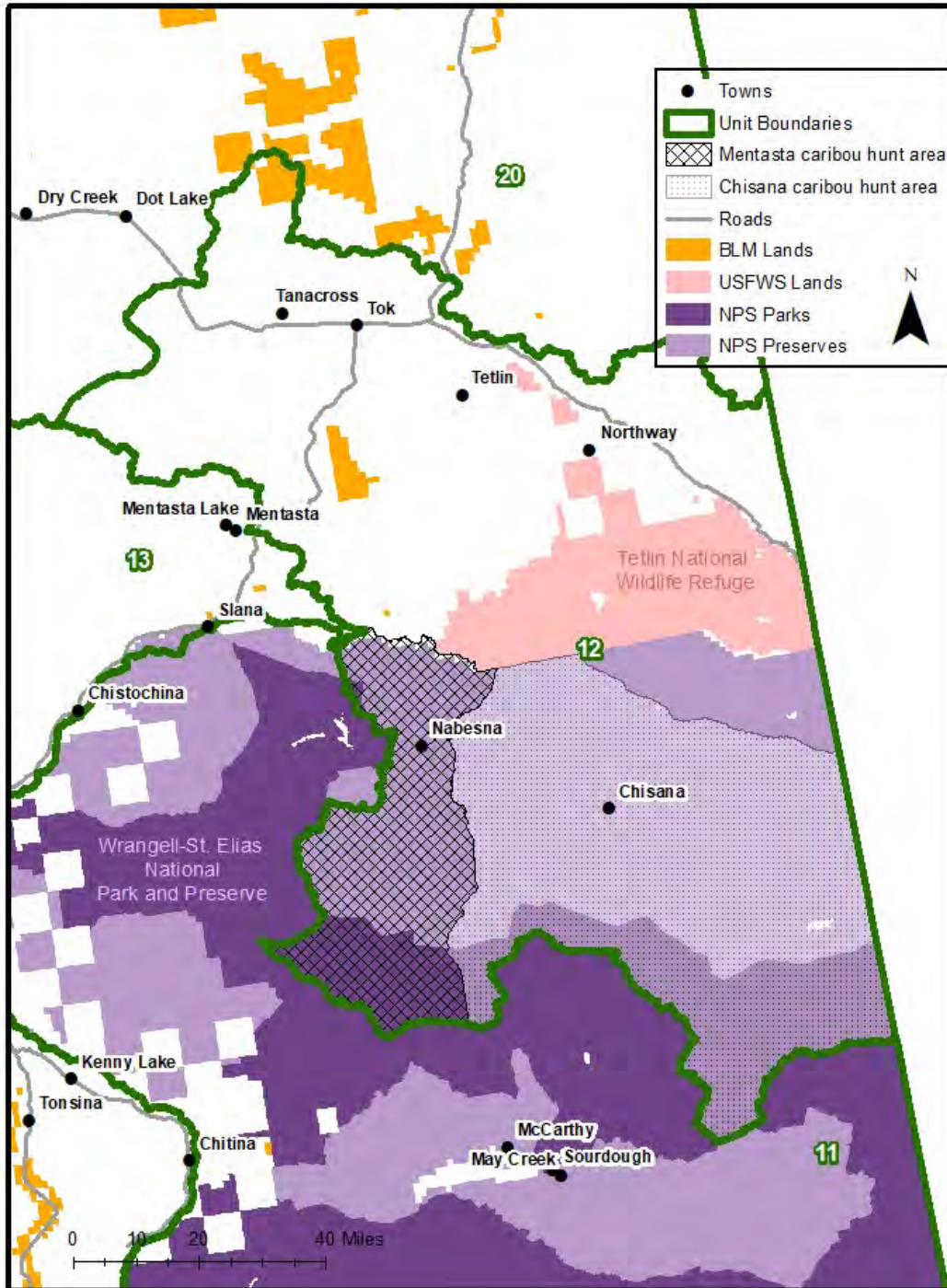
Residents and Nonresidents: Unit 12, remainder No open season

Regulatory Year Initiated: 1994, closed to all users; 2012, closed except by some Federally qualified subsistence users (§804 restriction); 2016, closed except by Federally qualified subsistence users.

Extent of Federal Public Lands

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**).

Federal public lands comprise nearly 100% of the closure area and consist of 100% NPS managed lands.



Map 1. Federal closures for caribou in Unit 12. The cross-hatched area targets the Mentasta Caribou Herd and is closed to all users. The stippled area targets the Chisana Caribou Herd and is closed to non-Federally qualified users.

Customary and Traditional Use Determination

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

Under the guidelines of Alaska National Interest Lands Conservation Act (ANILCA), National Park Service regulations identify qualified local rural subsistence users in National Parks and National Monuments by: (1) identifying Resident Zone Communities that include a significant concentration of people who have customarily and traditionally used subsistence resources on park lands; and (2) identifying and issuing subsistence use (13.440) permits to individuals residing outside of the Resident Zone Communities who have a personal or family history of subsistence use within the park or monument.

Wrangell-St. Elias National Park has 23 resident zone communities: Chisana, Chistochina, Chitina, Copper Center, Dot Lake, Gakona, Gakona Junction, Glennallen, Gulkana, Healy Lake, Kenny Lake, Lower Tonsina, McCarthy, Mentasta Lake, Nabesna, Northway, Slana, Tazlina, Tanacross, Tetlin, Tok, Tonsina, and Yakutat.

Regulatory History

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 one bull caribou and the annual harvest ranged between 16–34 animals (Gross 2005). The Federal subsistence regulation from 1990 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 Alaska Department of Fish and Game's (ADF&G) management objective and hunting of Chisana caribou was closed by both the Alaska Board of Game (BOG) and the Federal Subsistence Board (Board).

In 1994, the Board adopted Proposal P94-71, which closed Federal public lands east of the Nabesna River to the Canadian border to the harvest of caribou by all users to protect the declining CCH resulting in the following hunt areas (OSM 1994):

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.

Unit 12 – remainder

In 2000, the Board adopted Proposal P00-59, combining the hunt areas west and east of the Nabesna River into one hunt area to make regulations consistent for Unit 12 (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 2002, the CCH was designated as “Specially Protected” under the Yukon Wildlife Act, which prohibits all licensed harvest of the CCH in Canada and requires a regulation change to initiate a harvest.

In 2010, the BOG approved to establish a joint State/Federal drawing permit for the CCH. This hunt would follow guidelines set in the Management Plan for the CCH. 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, which comprised the vast majority of that hunt area, the Federal closure superseded the existing State regulation and thus Federal public lands remained closed to hunting of the CCH under State regulations. The Board considered Proposal WP10-104 that 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. The Board deferred Proposal WP10-104 until more information could be gathered.

In 2012, the Board considered proposals WP10-104 and WP12-65/66 (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 Mentasta Caribou Herd (MECH) 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 south of the Winter Trail running southeast from Pickerel Lake to the Canadian border: Northway, Mentasta, Tetlin, Tok, Chisana, and Chistochina. The list of communities was based on an ANILCA §804 analysis. The authority to manage the Federal hunt was delegated to the Wrangell-St. Elias National Park and Preserve (WRST) 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). As a result of the Board’s action on WP12-66, 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.

Also in 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 for the CCH under the ANILCA §804 analysis to also include residents of the hunt area and those living in Unit 12 along the Nabesna Road (mileposts 25-46) (OSM 2014a).

The Board also adopted Proposal WP14-49 with modification to change the fall season dates for the CCH hunt 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 in Unit 12, south of the Winter Trail and east of the Nabesna River and Glacier to all Federally qualified subsistence users. Permits issued from 2012 to 2014 and the number of animals harvested had been below quotas, allowing expansion of harvest opportunity for all Federally qualified subsistence users without concerns for overharvest (OSM 2016).

In 2020, the Board approved a revised closure policy, which stipulated all closures will be reviewed every four years. The policy also specified that closures, like regulatory proposals, will be presented to the Councils for a recommendation and then to the Board for a final decision. Previously, closure reviews were presented to Councils who then decided whether to maintain the closure or to submit a regulatory proposal to modify or eliminate the closure.

In 2020, the Board maintained status quo for closure review WCR20-42 due to continued conservation concerns. This closure review was a combined review of the closure to caribou hunting by all users in Unit 12 targeting the MECH within that portion of Wrangell-St. Elias National Park and Preserve that is west of the Nabesna River and Glacier and the closure to caribou hunting, except Federally qualified subsistence users targeting the CCH in Unit 12, east of the Nabesna River and Nabesna Glacier and south of the Winter Trail for.

In 2022, WRST issued an emergency special action closing the CCH caribou hunt because recruitment had fallen below the minimum threshold identified in the CCH management plan for sustainable harvest (Bobowski 2022).

Closure last reviewed: 2020 – WCR20-42

Justification for Original Closure:

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 P94-71, which closed the CCH hunt to all users based upon the recommendation from the Eastern Interior Alaska Subsistence Regional Advisory Council (EI Council) and OSM that the closure was necessary to assure the continued viability of this herd. The Board's reauthorization of harvest limits in this area would be aided by the caribou management plan that NPS was developing with input from the interested agencies and affected parties including Regional Advisory Councils (OSM 1994).

In 2012, the Board modified the closure with the adoption of Proposal WP12-66 with modification to delegate authority to manage the Federal hunt to the WRST 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. The Board concurred with The EI Council that while the harvest surplus is small, it should not pose a conservation concern with good in-season management. The Board also noted that the remoteness of the herd will limit access, but the proposal will provide increased subsistence opportunity.

In 2016, the Board modified the closure with the adoption of Proposal WP16-60 opening Federal public lands in Unit 12, south of the Winter Trail and east of the Nabesna River and Glacier to all Federally qualified subsistence users. Permits issued from 2012 to 2014 and the number of animals harvested had been below quotas, allowing expansion of harvest opportunity for all Federally qualified subsistence users without concerns for overharvest (OSM 2016)

Council Recommendation for Original Closure:

The Council concluded that the CCH 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 1,850 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.

In 2012, the EI Council supported WP12-66 with modification to delegate authority to manage the Federal hunt to the WRST Superintendent. The EI Council stated that while the harvest surplus is small, it should not pose a conservation concern with good in-season management.

In 2016, The EI Council supported WP16-60 as modified by OSM. The EI Council stated that allowing all qualified Federal users in the hunt area to harvest the Chisana Caribou Herd would provide subsistence opportunity for these communities but only add about 200 people to the eligible list and therefore not cause any increase in competition for the resource. The EI Council further stated that there does not appear to be a conservation concern and it would be beneficial by allowing more opportunity for those who do wish to make the effort to hunt this herd

State Recommendation for Original Closure:

The ADF&G opposed this closure to caribou hunting of the CCH. ADF&G stated this Federal action is inappropriate and, as written, will create an undue administrative burden to management of the CCH.

In 2012, ADF&G supported portions of WP12-65, 66 and deferred WP10-104 with modification. The state recommended following the guidelines for a limited harvest of Chisana caribou shared between Alaska and Canada as laid out in the management plan and further recommended using a joint State/Federal permit to monitor harvest in Alaska. A joint Federal/State drawing permit would ensure continued cooperation between State and Federal managers who worked together to develop the herd management plan. If the harvest is limited to federal subsistence users only, a registration hunt should be used, and the season closed if the quota is met. Based on harvest records since the 1970s, the remote nature (aircraft access only), the likelihood of harvesting the quota is unlikely. A short reporting period should be adequate to ensure overharvest does not occur.

In 2016, ADF&G supported WP16-60 with OSM modification and the proposal was considered on the consensus agenda.

Biological Background

The ranges of the Mentasta, Chisana, and Nelchina caribou herds overlap in Unit 12 (**Map 2**). The Nelchina Caribou Herd (NCH) was declining and at the lower end of the State population objectives in 2018 (ADF&G 2018, Hatcher 2018, pers. comm.). In 2022, the NCH population had dropped to 21,000, well below the lower end of the State’s fall population objective of 35,000 to 40,000 Nelchina caribou. Multiple Nelchina caribou hunts were closed early by Emergency orders, 04-02-22, 04-03-22, 04-06-22, and 04-08-22, due to harvest quotas being reached quickly (ADF&G 2022). However, since this closure is not associated with the NCH, the NCH is not considered further in this analysis.

The MECH occurs primarily in the western and northern portion of Unit 12 and the northern portion of Unit 11 within Wrangell-St. Elias National Park and Preserve (WRST). Since the overlap between the CCH and MECH is minimal, the MECH is be considered in a separate closure review analysis (WCR24-42).

The CCH is a small herd that occurs on the Klutan Plateau and near the headwaters of the White River in southwest Yukon Territory, Canada and east central Alaska in the southeastern portion of Unit 12. During the summer the CCH spends most of their time in Alaska primarily on Federal public lands within the WRST, although there is some overlap with Tetlin National Wildlife Refuge (NWR) and adjacent State lands. During the winter the CCH spends most of their time in the Yukon Territory, Canada on the Kluane Wildlife Sanctuary and the Asi Keyi Natural Environmental Park. Since this international herd ranges across multiple jurisdictions, multiple land agencies are involved and responsible for the management of the CCH.

The CCH is a genetically distinct population (Zittlau et al. 2000, Zittlau 2004). In Canada, the CCH is classified as woodland caribou, whereas in Alaska the CCH is classified a barren-ground caribou (Miller 2003). Genetic analysis of the CCH found large genetic distances between the CCH and the other five adjacent herds, which suggests that the herd has been unique for thousands of years (Zittlau et al. 2000). Behaviorally, the CCH is typical of other mountain herds, particularly with respect to calving females, where, rather than aggregating in certain areas like barren-ground caribou, they disperse up in elevation away from other calving females as an anti-predator strategy (Farnell and Gardner 2002). Occasionally the CCH mix with the Nelchina and Mentasta caribou herds during the winter in Alaska and in the vicinity of Beaver Creek, Yukon Territory, Canada. 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, NCH, and MECH 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 in Canada 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 NPS, and the USFWS 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 (Cellarius 2022, pers. comm.).

The CCH Management Plan guidelines for harvest are as follows:

- 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, and
- A stable or increasing population trend.

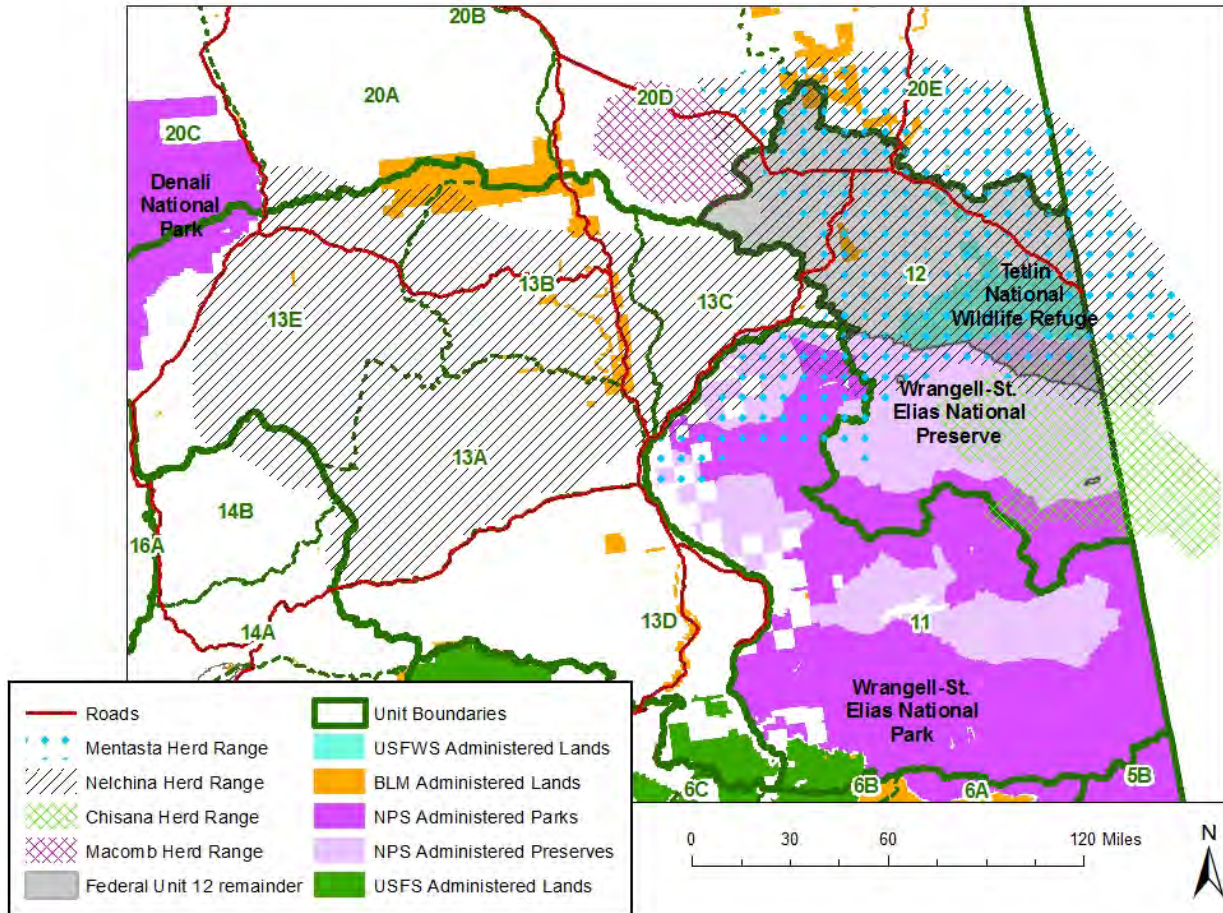
The CCH Management Plan guidelines for harvest include a maximum harvest allocation of 2% of the herd size, a bull-only harvest, and an allocation equally distributed between Yukon Territory and Alaska (Chisana Caribou Herd Working Group 2012).

Information about the CCH prior to 1970s is limited. The population estimate from the first survey conducted in 1977 was about 1,000 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 1990s 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 bulls:100 cows and 20 calves:100 cows (Bentzen 2011, Gross 2015). 2010 was the last year a population estimate was determined, but composition sample sizes from 2011-2021 ranged from 373-631 caribou (**Table 2**). The 2017 bull:cow ratio of 32 bulls:100 cows was below the minimum threshold of 35 bulls:100 cows set by the CCH 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 vs the minimum yearly threshold set by the Management Plan, therefore the 2018 hunt could occur (Cellarius 2018a). From 2018-2021, the bull:cow ratio was above the threshold averaging 42 bulls:100 cows. However, the calf:cow ratio averaged 14 calves:100 cows, which was below the minimum threshold set by the Management Plan, resulting in the closure of the 2022 CCH hunt (Cellarius 2022, pers. comm., Chisana Caribou Herd Working Group, 2012).

In 2020, 11 GPS/Iridium and 17 VHF radio collars were deployed on the Alaska side of the CCH range, and Yukon Environment planned to deploy collars on the Yukon side in 2021 (Putera 2021). As of October 2022, there were 42 active collars in the herd, a mix of 17 GPS/Iridium collars and 25 VHF collars (Cameron 2022).



Map 2. Ranges of the Nelchina, Mentasta, Macomb, and Chisana caribou herds.

Table 2. Fall sex and age composition of the Chisana Caribou Herd, 2000-2021 (Chisana Caribou Herd Working Group 2012; Gross 2015; Putera 2014, 2017b, 2022; Taylor 2018; Cellarius 2022, pers. comm.; Cutting 2022 pers. comm.).

Regulatory Year	Total Bulls:100 Cows	Calves: 100 Cows	Calves (%)	Cows (%)	Bulls (%)	Composition Sample Size /Observed	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	- ^c
2007 ^b	50	13	8	61	30	719	766
2008	44	21	13	61	27	532	-
2009	48	15	9	61	30	505	-
2010	42	23	14	61	25	622	697
2011	38	16	14	66	25	542	-
2013	49	16	-	-	-	631	-
2014	40	23	-	-	-	528	-
2015	40	19	-	-	-	399	-
2016	46	28	-	-	-	534	-
2017	32	21	-	-	-	533	-
2018	39	13	9	65	25	373	-
2019	43	17	11	63	27	445	-
2020 ^d	-	-	-	-	-	-	-
2021	45	12	8	64	29	420	-

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

^b USGS survey results.

^c Not available.

^d No composition count

Harvest History

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 Athabaskan 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 the CCH closed under State and Federal regulations. 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. 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). From 1990 to 1994, 43% of the hunters participating in the CCH hunt were nonresidents, who were responsible for 58% of the CCH harvest. Local subsistence users accounted for only 9% of the CCH harvest during that time period (Gross 2005).

Gross (2005) also reported that the estimated unreported harvest of Chisana caribou between 1989 and 2002 ranged from 1-20 in the Yukon and 1-3 caribou 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. Additionally, no legal harvest of CCH occurred in Alaska between 1994 and 2012. The hunt was closed under State and Federal regulations between 1994 and 2010. The hunt remained closed under Federal regulations from 2010 and 2012 but limited harvest of the CCH consistent with the herd's management plan was authorized by the State in 2010. A concurrent proposal, WP10-104, was submitted to the Board but was deferred in 2010.

At its January 2012 meeting, the Board authorized a limited harvest of the CCH consistent with the CCH Management Plan. The Board delegated authority to the WRST Superintendent to open and close the season and 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 hunt was set at seven animals.

The NPS met with participating communities, 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. However, after several years, WRST learned that the remote location for this hunt resulted in

few permits being issued. Therefore, permits are issued on a first-come, first-served basis, and WRST has not exercised its authority to limit the number of permits issued (Celarius 2022, pers. comm.).

Between 2012 and 2021, only eight permits have been issued per year on average, a total of fourteen Chisana caribou have been taken, and success rates have averaged < 35% per year (Table 3, FWS 2022). For the 2022 season, the WRST superintendent issued an Emergency Special Action setting the harvest quota to zero due to the 3-year rolling calf:100 cow ratio dropping to 14 calves:100 cows (Bobowski 2022). The threshold set in the CCH Management Plan guidelines for harvest is 15 calves:100 cows.

Table 3. Summary of the Chisana caribou harvest in the southeast portion of Unit 12 (FC1205) (FWS 2022).

Year	Permits Issued (FC1205)	Individuals Hunting (Permits used)	Caribou Harvest	Success Rate (%) ^a
2012	9	8	2	25.0
2013	9	7	3	42.9
2014	11	8	2	25.0
2015	11	7	0	0
2016	8	8	1	12.5
2017	9	3	0	0
2018	6	2	2	100.0
2019	4	3	1	33.3
2020	7	4	3	75
2021	5	1	0	0
2022 ^b	0	0	0	0

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

^b Hunt was closed for the entire 2022 season.

Effects

The CCH population has remained low with poor composition metrics. In 2022 an emergency special action set the harvest quota at zero due to low calf:cow ratios, effectively closing the 2022 hunt. Sustainable harvest is already relatively low under the current closure to caribou harvest by non-Federally qualified users. Rescinding the closure would increase harvest opportunities for non-Federally qualified users, but could lead to unsustainable harvest levels if the State opened a drawing permit hunt.

Retaining status quo for this closure would continue to provide for subsistence harvest opportunity when herd metrics allow for a sustainable harvest. Retaining status quo would also protect the CCH from overharvest and continue to provide management flexibility and the ability to quickly respond to changing herd conditions by maintaining the WRST Superintendent’s delegated authority to open and close the season, and to announce the harvest quota, the number of permits issued, and the reporting period.

The closure could be modified to include all user groups. This would eliminate all hunting pressure on the CCH within the closure area. However, this would also preclude subsistence harvest opportunity by removing the WRST Superintendent's ability to announce harvest quotas and issue permits to Federally qualified subsistence users when the CCH meets the criteria outlined in the CCH Management Plan guidelines for harvest.

OSM PRELIMINARY CONCLUSION:

- Retain the Status Quo**
- Rescind the Closure**
- Modify the closure to . . .**
- Defer Decision on the Closure or Take No Action**

Justification

While the 2022 CCH hunt was closed due to conservation concerns, the WRST Superintendent has Delegated Authority to open and close the season, and to announce the harvest quota, the number of permits issued and the reporting period. Thus, allowing flexibility for in-season management based on the current status of the herd optimizes subsistence hunting opportunity and conservation of the CCH. This is also consistent with recommendations and management guidelines in the CCH Management Plan (Chisana Caribou Herd Working Group 2012).

