NORTH SLOPE SUBSISTENCE REGIONAL ADVISORY COUNCIL

Meeting Materials

October 23-24, 2019
Point Hope

What's Inside

On the cover...

Caribou on NPRA

BLM photo by Bob Wick

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NORTH SLOPE SUBSISTENCE REGIONAL ADVISORY COUNCIL

Qalgi Community Center
Point Hope

October 23-24, 2019
9:00 am daily

TELECONFERENCE: call the toll free number: 1-866-864-5314, then when prompted enter the passcode: 3091862.

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

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

AGENDA

*Asterisk identifies action item.

1. **Invocation**
2. **Call to Order** (*Chair*)
3. **Roll Call and Establish Quorum** (*Secretary*).....4
4. **Welcome and Introductions** (*Chair*)
5. **Review and Adopt Agenda*** (*Chair*) 1
6. **Review and Approve Previous Meeting Minutes*** (*Chair*) 5
7. **Reports**

   Council Member Reports

   Chair's Report
8. **Service Awards**
9. **Public and Tribal Comment on Non-Agenda Items** (available each morning)
10. **Old Business** (*Chair*)

    a. Wildlife Closure Review WCR20-31 (Units 26B, remainder and 26C, moose) – information update (*OSM Wildlife*) 20

To teleconference into the meeting, call the toll free number: 1-866-864-5314, then when prompted enter the passcode: 3091862.

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 Eva Patton, 907-786-3358, eva_patton@fws.gov, or 800-877-8339 (TTY), by close of business on October 9, 2019.

REGION 10
North Slope Subsistence Regional Advisory Council

Seat	Year Appointed *Term Expires*	Member Name and Community	
1	1998 ***2020***	**Gordon R. Brower** Utqiagvik	**Chair**
2	 ***2019***	***VACANT***	
3	2016 ***2019***	**Wanda T. Kippi** Atqasuk	**Secretary**
4	2015 ***2019***	**Steve A. Oomittuk** Point Hope	**Vice Chair**
5	 ***2020***	***VACANT***	
6	2018 ***2020***	**Edward J. Rexford, Sr.** Kaktovik	
7	2018 ***2020***	**Martha (Amy Ruth) Itta** Nuiqsut	
8	2018 ***2021***	**Tad M. Reich** Utqiagvik	
9	2006 ***2018***	**William C. Hopson** Utqiagvik	
10	 ***2021***	***VACANT***	

NORTH SLOPE SUBSISTENCE REGIONAL ADVISORY COUNCIL

Inupiat Heritage Center
Utqiagvik, Alaska

April 3-4, 2019

MEETING MINUTES

Call to Order
The meeting was called to order at 9:05 a.m.

Roll Call
Members present: Gordon Brower, Wanda Kippi, Steve Oomittuk, Edward Rexford, Sr., Martha Itta, Tad Reich, William Hopson. Seven of seven current Council members present. Quorum was established. Secretarial appointments left 3 of 10 seats vacant this year.

Welcome and introductions
Council Chair, Gordon Brower welcomed everyone to the meeting and opened with an invocation and asked for introductions from all participating in person and by teleconference. The following individuals were identified as participating:

Meeting Participants
Eva Patton, Council Coordinator, Office of Subsistence Management (OSM)
Orville Lind, Native Liaison, OSM
Tom Evans, Wildlife Biologist, OSM
Joshua Ream, Anthropologist, OSM
Robbin La Vine, Anthropologist, OSM
Steve Berendzen, Refuge Manager, Arctic National Wildlife Refuge (NWR)
Marcy Okada, Subsistence Coordinator, Gates of the Arctic National Park (NP)
Vince Mathews, Subsistence Coordinator for Arctic, Kanuti and Yukon Flats NWRs
Shelly Jones, Area Manager, Bureau of Land Management (BLM), Arctic Field Office, Fairbanks
Tim Vosburgh, Wildlife Biologist, BLM, Arctic Field Office, Fairbanks
Roy Nageak, Community Liaison, BLM, Utqiagvik
Brendan Scanlon, Area Fisheries Management Biologist, Alaska Department of Fish and Game (ADF&G)
April Behr, Fisheries Research Biologist, ADF&G
Phillip Perry, Regional Management Coordinator, ADF&G, Bethel
Carmen Daggett, Wildlife Biologist, ADF&G, Utqiagvik
Ernest Nageak, US Fish and Wildlife Service (USFWS), Barrow Field Office, Utqiagvik
Joe Leavitt, Wildlife Director, Native Village of Barrow, Utqiagvik
Glenn Chen, Bureau of Indian Affairs (BIA), Chief of Subsistence, Interagency Staff Committee
Carol Damberg, USFWS, Subsistence Coordinator, Interagency Staff Committee (ISC)
Charlie Brower, Federal Subsistence Board Member, Utqiagvik

Via teleconference:
Beth Lenart, Wildlife Biologist, ADF&G, Fairbanks
Kyle Jolly, Wildlife Research Biologist, Gates of the Arctic National Park and Preserve
Hannah Voorhees, Anthropologist, OSM
Derek Hildreth, Permit Specialist, OSM
Jarred Stone, Fisheries Biologist, OSM
Dan Sharp, Bureau of Land Management, ISC
Clarence Summers, National Park Service, ISC
Jobe Chakuchin, National Park Service (NPS), Subsistence support for regional office, Anchorage
Hannah Atkinson, Anthropologist, NPS, Kotzebue
Mark Burch, Special Project Coordinator, ADF&G, Palmer

Review and Adopt Agenda
Agenda approved with some revisions to order to take care of all action items first and accommodate guest speakers timing needs for presenting.

Election of Officers
Gordon Brower unanimously elected Chair.
Steve Oomittuk unanimously elected Vice-Chair.
Wanda Kippi unanimously elected Secretary.

Review and Approve Previous Meeting Minutes
The Council unanimously approved the meeting minutes for the August 22-23, 2018, meeting minutes. No corrections or edits noted.

Council Member Reports

Gordon Brower – Utqiagvik. Gordon discussed the recent Secretarial appointments to the Council and concern for the several vacancies with representation lost from some communities. He stressed the importance of Anaktuvuk Pass representation and the ongoing need for appointments from Wainwright and Point Lay that have not had a representative appointed to the Council in several years.

Gordon reported that the caribou were good early on in early August and heard that the calving was moving more to the west and they are definitely seeing that around Utqiagvik. The Teshekpuk Herd has been around the Ikpikpuk River, which is also the outer periphery on the Western Arctic Caribou Herd so they get to hunt both herds now, which has been good for the community. They do catch reindeer on occasion too – they know they are reindeer because the look and taste different. Gordon thought perhaps some reindeer follow the caribou herd migration out of the Nome area. Gordon also reported that with high water on the Ikpikpuk River he was able to travel far upriver to hunt for moose in the Valley of the Willow.

Gordon reported he still does a lot of fishing, but there is a specific time period to fish especially when the fish are migrating out of the lakes you have to be there at just the right time or you will

miss them. He noted this is usually the third week in September through the second week of October when the whitefish are spawning – one day you can catch 50 and the next day only 3. There is an Inupiaq name for when they disappear after spawning. Gordon shared that he has been fishing this area at the same time for nearly 40 years and he learned from his parent and grandparents.

Gordon usually puts up 25 sacks of fish for his family and to share in the community. The fish is usually frozen in sack and stored but the weather is changing and the ice is not freezing like normal. It was difficult to put out nets under the ice when the ice is not frozen enough and in many places ice slush was flowing and would clog up the net and he had to pull it and rest - not like usual ice fishing where you have a platform and can leave the nets. One fall he went to get his frozen fish and they had all fermented because it had not stayed cold enough to keep them frozen. Elders like it and can eat frozen Quaak – but can't cook it and all his sack had fermented. Gordon reported that consistent with other reports the temperature is wreaking havoc on food security. He wonders how to help subsistence activities – his catch goes to the Nalukataq festival and feed family, feed whaling captain crews or he can customary trade for other subsistence foods he enjoys. He also trades fish eggs for seal skins for his boat. Gordon stressed how intertwined everything is and the sharing and exchanging that is part of the community fabric.

Gordon reported that some USGS connex boxes that had been placed in the path of the traditional caribou migration route were finally removed and the caribou came back through that area again. He stressed the need to talk with local communities and subsistence hunters before disturbing the landscape. He noted two examples of caribou antlers being removed by people not realizing that they are placed there deliberately as trap line markers and animal attractants. Gordon stressed the people do not have the funds to travel far by snow machine, how important is for the animals to come near the community, and for the hunter to be successful. People depend on the land and they provide for their family and community and share with others in the region. He hopes land managers realize the importance of subsistence.

Steve Oomittuk - Point Hope. Steve relayed the people of the North Slope have lived in a cycle with their environment and always knew when the animals were coming; but migration patterns have changed over the last ten years. Freeze-up is also coming later and later each year. Steve expressed concern about the opening of the Northwest Passage for contaminants and sewage from the ship traffic and potential for marine accidents that could cause oil spills. He stressed that the ocean is very delicate and they rely on it for their whole way of life. People have seen a lot of changes in the area, and while multiple generations have lived off the land and all rely on this cycle of life, current residents have seen more changes than any other generations in the past. Warmer temperatures, late ice freeze-up, coastal erosion, and open water in the winter has more than doubled in the last ten years.

Steve talked about how the whale is the center of everything for the people of Point Hope. Whale meat is stored in ice cellars and the whale's tail is fermented for special occasions. He reported that this year the ice was late in forming and the whale's tail wasn't taken out until Thanksgiving; normally it is consumed in early October. Steve also reported that they usually

gather bird eggs at the end of June and first part of July, but egging has become dangerous because of permafrost thaw and erosion causing the cliffs to slide off around Cape Thompson where they gather eggs.

Since the closure for the harvest of caribou to nonresidents on Federal lands in Unit 23, they've seen an abundance of caribou coming back in their natural migration routes. The caribou came near the community and they did not have to travel 30 – 40 miles or farther to hunt like in recent years.

Steve reported that 2018 was a good year for subsistence overall, the community got seven whales this past fall and there was an abundance of seals. They are fortunate that some of the animals still migrate through as they normally do. However, the walrus are not coming back as they used to. The weather is unpredictable. Point Hope had a month of storms from the east and southeast winds. Often the change of winds will change animal migration and the walrus have not been coming around in the fall as they normally do.

Wanda Kippi – Atqasuk. Wanda reported that the 2018 spring season thawed out too early and too fast, they ran out of snow to go out goose hunting. She noted she barely made it back from her hunting camp because the snow got slushy and the ground began to thaw. Still her sons were able to catch plenty of Niglik geese this year. Caribou hunting was all right for most people this year but her own experience was that she had to travel farther than usual. Wanda noted that she usually is able to hunt around her cabin but the caribou migration appeared to shift and she had to travel farther to the south this year. She enjoys spending a lot of time at her cabin, often up to a month at a time by herself and observes the animals and environment when she is out there.

Wanda reported the fishing for Broad and Humpback whitefish was good this year for her and others that set nets for them. She likes to share fish with others in the community. The Atqasuk River froze up late this year but people were still able to catch some whitefish and Grayling after it did finally freeze. Wanda relayed that the berry picking was slim this year with hardly any blackberries, blueberries, cranberries or salmon berries. She did not get any berries this past year. On a positive note Wanda reported that for about 5 years she hardly saw any ptarmigan but she is finally starting to see ptarmigan coming around again.

Edward Rexford, Sr., - Kaktovik. Edward introduced himself as a new Council member and expressed that he looks forward to listening and learning the process**.** He relayed that his community is also experiencing the warming trend and even the past month in March they had 50 degrees above and ice is melting fast already. Edward reported that Kaktovik has been involved with polar bear tourism but it has had some negative impacts of habituating bears to humans. Bears come into the community looking for food and displacing the fishers in the barrier islands area. However, Edward reports that the fishing for Arctic Char and whitefish has been good for the community and that people were catching caribou ok too. Edward relayed that the community of Kaktovik would like to work with the Arctic National Wildlife Refuge Manager to improve the opportunity to hunt moose and increase the quota.

Edward highlighted the unusual numbers and size of earthquakes in the Brooks Range – just this past year there was a period of time when there was an earthquake each week. His Son was out at camp and saw part of the mountainside come down during one earthquake. Edward wonders if this is affecting the sheep.

Overall Edward expressed his appreciation for serving on the Subsistence Council, noting the differences in communities and the ecosystem across the North Slope region. He hopes to help his communities with their subsistence activities.

Martha Itta – Nuiqsut. Martha introduced herself as new to the Council and is honored to serve her community. She shared that she works as the Tribal Administrator and Vice Mayor for Nuiqsut and is very aware of the many concerns and challenges her community is faced with. Martha stressed the increasing oil and gas development and infrastructure has been depleting subsistence resources and land around Nuiqsut and it is greatly hurting the community. Subsistence hunters are being told to get off the land even on their own Native Allotments. Martha relayed that people are being pushed out of their traditional hunting and camping areas – the whole community is being surrounded by development. She is concerned about contaminants in subsistence whitefish fish in their lakes and rivers. Elders need to bring fish in to be tested and there are many reports of mold and deformities on the fish. Fishing for grayling has been good this year though and she has not heard about any problems with Tiktaalik.

The community is very concerned about the safety since ice roads being developed for hauling heavy loads with giant 50 ton trucks have steep banks that are hard to cross on a snow machine and people are at risk of being run over. Martha stressed at a minimum if they are going to develop in subsistence areas - subsistence should have the right of way.

Tad Reich – Utqiagvik. Tad introduced himself as newly appointed to the Council. This being his first meeting he felt that he was not prepared to give a full report at this time but concurred with many other Council reports that in his observations ocean ice conditions have changed dramatically. He stressed that lack of ice creates a burden for hunting bearded seals and walrus. On a happy note Tad shared that he took his son caribou hunting and it was really exciting to watch him catch his first caribou. Tad looked forward to sharing more in his report at the next meeting.

William Hopson – Utqiagvik. William introduced himself as new to the Council. He brings a lifetime of subsistence hunting and fishing and shared that he participated in the 1963 duck-in. William reported that the warmer weather and late freeze-up is changing the ability to harvest whitefish. The timing has changed to catch fish and the ice is not thick enough and does not freeze safely so now they have to try to fish with a boat on the Inaru River. Then the fish don't freeze either and it is difficult to preserve them. This year was the first time they saw bears at their fish camp. Whalers too are having a difficult time with the changing ice. Right now they are getting ready to go out for spring whaling, but are trying to work their way through jumbled ice which is very difficult.

William thanked Martha Itta for her comments for Nuiqsut and concerns about development impact to subsistence in the area. He wants to help find a way to ease the needs of Nuiqsut and Anaktuvuk Pass hunters to ensure the development does not impact the caribou migration. He is very worried about contamination on the Colville River and wonders when the Army Corps of Engineers will take responsibility to clean up the Umiat military waste dump before it erodes entirely into the river. The Council discussed the importance of the Colville River watershed ecosystem for subsistence and want to make an effort to get the PCB's and other chemicals and waste removed before it destroys the river and further contaminates subsistence foods.

Public and Tribal Comments on Non-Agenda Items

Roy Nageak of Utqiagvik spoke about challenges with the declining State budget to manage resources across the entire North Slope, highlighting the wide range of the caribou herd and only one biologist for the region. He highlighted that much of the lands in the North Slope region are Federal lands and supports Federal subsistence management but really likes the idea of people managing their own resources similar to what he had heard of Ahtna efforts for Tribal wildlife management. Roy highlighted that the Alaska Eskimo Whaling Commission work is an excellent example of 40 years of partnerships for the continuation of subsistence whaling and a healthy whale population.

Wildlife Closure Review WCR18-31 (Unit 26B and C moose) Office of Subsistence Management wildlife biologist Tom Evans provided an overview of the Wildlife Closure Reviews. The Federal Subsistence Board's (Board) closure policy requires the Office of Subsistence Management to review closures to hunting or fishing on Federal lands every four years and presents analyses of these closures to the relevant Regional Advisory Councils. The Council is requested to make recommendations on any changes warranted to the current closures. The Council's recommendation will be presented to the Board for final action at its upcoming wildlife regulatory meeting in spring of 2020. Section .815 of ANILCA allows the Board to restrict or close the taking of fish and wildlife by subsistence and non-subsistence users on Federal public lands when necessary for 1) the conservation of healthy populations of fish and wildlife or 2) to continue subsistence uses of such populations.

Recognizing that the distribution and abundance of fish and wildlife populations can fluctuate along with subsistence use patterns the Board decided to conduct closure reviews every 4 years or earlier if new information becomes available that would potentially allow the closure to be lifted. OSM reviews wildlife closures to determine if the justification for the closure is still consistent with the Board's closure policy. Councils are asked to consider the information and make a recommendation to the Board. Council discussion and input is critical to the process for the Board to make an informed decision.

WCR20-31 addressed the closure to moose hunting on Federal public lands in Units 26B remainder and 26C except by rural Alaskan residents of the village of Kaktovik. The current regulation is for 1 moose by Federal registration permit for the residents of Kaktovik only. The Arctic NWR has delegated authority to determine annual quotas, set open and closing season dates, and determine the number of permits to be issued. The closure in 2004 was implemented

for conservation reasons (low recruitment and survival) with the provision to allow only the residents of Kaktovik to harvest moose because of the limited availability of moose with Unit 26C.

The Council took the following action on the closure review:
The Council supports WCR18-31 to maintain the closure with the following modification to establish a harvest limit of 1 bull moose by Federal registration permit (FM2606) for Unit 26B remainder and 4 bull moose for Unit 26C for Kaktovik residents only. Federal public lands are closed to the taking of moose except by a Kaktovik resident holding a Federal registration permit and hunting under these regulations. The Arctic National Wildlife Refuge manager will set the opening and closing dates and as needed set the annual harvest quotas and limits through consultation with the community of Kaktovik and the process outlined in the Delegation of Authority letter. The Council supports the flexibility provided by the Delegation of Authority process and would like to see the relationship with the Refuge Manager and the community of Kaktovik continue to grow through ongoing consultation.

Justification: Currently the subsistence needs of Kaktovik are not being met. Food security is extremely important and the communities' needs should be considered highly in the subsistence management decision making. While there is not an exact number for how many moose the community of 300 plus would need certainly more than only one moose for the whole community for the entire year would be supportive, especially in times when the caribou do not come around. The Council discussed that the community should be able to harvest up to the number of moose that can still sustain the moose population. However, the Council requests additional surveys of moose in summer and winter to better estimate the population and capture the fluctuation and transient nature of the Unit 26C and 26B remainder moose. Summer wildfires will often push moose to the Northern side of the Brooks Range and the Council would like these transient moose to be considered part of the overall equation and available for harvest.

Kaktovik Council member, Edward Rexford, Sr. shared feedback from the community that the moose hunt that was allowed on the Kongakut River was a very long way to travel and outside of the communities traditional harvest areas. Further, the last moose hunt in Unit 26C was not opened until April and at that time of year the moose are very skinny. The community would like more flexibility for the timing of the hunt when the moose are fat and in good condition and to hunt bull moose in traditional areas closer to the community when they are available – not just the Kongakut River drainage.

The Council requests a subsistence needs assessment study for the community of Kaktovik to better understand the communities subsistence needs and ability to convey this to management. The Council would like the Federal subsistence mangers to better understand the subsistence economy, sharing and traditional trade practices. These moose are very important to share within the community and may be traded for other subsistence foods. Subsistence activities do require resources and cash – taking a snow machine all the way to the Kongakut River to hunt moose takes a lot of gas and time, needing at least several days to be away camping. Given the cost of a subsistence hunting trip such as this, it is imperative that the hunt be successful – it may be the only chance for that hunter if all resources are exhausted. The Council requests a subsistence needs assessment for the community of Kaktovik to ensure that rural subsistence

priority is being met and also understanding of real subsistence opportunity so that hunts take place in areas and times where success is obtainable.

Currently the moose season is closed in Unit 26B and 26C under State regulations. If the State opens a moose season in Unit 26B remainder and 26C, the Council would recommend aligning State and Federal regulations to support Federally qualified users and ensure rural subsistence priority.