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FEDERAL WILDLIFE CLOSURE REVIEW
WCR24-42

Issue: Wildlife Closure Review WCR22-42 reviews the closure to caribou hunting by all users in the southwestern portion of Unit 12. The closure targets the Mentasta Caribou Herd and applies to all users.

Closure Location and Species: Unit 12, that portion within the Wrangell-St. Elias National Park that lies west of the Nabesna River and the Nabesna Glacier – Caribou (**Map 1**).

Current Federal Regulation

Unit 12–Caribou

Unit 12—that portion within the Wrangell-St. Elias National Park and Preserve¹ that lies west of the Nabesna River and the Nabesna Glacier. No Federal open season

All hunting of caribou is prohibited on Federal public lands.

¹The Code of Federal Regulations (CFR) only includes Wrangell-St. Elias (WRST) National Park in this regulation and not WRST National Preserve. This is an error that will be corrected administratively as soon as possible.

Closure Dates: Year-round

Current State Regulation

Unit 12 –Caribou

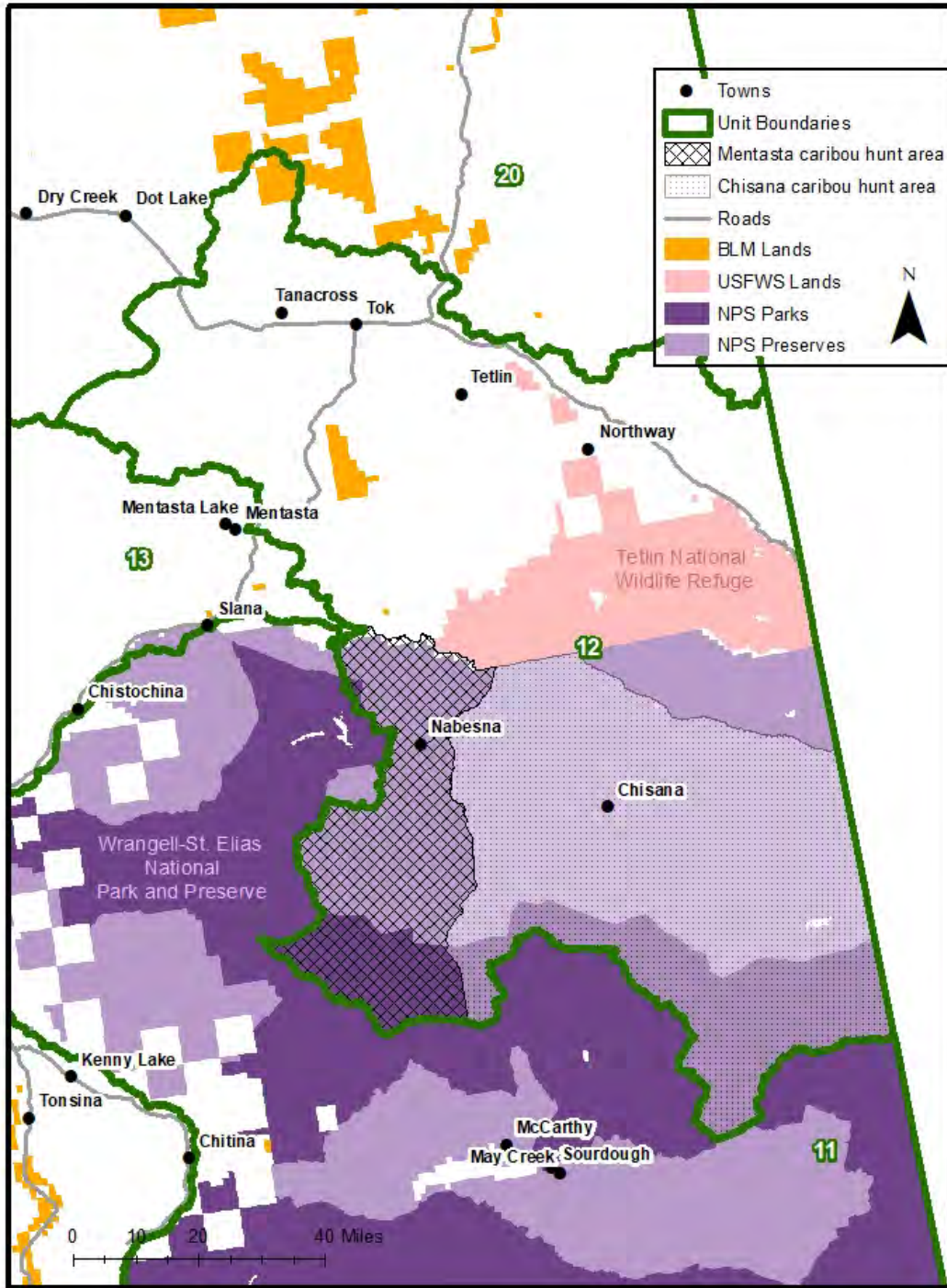
Unit 12, remainder – Residents and Nonresidents No open season

Regulatory Year Initiated: 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.*

Extent of Federal Public Lands

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. Federal public lands comprise nearly 100% of the closure area and consist 100% of NPS managed lands (**Map 1**).



Map 1. Federal closure for caribou in Unit 12. The cross-hatched area targets the Mentasta caribou herd and is closed to all users. The stippled area targets the Chisana caribou herd and is closed to non-Federally qualified users.

Customary and Traditional Use Determination

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

Under the guidelines of Alaska National Interest Lands Conservation Act (ANILCA), National Park Service regulations identify qualified local rural subsistence users in National Parks and National Monuments by: (1) identifying Resident Zone Communities that include a significant concentration of people who have customarily and traditionally used subsistence resources on park lands; and (2) identifying and issuing subsistence use (13.440) permits to individuals residing outside of the Resident Zone Communities who have a personal or family history of subsistence use within the park or monument.

Wrangell-St. Elias National Park has 23 resident zone communities: Chisana, Chistochina, Chitina, Copper Center, Dot Lake, Gakona, Gakona Junction, Glennallen, Gulkana, Healy Lake, Kenny Lake, Lower Tonsina, McCarthy, Mentasta Lake, Nabesna, Northway, Slana, Tazlina, Tanacross, Tetlin, Tok, Tonsina, and Yakutat.

Regulatory History

In 1991, two hunt areas were identified in the Federal subsistence hunting regulations for caribou in Unit 12. For Unit 12 west the Nabesna River within the drainages of Jack Creek, Platinum Creek and Totschunda Creek, the regulations were one bull by Federal registration permit with a quota of up to 50 bulls in Units 11 and 12 combined and a season of Aug. 10 to Sept. 30. For Unit 12 remainder the regulations 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 in the remainder have remained unchanged since then; however, some of the area was subsequently closed to the harvest of caribou due to conservation concerns.

Also in 1991, the Federal Subsistence Board (Board) approved Special Action Requests 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 eliminating 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 Mentasta Caribou Herd (MECH) 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 MECH, which mixes with the NCH in Unit 12 during the winter (OSM 1992c).

In 1993, the Board adopted Proposal P93-034 to close all of Unit 11 and the area in Unit 12 west of the Nabesna River within the drainages of Jack Creek, Platinum Creek, and Totschunda Creek to caribou hunting to protect the declining MECH (OSM 1993). There has been no Federal open season and Federal public lands have remained closed to all users since 1993 for Unit 12 west of the Nabesna River and Nabesna Glacier.

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 also adopted Proposal P94-71, which closed the area east of the Nabesna River to the Canadian border to the harvest of caribou to protect the declining Chisana Caribou Herd (CCH) (OSM 1994). The closure for the MECH remained in effect for the area west of the Nabesna River.

In 2000, the areas previously designated west and east of the Nabesna River were combined into one hunt area via adoption of Proposal P00-59. This combination of hunt areas was because 1) the winter ranges of the Mentasta and Nelchina herds overlap and 2) with the popularity of the Nelchina herd, additional regulations prohibiting the taking of caribou in the proposal area are necessary to protect the Mentasta herd (OSM 2000):

The entire area remained closed to caribou hunting under Federal subsistence regulations until 2012. In 2012, the Board considered Proposals WP10-104 and WP12-65/66, which all requested establishing hunts for the CCH (OSM 2012a). WP12-66 requested restricting the hunt 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 CCH hunt to this area would protect the MECH 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, resulting in the areas west and east of the Nabesna River once again being divided into two hunt areas (OSM 2012a): 1)

Unit 12 – that portion within the Wrangell-St-Elias National Park and Preserve that lies west of the Nabesna River and the Nabesna Glacier, and 2)

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.

Also in 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 2020, the Board approved a revised closure policy, which stipulated all closures will be reviewed every four years. The policy also specified that closures, like regulatory proposals, will be presented to the Councils for a recommendation and then to the Board for a final decision. Previously, closure

reviews were presented to Councils who then decided whether to maintain the closure or to submit a regulatory proposal to modify or eliminate the closure

In 2020, the Board voted to maintain status quo for Closure Review WCR20-42 due to continued conservational concerns. This closure review was a combined review of the closure targeting the MECH in the southwestern portion of Unit 12 and the closure targeting the CCH in the southeastern portion of Unit 12.

In 2022, the Board adopted Proposal WP22-35 with modification. Proposal WP22-35 requested establishing a may-be-announced caribou season in Unit 11 with a harvest limit of one bull by Federal registration permit. The modification was to delegate authority to the Wrangell-St. Elias National Park and Preserve (WRST) Superintendent to announce season dates, harvest quotas, and the number of permits to be issued; to define harvest areas; and to open and close the season in Unit 11 via a delegation of authority letter only. The intent of this proposal was to increase hunting opportunities for Federally qualified subsistence users when Nelchina caribou migrate through Unit 11, while protecting the MECH. The modification provided for timely in-season management, mitigating impacts on the MECH while allowing for subsistence hunting when Nelchina caribou are present.

Closure last reviewed: 2020 – WCR20-42

Justification for Original Closure:

Section §816(b) of ANILCA states:

Except as specifically provided otherwise by this section, nothing in this title is intended to enlarge or diminish the authority of the Secretary to designate areas where, and establish periods when, no taking of fish and wildlife shall be permitted on the public lands for reasons of public safety, administration, or to assure the continued viability of a particular fish or wildlife population.

The Board adopted Proposal P93-034, which established the closure because it was necessary to assure the Mentasta herd's continued viability. The available biological data clearly demonstrated that the MECH was of great conservation concern due to severe population declines, poor calf survival, and potential overharvest. The Board stated that the regulation would clarify that public lands are closed to all caribou hunting in Unit 11 and a portion of Unit 12 (OSM 1993).

Council Recommendation for Original Closure:

This closure was initiated 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 MECH 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 ($\approx 15\%$) during the previous 2-3 years. The near total reproductive failure in 1991 and 1992 resulted in the population age structure being skewed towards the older age classes, which generally results in delayed recovery (OSM 1993).

The MECH 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. Thus, closing the subsistence hunt on the MECH was necessary to assure the herd's continued viability (OSM 1993).

Biological Background

The ranges of the Mentasta, Chisana, and Nelchina caribou herds overlap in Unit 12 (**Map 2**). The MECH occurs primarily in the western and northern portion of Unit 12 (Unit 12, remainder and Unit 12, southwest) and the northern portion of Unit 11 within WRST. The MECH disperses across Unit 12 and southern Unit 20E in winter, often intermingling with the NCH (MECH Mgmt. Plan 1995).

While the NCH and MECH 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).

The NCH was declining and at the lower end of the State population objectives in 2018 (ADF&G 2018, Hatcher 2018, pers. comm.). In 2022, the NCH population had dropped to 21,000 caribou, well below the lower end of the State's fall population objective of 35,000 to 40,000 Nelchina caribou. Multiple Nelchina caribou hunts were closed early by Emergency orders (04-02-22, 04-03-22, 04-06-22, and 04-08-22) due to harvest quotas being reached quickly (ADF&G 2022) However, since this closure targets the MECH and is not associated with the NCH, the NCH is not considered further in this analysis.

The CCH is a shared population between Alaska and Southern Yukon Territory, 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 (NWR) and adjacent State lands. In the Yukon Territory, the CCH ranges within the boundaries of Kluane Wildlife Sanctuary and Asi Keyi Natural Environmental Park. Since the overlap between the CCH and MECH is minimal, the CCH is considered in a separate analysis (WCR24-35).

The MECH calves and summers within the upper Copper River Basin and the northern and western flanks of the Wrangell Mountains (OSM 2018). The calving grounds for the MECH are located in northern Unit 11 within WRST (MECH Mgmt. Plan 1995, **Map 2**). Barten et al. (2001) found that parturient cows 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 non-parturient 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).

In 1995, Federal and State biologists completed the Mentasta Herd Cooperative Management Plan, which specifies the following management objectives (MECH 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 MECH 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 fall annual quotas are greater than 70 both non-Federally and Federally qualified users are allowed to hunt the MECH during the fall season. When the fall annual quota falls below 70, only Federally qualified subsistence users are allowed to hunt the MECH during the fall season. If it is below 30, a §804 analysis will determine the allocation of permits among the Federally qualified subsistence users.

Since 2000, managers at Tetlin NWR have used a 20:1 mixing ratio of Nelchina caribou to Mentasta caribou as the minimum threshold for considering winter season openings. The Tetlin NWR monitors the location and movement of radio-collared Mentasta and Nelchina caribou through aerial surveys. This information is used to determine a reliable mixing ratio with the NCH. In 2016 and 2017 the number of active collars in the MECH declined to 10, which was too few to adequately determine a reliable mixing ratio with the NCH. In 2018-19, staff from the WRST and ADF&G deployed an additional 20 GPS/Satellite radio-collars in the MECH (Putera 2021, pers. comm.). ADF&G has also deployed several GPS/Satellite collars in the NCH.

The MECH population declined from an estimated 3,160 caribou in 1987 to an estimated 495 caribou in 2021 (**Table 1**). The fall population estimate in 2020 was 1,150 caribou; however, the increase from 479 caribou in 2019 is not explained by calf production the previous year but may be due in part to Nelchina caribou returning late from their winter range. Some of these late returning caribou may have failed to migrate back to their traditional calving grounds, remaining within the Mentasta summer range. This theory is supported by the presence of three radio-collared Nelchina caribou in the Mentasta caribou summer range in 2020. The number of caribou observed during the Mentasta caribou survey in June 2021 dropped back to levels observed in 2019, further supporting the temporary

presence of Nelchina caribou in the Mentasta caribou summer range in 2020. However, one radio collared Nelchina cow was present during the 2021 June census (Putera 2021, pers. comm.).

The extremely low calf:cow ratios of 2-6 calves: 100 cows from 1991-1993 (OSM 1992d) resulted in a complete failure of fall recruitment of young in the MECH (Jenkins and Barton 2005). Dale (2000) postulated that this may have been due to poor body 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).

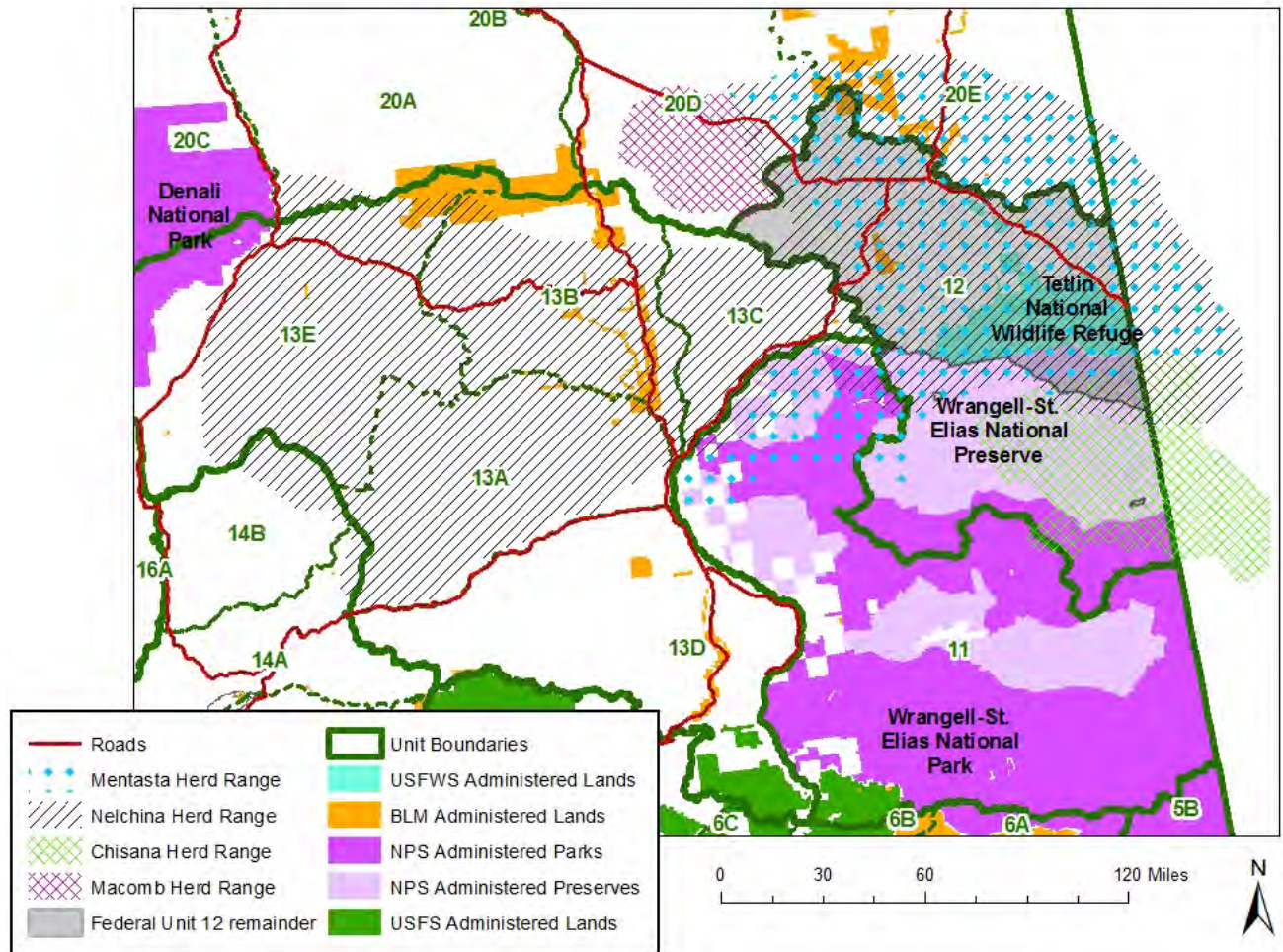
Between 1990 and 1997, Jenkins and Barten (2005) confirmed predation, particularly by gray wolves and grizzly bears, as the proximate cause of the MECH population decline. Grizzly bears were the most important predators of neonates, and gray wolves mostly preyed on older juvenile caribou in the MECH. 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 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 MECH 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 MECH population has remained stable at relatively low levels since 2000 as evidenced by low calf productivity (barring the anomalous 2020 population estimate) (Putera 2021, pers. comm.). Between 2000 and 2022, June and fall calf:cow ratios fluctuated ranging from 1-38 calves:100 cows and 0-34 calves:100 cows, respectively (**Table 1**, OSM 2018). Low calf production and survival and high cow mortality from 1987-2009 were the primary causes for the population declines in the MECH. The number of cows observed during the fall surveys declined from 2,065 in 1987 to 54 in 2016 (OSM 2012b).

Between 1987 and 2021, the bull:cow ratio has fluctuated widely (Putera 2019, Putera 2021, pers. comm.), ranging from 35-142 bulls:100 cows and averaging 66 bulls:100 cows. Fall surveys conducted within the same 23-year period also revealed severe declines in total observed Mentasta bulls from 847 bulls in 1987 to 40 bulls in the fall 2011 survey. Since 2011, the number of Mentasta bulls has slightly rebounded to 78 bulls observed in the fall 2021 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 the Nelchina herd's 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 ratios and an increased proportion of young bulls in populations of reindeer could result in fewer adult females conceiving during their 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 term ecotype designates populations of the same species that evolved different demographic and behavioral adaptations to cope with specific ecological constraints. The MECH 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 is thus more susceptible to extreme random events. A key factor in distinguishing between two ecotypes is whether animals are dispersed or aggregated when young are born (Seip 1991, Bergerud 2000). The chronic low calf productivity and recruitment of the MECH 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 as well as for 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).



Map 2. Ranges of the Nelchina, Mentasta, Macomb, and Chisana caribou herds.

Table 1. Population size and composition of the Mentasta caribou herd (OSM 2012b, 2018, 2020; FWS 2018, Putera 2019, Putera 2021, 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

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
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	389
2018		72	16	66	22	92	470
2019		113	29	100	26	95	479
2020	6	98	18	75	18	77	1150
2021	12	100	14	78	14	78	495

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

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

^c Population 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.

^d 1996 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).

^e 2004 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).

^f 2004 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 sightability probabilities.

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

Harvest History

There has been no Federal open season since 1993 for the area west of the Nabesna River and Nabesna Glacier in Unit 12. In Unit 11, there was a small Federal subsistence harvest from 1996–1998 due to MECH management objectives being met for calf production and recruitment (MECH Cooperative Management Plan 1995). Harvest in the 1996/97 season was one caribou with 15 permits issued. In the 1997/98 season, 12 permits were issued but no caribou harvest was reported. There has been no reported harvest from the MECH since 1998 as both State and Federal seasons have remained closed. However, some incidental harvest of Mentasta caribou may take place during winter hunts targeting the Nelchina and Forty-mile Caribou Herds in Unit 12, remainder. While the MECH Management Plan does not specify an appropriate mixing ratio, the 20:1 ratio has been used as the minimum threshold for considering winter season openings by the Federal in-season managers since at least 2000 (OSM 2000). The MECH Management Plan suggests that incidental harvest of Mentasta caribou is usually minimal (MECH Management Plan 1995). In 2012, the Board excluded the area west of the Nabesna River and Nabesna Glacier to protect the MECH when it established a Federal registration hunt for the CCH in Unit 12 east of the Nabesna River and Nabesna Glacier and south of the Winter Trail (OSM 2012a). The caribou hunt established in 2022 in Unit 11 may also result in incidental harvest of Mentasta caribou, if announced, although the hunt was designed to mitigate harvest from the MECH.

Other Alternatives Considered

One alternative considered is to delegate authority to the WRST Superintendent to announce season dates, harvest quotas, and the number of permits to be issued; to define harvest areas; and to open and close the season for caribou on Federal public lands in the southeastern portion of Unit 12, similar to the may-be-announced caribou hunt just established in Unit 11 via adoption of Proposal WP22-35. The location, timing and numbers of the NCH mixing with the MECH varies year-to-year and in some years Nelchina caribou do not mix with the MECH. Granting delegated authority to the WRST Superintendent would allow harvest and seasons to reflect when the NCH is present and allow use of the most current biological data to minimize incidental harvest of Mentasta caribou, while providing for subsistence opportunity. This would also align the eastern portion of WRST in Unit 12 with the recent changes in the western portion of WRST in Unit 11.

Delegating authority to define harvest areas would facilitate opening areas of WRST to harvest where the caribou present are primarily from the Nelchina herd, while avoiding areas with concentrated numbers of Mentasta caribou. However, this is outside of the scope of a closure review and would require a proposal be submitted.

Effects

The MECH remains at very low numbers and any harvest from the herd would be of conservation concern. If the closure is rescinded, then all users could hunt caribou in this area. However, proposals would need to be submitted and adopted to establish hunts as State and Federal seasons are both currently closed. Similarly, if the closure were modified to open to Federally qualified subsistence users only, there'd be potential for increased harvest opportunity, but a proposal to the Board would be

needed to establish a hunt. If the status quo is retained, then hunting pressure on the MECH, which is still of a great conservation concern, would continue to be minimized.

OSM PRELIMINARY CONCLUSION

Retain the Status Quo

Rescind the Closure

Modify the closure to . . .

Defer Decision on the Closure or Take No Action

Justification

The MECH population remains low despite a moratorium on hunting since 1993, and no harvestable surplus is available. The closure should be retained to protect the MECH and remains necessary to assure its continued viability.

Opportunity to harvest Nelchina caribou in this hunt area may be possible if reliable mixing ratios can be determined and authority is delegated to a Federal manager to allow for flexible and timely in-season hunt management. However, that option is beyond the scope of this closure review.