Call for Federal Wildlife Proposals Office of Subsistence Management wildlife biologist Thomas Evans provided an overview of the 2020 call for Federal subsistence wildlife regulatory proposals. Federal and State wildlife biologists and managers provided wildlife census, harvest updates and other relevant information for consideration of wildlife proposal development to the Council.

The Council discussed Unit 26A Moose, that portion west of 156 degrees West Longitude and excluding the Colville River drainage, July 1 – Sep. 14. 1 Moose. The Council questioned the reason for the precise language and Carmen Daggett explained that the majority of the moose population on the Colville is east of 156 degrees. Those animals found westward are thought to be transient so this hunt is meant to provide opportunity for the harvest of transient moose to the west of 156 when they are available in that area. The range in that area is poor and there is little likelihood of moose survival west of 156. The Council appreciated the clarifying information on the origin of this regulation and did not proceed with a proposal to change this regulation.

The Council discussed potential State of Game proposals with ADF&G biologists. Currently the moose season is closed in Unit 26B and 26C under State regulations. If the State opens a moose season in Unit 26B remainder and 26C, the Council would recommend aligning State and Federal regulations to support Federally qualified users and ensure rural subsistence priority.

The Council made and passed a motion to provide the Board of Game with a letter to mirror Council comments on WCR18-31 and recommendations in the event proposal is submitted to Board of Game to open a moose season in Unit 26B remainder and 26C.

Council Charter Review

The Council reviewed its charter and discussed Council membership and representation at length. The Council is concerned about several years without representation from the communities of Wainwright and Point Lay and recently losing representation from Anaktuvuk Pass with the most recent Secretarial appointments. While the Charter does state that the Council is composed of representative 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 - the Council wishes to increase the strength of their intent to represent all of the eight communities in the North Slope region.

The Council voted unanimously to approve the Charter and request an amendment to modify the makeup of the charter for the North Slope Subsistence Regional Advisory Council to be representative of all communities on the North Slope.

Council Annual Report Review

The Council discussed and approved their FY2018 Draft Annual Report without amendments.

Agency Reports

Alaska Department of Fish and Game

Wildlife
Carmen Daggett, ADF&G Area Wildlife Biologist based in Utqiagvik, provided the Council with an overview of the current status of the Western Arctic and Teshekpuk caribou herds and answered questions for the Council. Teshekpuk caribou herd and the current population status and the most up to date information that we have about Colville River moose and upcoming muskox research.

The last moose census of the Colville population was in 2017 with 339 moose counted. ADF&G also conducts an annual trend count survey as well and last spring they counted 218 moose in the trend count area. The trend count area accounts for a little over half of the total animals in the population total.

Muskox surveys conducted by ADF&G around the Nuiqsut area indicate a population of around 250 muskox. The population needs to grow a little more to meet the threshold to open up a Tier 2 hunt in that area. ADF&G would like to fly census surveys for muskox but are seeking feedback from subsistence hunters as to not cause disturbance or disruption from flying transects.

Carmen provided an outline on the data compilation of the Teshekpuk Caribou Herd over the years, the current population status and a map of the herds range and calving grounds in the northern portion of 26A. The herd's winter areas tend to be a bit eastward of Anaktuvuk Pass, but this year the herd has been in an area to the north of Anaktuvuk Pass and west of Nuiqsut and just south of Barrow. The last population estimate was about 55,288 animals from the 2017 photo census survey. ADF&G thinks that according to the models they are currently using that the population may have grown to more like 56,000 animals. Arial surveys were not able to be conducted in 2018 due to weather conditions and fewer insects that did not drive the herd to congregate. They hope to get a population census in 2019 again. Survival of adult female was very high for the Teshekpuk herd, which is a positive trend for continuing population growth. Carmen reported that the Western Arctic Caribou Herd photo census was also not able to be conducted this past summer due to weather conditions so there was no change to the last report on that herd provided to the Council at the previous meeting.

Carmen updated the Council on the registration permit to hunt caribou in Unit 23 and 26A (RC907) that was implemented by the Alaska Board of Game and put into place July 1, 2017. They have been putting a lot of effort into outreach and permit distribution and have been partnering with others to do this as well. Office of Subsistence management staff provided flyer handouts and discussed the similar State Registration Permit requirements for hunting under Federal subsistence regulations on Federal lands.

Beth Lenart, ADF&G wildlife biologist for the Central Arctic and Porcupine Caribou Herd based out of the Fairbanks office provided the Council with updates on these two caribou herds. The Central Arctic caribou herd had declined during 2010 to 2016 from approximately 68,000 caribou to 23,000 caribou in 2016. In 2007, the photo census that used new digital cameras estimated 28,000 caribou, which may not actually be an increase in the herd at this time but rather a more accurate camera system. Since 2017, the herd is estimated to be stable based on composition surveys and mortality rates. They hope to get a new photo census this summer. The hunting pressure on the Central Arctic herd has been very low the last couple of years since ADF&G implemented different harvest restrictions in 2016 mostly restricting hunters outside the area. This year there were 160 caribou reported by harvest ticket by residents outside the area and approximately 100 caribou harvested by Nuiqsut residents.

Beth reported that the Porcupine Caribou herd was estimated in 2017 at 218,000 caribou. This herd been increasing since 2010 and is likely still growing. They had a fantastic calving year last and they hope to get a photo census again this year. Harvest pressure on the Porcupine herd has been very low and harvest in Alaska is low in general. Beth noted that Kaktovik residents have reported that they've been having a harder time getting Porcupine caribou because they're not coming to the coast and then in the winter they've been wintering in Alaska on the south side of the Brooks Range. Therefore, residents of Canada have not been able to hunt caribou where normally that's where our higher harvest come from.

Beth did highlight they have been working with local school kids in Nuiqsut and other communities to engage them in the caribou research. They are hoping to provide an animated map of caribou movement from the satellite collar data.

Fisheries

Brendan Scanlon, Area Fisheries Management Biologist, and April Behr, Fisheries Research Biologist with ADF&G, presented video and power point presentation on subsistence fisheries research projects funded by OSM. The presentation covered the results of year three of a four year project monitoring abundance of Dolly Varden Char on five North Slope Rivers and final results of a Lake Trout research project conducted on Chandler Lake west of Anaktuvuk Pass. The Dolly Varden Char on the North Slope spawn and overwinter in upwelling springs and these springs as the winter goes on the available fresh liquid water that is available for overwintering gets smaller and smaller and these fish become concentrated in several areas. The streams that are known to support significant populations are the Ivishak, Kongakut, Hulahula, Canning, and Anaktuvuk Rivers. Aerial surveys were used for population count in addition to tagging mark recapture project conducted earlier.

Brendan and April also discussed a project they are just now initiating with the community of Nuiqsut investigating Colville River Grayling population and movement. They will be reaching out the community to discuss the project further and hope to meet with the Nuiqsut Tribal Council this spring. All three of these fisheries projects were first identified as a subsistence priority for research by the Council and communities in the North Slope region due to their importance for subsistence and need for baseline research.

National Park Service

Gates of the Arctic National Park & Preserve
Marcy Okada, Subsistence Coordinator, provided updates and an overview of subsistence information for Gates of the Arctic National Park and Preserve and referenced reports provided as handouts to the Council. Marcy covered issues such as park management and also shared wildlife research and monitoring activities, as well as updates on the Ambler Mining District Road. The Gates of the Arctic National Park Subsistence Resource Commission (SRC) met in Fairbanks November 13 and 14. Much of the discussion focused on the Ambler Mining District Road and studies investigating the human development and climate change impacts to traditional harvest activities. Esther Hugo who was the Council representative to the SRC from Anaktuvuk Pass was not re-appointed to the Council by the Secretary of the Interior but they plan to appoint her again to the SRC through her role with the State AC. The recent Secretarial appointments has left the Council without and Anaktuvuk Pass representative.

Marcy reported Dall sheep surveys were conducted this year in the Anaktuvuk Pass area. They are also exploring the impacts of weather conditions and adverse weather events such as rain on snow on Dall sheep across their range. Harsh weather events in the winter and spring of 2013 and 2014 caused a very high rate of lamb mortality. The Park Service conducted an aerial survey for Dall sheep in Gates of the Arctic Park and Preserve between July 2nd and 7th. This survey covered areas around Anaktuvuk Pass and the Itkillik Preserve. The population estimates are approximately stable when compared to the previous couple of years. The lamb to ewe like ratio in both subareas is approximately average, but in the Itkillik it is potentially low. The Park Service will continue to conduct surveys in these two study areas annually because the Itkillik is a long term data set and the Anaktuvuk Pass area has an important subsistence value.

Kyle Joly, wildlife research biologist, provided the Council with reports on caribou research that he has conducted in the region with the National Park Service.

Marcy reported the Gates of the Arctic National Park is required to do an environmental and economic analysis for the Ambler Mining District Road. The environmental, social and economic impacts to resources and rural and traditional lifestyles including subsistence activities will be examined. Impacts that will be covered in the environmental and economic analysis are caribou, fish, subsistence, permafrost, hydrology, wetlands, archeology, visitor experience, and wild and scenic rivers and water quality. Results from the impact assessment will be used to determine the recommended route across Park Service lands and to develop permit requirements to minimize adverse effects.

U.S. Fish & Wildlife Service

U.S. Fish and Wildlife Service, Barrow Field Office
Earnest Nageak, Native Affairs Specialist**,** shared updates on his work with outreach in the community and projects engaging youth in subsistence, science, and traditional skills. Earnest

reported on concerns about lead shot still being sold in stores in the region and the harm it can cause to people and wildlife. He reported that his supervisor is traveling across the region to exchange lead shot for steel shot. They are working to host local steel shot clinics to help cite in rifles and target practice with steel shot.

Ernest Nageak relayed outreach efforts to address efforts to acknowledge the hardship of past migratory bird management caused for Alaska Native communities. He reported the initiative started with the Alaska Migratory Bird Co-management Council, outreach to Subsistence Councils, and connecting directly with communities across Alaska. Ernest will be involved in helping to bring the apology letter and discussion to the upcoming summer festival in Utqiagvik that brings in people from communities across the region.

Arctic National Wildlife Refuge manager Steve Berendzen and ADF&G Regional Wildlife Manager Phillip Perry, also provided a formal report to the Council on the migratory bird apology letter. A copy of the letter was provide to the Council. The ADF&G and USFWS together want to reconcile the past and acknowledge that those regulations harmed hunters and their families. As the letter expresses, they seek to continue rebuilding relationships with Alaska's Indigenous peoples who were affected by the unintended consequences of past harvest regulations.