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

Federal Subsistence Board Informational Flyer



U.S. Forest Service

Contact:

Office of Subsistence Management
(907) 786-3888 or (800) 478-1456
subsistence@fws.gov

How to Submit a Proposal to Change Federal Subsistence Regulations

Alaska rural residents and the public 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 and the public assist with effective management of subsistence activities and ensure consideration of traditional and local knowledge in subsistence management decisions. Subsistence users also provide valuable fish and wildlife harvest information.

A call for proposals to change Federal subsistence regulations is issued in January of even-numbered years for fish and shellfish and in odd-numbered years for wildlife. Proposals to change the nonrural determinations will be accepted in January of every other even-numbered year (every other fish cycle). The period during which proposals are accepted is no less than 30 calendar days. Proposals must be submitted within this time frame. Announcements are made each year regarding the proposals being accepted and timelines that apply.

You may propose changes to Federal subsistence season dates, harvest limits, methods and means of harvest, customary and traditional use and nonrural 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 game management unit number, drainage, or area, and species. Quote the current regulation if known. If you are proposing a new regulation, please state “new regulation.”
- The proposed regulation written as you would like to see it
- An explanation of why this regulation change should be made
- Any additional information that you believe will help the Federal Subsistence Board (Board) in evaluating the proposed change

You may submit your proposals by one of the following methods:

- Electronically: Go to the Federal Rulemaking Portal: <https://www.regulations.gov>. In the Search box, enter the Docket number [the docket number will list in the proposed rule, news releases, and other forms of outreach]. Then, click on the Search button. On the resulting page, in the Search panel on the left side of the screen, under the Document Type heading, check the Proposed Rule box to locate this document. Ensure you select the proposed rule by the U.S. Fish and Wildlife Service and **not** by the U.S. Forest Service. You may submit a comment or proposal by clicking on “Comment.”
- By mail: Submit by U.S. mail or hand delivery: Public Comments Processing, Attn: [list the Docket number]; U.S. Fish and Wildlife Service; 5275 Leesburg Pike, MS: PRB (JAO/3W); Falls Church, VA 22041–3803.
- By hardcopy: If in-person Federal Subsistence Regional Advisory Council (Council) meetings are held, you may also deliver a hard copy to the Designated Federal Official (DFO) attending any of the Council public meetings. Information on the dates, locations, and call-in numbers for the Council meetings are announced with several news releases, public service announcements, on our webpage, and social media (see bottom of page for web addresses).

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: <https://www.federalregister.gov/>. All proposals and comments, including personal information, are posted online at <https://www.regulations.gov>.

We cannot accept proposals delivered or sent to the Alaska Regional Office of the U.S. Fish and Wildlife Service, this includes: phone or voicemail, fax, hand delivery, mail, or email.

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

How a proposal to change Federal subsistence regulations is processed:

- 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.
- The proposals are compiled into a book for statewide distribution and posted online to the Program website (<https://www.doi.gov/subsistence/current-proposals>). The proposals are also sent out to 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 30 calendar days. Comments must be submitted within this time frame.
- The lead analyst works with appropriate agencies and proponents to develop an analysis on the proposal.
- The analysis is sent to the Regional Advisory Councils, ADF&G, and the ISC for comments and recommendations to the Federal Subsistence 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 the comments and recommendations received by interested/affected parties. This packet of information is then presented to the Board for action.

- 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.
- The final rule is published in the Federal Register and a public regulations booklet is developed and distributed statewide and on the Program's website.

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 <https://www.doi.gov/subsistence> or by visiting www.facebook.com/subsistencealaska.

TABLE 1—COMPARISON OF CURRENT¹ AND PROPOSED FEES—Continued

I-407	Record of Abandonment of Lawful Permanent Resident Status	No Fee	No Fee	N/A	N/A
I-485J	Confirmation of Bona Fide Job Offer or Request for Job Portability Under INA Section 204(j).	No Fee	No Fee	N/A	N/A
I-508	Request for Waiver of Certain Rights, Privileges, Exemptions, and Immunities.	No Fee	No Fee	N/A	N/A
I-566	Interagency Record of Request—A, G, or NATO Dependent Employment Authorization or Change/Adjustment To/From A, G, or NATO Status.	No Fee	No Fee	N/A	N/A
I-693	Report of Medical Examination and Vaccination Record	No Fee	No Fee	N/A	N/A
I-854	Inter-Agency Alien Witness and Informant Record	No Fee	No Fee	N/A	N/A
I-864	Affidavit of Support Under Section 213A of the INA	No Fee	No Fee	N/A	N/A
I-864A	Contract Between Sponsor and Household Member	No Fee	No Fee	N/A	N/A
I-864EZ	Affidavit of Support Under Section 213A of the INA	No Fee	No Fee	N/A	N/A
I-864W	Request for Exemption for Intending Immigrant's Affidavit of Support.	No Fee	No Fee	N/A	N/A
I-865	Sponsor's Notice of Change of Address	No Fee	No Fee	N/A	N/A
I-912	Request for Fee Waiver	No Fee	No Fee	N/A	N/A
I-942	Request for Reduced Fee	No Fee	No Fee	N/A	N/A

¹ These are fees that USCIS is currently charging and not those codified by the 2020 fee rule.

Christina E. McDonald,
Federal Register Liaison, U.S. Department of Homeland Security.
 [FR Doc. 2023-00274 Filed 1-6-23; 8:45 am]
BILLING CODE 9111-97-P

DEPARTMENT OF THE INTERIOR

National Park Service

36 CFR Part 13

[NPS-AKRO-33913; PPAKAKROZ5, PPMRLE1Y.L00000]

RIN 1024-AE70

Alaska; Hunting and Trapping in National Preserves

AGENCY: National Park Service, Interior.

ACTION: Proposed rule.

SUMMARY: The National Park Service (NPS) proposes to amend its regulations for sport hunting and trapping in national preserves in Alaska. This proposed rule would prohibit certain harvest practices, including bear baiting; and prohibit predator control or predator reduction on national preserves.

DATES: Comments on the proposed rule must be received by 11:59 p.m. ET on March 10, 2023.

ADDRESSES: You may submit comments, identified by Regulation Identifier Number (RIN) 1024-AE70, by either of the following methods:

- *Federal eRulemaking Portal:* <http://www.regulations.gov>. Follow the instructions for submitting comments.
- *Mail or Hand Deliver to:* National Park Service, Regional Director, Alaska Regional Office, 240 West 5th Ave., Anchorage, AK 99501. *Comments delivered on external electronic storage devices (flash drives, compact discs, etc.) will not be accepted.*

- *Instructions:* Comments will not be accepted by fax, email, or in any way other than those specified above. Comments delivered on external electronic storage devices (flash drives, compact discs, etc.) will not be accepted. All submissions received must include the words “National Park Service” or “NPS” and must include the docket number or RIN (1024-AE70) for this rulemaking. Comments received will be posted without change to <https://www.regulations.gov>, including any personal information provided.

- *Docket:* For access to the docket to read background documents or comments received, go to <https://www.regulations.gov> and search for “1024-AE70.”

FOR FURTHER INFORMATION CONTACT:

Regional Director, Alaska Regional Office, 240 West 5th Ave., Anchorage, AK 99501; phone (907) 644-3510; email: AKR_Regulations@nps.gov.

Individuals in the United States who are deaf, deafblind, hard of hearing, or have a speech disability may dial 711 (TTY, TDD, or TeleBraille) to access telecommunications relay services. Individuals outside the United States should use the relay services offered within their country to make international calls to the point-of-contact in the United States.

SUPPLEMENTARY INFORMATION:

Background

The Alaska National Interest Lands Conservation Act (ANILCA) allows harvest of wildlife in national preserves in Alaska for subsistence purposes by local rural residents under Federal regulations. ANILCA also allows harvest of wildlife for sport purposes by any individual under laws of the State of Alaska (referred to as the State) that do not conflict with federal laws. ANILCA requires the National Park Service (NPS) to manage national preserves consistent

with the NPS Organic Act of 1916, which directs the NPS “to conserve the scenery, natural and historic objects, and wild life in the System units and to provide for the enjoyment of the scenery, natural and historic objects, and wild life in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.” 54 U.S.C. 100101(a).

On June 9, 2020, the NPS published a final rule (2020 Rule; 85 FR 35181) that removed restrictions on sport hunting and trapping in national preserves in Alaska that were implemented by the NPS in 2015 (2015 Rule; 80 FR 64325). These included restrictions on the following methods of taking wildlife that were and continue to be authorized by the State in certain locations: taking black bear cubs, and sows with cubs, with artificial light at den sites; harvesting bears over bait; taking wolves and coyotes (including pups) during the denning season (between May 1 and August 9); taking swimming caribou; taking caribou from motorboats under power; and using dogs to hunt black bears. The 2015 Rule prohibited other harvest practices that were and continue to be similarly prohibited by the State. These prohibitions were also removed by the 2020 Rule. The 2020 Rule also removed a statement in the 2015 Rule that State laws or management actions that seek to, or have the potential to, alter or manipulate natural predator populations or processes in order to increase harvest of ungulates by humans are not allowed in national preserves in Alaska. The NPS based the 2020 Rule in part on direction from the Department of the Interior (DOI) to expand recreational hunting opportunities and align hunting opportunities with those established by states. Secretarial Orders 3347 and 3356. The 2020 Rule also responded to direction from the

Secretary of the Interior to review and reconsider regulations that were more restrictive than state provisions, and specifically the restrictions on harvesting wildlife found in the 2015 Rule.

The harvest practices at issue in both the 2015 and 2020 Rules are specific to harvest under the authorization for sport hunting and trapping in ANILCA. Neither rule addressed subsistence harvest by rural residents under title VIII of ANILCA.

The 2015 Rule

Some of the harvest methods prohibited by the 2015 Rule targeted predators. When the NPS restricted these harvest methods in the 2015 Rule, it concluded that these methods were allowed by the State for the purpose of reducing predation by bears and wolves to increase populations of prey species (ungulates) for harvest by human hunters. The State's hunting regulations are driven by proposals from members of the public, fish and game advisory entities, and State and Federal government agencies. The State, through the State of Alaska Board of Game (BOG), deliberates on the various proposals publicly. Many of the comments made in the proposals and BOG deliberations on specific hunting practices showed that they were intended to reduce predator populations for the purpose of increasing prey populations. Though the State objected to this conclusion in its comments on the 2015 Rule, the NPS's conclusion was based on State law and policies;¹ BOG proposals, deliberations, and decisions;² and Alaska Department of Fish and Game actions, statements, and publications leading up to the 2015 Rule.³ Because NPS Management

¹ Alaska Statutes (AS) section 16.05.255(k) (definition of sustained yield); Findings of the Alaska Board of Game, 2006–164–BOG, Board of Game Bear Conservation and Management Policy (May 14, 2006) (rescinded in 2012).

² See, e.g., Alaska Board of Game Proposal Book for March 2012, proposals 146, 167, 232.

³ See, e.g., AS section 16.05.255(e); State of Alaska Department of Fish and Game Emergency Order on Hunting and Trapping 04–01–11 (Mar. 31, 2011) (available at Administrative Record for Alaska v. Jewell et al., No. 3:17–cv–00013–JWS, D. Alaska pp. NPS0164632–35); State of Alaska Department of Fish and Game Agenda Change 11 Request to State Board of Game to increase brown bear harvest in game management unit 22 (2015); Alaska Department of Fish and Game Wildlife Conservation Director Corey Rossi, "Abundance Based Fish, Game Management Can Benefit All," Anchorage Daily News (Feb. 21, 2009); ADFG News Release—Wolf Hunting and Trapping Season extended in Unit 9 and 10 in response to caribou population declines (3/31/2011); Alaska Department of Fish and Game Craig Fleener, Testimony to U.S. Senate Committee on Energy and Natural Resources re: Abundance Based Wildlife Management (Sept. 23, 2013); Alaska Department of

Policies state that the NPS will manage park lands for natural processes (including natural wildlife fluctuations, abundances, and behaviors) and explicitly prohibit predator control, the NPS determined that these harvest methods authorized by the State were in conflict with NPS mandates. NPS Management Policies (4.4.1, 4.4.3) (2006). For these reasons and because the State refused to exempt national preserves from these authorized practices, the NPS prohibited them in the 2015 Rule and adopted a regulatory provision consistent with NPS policy direction on predator control related to harvest. The 2015 Rule further provided that the Regional Director would compile, annually update, and post on the NPS website a list of any State predator control laws or actions prohibited by the NPS on national preserves in Alaska.

As stated above, the 2015 Rule only restricted harvest for "sport purposes." Although this phrase is used in ANILCA, the statute does not define the term "sport." In the 2015 Rule, the NPS reasoned that harvest for subsistence is for the purpose of feeding oneself and family and maintaining cultural practices, and that "sport" or recreational hunting invokes Western concepts of fairness which do not necessarily apply to subsistence practices. Therefore, the 2015 Rule prohibited the practices of harvesting swimming caribou and taking caribou from motorboats under power which the NPS concluded were not consistent with generally accepted notions of "sport" hunting. This conclusion also supported restrictions in the 2015 Rule on the practices of taking bear cubs and sows with cubs; and using a vehicle to chase, drive, herd, molest, or otherwise disturb wildlife. To illustrate how the 2015 Rule worked in practice, a federally qualified local rural resident could harvest bear cubs and sows with cubs, or could harvest swimming caribou (where authorized under federal subsistence regulations), but a hunter from Anchorage, Fairbanks, Juneau or other nonrural areas in Alaska, or a hunter from outside Alaska, could not.

In the 2015 Rule, the NPS also concluded that the practice of putting out bait to attract bears for harvest poses an unacceptable safety risk to the visiting public and leads to unnatural wildlife behavior by attracting bears to a food source that would not normally

Fish and Game, Hunting and Trapping Emergency Order 4–01–11 to Extend Wolf Hunting and Trapping Seasons in GMU [Game Management Unit] 9 and 10 (LACL and KATM) (Nov. 25, 2014); ADFG Presentation Intensive Management of Wolves, Bears, and Ungulates in Alaska (Feb. 2009).

be there. The NPS based this conclusion on the understanding that bears are more likely to attack when defending a food source and therefore visitors who encountered a bait station would be at risk from bear attacks. In addition, the NPS concluded that baiting could cause more bears to become conditioned to human food, creating unacceptable public safety risks. The NPS based this conclusion on the fact that not all bears that visit bait stations are harvested; for example, a hunter may not be present when the bear visits the station, or a hunter may decide not to harvest a particular bear for a variety of reasons. Additionally, other animals are attracted to bait stations. Because bait often includes dog food and human food, including items like bacon grease and pancake syrup, which are not a natural component of animal diets, the NPS was concerned that baiting could lead to bears and other animals associating these foods with people, which would create a variety of risks to people, bears, and property. For these reasons, the 2015 Rule prohibited bear baiting in national preserves in Alaska.

The NPS received approximately 70,000 comments during the public comment period for the 2015 Rule. These included unique comment letters, form letters, and signed petitions. Approximately 65,000 comments were form letters. The NPS also received three petitions with a combined total of approximately 75,000 signatures. The NPS counted a letter or petition as a single comment, regardless of the number of signatories. More than 99% of the public comments supported the 2015 Rule. Comments on the 2015 Rule can be viewed on *regulations.gov* by searching for "RIN 1024-AE21".

The 2020 Rule

The 2020 Rule reconsidered the conclusions in the 2015 Rule regarding predator control, sport hunting, and bear baiting. First, the 2020 Rule reversed the 2015 Rule's conclusion that the State intended to reduce predator populations through its hunting regulations. As explained above, the NPS's conclusion in the 2015 Rule was based on BOG proposals, deliberations, and decisions; and Alaska Department of Fish and Game actions, statements, and publications that preceded the 2015 Rule. However, in their written comments on the 2015 and 2020 Rules, the State denied that the harvest

practices for predators were part of their predator control or intensive management programs and therefore were not efforts to reduce predators. In its written comments, the State argued that the liberalized predator harvest

rules were simply a means to provide new opportunities for hunters to harvest predators, in response to requests received by the BOG. The State argued that it provided these new opportunities under a “sustained yield” management framework, which is distinct from what the State considers “predator control.” The State asserted that it has a separate, formal predator control program which is not considered “hunting” by the State. According to the State, predator control occurs only through its “intensive management” program.

The NPS afforded the State’s written comments on the 2020 Rule more weight than it did on the State’s similar comments on the 2015 Rule, both of which were in conflict with other contemporaneous public State positions on the matter. The NPS took into account the analysis in the environmental assessment supporting the 2020 Rule, which concluded that the hunting practices in question would not likely alter natural predator-prey dynamics at the population level or have a significant foreseeable adverse impact to wildlife populations, or otherwise impair park resources. The NPS also considered what it viewed as the legislative requirements of ANILCA with respect to hunting. Based upon these considerations, the NPS concluded the hunting practices did not run afoul of NPS Management Policies section 4.4.3, which prohibits predator reduction to increase numbers of harvested prey species. This led the NPS to remove two provisions that were implemented in the 2015 Rule: (1) the statement that State laws or management actions intended to reduce predators are not allowed in NPS units in Alaska, and (2) prohibitions on several methods of harvesting predators. With prohibitions on harvest methods removed, the 2020 Rule went back to deferring to authorizations under State law for harvesting predators. To illustrate how the 2020 Rule works in practice, Alaska residents, including rural and nonrural residents, and out-of-state hunters may take wolves and coyotes (including pups) for sport purposes in national preserves during the denning season in accordance with State law.

The 2020 Rule also relied upon a different interpretation of the term “sport” in ANILCA’s authorization for harvest of wildlife for sport purposes in national preserves in Alaska. As explained above, the 2015 Rule gave the term “sport” its common meaning associated with standards of fairness, and prohibited certain practices that were not compatible with these standards. In the 2020 Rule, the NPS

stated that in the absence of a statutory definition, the term “sport” merely served to distinguish sport hunting from harvest under federal subsistence regulations. Consequently, under the 2020 Rule, practices that may not be generally compatible with notions of “sport”—such as harvesting swimming caribou or taking cubs and pups or mothers with their young—may be used by anyone in national preserves in accordance with State law.

Finally, the 2020 Rule reconsidered the risk of bear baiting to the visiting public. The NPS noted that peer-reviewed data are limited on the specific topic of hunting bears over bait. Additionally, the NPS concluded that human-bear interactions are likely to be rare, other than for hunters seeking bears, due to a lack of observed bear conditioning to associate bait stations with humans and the relatively few people in such remote areas to interact with bears. In making this risk assessment, the NPS took into account state regulations on baiting that are intended to mitigate safety concerns, and NPS authority to enact local closures if and where necessary. For these reasons and because of policy direction from the DOI and the Secretary of the Interior requiring maximum deference to state laws on harvest that did not exist in 2015, the 2020 Rule rescinded the prohibition on bear baiting that was implemented in the 2015 Rule. As a result, any Alaska resident, including rural and nonrural residents, or out-of-state hunter may take bears over bait in national preserves in Alaska in accordance with State law, including with the use of human and dog foods.

The NPS received approximately 211,780 pieces of correspondence, with a total of 489,101 signatures, during the public comment period for the 2020 Rule. Of the 211,780 pieces of correspondence, approximately 176,000 were form letters and approximately 35,000 were unique comments. More than 99% of the public comments opposed the 2020 Rule. Comments on the 2020 Rule can be viewed on *regulations.gov* by searching for “RIN 1024-AE38”.

Proposed Rule

In this proposed rule, the NPS reconsiders the conclusions that supported the 2020 Rule. This proposed rule addresses three topics that were considered in the 2015 and 2020 Rules: (1) bear baiting; (2) the meaning and scope of hunting for “sport purposes” under ANILCA; and (3) State law addressing predator harvest. After reconsidering these topics, the NPS

proposes in this rule to prohibit the same harvest methods that were prohibited in the 2015 Rule. The proposed rule also would prohibit predator control or predator reduction on national preserves. Finally, the proposed rule would clarify the regulatory definition of trapping for reasons explained below. The NPS has begun consulting and communicating with Tribes and Alaska Native Claims Settlement Act (ANCSA) Corporations that would be most affected by this proposed rule and the feedback provided to date has been incorporated by the NPS in this proposed rule as discussed below.

Bear Baiting

The NPS proposes to prohibit bear baiting in national preserves in Alaska. Bait that hunters typically use to attract bears includes processed foods like bread, pastries, dog food, and bacon grease. As explained below, this proposal would lower the risk that bears will associate food at bait stations with humans and become conditioned to eating human-produced foods, thereby creating a public safety concern. This proposal would also lower the probability of visitors encountering a bait station where bears may attack to defend a food source. The proposal to prohibit baiting is supported by two primary risk factors and other considerations that are discussed below.

Risk of Bears Defending a Food Source

The risks caused by humans feeding bears (including baiting them with food) are widely recognized.⁴ Bears are more likely to attack when defending a food source, putting visitors who encounter a bear at or near a bait station or a kill site

⁴Herrero, S. 2018. Bear attacks: their causes and avoidance. Lyons Press, Guilford, Connecticut, USA at p. 22; Glitzenstein, E., Fritschie, J. The Forest Service’s Bait and Switch: A Case Study on Bear Baiting and the Service’s Struggle to Adopt a Reasoned Policy on a Controversial Hunting Practice within the National Forests. 1 *Animal Law* 47, 55–56 (1995). See also, Denali State Park Management Plan, 69 (2006) (“The practice has the potential for creating serious human-bear conflicts, by encouraging bears to associate campgrounds and other human congregation points with food sources.”); City and Borough of Juneau, Living with Bears: How to Avoid Conflict (available at https://juneau.org/wp-content/uploads/2017/03/2004_living_w_pamphlet_finaljustified.pdf), City and Borough of Juneau, Living in Bear Country (available at https://juneau.org/wp-content/uploads/2017/03/living_in_bear_country_color.pdf) (“It is well known that garbage kills bears—that is, once bears associate people with a food reward, a chain of events is set into motion and the end result, very often, is a dead bear.”); Biologists say trash bears in Eagle River will be killed—but people are the problem, Anchorage Daily News (available at www.adn.com/alaska-news/wildlife/2018/06/18/biologists-say-trash-bears-in-eagle-river-will-be-killed-but-people-are-the-problem/).

at significant risk.⁵ Visitors to national preserves in Alaska may inadvertently encounter bears and bait stations while engaging in sightseeing, hiking, boating, hunting, photography, fishing, and a range of other activities. This is because despite the vast, relatively undeveloped nature of these national preserves, most visitation occurs near roads, trails, waterways, or other encampments (*e.g.*, cabins, residences, communities). Establishing and maintaining a bait station requires the transport of supplies, including bait, barrels, tree stands, and game cameras. The same roads, trails, and waterways used by visitors are, therefore, also used by those setting up a bait station. Thus, despite the vast landscapes, bear baiting and many other visitor activities are concentrated around the same limited access points. Processed foods are most commonly used for bait because they are convenient to obtain and are attractive to bears. Processed foods do not degrade quickly nor are they rapidly or easily broken down by insects and microbes. As a result, they persist on the landscape along with the public safety risk of bears defending a food source.

The NPS recognizes that there are restrictions in State law intended to mitigate the risks described above. Bait stations are prohibited within ¼ mile of a road or trail and within one mile of a dwelling, cabin, campground, or other recreational facility. State regulations also require bait station areas to be signed so that the public is aware that a bait station exists. Although these mitigation measures may reduce the immediate risk of park visitors approaching a bear defending bait, NPS records indicate that bait stations established at Wrangell-St. Elias National Park and Preserve often do not comply with the State's minimum distance requirements. Further, as discussed below, these requirements do not mitigate the risk of other adverse outcomes associated with baiting that are discussed below.

Risk of Habituated and Food-Conditioned Bears

Another aspect of bear baiting that poses a public safety and property risk is the possibility that bears become habituated to humans through exposure to human scents at bait stations and then become food conditioned, meaning

⁵Herrero, S. 2018. Bear attacks: their causes and avoidance. Lyons Press, Guilford, Connecticut, USA. at p. 22; Glitzenstein, E., Fritschie, J. The Forest Service's Bait and Switch: A Case Study on Bear Baiting and the Service's Struggle to Adopt a Reasoned Policy on a Controversial Hunting Practice within the National Forests. 1 Animal Law 47, 55–56 (1995).

they learn to associate humans with a food reward (bait). This is particularly true of processed foods that are not part of a bear's natural diet because virtually all encounters with processed foods include exposure to human scent.