Arctic National Wildlife Refuge

Steve Berendzen Refuge Manager for Arctic National Wildlife Refuge and Vince Matthews, Subsistence Coordinator, provided the Council with a written summary and overview of subsistence and community-based work within the Refuge. Steve reported that a big part of their work currently was working with BLM on the Coastal Plain EIS. The refuge has recently hired an oil and gas specialist position and working on research and monitoring in the 1002 area of the refuge this field season and in the years to come. Steve highlighted that that the refuge plans to coordinate with the community of Kaktovik on these studies to make sure there is understanding and awareness of what the studies are. There will be many activities and studies required prior to the development of the 1002 area with various researchers and different methods of doing the work including fixed wing aircraft and helicopter. The Refuge wants to work closely with Kaktovik on these plans.

Steve provide the Council with updates on moose and results from the April moose surveys and exploring options for surveys at other times of the year or use of radio transmitters to help track moose movements. The Council discussed the moose management at length in relation to the Wildlife Closure Review for 26B and C moose and the delegation of authority letter to the Refuge manager providing some flexibility to allow for increases subsistence moose hunt opportunity when the population allows. Steve reported that the Refuge is making a concerted effort to conduct sheep surveys. The population was down in 2012-13 but surveys in 206-17 showed good lamb survival and lamb to ewe ratios suggesting that the population is in the process of recovery.

Other Arctic National Wildlife Refuges updates included permitting for polar bear viewing activities on Federal public waters, waterfowl research on common eider in the Barrier Islands

and shorebirds on the Canning River. The Council discussed subsistence activities and egging in these areas. Steve highlighted the recent hire of a new community liaison, Will Wiese, who will spend several months of the year in Kaktovik to coordinate more closely with the community on Refuge activities.

Bureau of Land Management

National Petroleum Reserve-Alaska (NPR-A)
Shelly Jones, District Manager for the Bureau of Land Management (BLM) Arctic District Office and Tim Vosburgh, Biologist for the BLM Arctic Field Office, provided the Council with an overview of the 2018 – 2019 permitting activities and recent updates for ongoing EIS processes within the NPR-A. Shelly highlighted that currently they have three major Environmental Impact Statement activities going on. The first one is BLM is rewriting the NPRA integrated activity plan. This integrated activity plan is our over-arching planning document that directs BLM activities within the Petroleum Reserve. It was last written in 2013 with public process. There is a new Secretarial order 3352 that directs the BLM top re-review this plan and potentially offer more areas available for leasing into the future. Public scoping meetings have just begun across the North Slope region, Fairbanks, Anchorage, and Washington D.C. Shelly noted that the main purpose in the legislation for the National Petroleum Reserve Production Act, directs the BLM to manage primarily for that resource and the development of it. Therefore, other activities are allowable as consistent with that primary purpose. She highlighted however that another primary purpose is the subsistence use of the area that is an important balancing act that BLM has to keep in mind. They seek community feedback on which area should be open or closed for development and seek feedback on special use boundaries. She highlighted several of the current special use boundaries around Teshekpuk Lake and the Utukok River uplands important for caribou habitat and calving and areas like Peard Bay important to migratory birds and marine mammals. BLM has also recently reestablished the NPRA working group established through the record of decision in the 2013 integrated activity plan with the main purpose to advise BLM on the management plan.

Another major EIS that BLM is currently working on is a major new development from ConocoPhillips proposed that outlines five to 10 years of potential activities that they would like to develop on leases that they hold west of the developments at GMT2. The proposed Willow master development plan would include infrastructure similar in scale to the Alpine site with a central processing facility, infrastructure pads, up to five drill pads. Each pad would have up to 50 wells. There is access and in-field roads that have been proposed, major airstrip at the central facility and access roads and pipelines. Gravel would be mined in the area for all the pads and roads and a gravel island called a marine modular transfer island is proposed at Atigaru.

Coastal Plain EIS for the 1002 area of the Arctic National Wildlife Refuge
The leasing for the Coastal Plain of the Arctic National Wildlife Refuge is also currently the responsibility of BLM. In 2017 Congress passed the Tax Act and the Secretary of Interior directed BLM to establish a competitive oil and gas-leasing program for the 1002 area in the Arctic National Wildlife Refuge and manage that program in a manner similar to the way BLM manages the oil and gas program in the National Petroleum Reserve. The Tax Act directed BLM

to hold no fewer than two area wide lease sales within 10 years. The first lease sale would be within four years of the date of the Tax Act and the second lease needs to be within seven years. Each sale needs to offer at least 400,000 acres and include areas of highest petroleum potential. In addition, the Secretary can authorize no more than 2,000 acres of surface development within the Coastal Plan for that purpose. The EIS is currently underway with public meetings to be held in Kaktovik, Arctic Village, Venetie, Anchorage, and Washington D.C.

Office of Subsistence Management

Fisheries Resource Monitoring Program
OSM Fisheries Biologist, Jarred Stone, provided a brief update on the Fisheries Resource Monitoring Program (FRMP) and highlighted current projects in the region that address subsistence fisheries research priorities identified by the Council and communities. The 2020 notice of funding opportunity closed back on March 15. The 2020 funding cycle anticipated that there will be roughly $1.5 million available statewide for the first year of new projects. The OSM also recently closed a 2020 – 23 notice of funding opportunity for the Partners for Fisheries Program. The Partners Program seeks to strengthen Alaska Native and rural involvement in Federal subsistence management by providing funding for biologists, social scientists and educator positions in Alaska Native and rural nonprofit organizations with the intent of increasing the organization's ability to participate in Federal subsistence management. A total of 14 proposals were received from perspective partners. The Review Committee has met to evaluate the proposals and notifications will be sent out soon.

Staffing updates
Robbin La Vine, OSM Anthropologist, provided the Council with programmatic updates including recent staffing changes at OSM. Highlights include the hiring of Hannah Voorhees as staff anthropologist. She grew up in Alaska and has worked in the North Slope and Seward Peninsula regions focusing on traditional knowledge and co-management of polar bears.

Future Meeting Dates

The Council selected October 22 – 23 in Wainwright for the fall 2019 meeting.

The Council selected February 19 - 20, 2019 in Utqiagvik for the winter 2020 meeting.

The Council will meet in Utqiagvik unless the budget to meet in another village at their request is approved. The Council stressed the critical importance of meeting in the villages and engaging directly with people to understand and address subsistence needs and concerns.

The Council shared closing comments prior to adjourning.

I certify to the best of my knowledge the forgoing minutes are accurate and complete.

_____
Eva Patton, Designated Federal Officer
USFWS Office of Subsistence Management

_____
Gordon Brower, Chair
North Slope Subsistence Regional Advisory Council

These minutes will be formally considered by the North Slope Subsistence Regional Advisory Council at its winter 2019 public meeting. Any corrections or notations will be incorporated at that meeting.

FEDERAL WILDLIFE CLOSURE REVIEW
WCR20-31

Closure Location: Units 26B remainder and 26C—Moose

Current Federal Regulation

Units 26B remainder and 26C−Moose

Units 26B, remainder and 26C—1 moose by Federal registration permit by residents of Kaktovik only.	*May be announced*
Federal public lands are closed to the taking of moose except by a Kaktovik resident holding a Federal registration permit and hunting under these regulations.	

Closure Dates: Year-round

Current State Regulation

Units 26B and 26C−Moose

Residents and Nonresidents	*No open season*

Regulatory Year Initiated: 2004

Regulatory History

Federal and State moose seasons in Units 26B and 26C were closed in 1996 due to a low moose population following declines in the early 1990s (Mauer 1997, Lenart 2010). The declines were probably due to a combination of factors, including limited habitat at the northern limits of their range, weather, predation by wolves and brown bears, disease, and possibly insect harassment (Lenart 2008).

The Federal closure was temporarily lifted in 2003, when the Federal Subsistence Board (Board) approved a modification of Special Action WSA03-04 to allow residents of Kaktovik to harvest one moose in the combined Units 26B and 26C for their Thanksgiving feast and one moose for their Christmas feast; however, only one moose was harvested in Unit 26C (OSM 2003).

In 2004, the Board adopted Proposal WP04-86b with modification to allow a total harvest quota of 3 moose (2 bulls and 1 moose of either sex) in Units 26B and 26C with the restrictions that no more than 2 bulls and no cows could be harvested in Unit 26C (OSM 2004a). Proposal WP04-86b also included a request for a Customary and Traditional Use determination to give priority to residents of Kaktovik

to harvest moose in Units 26B and 26C but was withdrawn so a more thorough ANILCA Section 804 analysis could be completed (WP04-86a) (OSM 2004b).

Proposals WP06-67a and WP06-67b requested that residents of Unit 25A be added to the customary and traditional use determination for the Firth and Kongakut river drainages of Unit 26C (WP06-67a) and set a harvest quota of two moose per drainage (WP06-67b). Proposal WP06-67a was rejected by the Board because the residents of Arctic Village and the surrounding area did not have a demonstrated pattern of moose harvest in Unit 26C. Proposal WP06-67b was rejected by the Board (FSB 2006) based on conservation concerns (OSM 2006).

In 2007, the Board adopted Proposal WP07-63 with modification to lift the closure of Federal public lands to non-Federally qualified subsistence users in the portion of Unit 26B outside of the Canning River drainage based on increasing moose numbers (FSB 2007). The Board retained the closure of Federal public lands in Unit 26C and areas within the Canning River drainage in Unit 26B (now called Unit 26B remainder), except for residents of Kaktovik (OSM 2007).

Proposal WP08-54 requested a modification of the moose harvest quota in Unit 26C to 5 moose (4 bulls and 1 of either sex) with a shorter harvest season of Jul. 1 - Dec. 31 versus Jul. 1 - Mar. 31 for Kaktovik residents in Unit 26C. The proposal also requested lifting the closure of Federal public lands in Unit 26B remainder (OSM 2008). The Board adopted the proposal with modification to keep the closure in place, except for residents of Kaktovik, but changed the harvest quota from 3 moose (2 bulls and 1 of either sex) to 3 moose (2 antlered bulls and 1 of either sex) (FSB 2008). Changing the harvest limit to antlered bulls was done to protect cows from being harvested later in the season when bulls have typically shed their antlers. The restriction of harvesting a cow accompanied by a calf was retained for Units 26B remainder and 26C and no more than two antlered bulls could be taken from Unit 26C.

In March 2012, the Alaska Board of Game (BOG) adopted Proposal 174A to establish a moose season in a portion of Unit 26C which includes the Firth River, Mancha Creek and the Upper Kongakut River drainages; however, there has been no State hunt because the area consists of Federal public lands that were closed to the harvest of moose, except by residents of Kaktovik.

In March 2013, the BOG, by Emergency Order 03-03-13, authorized a general moose season in Unit 26B, excluding the Canning River drainage, when hunting conditions were favorable for up to 14 days during the period Feb.15–Apr. 15. It was thought that the population of approximately 500 moose in Unit 26B could sustain a harvest quota of 15 bull moose, including the additional 4 that might be harvested under State regulations during the general hunt through the Emergency Order (ADF&G 2013). In Unit 26B State lands are closer to the village of Kaktovik than Federal public lands in Unit 26B remainder, thus making it easier for Kaktovik residents to harvest additional moose close to the village without having to travel long distances to access Federal land.

On April 3, 2013, the Board approved Emergency Special Action WSA12-12 with modification to allow Kaktovik residents to harvest one additional moose in Unit 26B remainder and to extend the season through April 14, 2013 (OSM 2013).

In 2013, ADF&G submitted Proposal WP14-55 which requested the closure to non-Federally qualified users be lifted in the Firth, Mancha, and upper Kongakut river drainages (upstream from and including Drain Creek) for the harvest of moose in Unit 26C (OSM 2014a). The remaining Federal public lands in Unit 26C and Unit 26B remainder would remain closed to the harvest of moose, except by residents of Kaktovik. At its April 2014 meeting, the Board rejected Proposal WP14-55 to allow for additional information to be collected on the population (OSM 2014a, FSB 2014).

In April 2014 the Board adopted Proposal WP14-54 to increase to the harvest quota from 3 to 5 moose, to allow for the harvest of cows and cows with calves in Unit 26C, and to lengthen the season in Units 26B remainder and 26C from Jul. 1–Mar. 31to a year-round season (Jul.1 – June 30) (OSM 2014b).

In May 2014, the BOG reduced harvest limits and season dates for resident moose hunts in Unit 26A and 26B in response to low population numbers and poor recruitment. An Emergency Order (05-05-14) closed the general season hunt in Unit 26B and closed drawing permits for moose by residents and nonresidents in Unit 26A and 26B for the 2014/2015 regulatory year (ADF&G 2014a). The seasons were closed to allow for population recovery.

In 2014/2015, due to the population decline on the North Slope, the Board closed the moose season on Federal public lands in Units 26B remainder and 26C by Temporary Special Action WSA14-02 (OSM 2014c).

In 2015, the Board approved Temporary Special Action WSA15-08 to close the moose season in Units 26B remainder and 26C for 2015/2016 regulatory year. This request, submitted by the Arctic National Wildlife Refuge, was in response to the continued low moose numbers along the coastal plain of Unit 26C and 26B remainder (OSM 2015). Surveys conducted in April 2014 by the Arctic National Wildlife Refuge and ADF&G indicated that the North Slope moose populations in the affected area had declined by approximately 50% since 2011 (Wald 2014).

In 2016, the Board adopted Proposal WP16-65 with modification to create a *"May-be –announced"* season; remove regulatory language referencing harvest quotas and delegate authority to the Arctic National Wildlife Refuge to determine annual quotas, set opening and closing season dates, and the number of Federal permits to be issued via a delegation of authority letter only (OSM 2016).

In April 2017, in response to the recent increase in moose abundance, the Arctic National Wildlife Refuge (ANWR) Manager authorized two Federal Registration permits for the harvest of two bull moose in the Kongakut River drainage. Permits were issued to Kaktovik residents only and one moose was harvested (ANWR 2017a).

Federal public lands comprise approximately 98% of the lands in Unit 26C and consist of 100% U.S. Fish and Wildlife (FWS) managed lands (**Map 1**).

Federal public lands comprise approximately 29% of the lands in Unit 26B are and consist of 23% FWS managed lands, 4% Bureau of Land Management (BLM) managed lands, and 3% National Park Service (NPS) managed lands (**Map 1**).

Closure Last Reviewed: 2012 – WCR12-31

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

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

The combination of low moose numbers and low recruitment were direct indicators of a continuing conservation concern. The analysis for Proposal WP04-86 (OSM 2004a, b) also considered ANILCA Section 804 issues (restricting subsistence use by implementing a priority of a limited resource such as moose) limiting the moose season, with a small quota, to only the residents of Kaktovik.

Council Recommendation for Original Closure:

The North Slope Subsistence Regional Advisory Council supported Proposal WP04-86b as submitted by the City of Kaktovik to allow only residents of Kaktovik to harvest moose because of the limited availability of moose within Unit 26C.

State Recommendation for Original Closure:

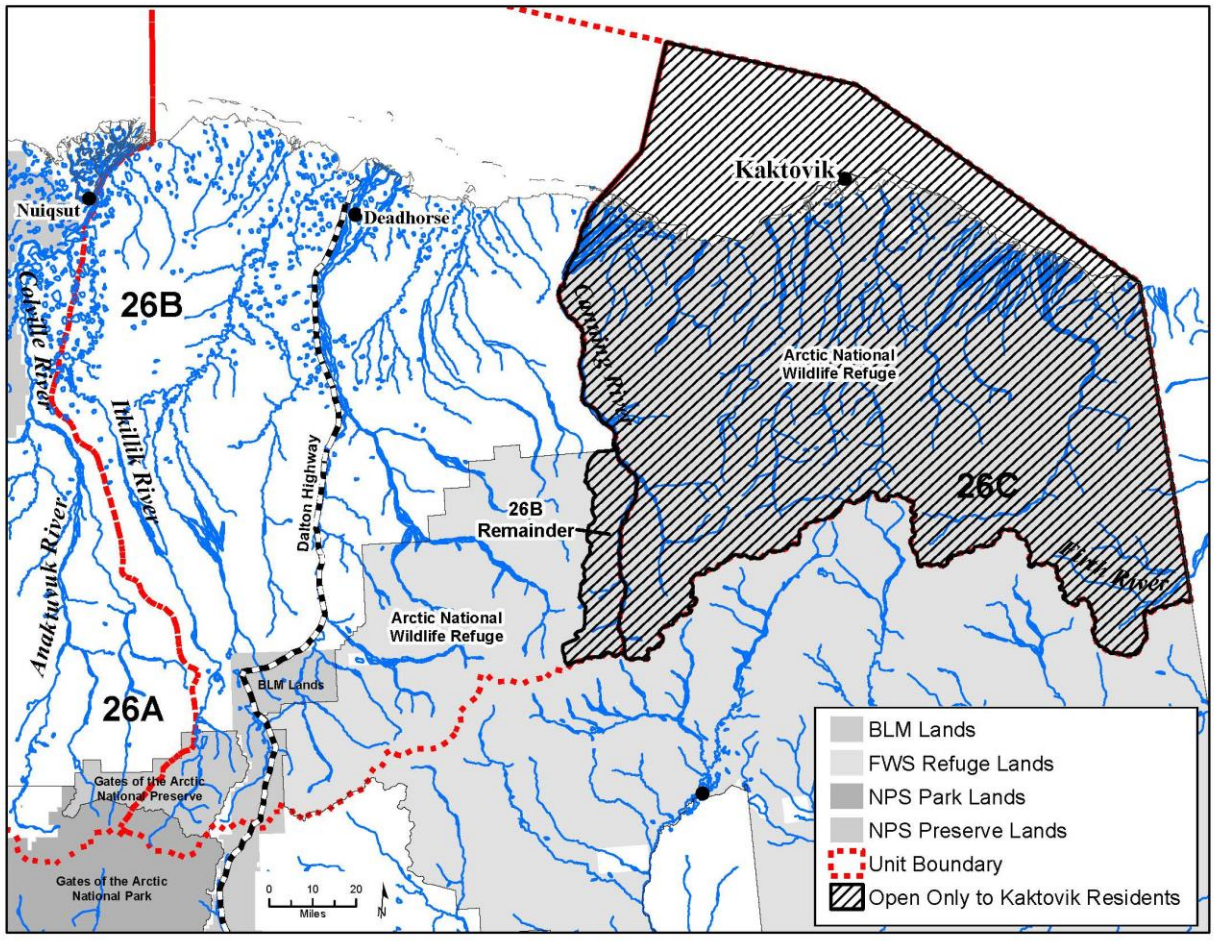
The State did not support Proposal WP04-86b due to conservation concerns regarding the Unit 26C moose population and the requested harvest quota of 5 moose (OSM 2004b). However, they did support a harvest of up to two moose in Unit 26C.

Biological Background

Unit 26C contains at least two distinct moose populations. The first population occurs on the coastal plain and foothills in the North Slope portion of Unit 26C (North Slope population), and the other population occurs in the Firth, Mancha, and Upper Kongakut river drainages (Old Crow Flats population) (**Map 1**) (Mauer 1998). A portion of the moose population in the eastern portion of Unit 26C, calves and spends the summer in Old Crow Flats in the Yukon and migrates to the Firth, Mancha, and Upper Kongakut river drainages in Unit 26C, and the Sheenjek, and Coleen river drainages in Unit 25A during the fall and winter. Some moose in the Old Crow Flats population move between drainages during the fall or spring migration (Mauer 1998, Cooley 2013, pers. comm.). The focus of this analysis is on the North Slope population in Unit 26C.

Moose in Unit 26B remainder and Unit 26C are at the northern limits of their range in Alaska. The lack of quality habitat severely limits the potential size of moose populations. Moose are generally

associated with narrow strips of shrub communities along drainages, except during calving and summer when some seasonal movement occurs away from riparian habitat (Lenart 2010). In winter, moose are limited almost entirely to the riparian shrub habitat. During surveys in the 1970s and 1980s, small numbers of moose were observed in the Sadlerochit, Hulahula, Okpilak, Okerokovik, Jago, Aichilik and Egaksrak river drainages and larger concentrations of moose were found on the Canning River and between the Sagavanirktok and Kavik rivers, west of the Canning River. The moose population in Units 26B and 26C peaked during the late 1980s at approximately 1,400 moose (Mauer and Akaran 1991; Lenart 2004, 2008), then declined in the early 1990s, and remained at approximately 700 animals throughout the remainder of the decade (Mauer 1998, Lenart 2008).