It is well understood that habituated and food-conditioned bears pose a heightened public safety risk.⁶ The published works of Stephen Herrero, a recognized authority on human-bear conflicts and bear attacks explain the dangers from bears that are habituated to people or have learned to feed on human food, highlight that habituation combined with food-conditioning has been associated with a large number of injuries to humans, and indicate food-conditioning of bears may result from exposure to human food at bait stations.

The State's mitigation measures mentioned above, including requirements for buffers and signage, do not adequately address the risk associated with habituated and food-conditioned bears because bears range widely, having home ranges of tens to hundreds of square miles.⁷ The buffers around roads, trails, and dwellings are therefore inconsequential for bears that feed at bait stations but are not harvested there. These bears have the potential to become habituated to humans and conditioned to human-produced foods, resulting in increased likelihood of incidents that compromise public safety, result in property damage and threaten the lives of bears who are killed in defense of human life and property.

In the 2020 Rule, the NPS determined that the lack of conclusive evidence that bear baiting poses safety concerns justified allowing bear baiting. While the NPS acknowledges the lack of peer-reviewed data demonstrating that bear baiting poses a public safety risk, this data gap exists primarily because rigorous studies specific to this point are logistically and ethically infeasible. The determination made by the NPS in the 2020 Rule did not fully consider the vast experience and knowledge of recognized experts and professional resource managers. In April 2022, the NPS queried 14 NPS resource managers

⁶Herrero, S. 2018. Bear attacks: their causes and avoidance. Lyons Press, Guilford, Connecticut, USA. at p. 22; Glitzenstein, E., Fritschie, J. The Forest Service's Bait and Switch: A Case Study on Bear Baiting and the Service's Struggle to Adopt a Reasoned Policy on a Controversial Hunting Practice within the National Forests. 1 Animal Law 47, 55–56 (1995).

⁷See, *e.g.*, Glitzenstein, E., Fritschie, J. The Forest Service's Bait and Switch: A Case Study on Bear Baiting and the Service's Struggle to Adopt a Reasoned Policy on a Controversial Hunting Practice within the National Forests. 1 Animal Law 52–53 (1995).

and wildlife biologists from 12 different National Park System units in Alaska about bear baiting. These technical experts' unanimous opinion was that bear baiting will increase the likelihood of defense of life and property kills of bears and will alter the natural processes and behaviors of bears and other wildlife. Considering the potential for significant human injury or even death, these experts considered the overall risk of bear baiting to the visiting public to be moderate to high. These findings generally agree with the universal recognition in the field of bear management that food conditioned bears result in increased bear mortality and heightened risk to public safety and property, and that baiting, by its very design and intent, alters bear behavior. The findings also are consistent with the State's management plan for Denali State Park. The management plan expresses concern that bear baiting "teaches bears to associate humans with food sources" and states that bear baiting is in direct conflict with recreational, non-hunting uses of the park. The plan further notes that bear baiting has "the potential for creating serious human-bear conflicts, by encouraging bears to associate campgrounds and other human congregation points with food sources."⁸

Other Considerations

In addition to the risks explained above, there are other considerations that support the proposal to prohibit all bear baiting. The NPS is guided by its mandates under the NPS Organic Act to conserve wildlife and under ANILCA to protect wildlife populations. Food-conditioned bears are more likely to be killed by authorities or by the public in defense of life or property.⁹ While the NPS supports wildlife harvest as authorized in ANILCA, it cannot

⁸Denali State Park Management Plan, 69 (2006).

⁹See *e.g.*, City and Borough of Juneau, Living with Bears: How to Avoid Conflict (available at https://juneau.org/wp-content/uploads/2017/03/2004_living_w_pamphlet_finaljustified.pdf), and Borough of Juneau, Living in Bear Country (available at https://juneau.org/wp-content/uploads/2017/03/living_in_bear_country_color.pdf)

("It is well known that garbage kills bears—that is, once bears associate people with a food reward, a chain of events is set into motion and the end result, very often, is a dead bear."); Biologists say trash bears in Eagle River will be killed—but people are the problem, Anchorage Daily News (available at www.adn.com/alaska-news/wildlife/2018/06/18/biologists-say-trash-bears-in-eagle-river-will-be-killed-but-people-are-the-problem/); Glitzenstein, E., Fritschie, J. The Forest Service's Bait and Switch: A Case Study on Bear Baiting and the Service's Struggle to Adopt a Reasoned Policy on a Controversial Hunting Practice within the National Forests. 1 Animal Law 52–53 (1995).

promote activities that increase non-harvest mortalities of bears.

Feedback From Tribes and ANCSA Corporations on Bear Baiting

Feedback received to date from Tribes and ANCSA Corporations indicates baiting bears is not a common activity in or near national preserves and not something done commonly by local rural residents. Many of the entities voiced support for prohibiting baiting altogether, limiting bait to natural items, increasing buffer zones around developments, or requiring a permit. On the other hand, a minority—mostly entities affiliated with the Wrangell-St. Elias area—recommended continuing to allow sport hunters to harvest bears over bait, including with use of processed foods like donuts and dog food. Consultation and communication with Tribes and ANCSA Corporations is ongoing and feedback will continue to be considered by the NPS throughout the rulemaking process.

The Meaning and Scope of Hunting for “Sport Purposes” Under ANILCA

Hunting is prohibited in National Park System units except as specifically authorized by Congress. 36 CFR 2.2(b). Title VIII of ANILCA allows local rural residents to harvest wildlife for subsistence in most, but not all, lands administered by the NPS in Alaska. Title VIII also created a priority for federal subsistence harvest over other consumptive uses of fish and wildlife. Separate from subsistence harvest, ANILCA authorized anyone to harvest wildlife for “sport purposes.” When first authorized under ANILCA, the State managed subsistence harvest by local rural residents under Title VIII as well as harvest for sport purposes by anyone. After a ruling from the State Supreme Court that the State Constitution barred the State from implementing the rural subsistence provisions of ANILCA, the Federal government assumed management of subsistence harvest under title VIII. Following this decision, the State only regulates harvest for sport purposes under ANILCA.¹⁰ Under the State’s current framework, Alaska residents have a priority over nonresidents but there is no prioritization based upon where one resides in Alaska.

¹⁰ The State of Alaska also uses the term “subsistence” when referencing harvest of fish and wildlife by state residents. It is important to recognize, however, that state subsistence harvest is not the same as federal subsistence under title VIII of ANILCA, which is limited to only local rural residents. When the term “subsistence” is used in this document, it refers to subsistence under title VIII of ANILCA and harvest of fish and wildlife under federal regulations.

Accordingly, all residents of Alaska have an equal opportunity to harvest wildlife for “sport purposes” in national preserves under State law.

The NPS is re-evaluating whether it was appropriate for the 2020 Rule to change its interpretation of the term “sport” in the 2015 Rule. An important implication of that change is that the 2020 Rule expanded sport hunting opportunities for nonlocal residents who are not qualified to harvest wildlife under federal subsistence laws. As mentioned above, in the spring of 2022 the NPS reached out to Tribes and ANCSA Corporations that are most likely to be impacted by this proposed rule. In these discussions, most of these entities expressed concern that increasing harvest opportunities under ANILCA’s authorization for sport hunting and trapping could result in increased competition from individuals that are not local to the area. In addition, most of these entities do not believe there is a demand to engage in these harvest practices in national preserves (other than limited demand to bait bears in Wrangell-St. Elias) and expressed a preference that the NPS not authorize practices that could encourage more nonlocal hunters to visit the area and compete for wildlife resources.

This feedback from Tribes and ANCSA Corporations illustrates a tension between the interests conveyed and the outcome of the 2020 Rule which increased harvest opportunities for nonlocal rural residents. In the 2015 Rule, the NPS said harvest of wildlife for “sport purposes” carries with it concepts of fairness or fair chase. These constructs do not necessarily apply to subsistence practices which emphasize cultural traditions and acquisition of calories for sustenance. In the 2020 Rule, the NPS changed its interpretation by saying the term “sport” only serves to differentiate harvest under State regulations from harvest under federal subsistence regulations. As a result, practices that some might consider only appropriate for subsistence harvest by local rural residents now may be used by anyone harvesting for “sport purposes” under State law. As conveyed by the Tribes and ANCSA Corporations, this increases competition between federal subsistence hunters and sport hunters by expanding hunting opportunities to those who are not local rural residents. It also allows for sport hunters to engage in practices that are not considered sporting under notions of the term as described above. The examples below illustrate how this issue plays out in national preserves in Alaska today:

- *Swimming caribou.* Under the 2015 Rule, only qualified rural residents could harvest swimming caribou in national preserves in accordance with federal subsistence regulations, which recognize the practice as part of a customary and traditional subsistence lifestyle. Individuals from Anchorage, Fairbanks, Juneau and other nonrural areas in Alaska, as well as out-of-state hunters, could not harvest swimming caribou in national preserves. Under the 2020 Rule, residents of nonrural areas in Alaska (including Anchorage, Fairbanks, and Juneau) and out-of-state hunters can harvest swimming caribou in national preserves in accordance with State law under ANILCA’s authorization for harvest for “sport purposes.”

- *Black bear cubs and sows with cubs.* Under the 2015 Rule, only a qualified rural resident could harvest bear cubs and sows with cubs in accordance with federal subsistence regulations, which recognize this practice as an uncommon but customary and traditional harvest practice by some Native cultures in northern Alaska. Accordingly, while the NPS supported the activity under federal subsistence regulations, the NPS did not support it under ANILCA’s authorization for “sport” hunting.” Under the 2020 Rule which deferred to State law, harvest of bear cubs and sows with cubs is not limited based on where one resides. Accordingly, under the 2020 Rule individuals who are not local to the area can harvest bear cubs and sows with cubs at den sites in national preserves under ANILCA’s authorization for harvest for “sport” purposes.

- *Take of wolves and coyotes, including pups, during the denning season.* The 2015 Rule prohibited sport hunters from taking wolves and coyotes during the denning season, a time when their pelts are not in prime condition, which can leave pups and cubs orphaned and left to starve. Under the 2020 Rule, any hunter (including those from out of state) can harvest wolves and coyotes year-round, including pups during the denning season. This reduces the number of wolves and coyotes available to harvest when their pelts are fuller and therefore more desirable to subsistence users and other trappers.

These examples demonstrate that the NPS’s interpretation of the term “sport” under the 2015 Rule created a result that is more in line with the majority of feedback received to date from Tribes and ANCSA Corporations. The NPS Organic Act directs the NPS to conserve wildlife. Based upon this conservation mandate, hunting is prohibited in National Park System units except as authorized by Congress. 36 CFR 2.2(b).

ANILCA authorizes harvest for Federal subsistence and “sport purposes” in national preserves in Alaska. The NPS interprets the term “sport” to include the concept of fair chase as articulated by some hunting organizations,¹¹ as not providing an unfair advantage to the hunter and allowing the game to have a reasonable chance of escape. This involves avoiding the targeting of animals that are particularly vulnerable, such as while swimming, while young, or while caring for their young. While the NPS understands that the exact boundaries of this concept involve some level of ambiguity, the NPS believes the practices addressed in this proposed rule fall outside the norms of “sport” hunting.

The NPS requests comment on this concept of “sport” and whether the practices described in these examples should be allowed as a “sport” hunt in national preserves in Alaska. Giving meaning of the term “sport” also prioritizes harvest for subsistence by local rural residents by avoiding competition with nonlocal residents who are hunting for sport purposes under ANILCA. This is consistent with the priority that Congress placed on the customary and traditional uses of wild renewable resources by local rural residents under ANILCA (*see* Sec. 101(c)). For these reasons, the proposed rule would reinstate the prohibitions in the 2015 Rule on methods of harvest that are not compatible with generally accepted notions of “sport” hunting. The proposed rule would define the terms “big game,” “cub bear,” “fur animal,” and “furbearer,” which are used in the table of prohibited harvest methods, in the same way they were defined in the 2015 Rule.

State Law Addressing Predator Harvest

The proposed rule also would address opportunities to harvest predators that are authorized by the State. NPS policy interprets and implements the NPS Organic Act. NPS Management Policies require the NPS to manage National Park System units for natural processes, including natural wildlife fluctuations, abundances, and behaviors, and specifically prohibit the NPS from engaging in predator reduction efforts to benefit one harvested species over another or allowing others to do so on NPS lands. (NPS Management Policies 2006, Ch. 4). These activities are prohibited by policy even if they do not actually reduce predator populations or

increase the number of prey species available to hunters. The NPS believes the 2020 Rule is in tension with these policies based upon the information it collected over a period of years before the publication of the 2015 Rule. This information indicates that the predator harvest practices that were allowed by the State were allowed for the purpose of benefited prey species over predators. For this reason, the proposed rule would reinstate the prohibitions in the 2015 Rule on methods of harvest that target predators for the purpose of increasing populations of prey species for human harvest. In addition, the proposed rule would add the following statement to its regulations to clarify that predator control is not allowed on NPS lands: “Actions to reduce the numbers of native species for the purpose of increasing the numbers of harvested species (*e.g.*, predator control or predator reduction) are not allowed.”

Trapping Clarification

Finally, the proposed rule would revise the definition of “trapping” in part 13 to clarify that trapping only includes activities that use a “trap” as that term is defined in part 13. The definition of “trapping” promulgated in the 2015 Rule inadvertently omitted reference to the use of traps, instead referring only to “taking furbearers under a trapping license.” The proposed revision would resolve any question about whether trapping can include any method of taking furbearers under a trapping license, which could include the use of firearms depending upon the terms of the license. This change would more closely align the definition of “trapping” in part 13 with the definition that applies to System units outside of Alaska in part 1.

Compliance With Other Laws, Executive Orders and Department Policy

Regulatory Planning and Review (Executive Orders 12866 and 13563)

Executive Order 12866 provides that the Office of Information and Regulatory Affairs in the OMB will review all significant rules. The Office of Information and Regulatory Affairs has determined that this proposed rule is significant because it raises novel legal or policy issues. The NPS has assessed the potential costs and benefits of this proposed rule in the report entitled “Cost-Benefit and Regulatory Flexibility Analyses: Alaska Hunting and Trapping Regulations in National Preserves” which can be viewed online at <https://www.regulations.gov> by searching for “1024-AE70.” Executive Order 13563

reaffirms the principles of Executive Order 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. Executive Order 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. The NPS has developed this proposed rule in a manner consistent with these requirements.

Regulatory Flexibility Act

This proposed rule will not have a significant economic effect on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*). This certification is based on the cost-benefit and regulatory flexibility analyses found in the report entitled “Cost-Benefit and Regulatory Flexibility Analyses: Alaska Hunting and Trapping Regulations in National Preserves” which can be viewed online at <https://www.regulations.gov> by searching for “1024-AE70.”

Unfunded Mandates Reform Act

This proposed rule does not impose an unfunded mandate on Tribal, State, or local governments or the private sector of more than \$100 million per year. The proposed rule does not have a significant or unique effect on Tribal, State, or local governments or the private sector. It addresses public use of national park lands and imposes no requirements on other agencies or governments. A statement containing the information required by the Unfunded Mandates Reform Act (2 U.S.C. 1531 *et seq.*) is not required.

Takings (Executive Order 12630)

This proposed rule does not effect a taking of private property or otherwise have takings implications under Executive Order 12630. A takings implication assessment is not required.

Federalism (Executive Order 13132)

Under the criteria in section 1 of Executive Order 13132, the proposed rule does not have sufficient federalism implications to warrant the preparation of a Federalism summary impact statement. This proposed rule only affects use of federally administered

¹¹ The Hunting Heritage Foundation, www.huntingheritagefoundation.com (last visited July 25, 2022); Boone and Crockett Club, www.boone-crockett.org/principles-fair-chase (last visited July 25, 2022).

lands and waters. It has no outside effects on other areas. A Federalism summary impact statement is not required.

Civil Justice Reform (Executive Order 12988)

This proposed rule complies with the requirements of Executive Order 12988. This proposed rule:

- (a) Meets the criteria of section 3(a) requiring that all regulations be reviewed to eliminate errors and ambiguity and be written to minimize litigation; and
- (b) Meets the criteria of section 3(b)(2) requiring that all regulations be written in clear language and contain clear legal standards.

Consultation With Indian Tribes and ANCSA Corporations (Executive Order 13175 and Department Policy)

The DOI strives to strengthen its government-to-government relationship with Indian Tribes through a commitment to consultation with Indian Tribes and recognition of their right to self-governance and Tribal sovereignty. The NPS has begun consulting and communicating with Tribes and ANCSA Corporations that would be most affected by this proposed rule and the feedback provided to date has been incorporated by the NPS in this proposed rule. The NPS has evaluated this proposed rule under the criteria in Executive Order 13175 and under the Department's Tribal consultation and ANCSA Corporation policies. This proposed rule would restrict harvest methods for sport hunting only; it would not affect subsistence harvest under Title VIII of ANILCA. Feedback from Tribes and ANCSA Corporations indicates that these harvest methods are not common or allowed in many areas by the State. For these reasons, the NPS does not believe the proposed rule will have a substantial direct effect on federally recognized Tribes or ANCSA Corporation lands, water areas, or resources. Consultation and communication with Tribes and ANCSA Corporations is ongoing and feedback will continue to be considered by the NPS throughout the rulemaking process.

Paperwork Reduction Act

This proposed rule does not contain information collection requirements, and a submission to the Office of Management and Budget under the Paperwork Reduction Act is not required. The NPS 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.

National Environmental Policy Act

The NPS will prepare an environmental assessment of this proposed rule to determine whether this proposed rule will have a significant impact on the quality of the human environment under the National Environmental Policy Act of 1969. The environmental assessment will include new information, as appropriate, as well as an impact analysis similar to what was provided in the environmental assessments prepared for the 2015 Rule and the 2020 Rule, both of which resulted in a finding of no significant impact.

Effects on the Energy Supply (Executive Order 13211)

This proposed rule is not a significant energy action under the definition in Executive Order 13211; the proposed rule is not likely to have a significant adverse effect on the supply, distribution, or use of energy, and the proposed rule has not otherwise been designated by the Administrator of Office of Information and Regulatory Affairs as a significant energy action. A Statement of Energy Effects is not required.

Clarity of This Rule

The NPS is required by Executive Orders 12866 (section 1(b)(12)) and 12988 (section 3(b)(1)(B)), and 13563 (section 1(a)), and by the Presidential Memorandum of June 1, 1998, to write all rules in plain language. This means that each rule the NPS publishes must:

- (a) Be logically organized;
- (b) Use the active voice to address readers directly;
- (c) Use common, everyday words and clear language rather than jargon;
- (d) Be divided into short sections and sentences; and
- (e) Use lists and tables wherever possible.

If you feel that the NPS has not met these requirements, send the NPS comments by one of the methods listed in the ADDRESSES section. To better help the NPS revise the rule, your comments should be as specific as possible. For example, you should identify the numbers of the sections or paragraphs that you find unclear, which sections or sentences are too long, the sections where you feel lists or tables would be useful, etc.

Public Participation

It is the policy of the DOI, whenever practicable, to afford the public an opportunity to participate in the rulemaking process. Accordingly, interested persons may submit written comments regarding this proposed rule

by one of the methods listed in the ADDRESSES section of this document.

Public Availability of Comments

Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. While you can ask the NPS in your comment to withhold your personal identifying information from public review, the NPS cannot guarantee that it will be able to do so.

List of Subjects in 36 CFR Part 13

Alaska, National Parks, Reporting and recordkeeping requirements.

In consideration of the foregoing, the National Park Service proposes to amend 36 CFR part 13 as set forth below:

PART 13—NATIONAL PARK SYSTEM UNITS IN ALASKA

- 1. The authority citation for part B continues to read as follows:

Authority: 16 U.S.C. 3101 *et seq.*; 54 U.S.C. 100101, 100751, 320102; Sec. 13.1204 also issued under Pub. L. 104-333, Sec. 1035, 110 Stat. 4240, November 12, 1996.

- 2. In § 13.1:
 - a. Add in alphabetical order the definitions for “Big game”, “Cub bear”, “Fur animal”, and “Furbearer”.
 - b. Revise the definition of “Trapping”.
 The additions and revision read as follows:

§ 13.1 Definitions.

* * * * *

Big game means black bear, brown bear, bison, caribou, Sitka black-tailed deer, elk, mountain goat, moose, muskox, Dall's sheep, wolf, and wolverine.

* * * * *

Cub bear means a brown (grizzly) bear in its first or second year of life, or a black bear (including the cinnamon and blue phases) in its first year of life.

* * * * *

Fur animal means a classification of animals subject to taking with a hunting license, consisting of beaver, coyote, arctic fox, red fox, lynx, flying squirrel, ground squirrel, or red squirrel that have not been domestically raised.

Furbearer means a beaver, coyote, arctic fox, red fox, lynx, marten, mink, least weasel, short-tailed weasel, muskrat, land otter, red squirrel, flying squirrel, ground squirrel, Alaskan marmot, hoary marmot, woodchuck, wolf and wolverine.

* * * * *

Trapping means taking furbearers with a trap under a trapping license.

* * * * *

3. In § 13.42, add paragraphs (f) and (k) to read as follows:

§ 13.42 Taking of wildlife in national preserves.

* * * * *

(f) Actions to reduce the numbers of native species for the purpose of increasing the numbers of harvested species (*e.g.*, predator control or predator reduction) are prohibited.

* * * * *

(k) This paragraph applies to the taking of wildlife in park areas

administered as national preserves except for subsistence uses by local rural residents pursuant to applicable Federal law and regulation. The following are prohibited:

TABLE 1 TO PARAGRAPH (k)

Prohibited acts	Any exceptions?
(1) Shooting from, on, or across a park road or highway	None.
(2) Using any poison or other substance that kills or temporarily incapacitates wildlife.	None.
(3) Taking wildlife from an aircraft, off-road vehicle, motorboat, motor vehicle, or snowmachine.	If the motor has been completely shut off and progress from the motor's power has ceased.
(4) Using an aircraft, snowmachine, off-road vehicle, motorboat, or other motor vehicle to harass wildlife, including chasing, driving, herding, molesting, or otherwise disturbing wildlife.	None.
(5) Taking big game while the animal is swimming	None.
(6) Using a machine gun, a set gun, or a shotgun larger than 10 gauge	None.
(7) Using the aid of a pit, fire, artificial salt lick, explosive, expanding gas arrow, bomb, smoke, chemical, or a conventional steel trap with an inside jaw spread over nine inches.	Killer style traps with an inside jaw spread less than 13 inches may be used for trapping, except to take any species of bear or ungulate.
(8) Using any electronic device to take, harass, chase, drive, herd, or molest wildlife, including but not limited to: artificial light; laser sights; electronically enhanced night vision scope; any device that has been airborne, controlled remotely, and used to spot or locate game with the use of a camera, video, or other sensing device; radio or satellite communication; cellular or satellite telephone; or motion detector.	(i) Rangefinders may be used. (ii) Electronic calls may be used for game animals except moose. (iii) Artificial light may be used for the purpose of taking furbearers under a trapping license during an open season from Nov. 1 through March 31 where authorized by the State. (iv) Artificial light may be used by a tracking dog handler with one leashed dog to aid in tracking and dispatching a wounded big game animal. (v) Electronic devices approved in writing by the Regional Director.
(9) Using snares, nets, or traps to take any species of bear or ungulate	None.
(10) Using bait	Using bait to trap furbearers.
(11) Taking big game with the aid or use of a dog	Leashed dog for tracking wounded big game.
(12) Taking wolves and coyotes from May 1 through August 9	None.
(13) Taking cub bears or female bears with cubs	None.
(14) Taking a fur animal or furbearer by disturbing or destroying a den	Muskrat pushups or feeding houses.

Shannon Estenoz,
Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. 2023-00142 Filed 1-6-23; 8:45 am]

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ANNUAL REPORTS

Background

ANILCA established the Annual Reports as the way to bring regional subsistence uses and needs to the Secretaries' attention. The Secretaries delegated this responsibility to the Board. Section 805(c) deference includes matters brought forward in the Annual Report.

The Annual Report provides the Councils an opportunity to address the directors of each of the four Department of Interior agencies and the Department of Agriculture Forest Service in their capacity as members of the Federal Subsistence Board. The Board is required to discuss and reply to each issue in every Annual Report and to take action when within the Board's authority. In many cases, if the issue is outside of the Board's authority, the Board will provide information to the Council on how to contact personnel at the correct agency. As agency directors, the Board members have authority to implement most of the actions which would effect the changes recommended by the Councils, even those not covered in Section 805(c). The Councils are strongly encouraged to take advantage of this opportunity.