Map 1. Location of Federal public lands in Units 26B and 26C and lands open to Kaktovik residents.

Data from surveys conducted by the Alaska Department of Fish and Game (ADF&G) and the U.S. Fish and Wildlife Service (FWS) suggested that a significant decline in moose populations north of the Brooks Range occurred between 2012 and 2014. Survey results indicated that there had been approximately a 50% reduction of moose since 2011 in Unit 26A and in Unit 26B. The number of moose counted declined from approximately 400 moose in 2013 to 104 in 2015 in Unit 26A(ADF&G 2014b, Lenart 2015, pers. comm). Although Unit 26A is west of the area affected by this Wildlife Closure Review, it documents widespread declines in moose populations throughout the North Slope.

In Unit 26B remainder the number of moose counted declined from 176 in 2013 to 57 in 2014 (no short yearlings – 10 to 11 month old calves) (Lenart 2012b). From 2014 to 2018 the moose population in Unit 26C increased to 94 moose, which is the largest number seen since 1984 (Churchwell 2018).

The migratory behavior of the North Slope moose population makes it difficult to estimate the total population size. The 2018 population count suggests that the population is slowly increasing but surveys in previous years may not have captured animals when they were at their peak in the survey area.

State management goals for moose in Units 26B and 26C are to maintain viable populations throughout their historic range in the region, to provide sustained moose harvest opportunity, and provide an opportunity for moose photography and viewing (Lenart 2010). Specific State management objectives for Unit 26B and Unit 26C are as follows (Lenart 2012a, b):

- Unit 26B – maintain a population of at least 300 moose with short yearlings (10 to 11 month old calves) comprising at least 15% (3-year average) of the population.

- Unit 26C – maintain a population of at least 150 moose with short yearlings comprising at least 15% (3-year average) of the population.

- Maintain bull:cow ratios of at least 35 bulls:100 cows when hunting seasons are open for Unit 26B and Unit 26C.

A comprehensive moose survey has not been conducted for Units 26B and 26C; however, smaller scale minimum counts have been conducted in areas where moose concentrate to assess population trends. These trend counts account for a large percentage of the moose in the units as habitat is limited in the region (Lenart 2012a).

The moose population in the eastern portion of Unit 26B, including the Canning River, rebounded from low levels of approximately 150 in 1998–2000 to 335 moose in 2005 (**Figure 1**). During that period, harvest was limited in Unit 26B due to State and Federal harvest closures enacted in 1996. A limited season for Kaktovik residents was opened under Federal regulations in 2004. The harvest closure on Federal public lands in Unit 26B was lifted in 2007, except for the Canning River drainage which remained open only to Kaktovik residents. The moose population in eastern Unit 26B has subsequently declined to 104 moose in 2015 following peak counts in 2005–2008 (**Figure 1**). Since 2016 the population has been increasing slowly (**Figure 1**). The estimated total population observed in 2016, 2017, and 2018 was 138, 164, and 212 moose respectively (Lenart 2015, pers. comm., Lenart 2018, pers. comm.). The composition of short yearlings, which represents a measure of recruitment in the population, averaged 16% from 2005 to 2008, 9% from 2009 to 2012, 0% in 2014, 4% in 2015, 20% in 2016, 14% in 2017, and 21% in 2018 (Lenart 2015, pers. comm., Lenart 2018, pers. comm.).

The North Slope population in Unit 26C was surveyed every two years between 2003 and 2018 by Arctic National Wildlife Refuge staff (Wald 2014, ANWR 2017a, b). This population occurs on the Coastal Plain from the Canadian border to the Canning River and from the Beaufort Sea coast to the

foothills of the Brooks Range. Moose are usually concentrated in the drainages of the Sadlerochit, Hulahula, Okpilak, Okpirourak, Jago, Aichilik, Egaksrak, Ekaluakat, and the lower part of the Kongakut rivers (Wald 2014) (**Map 2**). Twenty three adults and no short-yearlings were observed during surveys conducted in April, 2014. In 2015, 36 moose were observed; 28 in the Kongakut drainage, 3 in the Egaksrak drainage, 3 in the Sadlerochit drainage, and 2 in the Hulahula drainage (Wald 2015, pers. comm.). During April 2017, FWS conducted a moose survey of the North Slope Population in in Unit 26C (**Map2**) and found 61 adult moose, including nine short yearlings (11 month olds), which is above the 10 year average of 48 since 2003 (Wald 2014, ANWR 2017b). In 2017, 49 moose were seen in the Kongakut River drainage, five in the Sadlerochit River dariange, five in the Hulahula River drainage, and two in the Egaksrak River drainage (ANWR 2017b). During April 2018, FWS conducted a moose survey of the North Slope Population in in Unit 26C (**Map3**) and found 80 adult moose, including 14 short yearlings (11 month olds) (Churchwell 2018). Similar to 2017 most of the moose were in the Kongakut drainage (Wald 2017, pers.comm.; Churchwell 2018).

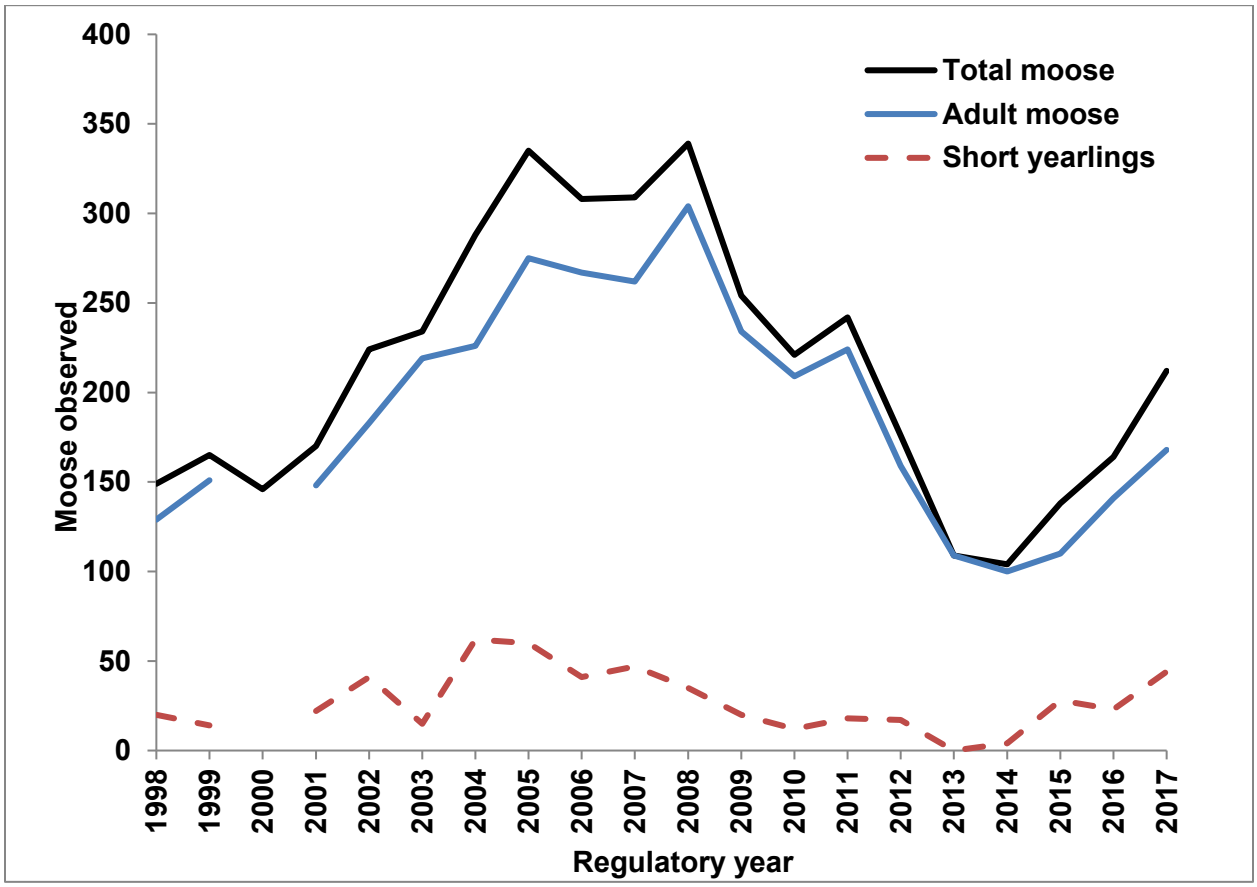
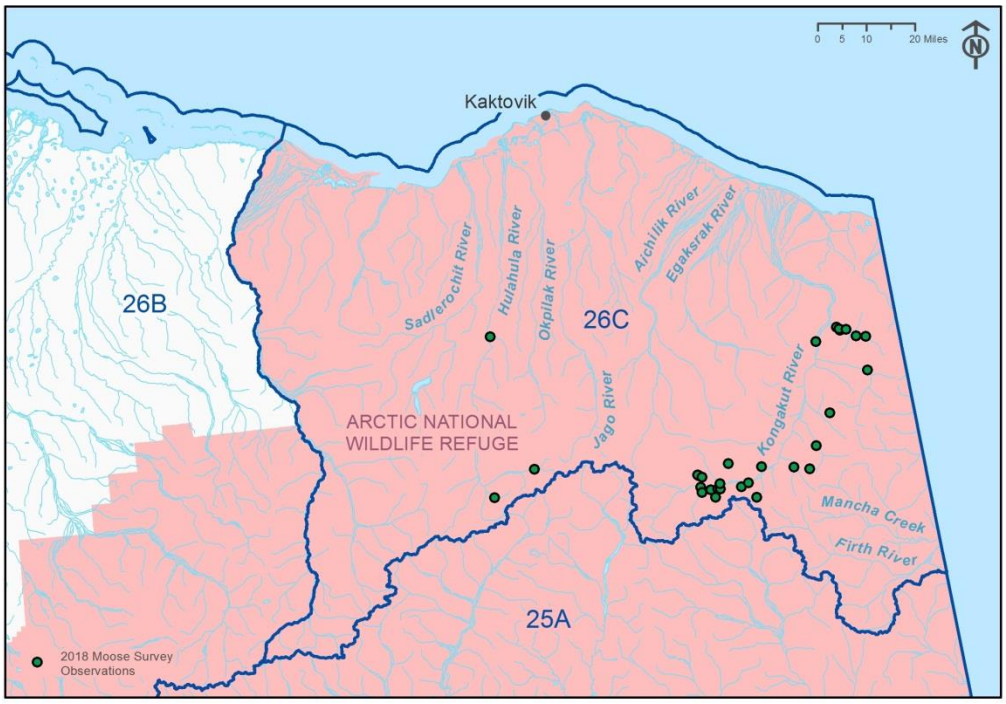
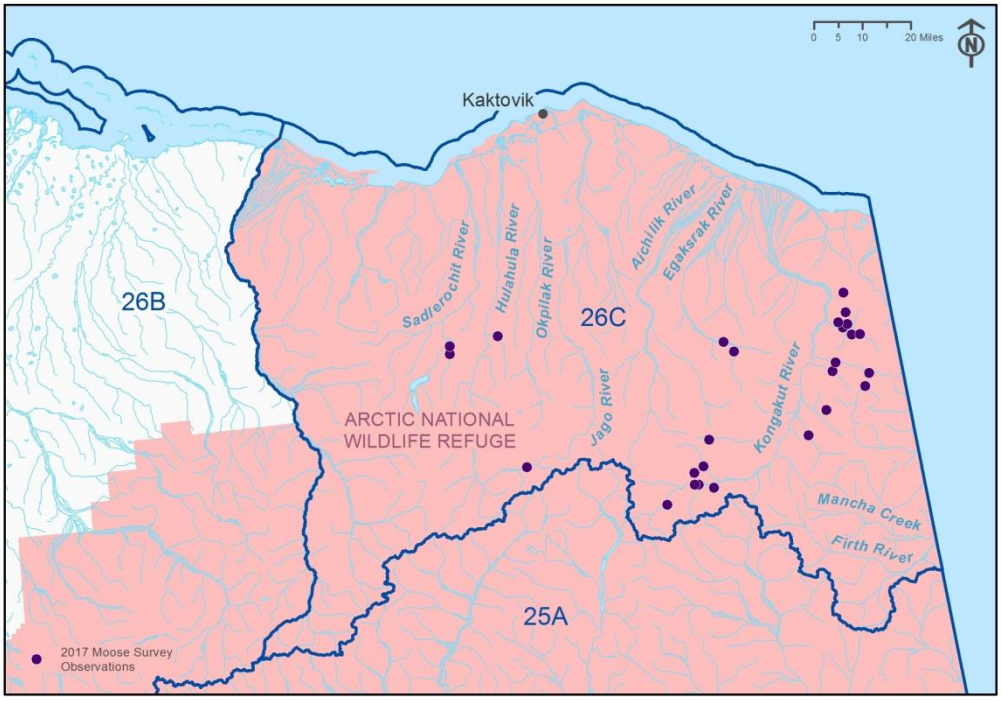