Report Content

Both Title VIII Section 805 and 50 CFR §100.11 (Subpart B of the regulations) describe what may be contained in an Annual Report from the councils to the Board. This description includes issues that are not generally addressed by the normal regulatory process:

- an identification of current and anticipated subsistence uses of fish and wildlife populations within the region;
- an evaluation of current and anticipated subsistence needs for fish and wildlife populations from the public lands within the region;
- a recommended strategy for the management of fish and wildlife populations within the region to accommodate such subsistence uses and needs related to the public lands; and
- recommendations concerning policies, standards, guidelines, and regulations to implement the strategy.

Please avoid filler or fluff language that does not specifically raise an issue of concern or information to the Board.

Report Clarity

In order for the Board to adequately respond to each Council's annual report, it is important for the annual report itself to state issues clearly.

- If addressing an existing Board policy, Councils should please state whether there is something unclear about the policy, if there is uncertainty about the reason for the policy, or if the Council needs information on how the policy is applied.
- Council members should discuss in detail at Council meetings the issues for the annual report and assist the Council Coordinator in understanding and stating the issues clearly.

- Council Coordinators and OSM staff should assist the Council members during the meeting in ensuring that the issue is stated clearly.

Thus, if the Councils can be clear about their issues of concern and ensure that the Council Coordinator is relaying them sufficiently, then the Board and OSM staff will endeavor to provide as concise and responsive of a reply as is possible.

Report Format

While no particular format is necessary for the Annual Reports, the report must clearly state the following for each item the Council wants the Board to address:

1. Numbering of the issues,
2. A description of each issue,
3. Whether the Council seeks Board action on the matter and, if so, what action the Council recommends, and
4. As much evidence or explanation as necessary to support the Council's request or statements relating to the item of interest.

Eastern Interior Subsistence Regional Advisory Council

c/o Office of Subsistence Management
1011 East Tudor Road, MS 121
Anchorage, Alaska 99503-6199
Phone: (907) 787-3888, Fax: (907) 786-3898
Toll Free: 1-800-478-1456

In Reply Refer To:
RAC/EI.22144.BM

Anthony Christianson, Chair
Federal Subsistence Board
c/o Office of Subsistence Management
1011 E. Tudor Road, MS 121
Anchorage, Alaska 99503-6199

Dear Chairman Christianson:

The Eastern Interior Alaska Subsistence Regional Advisory Council (Council) appreciates the opportunity to submit its FY-2022 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 on October 5-6, 2022, the Council identified concerns and recommendations for this report. The Council approved this Annual Report at its March 1-2, 2023 meeting. 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 Eastern Interior Region.

1. Sheep population declines and need for coordinated survey effort

The Council would like to make the Board aware of observed sheep population declines throughout the Eastern Interior Region. The Council is particularly concerned with the low counts of sheep in the Glacier Mountain Controlled Use Area, where numbers have reportedly dropped to only 12 sheep. The Council feels that there needs to be more collaboration between State and Federal partners and more funding available for sheep surveys not only in our region but throughout the State. We request that the Board ask the Federal agencies comprising the Board to make coordinated sheep surveys a priority for 2023.

2. Management of Fortymile Caribou Herd

Recent Fortymile Caribou Herd management actions implemented by the Alaska Department of Fish and Game (ADF&G) utilized liberalized bag limits to drastically reduce the herd due to concerns about nutritional stress. The Council is concerned about this action and feels that politics have too much influence on the management of this herd. Major management decisions such as this should come before the international Fortymile Caribou Herd Harvest Management Coalition to discuss and agree on. Additionally, the Council feels that managers need to take

observations and recommendations from rural residents in the herd's range more seriously.

Lastly, the Council would like to see a greater presence of law enforcement, agency officials, and local community hunter liaisons in road-accessible zones of the Fortymile Caribou Herd during hunting season. The Council continues to have major concerns about safety, hunter ethics, and meat care, especially along the Steese and Taylor highways. We ask the Board to collaborate with the State to take meaningful action to address these issues.

3. On-going salmon fishing closures and record low returns of Yukon River Chinook Salmon

For the third year in a row, there were dismal returns of all Yukon River salmon species. Summer 2022 had the lowest returns on record of Chinook Salmon. Subsistence salmon fishing was closed. Local fishers went without much needed salmon for their families and communities. Even with in-river fishing closed, escapement goals were once again not met. The Council is fearful for the future of our Yukon River salmon resources. We are outraged that Yukon River salmon continue to be bycaught in the Bering Sea and intercepted in the Alaska Peninsula commercial fisheries, while our people along the river are going without. The subsistence priority is not being upheld. People are literally crying for salmon.

The Council believes it is imperative that all State and Federal agencies work together across jurisdictional boundaries to conserve Yukon River salmon stocks using an ecosystem-based management approach. We are asking the Board to take action on this, and if needed, to seek guidance from the Secretaries of the Interior and Agriculture on how to do so.

4. Need for updated moose counts along Yukon River corridor

The Council has requested population estimates from the State of Alaska for moose in Unit 20F for the past two years but has not yet received a report concerning this topic. Residents of Rampart and Tanana have been unable to harvest sufficient moose to meet subsistence needs in recent years. Coupled with salmon fishing closures, the lack of available moose is compounding food security issues in the region. The Council strongly feels that moose surveys need to be completed in this area, and that these data should be used to inform hunt management instead of relying on harvest reports to estimate population. We ask that the Board pass these concerns on to the ADF&G and request information on population and harvest trends for moose in Unit 20F.

5. Food insecurity

Residents of the Yukon River drainage are experiencing unprecedented food insecurity. This is primarily due to three straight years of subsistence salmon fishing restrictions and closures. Salmon closures put more pressure on hunters to harvest moose and caribou, but there are also concerns about low moose and caribou populations in our region, as stated above. These resources are not abundant enough to serve as a replacement to the missing salmon.

In response to the low salmon runs, there have been efforts to distribute salmon from other parts of the State to Yukon River communities. While these goodwill efforts are appreciated, it is not a long-term solution to the food insecurity problems we face. Additionally, receiving salmon

“handouts” does not fulfill our cultural needs. One of the most important aspects of subsistence, is the harvesting, processing, and sharing of resources with family and friends, as well as passing cultural traditions and ways to our younger generation. If this trend continues, then much of our cultural heritage and subsistence skills will be irrevocably lost.

6. Need for hunter ethics education

The Council asks for the Board’s support to resume the pilot projects associated with the Hunter Ethics Education and Outreach initiative our Council spearheaded prior to the Covid-19 pandemic. As subsistence resources become scarcer, the danger of escalation of the user group conflicts is coming more to the forefront all across the state. It is especially true for the road accessible regions. We strongly believe that our Council’s initiative can help foster understanding between user groups and reduce conflicts, as well as promote more respect of the resource in the field among all user groups. Eventually, we hope that pilot projects in our region can be expanded to other regions as well because our experience shows that there is an elevated interest to this topic among many regions and all user groups.

Additionally, we ask that the Federal Subsistence Management Program collaborate with the State of Alaska to explore ways to incorporate more robust hunter ethics training into all hunter education courses. Although we feel hunter ethics training should be required for all hunters, we recognize that this may not be possible. Something we do feel is achievable is the creation of easily accessible outreach materials regarding hunter ethics and meat care, as well as a comprehensive list of where excess or unwanted meat can be donated by sport hunters.

7. Incorporating local and traditional knowledge into management and need for co-management

The Council would like to see local and traditional knowledge incorporated into fish and wildlife management in more meaningful ways. While we feel there has been a slight increase in efforts to do so in the recent past, we feel that more efforts are needed. Additionally, we encourage the Federal Subsistence Management Program to explore opportunities for co-management agreements with Federally recognized Tribes in our region. There are successful examples from other places that can be used as models.

8. Climate change impacts, especially to timing of fall moose rut

The Council would like the Board to be aware that residents of the Eastern Interior Alaska Region continue to see impacts of climate change to the landscapes and weather patterns in our region. One impact of note is that fall weather has tended to be warmer later into the season and has resulted in delayed timing of the fall moose rut. This change in moose behavior negatively impacts subsistence hunter success rates. The Board may need to consider shifting or extending fall moose hunts in the near future to address this issue.

The Council also encourages all the agencies represented by the Board to rigorously monitor impacts of climate change in our region and across the state, and to be certain to include local resident observations and knowledge into research and monitoring.

9. Support needed for subsistence education and culture camps for children and youth

The Council feels that the Federal Subsistence Management Program and ADF&G should start supporting more subsistence education and culture camps in communities and especially along the Yukon River. Without subsistence salmon fishing opportunities, people are no longer going to fish camp and passing down knowledge and skills to younger generations like was the norm in the past. We feel that more organized educational opportunities are needed to help fill this void. We suggest that the Federal Subsistence Management Program partner with school districts to develop curricula that will teach traditional skills, educate youth about the state of wild resources and climate change impacts, and also about resource management regimes. This will take extra funding and coordination, but if action is not taken there will be gaps in knowledge of how to live off the land. The Council would like to see funding opportunities made available for educational programs and cultural camps that are not necessarily tied to research dollars.

The Eastern Interior Alaska Subsistence Regional Advisory Council appreciates the Board's attention to these matters and the opportunity to assist the Federal Subsistence Management Program in meeting its charge of protecting subsistence resources and uses of these resources on Federal public lands and waters. The Council looks forward to continuing discussions about the issues and concerns of subsistence users in the Eastern Interior Region. If you have any questions regarding this report, please contact me via Brooke McDavid, Council Coordinator, Office of Subsistence Management, at brooke_mcdavid@fws.gov, or 907-891-9181.

Sincerely,

Sue Entsminger
Chair

cc: Federal Subsistence Board
Eastern Interior Subsistence Regional Advisory Council
Office of Subsistence Management
Interagency Staff Committee
Benjamin Mulligan, Deputy Commissioner, Alaska Department of Fish and Game
Mark Burch, Special Projects Coordinator, Alaska Department of Fish and Game
Administrative Record



Arctic National Wildlife Refuge U.S. Fish and Wildlife Service Summary of Activities



Figure 1. Collage of 2022 Arctic Refuge field projects.

Prepared for Eastern Interior and North Slope Regional Advisory Councils - October 2022

Arctic National Wildlife Refuge
907-456-0250, 800-362-4546
arctic_refuge@fws.gov, www.fws.gov/refuge/arctic

Refuge Staffing Updates:

Arctic Refuge worked through the Student Conservation Association (SCA) to recruit and select two interns to support the Visitor Services program in 2022.

Patrick Magrath worked at the Arctic Interagency Visitor Center at Coldfoot, on the Dalton Highway to serve visitors needing information about federal lands east and west of the road, including helping to be sure hunters were aware of the changes made by the Federal Subsistence hunting regulations.

Rachel Heckerman worked as a Visual Information Intern to create informational and educational visual products, such as videos and posters.

Sadie Ulman, who had worked as a seasonal technician for the Refuge since 2020, joined our staff in a term position this summer. Sadie's primary duties will be focused on the numerous research and management issues around migratory birds, particularly in relation to potential development and climate change.

Adeline Dymont joined the Canning River Delta seasonal field crew as an Alaska Native Science and Engineering Program (ANSEP) student technician. Born and raised in Bethel, Adeline has participated in ANSEP since high school and is entering her third year studying Biology at the University of Alaska, Anchorage. Adeline excelled as a technician for the Small Mammal project! In the future, Adeline plans to work as a biologist in Western Alaska.

Oil and Gas Leasing Programs:

The USFWS and BLM, working with numerous cooperating agencies, are in the process of completing a Draft Supplemental EIS (SEIS) for the Coastal Plain Oil and Gas program for public review and comment. The targeted deadline for a final SEIS and Record of Decision is August 2023.

Field Projects/Research – Refuge staff and collaborative researchers completed numerous monitoring and research projects during the 2022 summer season. These included projects investigating caribou habitat selection research, several studies on avian species, and small mammal (i.e. lemmings) research.

Biological Monitoring and Research

Tundra Nesting Birds at the Canning River Delta

The Canning River Delta study site in Arctic Refuge was established in the late 1970s and has since become the primary tundra nesting bird research station for the refuge.

Work at this location is a collaboration between numerous partners, including Arctic National Wildlife Refuge, FWS External Affairs, FWS Fairbanks Field Office, FWS Migratory Birds, Manomet, Inc., the Wildlife Conservation Society, University of Alaska, Fairbanks, the U.S. Geological Survey, Alaska Department of Fish and Game, Washington Department of Fish and Wildlife, and Oregon Department of Fish and Wildlife.

Figure 2. 2021 Canning River Delta field camp



Many of the species studied at the Canning Delta are Priority Refuge Resources of Concern (ROC), and the study site includes habitat types such as coastal wetlands, tundra lakes and ponds, and moist and wet sedge-shrub meadows that are separately listed as Priority ROCs (<https://ecos.fws.gov/Serv-Cat/DownloadFile/201641>) for the Arctic Refuge.

2022 marked yet another step forward in our effort to implement a more multidisciplinary approach to research projects at the site. This work is important to scientifically inform management decisions to better understand how climate change and other anthropogenic stressors are impacting the species and habitats that occur there.

Field technicians arrived at the Canning River Delta on June 6 and departed July 24. Overall, it was a late spring at the Canning and preliminary data suggests tundra nesting bird abundance was lower this year than average. Although generally the most abundant tundra nesting birds, this summer there were relatively few pectoral sandpiper, semipalmated sandpiper, and cackling geese nests.

Efforts will continue to use and evaluate novel ways to reduce costs and minimize our disturbance to the tundra environment, including the use of small cameras and temperature loggers at nests to monitor behavior and predation events (for example, see recent publications on the efficacy of using cameras to monitor shorebird nests <https://onlinelibrary.wiley.com/doi/10.1111> and how temperature loggers can be used to study links between shorebird behavior and environmental conditions <https://www.sciencedirect.com/science/article/abs/pii/S0048969720360149>).



Figure 3. Some of the members of the 2022 Canning River Delta research crew.

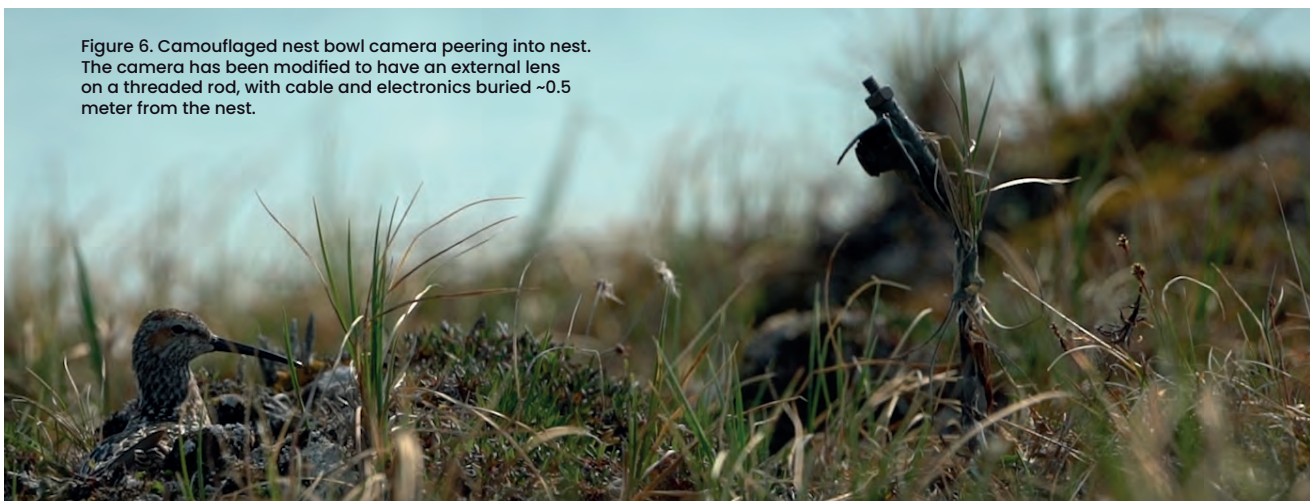


Figure 4. Aerial photo of Canning River Delta field camp area in late May 2022 showing snow cover of the late spring.



Figure 5. Camera images from a tundra swan nest show a wolf predated all young in the nest while the adult attempts to unsuccessfully ward off the predator (left, right images). One adult swan also was consumed by the wolf.

Figure 6. Camouflaged nest bowl camera peering into nest. The camera has been modified to have an external lens on a threaded rod, with cable and electronics buried ~0.5 meter from the nest.



Red-throated loon abundance and distribution

Refuge staff conducted a collaborative aerial loon survey in late June/early July on the eastern Arctic Coastal Plain, from the Sagavanirktok River delta eastward in the Refuge. This project will provide measures of lake use by Red-throated and Pacific loons relevant to conservation planning and development of best management practices to conserve loons and their habitat.

Snow goose abundance and distribution

In early September 2022, Refuge staff conducted a lesser snow goose survey to document distribution and abundance of post-breeding snow geese on the Refuge Coastal Plain. This aerial survey began in 1973 and was last conducted in 2004. It was conducted 25 times during that time period. The Refuge added to this long-term data set by conducting the survey again this year. Data from this year is being processed.

Shorebird abundance and distribution

This summer, partners from FWS Migratory Birds and Mano-

met, Inc. conducted a second year of contemporary Program for Regional and International Shorebird Monitoring

(PRISM) surveys (see 2019 results here <http://jyi.iiv.mybluehost.me/wp-content/uploads/2020/04/Revisiting-the-ANWR-PRISM-Scaalfeld-et-al-1.pdf>). These surveys span the entire coastal plain of the Refuge and provide data both on population status of common shorebird species breeding in the Refuge, and density and distribution. These latter parameters are especially important as we develop best practices for meeting all Arctic Refuge's purposes. Our partners provide a great synopsis of this year's work (spoiler – it was a cold start to spring for them as well!) at <https://www.manomet.org/publication/arctic-research-team-unprecedented-conditions-monitoring-shorebirds/>

Cackling goose migration and wintering areas

This past year the Refuge expanded its collaborative work tracking the behavior and migration of cackling geese by tagging birds at the Canning River, near Prudhoe Bay, and in the Colville River area. Cackling geese have increased 10-fold at the Canning River Delta study site over the last several decades and, in most years, are now the most common waterbird encountered.

Figure 7 and 8. View from aircraft while conducting aerial loon survey.



Figure 9. Flock of lesser snow geese staging on the Coastal Plain of the Arctic Refuge.





Figure 10. Researcher holding female Cackling goose captured from nest at the Canning River Delta study site and fitted with a solar-powered GPS transmitter neck collar.

Research seeks to track the post-breeding and wintering movements of cackling geese by attaching neck collars weighing about 22 grams (about the weight of a single aa battery) that collect a GPS location every 15 minutes and transmit the data via cell towers when the birds enter areas of cell coverage in Canada and the Lower 48.

During winter of 2021-2022, non-breeding locations were obtained from 13 birds that were marked on the breeding grounds around Canning River Delta and Prudhoe Bay in June/July 2021. All these birds wintered in the western portion of the Central Flyway. Nine wintered primarily in Colorado, and 4 in New

Mexico. One of these birds also moved through Oklahoma, Kansas, and Nebraska during winter. These results are noteworthy because they are currently included in the Pacific Flyway index of Taverner's cackling geese. If follow up work confirms that this growing population on the North Slope winters in the Central Flyway, managers may need to reexamine harvest criteria for cackling geese in Western states like Washington and Oregon.



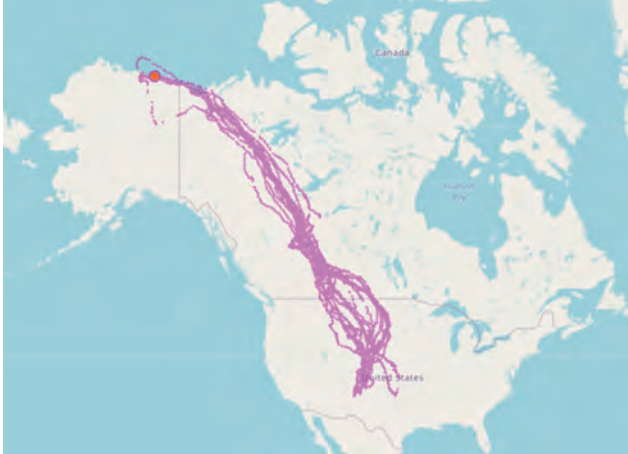


Figure 11. Migration and wintering locations (pink dots) from July 2021 through May 2022 of cackling geese fitted with GPS-GSM transmitters the previous summer at the Canning River Delta in Arctic NWR and around Prudhoe Bay.

Loon near-shore and on-shore habitat use

This year, partners at USGS attached glue-on solar transmitters to 20 red-throated and 20 Pacific loons near the Canning and Sagavanirktok Rivers.

This work will provide data on how loons use near-shore coastal and on-shore areas of these important breeding sites to allow for developing best management practices

and understand how climate change may be affecting their prey resources. (see prior years report: <https://pubs.er.usgs.gov/publication/ofr20211029>).

Whimbrel monitoring at the Katakaturuk River

This summer, partners at FWS Migratory Birds and Manomet, Inc. worked at the Katakaturuk River study site in Arctic Refuge to tag whimbrel with transmitters. See their great synopsis of the work (<https://www.manomet.org/publication/satellite-transmitters-migratory-shorebirds-in-decline/>).

Alaska Landbird Monitoring Survey

In June two staff members deployed on the Porcupine River near the Canadian border to conduct the Alaska Landbird Monitoring Survey at 1 of the 2 survey areas in the Refuge. Over a period of 5 survey days, breeding songbirds were counted as part of this state-wide effort. These surveys fill in knowledge gaps from other bird monitoring efforts (e.g., Breeding Bird Survey) by not being road-biased. Highlights from the survey include a surprising number of Yellow-bellied flycatchers, Western wood-pewees, and Olive-sided flycatchers, all species experiencing range-wide declines.

Figure 12. Researcher holding loon captured from nest at the Canning River Delta study site





Figure 13. Transmitter attached to a whimbrel to track migration routes



Figure 14. Migration routes through mid-September of whimbrel captured on nests at the Katakturuk River study site in Arctic Refuge in 2022 and tagged with solar-powered transmitters.



Small mammals at the Canning River Delta

Small mammal species such as lemmings and voles, typically undergo dramatic multi-year population cycles, with some years of high population peaks, followed by years of severe population crashes. These extreme fluctuations can cause cascading effects in other wildlife species in arctic food webs and peak lemming years have been linked to increased breeding success of tundra nesting birds. In these years, the huge abundance of lemmings on the tundra causes predators of birds and their nests, such as arctic fox, to preferentially consume lemmings, thereby shielding tundra nesting birds from predation pressure. However, this relationship is unconfirmed for most of the Alaskan North Slope, including the Coastal Plain of Arctic Refuge. To address this, staff initiated a project at the Canning River Delta to investigate the relationship and document annual small mammal population dynamics on the Coastal Plain of Arctic Refuge.

Building on pilot work completed in prior years, in 2022 we collected data on the abundance of small mammals at the Canning River Delta through live-trapping and using remote monitoring tools (cameras). Early review of live-trapping data suggest that vole populations were down in June and July 2022 compared to the summer of 2021, while both brown and collared lemming species may have been increasing slightly.

In pursuit of developing a small mammal remote monitoring protocol that is relatively simple, inexpensive, and could be broadly utilized in northern Alaska, staff tested a new game camera with good success. These easy-to-use cameras cost less than \$50 per unit, and therefore will allow for widescale use and monitoring of small mammals in Arctic Refuge (and the Coastal Plain at-large). Additionally staff began training on and using artificial intelligence (AI) algorithms to analyze game camera footage, which is a huge time-saver and is a significant step towards allowing for widespread use of this non-invasive tool.



Figure 15. Adeline Dyment, an Alaska Native Science and Engineering Program (ANSEP) student, setting up a small mammal live-trapping grid at the Canning River Delta.



Figure 16. A brown lemming anesthetized with isoflurane is marked and processed after being live-trapped





Figure 17. Porcupine Caribou on the Arctic Coastal Plain

Ongoing monitoring of Porcupine Caribou Herd

Partners (ADFG, Yukon Government, USFWS, and USGS) have continued monitoring Porcupine Caribou Herd movement, habitat use, diet, and population trends through radio-telemetry, aerial surveys, and field work.