Figure 1. Aerial composition survey counts of moose in Unit 26B, east of the Sagavanirktok River and including the Canning River. Surveys were conducted in regulatory years 1998/1999 to 2013/2014 and moose presented as adults or short yearlings (11–month olds) (Lenart 2012a).



Map 2. Moose survey observations Unit 26C, April 2017 (Arthur 2018, pers. comm.).



Map 3. Moose survey observations Unit 26C, April 2018 (Arthur 2018, pers. comm.).

The calf or short-yearling survival has increased from 0 in 2014, to 5 in 2015, to 9 in 2017. Based on trend counts between 2003 and 2017, the North Slope population reached a low of 23 in 2014 and has since has increased to 94 in 2018 (**Figure 2**), which is the largest number since 1984.

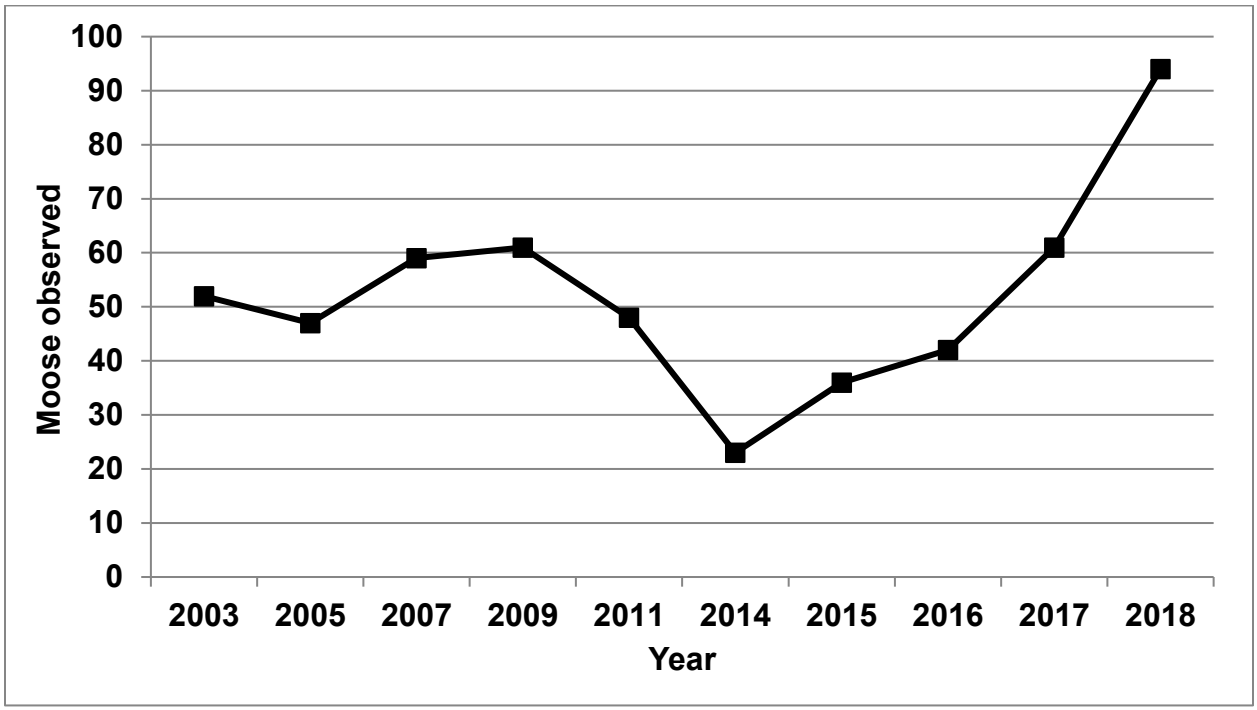


Figure 2. Moose observed during aerial surveys of trend count areas, conducted every other year by the U.S. Fish and Wildlife Service, for the North Slope Population in Unit 26C, 2003–2018 (Wald 2011, 2014, ANWR 2017a, b).

Harvest History

Harvest quotas for North Slope moose populations are currently determined using a 3% harvest rate (Lenart 2017, pers. comm., Wald 2013, pers. comm.). Moose harvest on the affected Federal public lands in Units 26B and 26C has been limited to residents of Kaktovik since 2004, with up to three permits issued annually and a combined harvest quota for Units 26B remainder and 26C of 3 moose. Since 2004, 10 bull moose have been reported harvested, with an average of 1 moose harvested per year (**Table 1**). No additional moose were taken by Kaktovik residents in Unit 26B remainder during the two week extension under Emergency Special Action WSA12-12. No moose were taken from 2013 to 2016. Two permits for bull moose in the Kongakut River Drainage were issued by the Arctic National Wildlife Refuge in 2017 and one bull moose was harvested.

Table 1. Federal moose registration permits issued to Kaktovik residents and harvest for Units 26B and 26C from 2004 to 2017(Twitchell 2013, pers. comm., Wald 2015, ANWR 2017a, b).

Year	Permits issued	Permits used	Harvest
2004/2005	3	1	1
2005/2006	3	2	2

Year	Permits issued	Permits used	Harvest
2006/2007	3	2	2
2007/2008	3	- [a]	- [a]
2008/2009	3	2	1
2009/2010	3	2	- [a]
2010/2011	2	1	1
2011/2012	3	2	0
2012/2013	2	2	2
2013/2014	2	0	0
2014/2015	- [a]	- [a]	- [a]
2015/2016	0	0	0
2016/2017	2	1	1

[a] Data not available for the report.

OSM Preliminary Conclusion:

X maintain status quo
_ modify or eliminate the closure

Justification

The North Slope moose population in Unit 26C has increased in recent years and is now above 50 animals, which has been the long-term average for this marginal population. Most of the population increase has been in the Kongakut River drainage and remains low elsewhere in the Arctic coastal plain. As of 2018, moose population and recruitment in Unit 26B remainder continues to be low. The current regulations allow management flexibility by the Refuge Manager of the Arctic National Wildlife Refuge to determine sustainable harvest levels based on the status and health of the small moose populations north of the Brooks Range in Units 26B and 26C. Continuing to limit the moose hunt to Federally qualified users in Kaktovik only is recommended given the small North Slope population.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATION

North Slope Subsistence Regional Advisory Council

Maintain status quo for WCR20-31 but establish a harvest quota of 1 bull moose by Federal registration permit (FM2606) for Unit 26B remainder and 4 bull moose in Unit 26C for Kaktovik residents only. The Arctic National Wildlife Refuge manager will set the opening and closing dates and as needed set the annual harvest quotas and limits through consultation with the community of Kaktovik and the process outlined in the Delegation of Authority letter.

Federal public lands are closed to the taking of moose except by a Kaktovik resident holding a Federal registration permit and hunting under these regulations.