To address information needs of DOI agencies and partners, the USGS, USFWS, Yukon Government, Parks Canada, and Alaska Department of Fish and Game (ADFG) are conducting a 5-year study to understand how climate-mediated changes in summer, forage conditions, and insect harassment shape the distribution, behavior, and dynamics of the Porcupine Caribou Herd (PCH). The project leverages long-term monitoring data on PCH space-use and demography (collected by Yukon Government and ADFG) with new field data on diet, forage quality, foraging behavior, and insect harassment.

To identify the early summer diet of PCH, fecal samples from where the caribou had been less than 48 hours previously were collected. This ensured sampling of fresh fecal pellets representative of the recent diet of the herd.

During summers 2020–2022, researchers collected data on foraging behavior, diet, and insect harassment using caribou-borne video collars that collect video clips across the summer. Collaborators developed an online web app to facilitate the scoring of video data, which is now being used by project staff, collaborators and volunteers. So far more than 11,000 videos have been scored for activity, habitat and insect data.





Figure 18. Researcher collecting fecal samples of Porcupine Caribou Herd

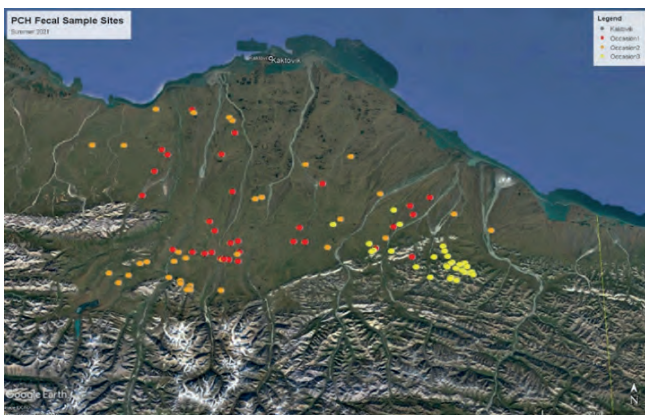


Figure 19. Fecal sample sites map on Arctic Refuge

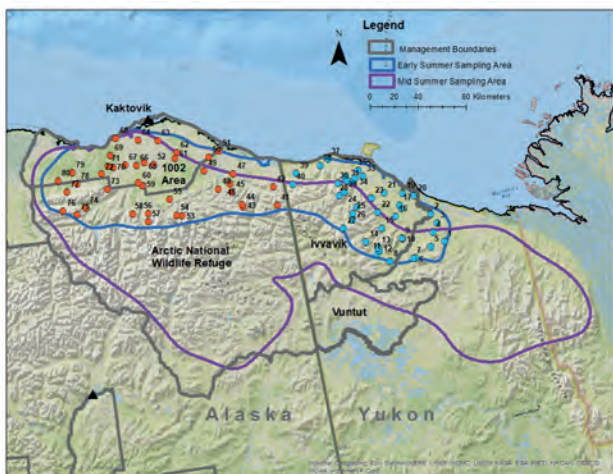


Figure 20. Early (blue) and mid-summer (purple) forage sampling areas.



Research Publication – Porcupine Caribou Herd

Biologists at USGS, USFWS, and the Department of Environment (Yukon Government) analyzed how spring vegetation phenology affects the spatial ecology of the Porcupine Caribou Herd (PCH). In years with early spring green-up, the herd primarily used habitat in Alaska. In years with late green-up, they spent more time in the Yukon. Future climate conditions and green-up patterns indicate a possible shift in PCH calving and post-calving distributions further west into Alaska. (Severson et al. 2021. Spring phenology drives range shifts in a migratory Arctic ungulate with key implications for the future. *Global Change Biology*. DOI: 10.1111/gcb.15682).

Figure 21: Projected Calving Habitat Use Trends

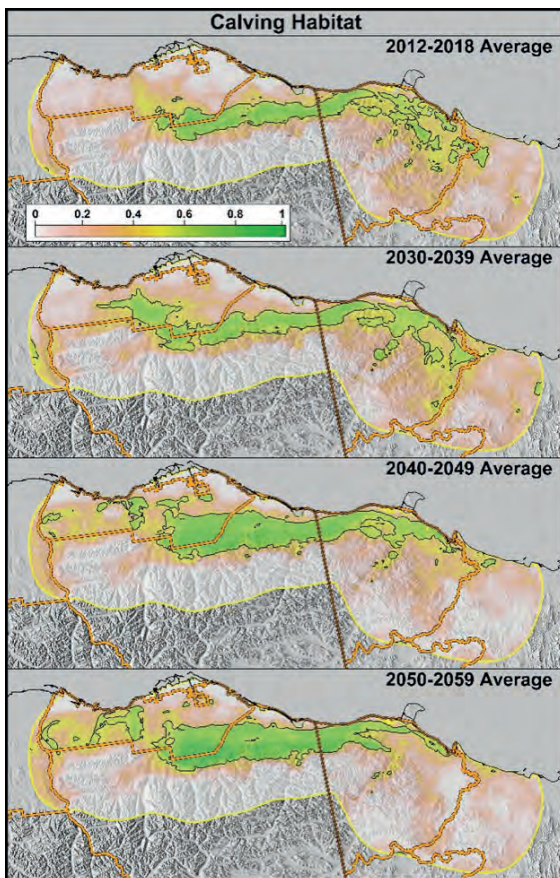
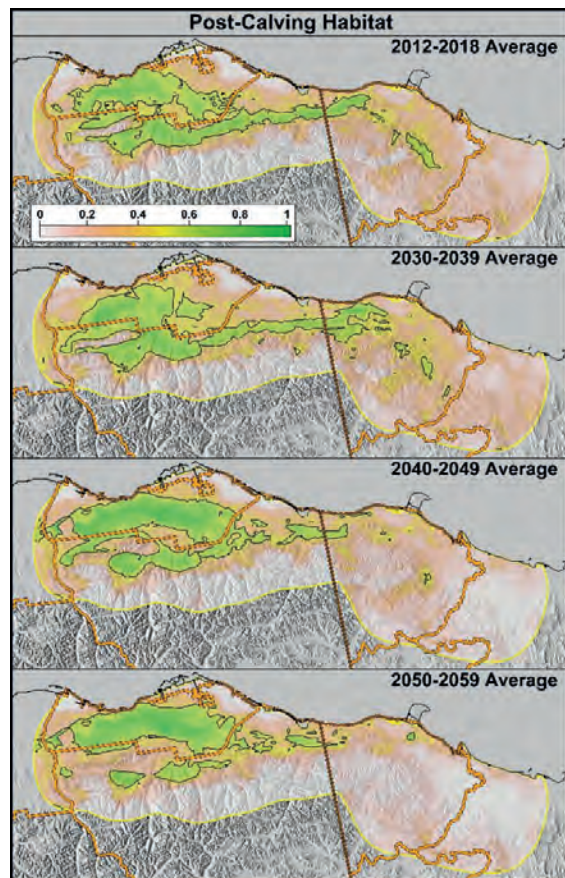


Figure 22: Projected Post-Calving Habitat Use Trends



Caribou Antler Study:

In August and September 2022, collaborators from University of Cincinnati, Cincinnati, OH and an Arctic Refuge staff member conducted a series of antler surveys along the East Fork of the Chandalar and Junjik Rivers, north of Arctic Village. With permission from the Native Village of Venetie Tribal Government (contacts: Margorie Gemmill and Myra Thuma), and support from the First Chief of Arctic Village (Robert Sam), they also surveyed for antlers on "The Mountain", a region south of Arctic Village. This work was conducted to evaluate the nutrient value (for various mammals and birds) of shed antlers and bones lying on Arctic landscapes. Specifically, the study evaluated the diversity and intensity with which different species utilize bone minerals as part of their diets. This work was supported by multiple partners from Arctic Village, including Mike Garnet, Robert Sam, Timothy Robert (Venetie), and Donald Tritt. In partnership with Arctic Refuge, the University of Cincinnati collaborators taught in Arctic Village School as part of Camp Goonhzii.

Sheep Surveys

Dall sheep have been identified as a Resource of Concern in the Arctic Refuge Inventory and Monitoring Plan. Having an accurate estimate of the Dall sheep population is a priority for Arctic Refuge. The Refuge attempts to conduct an aerial survey in one of three survey areas each year. No Dall sheep surveys were conducted in the Refuge in 2022 due to a lack of available pilots and aircraft. However, Refuge biologists assisted with National Park Service aerial surveys in adjacent areas in Gates of the Arctic National Park. Additionally, two Refuge staff were trained in the aerial distance sampling survey methodology being employed by the Refuge, NPS, and BLM across the Brooks Range.

Moose Research Project

Arctic Refuge initiated a moose research project in cooperation with the National Park Service, the Bureau of Land Management, and the University of Alaska, Fairbanks, to gain a better understanding of migratory patterns, seasonal distribution, spatial ecology, and population of moose inhabiting the Brooks Range and Coastal Plain of the Refuge and adjacent National Park Service and Bureau of Land Management areas and to investigate the environmental factors driving these patterns to better design viable management and conservation strategies at a landscape scale.



Figure 23: Projected Calving Habitat Use Trends

Laboratory analyses of diet have already begun. A reconnaissance survey was conducted on the north slope of the Brooks Range on drainages from the Kongakut River westward to the Canning River in early April 2022 prior to a moose capture and collaring operation that occurred in mid-April. Moose were observed throughout much of the Kongakut River drainage and within a small section of the Canning River drainage. No moose were observed within any of the drainages between the Kongakut River and the Canning River.

In mid-April twelve cow moose were captured and collared in the Kongakut River drainage and twelve cow moose were captured and collared in the Canning River drainage. 75% of the cow moose gave birth to calves. There were 4 sets of twins. Staff conducted calving surveys in late May and early June. Calving dates for Arctic Refuge ranged from May 10 to June 7 with an average calving date of May 22.





Figure 24: Moose with collar on standing in snow

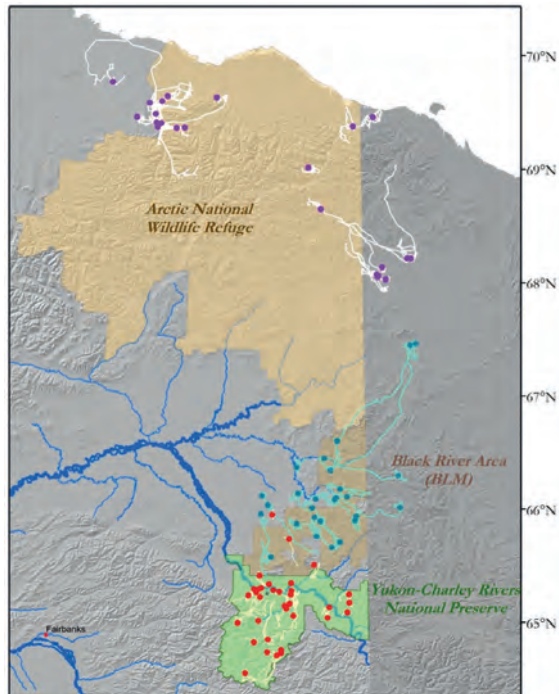


Figure 25: Movements of Moose collared for the Cooperative Moose project



Figure 26: Close up of moose with collar on



Bear-Salmon Project:

Observations by fisheries biologists and villagers along the Chandalar River above Venetie suggest that grizzly bears are drawn in from a wide area to exploit fall spawning chum salmon. A Refuge pilot and biologist conducted aerial surveys along a stretch of river about 4-20 miles upriver from Venetie to identify sites used heavily by grizzly bears for possible future bear research. They conducted their first survey on September 8, but the Chandalar River was running high and was very turbid. No spawning salmon were observed, not even in clear spring water pools. They plan to repeat this survey in October after more chum have entered the river.

Snow and Climate Monitoring

Arctic staff (in collaboration with the USGS) maintained a network of monitoring stations across the Coastal Plain of the Arctic Refuge to help inform management decisions about overland tundra travel and to monitor climate change. These stations report real-time data on a suite of climatological variables. In July, staff visited 5 long-term climate monitoring stations to repair and update equipment, and to deploy one new station at the Canning River Delta. Staff also visited 6 short-term snow monitoring stations across the Coastal Plain.

Public Use Management

Polar Bear viewing – For a third year in a row, Special Use Permits for Polar Bear Viewing were not issued and no boat-based commercial guiding was conducted in 2022. Staff resumed efforts to help inform best practices for a possible future Refuge-managed, boat-based, commercial viewing program. While the Refuge has no intentions of resuming authorizing this activity unless it fits within a larger set of goals stated by Kaktovik community leaders, the work to date can serve as a starting point for information sharing and collaboration. Staff also continue to coordinate with the Marine Mammals Management Office of the USFWS to help support the community in addressing human-bear issues that occur when bears return to the region each fall.

Hunt Guide Use Area Offerings – Arctic Refuge staff selected big game hunting guides for eight Guide Use Areas that were open for application in a recent statewide offer-

ing. Once selections are finalized, guides will be issued a permit for 5 years. Guides would then have the opportunity to renew for an additional 5 years. General areas offered during this selection cycle include the Kongakut drainage, Upper Hulahula River, Middle Fork Chandalar/Wind River, Junjik River/Smoke Creek, Upper Collen/Mid Sheenjek and Ivishak/Ribdon Rivers.

Off Road Vehicle (ORV)

Traditional Access for Subsistence purposes – A final report from a study of ORV use as a traditional means of subsistence access that was commissioned by the USFWS in 2021 was released to the participating communities and a Draft Traditional Access determination of that use is currently being evaluated. Section 811(b) of the Alaska National Interest Lands Conservation Act (ANILCA) allows for the “use of snowmobiles, motorboats, dog teams and other means of surface transportation traditionally employed by local rural residents engaged in subsistence uses,” subject to reasonable regulation. This evaluation is intended to determine the nature of ORV use as an “other means of surface transportation” by local residents.

Dall Sheep hunting closure WSA 22-02

The Federal Subsistence Board (Board) approved changes to federal sheep hunting regulations in Units 24A and 26B. On July 26, 2022, the Board approved Temporary Wildlife Special Action WSA22-02 to close Federal public lands in Unit 24A and a portion of Unit 26B to sheep hunting by all users for the 2022-2023 and 2023-2024 wildlife regulatory years. (For more information, see WSA22-02 FAQ Sheet (doi.gov)).



Environmental Education and Outreach

Art in the Arctic

The 7th annual Art in the Arctic Art Show occurred in March 2022 in Fairbanks. This year's juried art show celebrated caribou. The goal in highlighting caribou was for the public to become more aware of the significance of this species that depend on all three Fairbanks-based refuges. Caribou from the following herds occur at least occasionally, if not regularly on the three northern refuges: Central Arctic, Forty-mile, Hodzana Hills, Porcupine, Ray Mountains, Western Arctic, and White Mountains Herd. Artwork and artist biographies were on display for the month of May at VENU, located at 514 Second Avenue.

Voices of the Wilderness

Francis Vallejo was selected as the Voices of the Wilderness (VOTW) Artist in Residence for 2022. Francis is an illustrator from Detroit, Michigan. He accompanied Refuge staff on the Dalton Highway and assisted at the Canning River Bird Camp. Francis will work closely with Refuge staff this next year with goals to communicate with his local urban audience about the Arctic Refuge.

Arctic Interagency Visitor Center (AIVC)

Staff from BLM, NPS, and FWS hosted about 5,000 visitors at the AIVC in Coldfoot this summer. In addition to daily one-on-one interactions with visitors, staff offered in-person interpretive and educational programs about topics specific to the Arctic. These opportunities helped orient visitors to the distinct aspects of Northern Alaska, including the value of subsistence to local residents and the agencies' responsibilities to insure ongoing subsistence opportunities. Additionally, Arctic Refuge partnered with various agencies and organizations to host a Wild and Scenic Rivers weekend at the AIVC. This event spotlighted the ways that congressionally designated Wild and Scenic Rivers protect and enhance special values of those rivers, including values such as scenery, recreation, fish, culture and subsistence.

Science Camps

The annual culture and science camp, Camp Goonzhii, occurred August 29–September 1, 2022 at the Arctic Village School. Refuge staff and collaborators worked with students in grades K-12 and covered lessons about geology, firearms safety,



Figure 27: An attendee to the 7th annual Art in the Arctic views artwork.



Figure 28: A sketch by Francis Vallejo of the Canning River field camp.



Figure 29: Students at the Arctic Village School prepare for a field trip on the Chandalar River.



mapping, owls, Leave No Trace ethics, bones and antlers, and more. Elder Trimble Gilbert shared traditional stories. The students went on a field trip up the Chandalar River where they assisted with a bone collection survey. A special thank you to the Friends of Alaska National Wildlife Refuges for providing funds to host a community spaghetti dinner at the school.

The annual Kaktovik Oceanography Program (KOP) hosted by the University of Texas Marine Science Institute (UTMSI) was shortened this year. Scientists and Arctic Refuge's Environmental Education Specialist worked with K-12 students at the Harold Kaveolook School for two days during the first week of school. Students learned about careers in science, the marine food chain, weasels, and more. UTMSI and Arctic Refuge hope to host a full week-long camp in 2023.

Resource Management

Refuge staff worked with a private vendor to remove a fuel barrel cache located at the Jago River Bitty. This cache had been used to support research studies in the 1002 area of the Refuge. The need for this cache resulted from passage of the 2017 Tax and Jobs Act that opened the Refuge Coastal Plain for Oil & Gas leasing and potential development.

In July 2022, Refuge staff conducted fieldwork on the Wind River, one of three congressionally designated Wild and Scenic Rivers on Arctic Refuge. In 2021, staff had conducted a literature review to identify the river's Outstandingly Remarkable Values, a legal requirement of the Wild and Scenic Rivers Act. This year's fieldwork sought to verify and further describe the river's values. Other objectives of this fieldwork included to collect water quality samples, to collect digital content for inreach and outreach projects, and to survey for the presence of Little Brown Bats. Although survey efforts didn't detect any bats, future surveys in the Southern Brooks Range may have different results.



Yukon Flats National Wildlife Refuge

Annual Staff Report

October 2021 – September 2022



Refuge Overview

The Yukon Flats Basin is a world-renowned breeding ground for waterfowl. It is also home to over 1,200 Dené people who have occupied these lands for thousands of years. Encompassing this basin, Yukon Flats National Wildlife Refuge (Refuge) was created in 1980 by the Alaska Native Interest Lands Conservation Act, *aka* ANILCA. The law established the following purposes:

1. to conserve fish and wildlife populations and habitats in their natural diversity including, but not limited to, canvasbacks and other migratory birds, Dall sheep, bears, moose, wolves, wolverines and other furbearers, caribou (including participation in coordinated ecological studies and management of the Porcupine and Fortymile caribou herds) and salmon;
2. to fulfill the international treaty obligations of the United States with respect to fish and wildlife and their habitats;
3. to provide, in a manner consistent with the purposes set forth in (1) and (2), the opportunity for continued subsistence uses by local residents; and
4. to ensure, to the maximum extent practicable and in a manner consistent with the purposes set forth in paragraph (1), water quality and necessary water quantity within the refuge.

The Refuge is the nation's third-largest national wildlife refuge. The external boundaries encompass approximately 11.1 million-acres of land with 8.63-million acres in federal ownership. Extending 220 miles east-west along the Arctic Circle in east-central Alaska, the Refuge lies between the Brooks Range Mountains to the north and the limestone peaks of the White Mountains to the south. The Trans-Alaska Pipeline corridor runs just outside of the western boundary while the eastern boundary extends to within 30-miles of the Canada border. The Yukon River sculpts the vast floodplain of lakes, ponds, and streams that dominate the landscape.

To fulfill refuge purposes, the staff focus much of their efforts on monitoring the status of animals and habitat that are important from a local, national and global perspective. Maintaining an open dialog with local residents is a priority. Through a diverse program of biology, education, outreach, and enforcement, staff partner with others to conserve these important resources.

This report is a brief summary of staff activities and items of interest occurring between October 2021 and September 2022.

A Changing Environment



“I notice brush growing around the drying lakes...The weather now is more unpredictable...It affects hunting and gathering and the collection of traditional foods.” *Randy Mayo, Stevens Village Tribe.*

“Rivers are eroding and getting wider and shallow.” *Chief Eddie Frank, Venetie.*

“Too many fires. There are some areas [that are] unrecognizable.” *Linda Wells (photo left), Fort Yukon.*

Local residents are experiencing profound environmental change across the Yukon Flats ranging from extreme weather events and deviations from the historical climate including:

- increasing average annual temperatures with winters warming 8.8° F since 1950;
- more icing events;
- increasing vegetation growth;
- lengthening growing season;
- earlier river breakup and later freezeup;
- drying of many wetlands and expansion of others;
- earlier nesting by some waterfowl species;
- increasing fire size and frequency;
- loss of access to feeding habitat for whitefish; and
- movement of uncommon waterfowl species into the region.

Many of you have noticed these and other changes firsthand. How are these changes affecting physical and biological systems? How can we identify current and anticipated impacts and adapt to these changes? These are complex questions that will require research and discussion with everyone that values the land.

Refuge staff takes this issue seriously. Last year we produced an outreach bulletin that was mailed to every boxholder on the Yukon Flats and our permittees and partners, including the Eastern Interior Regional Advisory Council. The report “Yukon Flats Changing Environment,” was developed in partnership with CATG and the International Arctic Research Center, University of Alaska Fairbanks. The bulletin provides perspectives of local residents and information from researchers and Refuge staff. Check out the report at: <https://bit.ly/3ezAX76>.

Projects



Moose Population Status

Moose surveys are conducted about every three years on the Yukon Flats. The most recent surveys conducted in the eastern and western Yukon Flats were in 2015 and 2018, respectively. A November survey is scheduled for the western Yukon Flats in 2022 and will be coordinated with the Village of Beaver. A moose population survey will be conducted in the eastern Yukon Flats potentially in 2023.

Sheep Survey

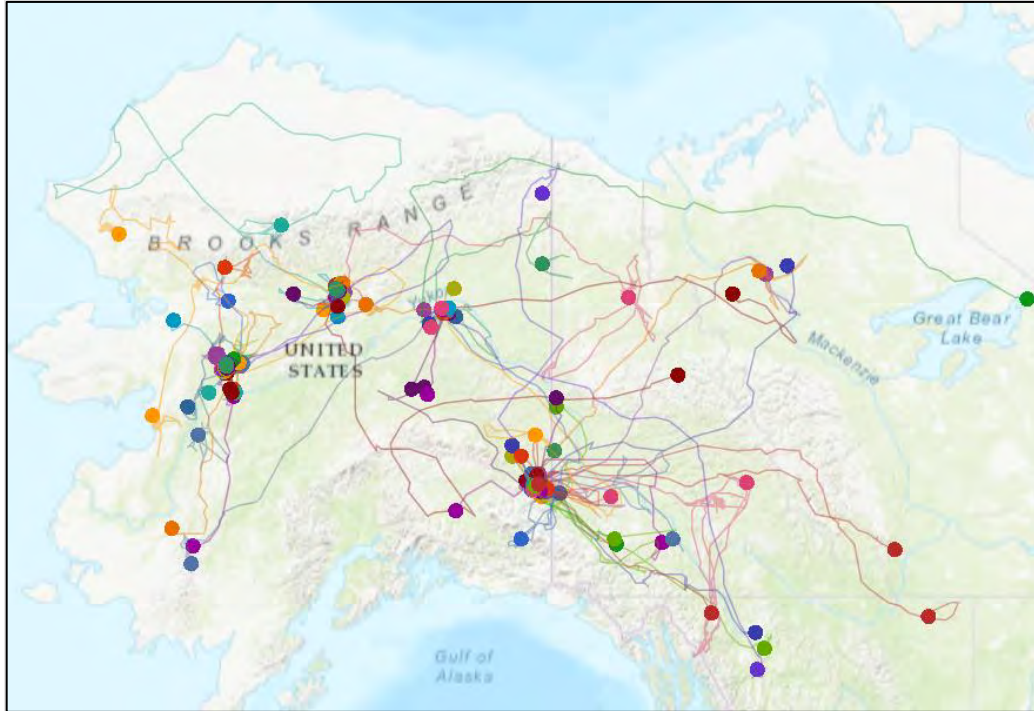
A partial White Mountains sheep survey was completed in July 2022 by ADF&G. Overall counts of rams, ewes and lambs were lower than the long-term average. Final results are pending.



Lynx Movement Study

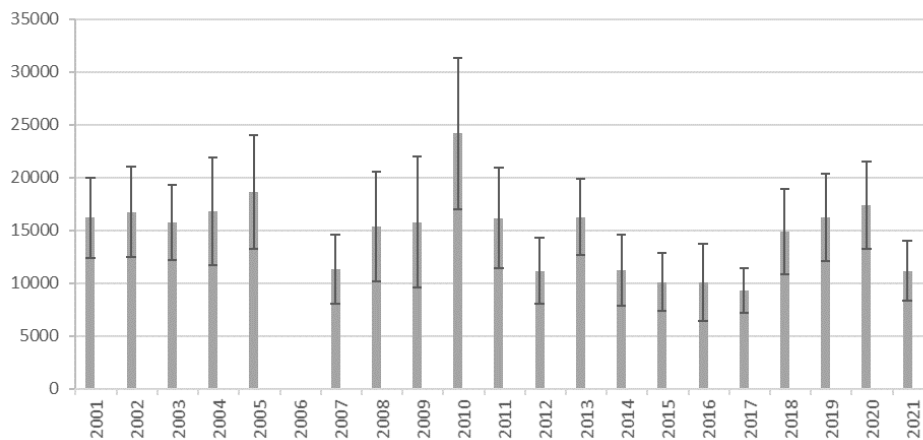
In March 2022, staff completed a sixth year studying lynx movement patterns, dispersal behavior, and survival in relation to snowshoe hare abundance. Lynx numbers decreased significantly in 2020 and staff have not live-captured a lynx since 2020. Capture operations related to this study also occurred in Tetlin National Wildlife Refuge, Koyukuk/Nowitna /Innoko Refuge Complex, and Gates of the Arctic National Park and Preserve but only 8 lynx were captured in 2022. The figure below chronicle lynx movements between 2018 to present. Many lynx have dispersed from their capture areas in all directions, some many hundreds of miles.

Movements of 127 Alaska collared lynx - 2018-2022



Waterfowl Surveys – Scoters, Scaup, Loons and Swans

2022 marked the twenty-first year of annual aerial surveys to monitor scoter and scaup populations on the Yukon Flats. All these waterbirds are important indicators of good water quality and healthy habitats. Results from the 2022 scaup and scoter surveys are still being tabulated so we provide the graph below with a historical summary of white-winged scoters through 2021. Loon surveys were completed in early August.



Invasive Plant Surveys - Yukon Flats and Interior Alaska

The US Fish and Wildlife Service National Wildlife Refuge System manages invasive species collaboratively with public and private organizations, on and adjacent to 566 national wildlife refuges, including the Yukon Flats National Wildlife Refuge. Yukon Flats refuge staff work closely with the Fairbanks Soil and Water Conservation District (FSWCD) to survey and document terrestrial and aquatic plants that are not local to the interior or Alaska. Some of these non-local plants are considered invasive when their introduction does or is likely to cause economic or environmental harm to human health.

Our goal is to prevent and control the spread of invasive plant populations (on land and water) on refuges and private lands. The refuge and FSWCD have conducted early detection surveys on interior Alaska rivers and in Yukon Flats communities since 2010. Staff are revisiting Yukon Flats communities over the next couple of years to update the status of non-local and invasive plants.



Invasives can directly affect Alaska's native wildlife populations by outcompeting vegetation that wildlife and subsistence users depend on. Aquatic invasives like *Elodea* can degrade salmon spawning beds. This could adversely impact Yukon River salmon population numbers which are already imperiled. *Elodea* can also make boat travel difficult, possibly preventing access to favorite hunting grounds.

Terrestrial invasive plant surveys were conducted in the communities of Circle (upper left photo) and Beaver in June and August 2022. White sweet clover infestations were detected in Circle; no high priority invasive plants were detected in the village of Beaver. In each community staff distributed outreach materials on invasive plants to community members and talked about high priority invasive plants to look out for with Native Council staff. Similar work will be conducted in Venetie in September 2022.

Early detection surveys for the invasive aquatic plant *Elodea* were conducted at North Chena Pond, Moose Creek Landing Pond, Healy Lake, Shaw Creek Pond, and lakes along the Steese Highway. *Elodea* was not detected in any of the water bodies surveyed. Staff traveled to Minto Village (upper right photo) to survey the extensive wetland complexes east of the community. We did not find invasive *Elodea* during our survey.

You can prevent the spread of both terrestrial and aquatic invasive plants by cleaning your footwear, ATV's and boats/gear before visiting new locations (fish/hunting camps, quiet backwaters). If you see anything different, feel free to contact refuge staff or call the Invasive Species Hotline: 1-877-INVASIV.

Survey of Bald Eagles and other Stick-nesting Birds



The eighth annual survey of bald eagle nests and other stick-nesting birds was conducted on the Draanjik River in 2022. One-time inventory surveys were conducted in previous years (since 2014) along the Yukon, Hodzana, Beaver, Birch, Porcupine and Chandalar rivers. Inventorying and monitoring bald eagle nests and foraging sites will provide information on their local densities, trends, and habitat use, and will provide a database needed for responsible management. Federal law (Federal Register: 50 Part 22) requires permits to disturb bald eagles. As management activities arise, such as requests for right-of-ways, special use permits, mining activities, land exchanges, etc., we are required to protect nests (active and inactive) and foraging sites. This project is an effort to acquire data to properly support such actions. Results from the 2022 survey is still being tabulated.



Number of Active Nests on the Draanjik River

								Nests Active ≥1 yr
	2014	2015	2016	2017	2018	2019	2021	
Bald Eagle	6	10	8	5	7	8	11	35
Raven	1		3		1	1		3
Great Horned Owl		1						1
Northern Goshawk	2						1	3
Osprey	5	4	6				1	8
Red-tailed Hawk				1				1
Total	14	15	17	6	8	9	13	51

2021 Brood Production Survey Summary, Yukon Flats NWR

	Shack Lake	Canvasback Lake	Plot F
<p>Lesser Scaup</p> 			
<p>White-winged Scoter</p> 			
<p>Canvasback</p> 			
<p>American Widgeon</p> 			
<p>Green-winged Teal</p> 			
<p>Horned Grebe</p> 			

-  No change from the long term pattern
-  Decrease from the long term pattern
-  Increase from the long term pattern
-  Big increase from the long term pattern

Duck Brood Survey

In July 2022, a duck brood survey was conducted at three wetland complexes, Canvasback Lake, Wetland by Track Lake, and Plot F. Data are being reviewed and preliminary observations were that brood numbers were reduced in 2022. A report is anticipated in December. No evidence of sick ducks from avian influenza was observed. Results from the 2021 duck brood survey are displayed.

Duck Banding

Ducks were banded at Canvasback Lake during August 2022. The goal of the project is to band mallard to inform harvest management. Other ducks incidentally captured were banded. Totals included 47 mallard, 209 northern pintail, and 11 American green-winged teal.



Student Conservation Association (SCA) intern, George Meleta worked for Kanuti Refuge from April through June and with Yukon Flats July to September. While at Yukon Flats George assisted with brood surveys, duck banding, and photo review for the trail cam project.



Geospatial application developed to measure a changing landscape

Refuge staff entered into a partnership with the Geographic Information Network of Alaska at the University of Alaska Fairbanks to develop a web application that will allow managers and biologists the ability to easily display and summarize *remotely sensed data* to inform natural resource management. Staff will be able to spatially monitor the growing season, snow cover, surface water, wildfires and more through time. The beauty of the new application is that it will be relatively easy to use and staff can produce maps that display change across the Yukon Flats Basin with minimal effort to share with others.

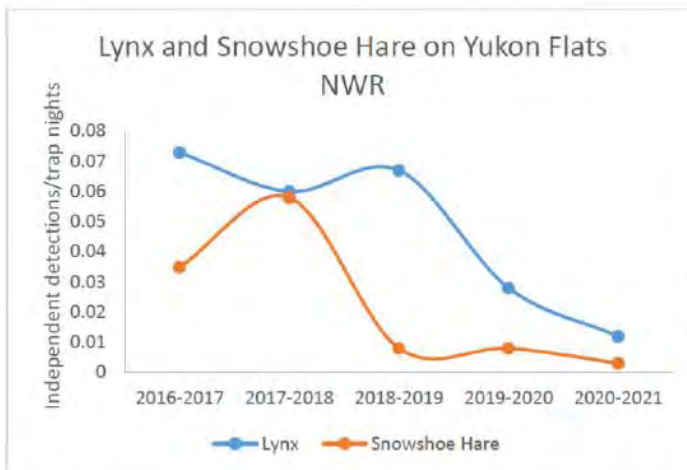
Trail Cameras

Trail cameras capture life on the Yukon Flats year-round. Since 2016, up to 34 cameras have been operating. Below is one highlight from this project.

Peak and Crash of Lynx and Snowshoe Hare Populations on Yukon Flats NWR, as Revealed through Camera Traps

By Bryce Lake, Wildlife Biologist, Yukon Flats NWR 13 April 2022

A camera trap study was conducted during 2016-2021 on Yukon Flats National Wildlife Refuge (NWR). Sixteen to 34 cameras operated year-round. Placement of cameras across the Refuge was stratified random in 100 km² sample units. Cameras were checked in spring or summer and SD cards and batteries replaced. Images were cataloged in a database. Relative abundance was assessed as independent detections/trapnights. Independent detections represented triggers separated by >60 minutes. Time period was July 1 until June 30 of the following year.



The lynx population peaked in 2018-2019, declined the following winter, and crashed in 2020-2021. Lynx numbers likely declined from reduced survival, and dispersal of individuals in search of snowshoe hares. Snowshoe hare numbers crashed a year earlier in 2018-2019. Experimentation has demonstrated that snowshoe hare populations crash from predation and stress from predator chases.

Eyes in the Bush – Resource monitoring in Fort Yukon and Circle

Amanda Pope extracts a soil sample along a transect in Circle. Eyes in the Bush resource monitoring program was established in 2021 to monitor measures of snow, thawed soil and air quality; dates for green up, river ice in/out, and migratory bird arrival; early detection of emerging soil-based pathogens, invasive plants and ticks; and fire monitoring. Manager Jimmy Fox installed a Purple Air air quality monitor in Beaver in July. Technicians Julie Mahler, Fort Yukon and Amanda Pope, Circle have been busy collecting over the past 16 months. The information is recorded in the Indigenous Sentinels Network (ISN) database, which provides Indigenous communities with tools, training, networking and convening, coordination, and capacity for ecological, environmental, and climate monitoring. If you are interested in expanding this effort to your Yukon Flats community contact Refuge Biologist, Mark Bertram at 907-347-1524 for information.



Law Enforcement Program

Senior Federal Wildlife Officer Cody Smith continued working towards becoming a carded pilot and spent a significant amount of time in flight training. Senior FWO Smith attended the Big Game Commercial Services Board meeting and joined in discussion on regulatory updates and issues pertaining to big game guides and transporters on interior Alaska refuges. An aerial patrol was conducted for spring bear hunt season and contact was made with permitted guides. SrFWO Smith conducted river patrols throughout Yukon Flats NWR during the salmon run for closure enforcement and gear restrictions, and additional river patrols for fall moose hunting season.



Civilian Climate Corps Fellow

Denna Martinez was selected as Civilian Climate Corps Fellow assigned to both Yukon Flats and Kenai refuges. Denna assisted us in the field with duck banding in August. She is currently focused on drafting informed options for climate change adaptation for Alaska refuges in the boreal forest.



Birch Creek Open House

After a two-year delay, Refuge staff enjoyed several days visiting with residents of Birch Creek, Alaska. Residents were encouraged to bring any concerns they might have to the gathering to discuss with Refuge Manager, Jimmy Fox. Posters describing Refuge research projects, various resource issues and maps showing land ownership and the new 2022-23 GMU 25 Moose Hunting Map were displayed in the community library. The maps and posters were left with the Tribal Council. Food was provided by the Friends of Alaska's National Wildlife Refuges.



Due to concerns expressed by the Birch Creek Tribal Council, the Refuge partnered with Chief Jacqueline Baalam to design a map to help hunters understand land ownership and the boundary of Game Management Unit 25D West. The Refuge installed two information kiosks at the two boat landing sites in the community. The goal is to inform and discourage trespass on village corporation land and identify the 25D West boundary to prevent ineligible hunters from hunting moose on federal lands and waters in that area.

Fire Season Summary



Paddle fire burning near Bear Mountain [Alaska Fire Service]

Dry conditions during May and June primed the Yukon Flats refuge for a relatively active fire season. Just how dry was it? In Fort Yukon for the period of May 18th to July 3rd there was just .10” of total precipitation recorded at the FYRA2 weather station. From May 18th thru June 18th, there was **no** recorded precipitation in Fort Yukon. These dry conditions coupled with abundant lightning set the stage for an active fire season for the region. A total of 17 fires started on refuge lands and would ultimately burn 92,809 refuge acres. The first fire discovered on the refuge was detected June 18th while the last fire of the season (as of 9/6) was discovered on July 29th.

Of the four fire management options used in Alaska to determine the default response to fires: Critical, Full, Modified and Limited, the refuge had 10 fires originate within Limited, 4 within Full and 3 fires start within Modified. Fire suppression efforts were mostly successful throughout June however, as the season moved into July, it was apparent that the fuels were extremely dry and initial firefighting efforts were largely ineffective given rapid rates of fire spread. All fires originating on the Yukon Flats were determined to be lightning caused; there were 7,963 recorded lightning strikes within the refuge perimeter between May 5th and August 29th.



Pollinator (Bee) Sampling

Pollinators play a key ecological role in ensuring seed and fruit production for plants. Since there have been significant declines in bee production in the past 50 years, refuge staff initiated collection of bees on the Yukon Flats to inventory the types of bees (and other pollinating insects) present. Immediate use of this data will be to determine the range boundaries of several endangered bee species. Collection results will be analyzed this winter by the statewide Alaska Bee Atlas project.

Soil Microbe Sampling

Recent increases in air temperature in Alaska has initiated warming of permafrost laden soils. Permafrost is a reservoir to microorganisms and viruses, some potentially viable. We have limited knowledge of the potential impacts to humans, animals and plants from thawing soils. In 2021 the refuge teamed up with University of Alaska-Fairbanks to begin inventorying soil microbes. Thus far we have sampled in Fort Yukon, Circle and a few wetlands across Yukon Flats. Findings indicate a diversity of microbes are present. In the figure biological technician George Geleta takes a soil core sample in July 2022 which is cooled and then transported to the lab in Fairbanks for analysis.



Permafrost Sampling

Yedoma (figure right below) is very old ice-rich permafrost that is loaded with carbon. Yedoma exists in the foothills in the southern Yukon Flats. We have partnered with permafrost and soils expert Torre Jorgenson and retired FWS botanist Janet Jorgenson to initiate permafrost monitoring stations at two locations in the Yukon Flats Basin to monitor both soil and water temperatures and measure thaw depths in both burned and unburned habitats. Below left, Torre deploys small instruments in the water and soil that take monthly measures remotely. The probes are replaced every 3-5 years.



Refuge Management Information

Impacts from the Global Coronavirus (COVID-19) Pandemic

Restrictions relaxed since our report last fall. As you read through this report, you'll learn that we've mostly returned to normal operations. We postponed an open house event in Birch Creek in June due to high infection and hospital admissions in Fairbanks but were able to complete the event in late August (see below for details).

Staffing and Budgets

Due to long-term funding declines for the National Wildlife Refuge System, the Service initiated a multi-year effort to thoughtfully adjust distribution of funding and staffing among the 16 refuges in Alaska. The intent was to meet Refuge System goals and priorities while giving flexibility to managers in response to unpredictable budget cycles. As a result, staffing and budgets for the Kanuti and Yukon Flats National Wildlife Refuges have been reduced. As staff leave or retire many positions will not be refilled and eventually the two offices will be combined with each retaining a manager. This plan is subject to change if funding for Refuge System increases significantly. In 2019, after Nathan Hawkaluk transferred to Arctic Refuge the deputy manager position for Yukon Flats Refuge was not refilled. Last December, Park Ranger, Mimi Thomas and Subsistence Coordinator, Vince Mathews retired. The position for Thomas will not be refilled. The subsistence coordinator position is funded by the Office of Subsistence Management and serves Arctic, Kanuti and Yukon Flats refuges. However, recruitment for the position is pending.



Beaver Creek looking south into the limestone ridges of the White Mountains which form the southern boundary of the Yukon Flats Refuge.

Annual Funding Agreement with Council of Athabascan Tribal Governments

The Service entered its 20th year of partnering with CATG under the Indian Self-determination and Education Assistance Act. Programs, functions, services and activities CATG employees performed included brush clearing, fence construction and repair, and construction of a kiosk in Beaver; Eyes in the Bush monitoring in Circle and Fort Yukon (see below for details); cultural and science camp in Fort Yukon (cancelled due to COVID); maintenance and logistics in Beaver and Fort Yukon; hunter liaison work in Circle and Fort Yukon (see below); and a pilot project to partner with tribes in Beaver, Birch Creek and Stevens Village to improve reporting outcomes for the 25D-West federal moose hunt. In addition, the Director of the Service recently allocated additional funding for CATG to expand cultural and science camps to other villages in 2022-23.

Status of Compatibility Determinations

Last fall we embarked upon completing a required review of various uses of the Refuge to ensure they are compatible with achieving the purposes of the Refuge. The uses being reviewed are hunting, fishing, trapping, natural resource gathering, cabins, motorized access, wildlife observation and photography, scientific research and surveys, management activities of the State of Alaska, and surface exploration for oil and gas. Since that time, we've engaged in consultations with Alaska Native tribes and ANCSA corporations, Tanana Chiefs Conference Hunt and Fish Task Force and several departments of the State of Alaska. This fall we anticipate releasing draft determinations for public review and comment except for the draft determination for oil and gas exploration, which may be released for public review and comment next spring.

Status of Doyon-Hilcorp Project

Last fall we reported that in 2021 we commented on Hilcorp applications for temporary water use authorizations to support a stratigraphic well program on lands adjacent to the Refuge. We have no further news to share since our report last October.



The 10,000 square mile Yukon Flats Basin is central to the Yukon Flats Refuge.

Hunter Liaison Project

At the time of this writing, hunter liaisons are working in Circle and Fort Yukon. We appreciate funding support from the offices of Yukon-Charley Rivers National Preserve (Circle) and Arctic National Wildlife Refuge (Fort Yukon). The report from the Fall 2021 season is attached to this report.

Permitted Research Activities

All permittees are required to avoid interfering with subsistence activities, and if operating aircraft to do so in a manner that does not result in harassment of wildlife. Seven air taxi operators received a permit to provide services on Refuge lands and waters in 2022, if needed. Nearly twenty permits are valid for subsistence and trapping cabins. One filming permit was issued for a brief period this spring. Two big game guides and two recreational guides operated in 2022. Three scientific researchers were permitted to investigate the level of fire severity in recent burns, map wetlands and collect permafrost temperature data. The Poker Flats Research Range continued their annual operation under permit to retrieve rocket debris located on Refuge lands.

Big Game Guide Selections

For nearly two decades, one guide has led several black bear hunters in late spring in the western half of the Refuge and one has guided a few grizzly hunters and one moose hunter in the eastern half of the Refuge. In agreement with the Service, both guides operate far from subsistence use areas, and no direct complaints or conflicts have been recorded. At this time, the Refuge Manager is reviewing proposals submitted for the next five-year big game guide permit cycle and considering input from tribal consultations and discussions. Two applications were received for the eastern half of the Refuge (grizzly bear, moose and wolf), and one for the western (black and grizzly bear and wolf).



The braided Yukon River between Circle and Fort Yukon provides world class spawning habitat to sheefish, bering cisco, and other whitefish species.

Fire in the Anthropocene Workshop

At this time, the Alaska Fire Science Consortium and International Arctic Research Center are working with Refuge staff to publish an overview report that will convey the science showing the changes related to increasing wildland fires, permafrost thaw and other habitat changes, greenhouse gas emissions, and workshop discussions around using fire to minimize or mitigate these changes. For example, concern about wildland fire emissions are emerging around the U.S. According to a NASA-funded emissions calculation tool, wildland fires across the Yukon Flats in 2019 released an estimated 30-million metric tons of CO₂. The Environmental Protection Agency translates that amount to 7 1/2 coal-fired power plants in operation for one year. While wildland fire emissions are different in space and time, the number is still significant. (Note: the 2019 calculation does not account for emissions released afterwards if the fire triggers permafrost thaw.)

Facilities and Property

Construction of a bunkhouse in Fort Yukon began in 2020 and was delayed by the global pandemic. Building construction has concluded. However, one technical problem is being evaluated. Once resolved the bunkhouse should be operational and will house Service employees and partners on an intermittent basis. Due to rising costs and volatility of fossil fuel-based energy, and decreasing costs of renewable energy, the Service has initiated a project to evaluate the financial and logistical feasibility of installed solar photovoltaic systems for electricity. The review will include facilities in Fairbanks and Fort Yukon, and potential energy efficiency modifications to the Service hangar in Fairbanks. Due to increasing snow accumulations, last winter a portion of the hangar roof was modified to withstand future heavier snow loads. This winter we will be assessing the feasibility of installing a hoist in the hangar to facilitate exchange of floats, skis and wheels on aircraft. A new truck and snowmachine will replace a well-used truck and snowmachine in Fort Yukon – both will be transferred to CATG. Vandalism occurred at the Service storage shed in Beaver and government equipment has not been recovered.



Trona, an evaporite salt deposit, that surfaces as some wetlands are drying, is common across the Yukon Flats.

Old BIA School Contaminant Remediation Project

The Service owns a lot in Beaver, Alaska, which contains the current school and an old Bureau of Indian Affairs school. The grounds and the old school are contaminated with an assortment of chemicals. With internal advocacy, Refuge staff were successful in obtaining funds from the Service to characterize the contamination and prepare a scope of work. No companies have yet bid on the call for proposals.

Ikheenjik River (Birch Creek) Watershed Management Plan

The Refuge staff were invited to share comments, questions and observations with the Bureau of Land Management regarding their intent to develop a watershed management plan for lands they administer. We provided input about protecting water quality and quantity to help ensure that downstream in the Refuge the Service can fulfill that purpose.

17(b) Trail Easements

The Service received an inquiry about existing ANCSA 17(b) trail easements between Fort Yukon, Alaska and Christian Village. A member of the public requested information related to maintenance of the official trails. However, no ANCSA 17(b) trail easement goes to Christian Village. An easement exists between Fort Yukon and Alexander Village.

For more information on the Yukon Flats National Wildlife Refuge go to <https://www.fws.gov/refuge/yukon-flats> or call 1-800-531-0676.



Oxbow lakes form when rivers change course creating pockets of habitat for waterbirds and fish.

U.S. Fish & Wildlife Service

Spring 2023 Update for Tetlin National Wildlife Refuge



Photo credit:USFWS

December 2022



Tetlin National Wildlife Refuge
PO Box 779, Tok, AK 99780

BIOLOGY UPDATE

2022 MOOSE SURVEY SUMMARIES

Twining Survey

Biological staff and contractors conducted a second year of moose calf surveys to estimate the frequency of twinning on and around Tetlin NWR in GMU 12. During late May and early June, we conducted low level aerial surveys with fixed-wing aircraft to search for unmarked (i.e., not radio-collared) cows. Cows were categorized based on the number of calves with which they were observed, and we calculated the twinning rate as the number of cows with twins divided by the total number of cows observed with at least one calf. Last year we located 31 cow moose with at least one calf. Of these cows, 6 had twins yielding a twinning rate of about 19%. In 2022, we observed 37 total cows with calves and 7 with twins. The observed twinning rate was nearly identical to that estimated in 2021 at 19% (Figure 1).

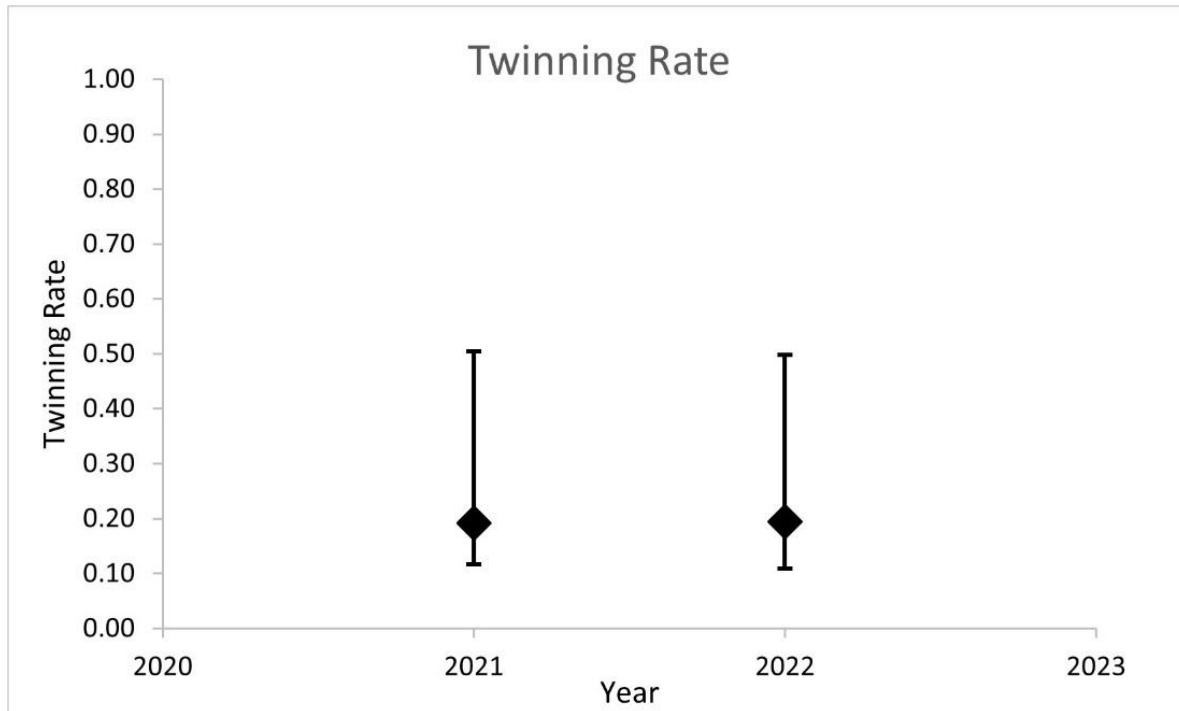


Figure 1. Twining rates and 90% confidence intervals for moose the southeast portion of GMU 12 encompassing Tetlin NWR in 2021 and 2022.

Moose population surveys

Staff and contractors conducted fall moose population surveys in the southeast portion of GMU 12 in coordination with ADF&G biologists in Tok using standard aerial survey methodology (GSPE operations protocols). The areas traditionally surveyed by Tetlin NWR and ADF&G were modified in 2022; Tetlin NWR and ADF&G exchanged a subset of units. Tetlin NWR acquired 82 units north of the Alaska Highway and transferred survey responsibility for 99 units west of the Refuge boundary to ADF&G. The new area

surveyed by Tetlin NWR consists of 465 survey units covering 2,844 mi² (7,365 km²) and is bounded by the Nutzotin Mountains on the south, the Mentasta Mountains on the southwest, the southern boundary of Game Management Unit 20 in the Gardner Creek drainage to the north, and the Canadian border to the east (Figure 1).

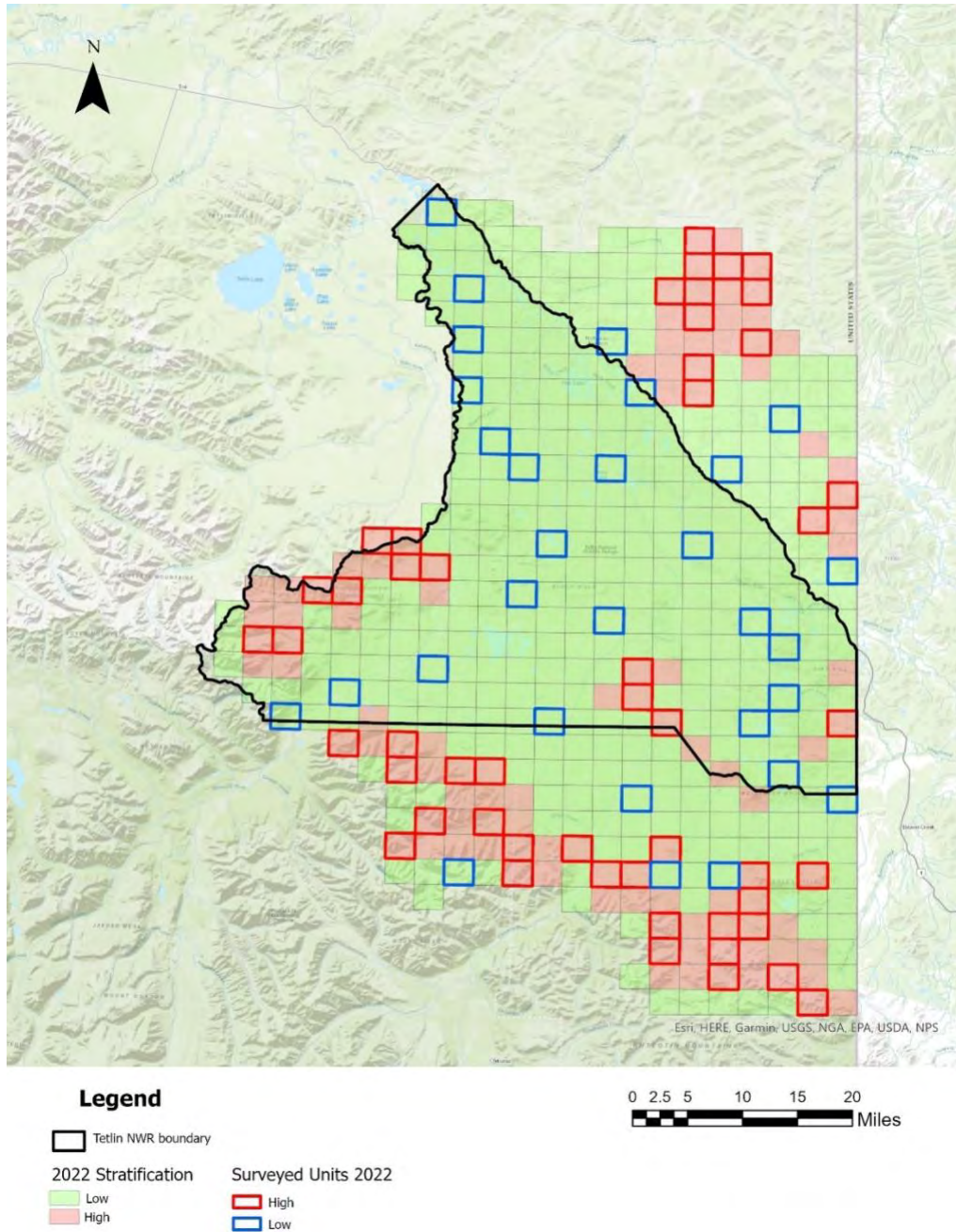


Figure 2. The survey area as configured for 2022 fall moose surveys in the southeast portion of Game Management Unit 12.

Overall, moose density was 0.40 moose/mi² (90% CI ± 0.06) in 2022 (Figure 3). The calf:cow ratio was 12 calves:100 cows (90% CI ± 4.7; Figure 4), and the bull:cow ratio remained high at 54 bulls:100 cows (90% CI ± 14.04; Figure 5.)

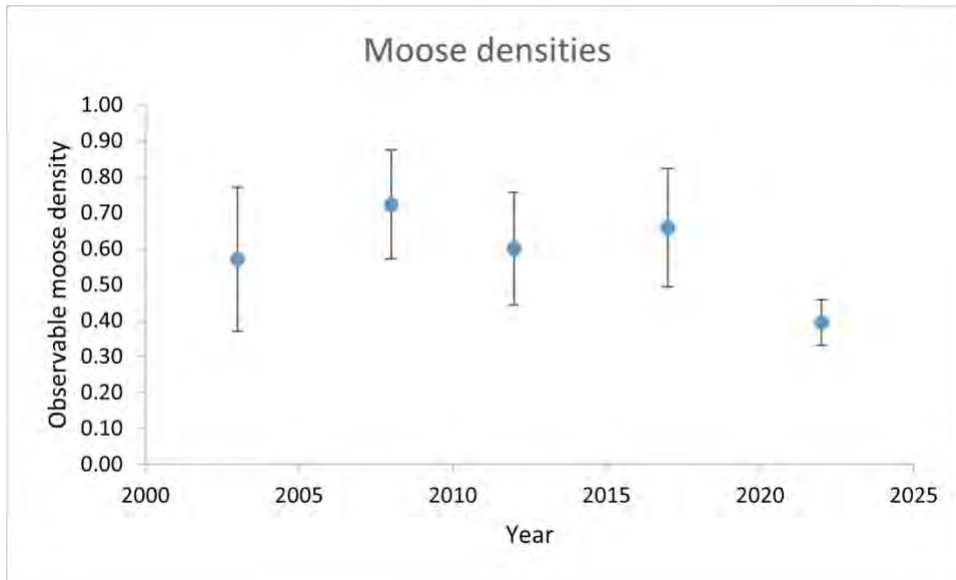


Figure 3. Moose densities (moose:mi²) in the Southeast Unit 12 Survey area from 2003 through 2022 for 5 survey years during which ADF&G and Tetlin NWR conducted surveys.

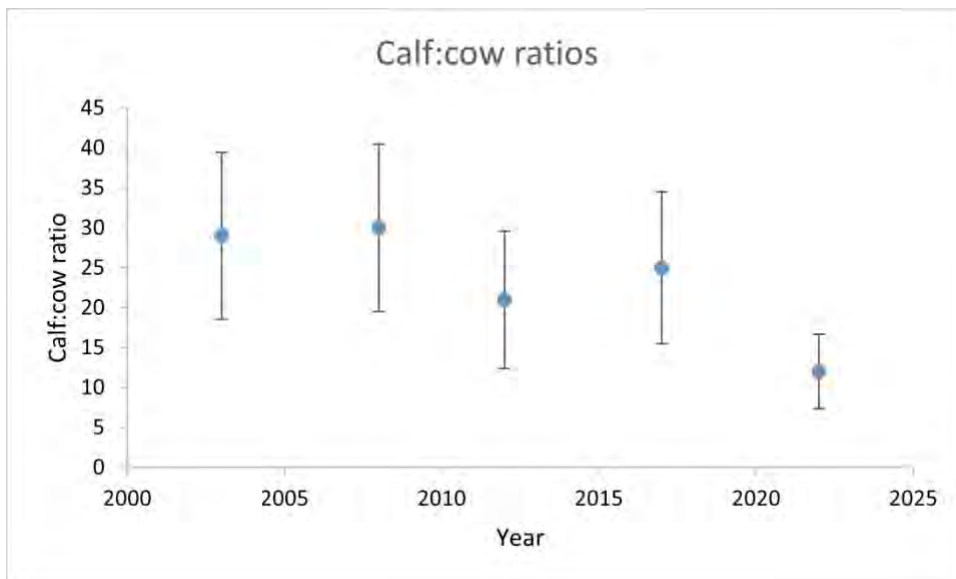


Figure 4. Calves:100 cows in the Southeast Unit 12 Survey area from 2003 through 2022 for 5 survey years during which ADF&G and Tetlin NWR conducted surveys.

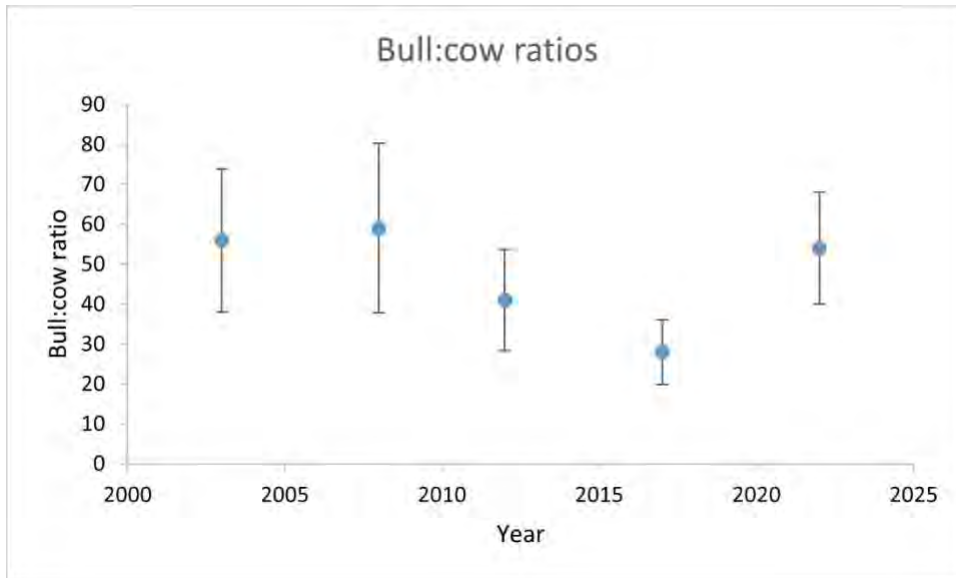


Figure 5. Bulls:100 cows Southeast Unit 12 Survey area from 2003 through 2022 for 5 survey years during which ADF&G and Tetlin NWR conducted surveys.

In summary, we speculate that deep snow in the winter of 2021-2022 lead to greater mortality and subsequent lower moose densities throughout the survey area. The lower calf:cow ratios observed in 2022 may be due to carryover effects from the harsh winter, but multiple factors may have contributed. We have no specific data to aid in interpreting the apparent decline in cow:calf ratio. The high bull:cow ratio, often exceeding the management objective of 40 bulls:100 cows over the past two decades, is typical of populations with relatively low harvest pressure. At the end of December 2022, snow depths in the survey area ranged from 24 – 30 inches. However, the snow pack appears to differ from the previous winter in the overall density and layering. The current winter is characterized by deep loose powder whereas the winter of 2021-2022 saw a snowpack with distinct layers corresponding to snowfall and wind events. Effects of snow conditions in the coming spring may be more relevant and will depend upon freeze-thaw cycles and occurrence of rain-on-snow events.

Fall 2023 Regional Advisory Council Meeting Calendar

Last updated 11/7/2022

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. 13	Aug. 14 Window Opens	Aug. 15	Aug. 16	Aug. 17	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	Sep. 1	Sep. 2
Sep. 3	Sep. 4 Labor Day Holiday	Sep. 5	Sep. 6	Sep. 7	Sep. 8	Sep. 9
Sep. 10	Sep. 11	Sep. 12	Sep. 13	Sep. 14	Sep. 15	Sep. 16
Sep. 17	Sep. 18	Sep. 19	Sep. 20	Sep. 21	Sep. 22	Sep. 23
		KARAC (King Cove)				
Sep. 24	Sep. 25	Sep. 26	Sep. 27	Sep. 28	Sep. 29	Sep. 30
Oct. 1	Oct. 2	Oct. 3	Oct. 4	Oct. 5	Oct. 6	Oct. 7
	SCRAC (Kenai)		EIRAC (Tok or Fairbanks)			
Oct. 8	Oct. 9 Columbus Day Holiday	Oct. 10	Oct. 11	Oct. 12	Oct. 13	Oct. 14
		YKDRAC (Anchorage or Bethel)				
		WIRAC (Fairbanks)				
Oct. 15	Oct. 16	Oct. 17	Oct. 18	Oct. 19	Oct. 20	Oct. 21
	NWARAC (Kotzebue)					
Oct. 22	Oct. 23	Oct. 24	Oct. 25	Oct. 26	Oct. 27	Oct. 28
		BBRAC (Dillingham)				
		SEARAC (Sitka)				
Oct. 29	Oct. 30	Oct. 31	Nov. 1	Nov. 2	Nov. 3 Window Closes	Nov. 4
			NSRAC (Utqiagvik)			
			SPRAC (Nome)			

Winter 2024 Regional Advisory Council Meeting Calendar

Last updated 12/22/2022

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

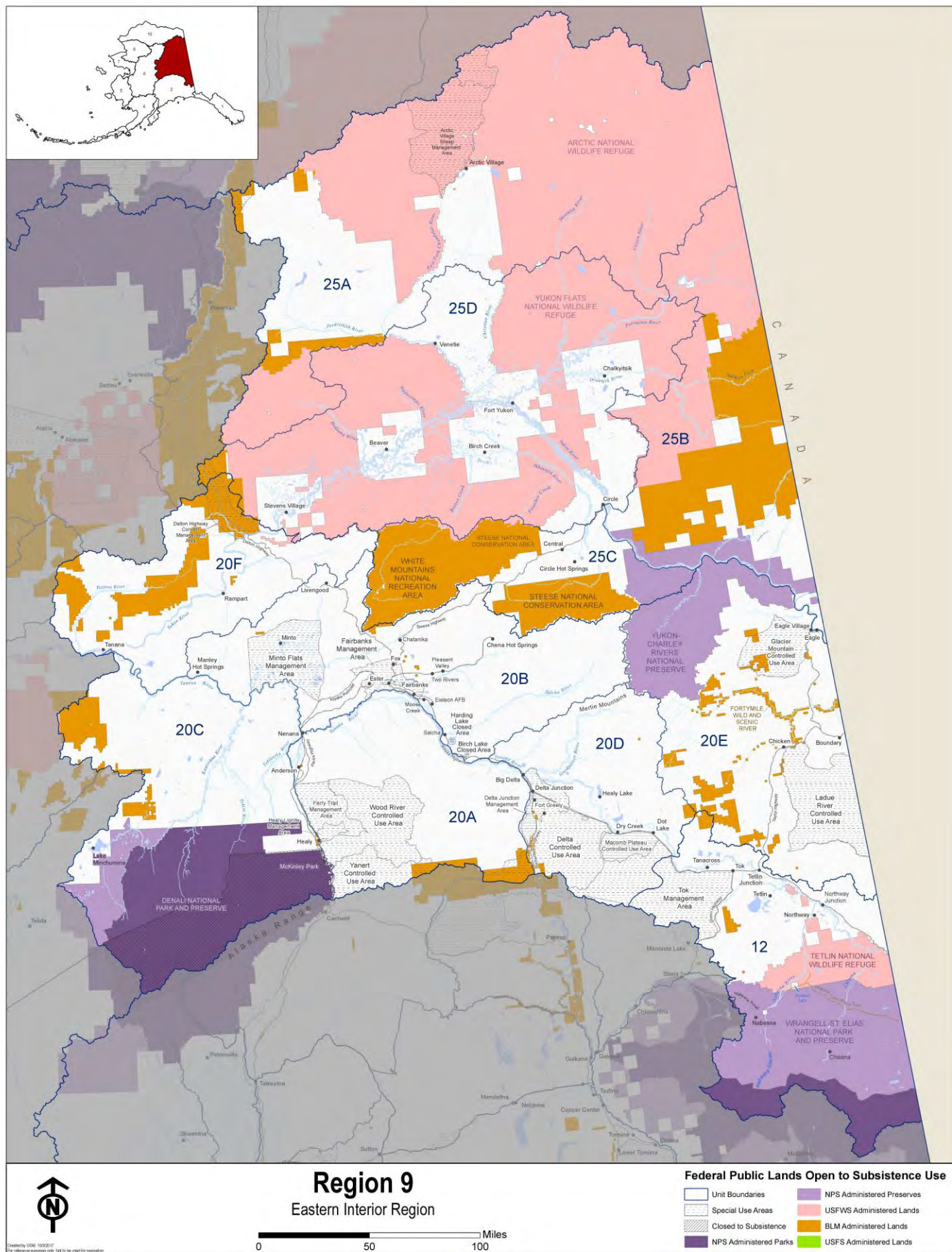
Sunday	Monday	Tuesday	Wednesday-	Thursday	Friday	Saturday
<i>Mar. 3</i>	<i>Mar. 4 Window Opens</i>	<i>Mar. 5</i>	<i>Mar. 6</i>	<i>Mar. 7</i>	<i>Mar. 8</i>	<i>Mar. 9</i>
<i>Mar. 10</i>	<i>Mar. 11</i>	<i>Mar. 12</i>	<i>Mar. 13</i>	<i>Mar. 14</i>	<i>Mar. 15</i>	<i>Mar. 16</i>
<i>Mar. 17</i>	<i>Mar. 18</i>	<i>Mar. 19</i>	<i>Mar. 20</i>	<i>Mar. 21</i>	<i>Mar. 22</i>	<i>Mar. 23</i>
<i>Mar. 24</i>	<i>Mar. 25</i>	<i>Mar. 26</i>	<i>Mar. 27</i>	<i>Mar. 28</i>	<i>Mar. 29 Window Closes</i>	<i>Mar. 30</i>

Fall 2024 Regional Advisory Council Meeting Calendar

Last updated 12/22/2022

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 Window Opens	Aug. 20	Aug. 21	Aug. 22	Aug. 23	Aug. 24
Aug. 25	Aug. 26	Aug. 27	Aug. 28	Aug. 29	Aug. 30	Aug. 31
Sep. 1	Sep. 2 Labor Day Holiday	Sep. 3	Sep. 4	Sep. 5	Sep. 6	Sep. 7
Sep. 8	Sep. 9	Sep. 10	Sep. 11	Sep. 12	Sep. 13	Sep. 14
Sep. 15	Sep. 16	Sep. 17	Sep. 18	Sep. 19	Sep. 20	Sep. 21
Sep. 22	Sep. 23	Sep. 24	Sep. 25	Sep. 26	Sep. 27	Sep. 28
Sep. 29	Sep. 30	Oct. 1	Oct. 2	Oct. 3	Oct. 4	Oct. 5
Oct. 6	Oct. 7	Oct. 8	Oct. 9	Oct. 10	Oct. 11	Oct. 12
Oct. 13	Oct. 14 Columbus Day Holiday	Oct. 15	Oct. 16	Oct. 17	Oct. 18	Oct. 19
Oct. 20	Oct. 21	Oct. 22	Oct. 23	Oct. 24	Oct. 25	Oct. 26
Oct. 27	Oct. 28	Oct. 29	Oct. 30	Oct. 31	Nov. 1 Window Closes	Nov. 2



**Department of the Interior
U. S. Fish and Wildlife Service**

Eastern Interior Alaska Subsistence Regional Advisory Council

Charter

1. **Committee's Official Designation.** The Council's official designation is the Eastern Interior 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)) Title VIII, 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, review, and evaluate of 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; and

- (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 one member to the Denali National Park Subsistence Resource Commission in accordance with section 808 of the ANILCA.
 - f. Make recommendations on determinations of customary and traditional use of subsistence resources.
 - g. Make recommendations on determinations of rural status.
 - h. Provide recommendations on the establishment and membership of Federal local advisory committees.
5. **Agency or Official to Whom the Council Reports.** The Council reports to the Federal Subsistence Board Chair, who is appointed by the Secretary of the Interior with the concurrence of the Secretary of Agriculture.
6. **Support.** The U.S. Fish and Wildlife Service will provide administrative support for the activities of the Council through the Office of Subsistence Management.
7. **Estimated Annual Operating Costs and Staff Years.** The annual operating costs associated with supporting the Council's functions are estimated to be \$175,000, including all direct and indirect expenses and 1.15 Federal 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 11, 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 Council and subcommittee 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, the charter is renewed in accordance with 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:

Ten 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 seven of the members (70 percent) represent subsistence interests within the region and three 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. Members serve at the discretion of the Secretary.

If appointments for a given year have not yet been announced, a member may continue to serve on the Council following the expiration of his or her term until such appointments have been made. Unless reappointed, the member's service ends on the date of announcement even if that member's specific seat remains unfilled.

Alternate members may be appointed to the Council to fill vacancies if they occur out of cycle. An alternate member must be approved and appointed by the Secretary before attending the meeting as a representative. The term for an appointed alternate member will be the same as the term of the member whose vacancy is being filled.

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 DFO’s approval, subcommittees may be formed for the purpose of compiling information or 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.** The Records of the Council, and formally and informally established subcommittees or other subgroups of the Council, must be handled in accordance with General Records Schedule 6.2, and other approved Agency records disposition schedules. These records must be available for public inspection and copying, subject to the Freedom of Information Act (5 U.S.C. 552).

 /signature on the filed original/
Secretary of the Interior

 Dec. 10, 2021
Date Signed

 Dec. 13, 2021
Date Filed

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www.facebook.com/subsistencealaska