Currently the subsistence needs of Kaktovik are not being met. Food security is extremely important and the communities' needs should be a main consideration in the subsistence management decision making process. While there is not an exact number of how many moose the community of Kaktovik needs, it was estimated that 30-50 moose would be needed to sustain Kaktovik annually. More moose would be needed if access to other food resources, such as caribou, is limited. The Council noted that the community should be able to harvest the maximum sustained yield of the moose population. The Council would like the Federal subsistence mangers to better understand the subsistence economy, sharing and traditional trade practices. These moose are very important to share within the community and may be traded for other subsistence foods.

The Council supports the flexibility provided by the Delegation of Authority process and would like to see the relationship with the Refuge Manager and the community of Kaktovik continue to grow through ongoing consultation. The Council requests that the Arctic National Wildlife Refuge conduct additional moose surveys in the summer and fall to better understand population fluctuations and document movements of the moose in Units 26C and 26B remainder.

Kaktovik Council member, Edward Rexford, Sr. shared feedback from the community that moose hunts in the Kongakut River drainage are a long way from Kaktovik and outside of the communities traditional harvest areas. Subsistence activities require a lot of resources including gas, snow machines, sleds, tents, camping gear, and food, In addition they are dependent upon the weather, hunter availability, snow conditions, location and ease of access of the moose. A long trip to the Kongakut River requires lots of gas which is very expensive in remote communities. Some communities need to pool resources just to conduct an extended hunt and they may have only one chance to harvest to harvest a moose. The Council requests a comprehensive subsistence needs assessment for the community of Kaktovik to ensure that rural subsistence priority is being met.

The Council wanted to be able to harvest moose throughout the year and not just during April when the moose were skinny. The community would like more flexibility for the timing of the hunt when the bull moose are fat in the fall and the ability to harvest moose opportunistically when and if they move closer to the Kaktovik.

Currently the moose season is closed in Unit 26B and 26C under State regulations. If the State opens a moose season in Unit 26B remainder and 26C, the Council would recommend aligning State and Federal regulations to support Federally qualified users and to ensure rural subsistence priority.

Federal Subsistence Board

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

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

FOREST SERVICE

JUN 19 2019

OSM 19038 KW

Gordon Brower, Chair
North Slope Subsistence Regional Advisory Council
c/o Office of Subsistence Management
1011 E. Tudor Rd. M/S 121
Anchorage AK 99503-6199

Dear Mr. Brower,

The Federal Subsistence Board (Board) met on April 15-18, 2019, regarding proposed changes to subsistence fish and shellfish regulations. This letter identify action taken on proposals affecting residents of the North Slope Interior Region.

Section 805(c) of the Alaska National Interest Lands Conservation Act (ANILCA) provides that the Board will accept the recommendations of a Regional Advisory Council regarding take unless (1) the recommendation is not supported by substantial evidence, (2) the recommendation violates recognized principles of fish and wildlife management, or (3) adopting the recommendation would be detrimental to the satisfaction of subsistence needs. When a Council's recommendation is not adopted, the Board is required by Secretarial regulations to set forth the factual basis and reasons for the decision.

Out of twenty proposals submitted, one was withdrawn by a proponent and the Board accepted the majority recommendations of the Regional Advisory Councils, in whole or with modifications, on 18 of the 19 proposals. Details of these actions and the Boards' deliberations are contained in the meeting transcriptions. Copies of the transcripts may be obtained by calling toll free number, 1-800-478-1456, and are available online at the Federal Subsistence Management Program website, https://www.doi.gov/subsistence.

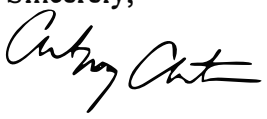
The Board uses a consensus agenda on those proposals where there is agreement among the affected Subsistence Regional Advisory Council(s), a majority of the Interagency Staff Committee, and the Alaska Department of Fish and Game concerning a proposed regulatory action. These proposals were deemed non-controversial and did not require a separate

discussion. This year the Board did not receive any fish or shellfish proposals, either on the consensus or non-consensus agenda, affecting the North Slope Region.

The Federal Subsistence Board appreciates the North Slope Subsistence Regional Adviosry Council's active involvement in and diligence with the regulatory process. The ten Regional Advisory Councils continue to be the foundation of the Federal Subsistence Management Program, and the stewardship shown by the Regional Advisory Council chairs and their representatives at the Board meeting much appreciated.

If you have any questions regarding the summary of the Board's actions, please contact Eva Patton Council Coordinator, at 907-786-3358 or eva_patton@fws.gov.

Sincerely,



Anthony Christianson, Chair
Federal Subsistence Board

cc: Federal Subsistence Board
North Slope Subsistence Regional Advisory Council members
Thomas Doolittle, Acting Assistant Regional Director, Office of Subsistence Management
Jennifer Harding, PhD, Acting Deputy Assistant Regional Director, Office of Subsistence Management
George Pappas, State Subsistence Liaison, Office of Subsistence Management
Greg Risdahl, Fisheries Division Supervisor, Office of Subsistence Management
Katerina Wessels, Acting Council Coordination Division Supervisor, Office of Subsistence Management
Eva Patton, Subsistence Council Coordinator, Office of Subsistence Management
Interagency Staff Committee
Administrative Record

Presentation Procedure for Proposals

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

WP20–43/44/45/46 Executive Summary	
General Description	Wildlife Proposal WP20-43 requests a year-round bull season for caribou in Unit 23. *Submitted by: Kotzebue Sound Fish and Game Advisory Committee.* Wildlife Proposal WP20-44, submitted by the Kotzebue Sound AC, requests that calf harvest be permitted for caribou in Unit 23. *Submitted by: Kotzebue Sound Fish and Game Advisory Committee.* Wildlife Proposal WP20-45 requests a year-round bull season for caribou in Unit 23. *Submitted by: Northwest Arctic Subsistence Regional Advisory Council.* Wildlife Proposal WP20-46 requests a year-round bull season and that calf harvest be permitted for caribou in Unit 23. *Submitted by: Western Arctic Caribou Herd Working Group.*
Proposed Regulation	<u>WP20-43/45</u> **Unit 23—Caribou** *Unit 23—that portion which includes all drainages north and west of, and including, the Singoalik River drainage* *5 caribou per day by State registration permit as follows:* *Calves may not be taken.* *Bulls may be harvested* — *July 1–~~Oct. 14~~* *~~Feb. 1~~ June 30* *Cows may be harvested. However, cows accompanied by calves may not be taken July 15–Oct. 14.* — *July 15–Apr. 30* *Unit 23, remainder* *5 caribou per day by State registration permit as follows:* *Calves may not be taken.* *Bulls may be harvested* — *July 1–~~Oct. 31~~* *~~Feb.1~~ June 30*

WP20–43/44/45/46 Executive Summary		
	Cows may be harvested. However, cows accompanied by calves may not be taken July 31–Oct. 14.	*July 31–Mar. 31*
	Federal public lands within a 10-mile-wide corridor (5 miles either side) along the Noatak River from the western boundary of Noatak National Preserve upstream to the confluence with the Cutler River; within the northern and southern boundaries of the Eli and Agashashok River drainages, respectively; and within the Squirrel River drainage are closed to caribou hunting except by federally qualified subsistence users hunting under these regulations	
	WP20-44	
	Unit 23—Caribou	
	Unit 23—that portion which includes all drainages north and west of, and including, the Singoalik River drainage	
	5 caribou per day by State registration permit as follows:	
	~~Calves may not be taken.~~	
	Bulls may be harvested	*July 1–Oct. 14* *Feb. 1–June 30*
	Cows may be harvested. However, cows accompanied by calves may not be taken July 15–Oct. 14.	*July 15–Apr. 30*
	Unit 23, remainder	
	5 caribou per day by State registration permit as follows:	
	~~Calves may not be taken~~.	
	Bulls may be harvested	*July 1–Oct. 31* *Feb.1–June 30*

WP20–43/44/45/46 Executive Summary		
	Cows may be harvested. However, cows accompanied by calves may not be taken July 31–Oct. 14.	*July 31–Mar. 31*
	Federal public lands within a 10-mile-wide corridor (5 miles either side) along the Noatak River from the western boundary of Noatak National Preserve upstream to the confluence with the Cutler River; within the northern and southern boundaries of the Eli and Agashashok River drainages, respectively; and within the Squirrel River drainage are closed to caribou hunting except by federally qualified subsistence users hunting under these regulations	
	WP20-46 **Unit 23—Caribou**	
	Unit 23—that portion which includes all drainages north and west of, and including, the Singoalik River drainage	
	5 caribou per day by State registration permit as follows: ~~*Calves may not be taken*~~*.*	
	Bulls may be harvested	*July 1–~~Oct. 14~~ ~~Feb. 1~~ June 30*
	Cows may be harvested. However, cows accompanied by calves may not be taken July 15–Oct. 14.	*July 15–Apr. 30*
	Unit 23, remainder	
	5 caribou per day by State registration permit as follows: ~~*Calves may not be taken*~~*.*	
		July 1–~~Oct. 31~~

WP20–43/44/45/46 Executive Summary		
	Bulls may be harvested	*~~Feb.1~~ June 30*
	Cows may be harvested. However, cows accompanied by calves may not be taken July 31–Oct. 14.	*July 31–Mar. 31*
	Federal public lands within a 10-mile-wide corridor (5 miles either side) along the Noatak River from the western boundary of Noatak National Preserve upstream to the confluence with the Cutler River; within the northern and southern boundaries of the Eli and Agashashok River drainages, respectively; and within the Squirrel River drainage are closed to caribou hunting except by federally qualified subsistence users hunting under these regulations	
OSM Preliminary Conclusion	**Support** Proposal WP20-46 and **take no action** on Proposals WP20-43, WP20-44, and WP20-45.	
Western Interior Alaska Subsistence Regional Advisory Council Recommendation		
Seward Peninsula Subsistence Regional Advisory Council Recommendation		
Northwest Arctic Subsistence Regional Advisory Council Recommendation		
North Slope Subsistence Regional Advisory Council Recommendation		
Interagency Staff Committee Comments		

WP20–43/44/45/46 Executive Summary	
ADF&G Comments	
Written Public Comments	**None**

DRAFT STAFF ANALYSIS
WP20-43/44/45/46

ISSUES

Wildlife Proposal WP20-43, submitted by the Kotzebue Sound Fish and Game Advisory Committee (Kotzebue Sound AC), requests a year-round bull season for caribou in Unit 23.

Wildlife Proposal WP20-44, submitted by the Kotzebue Sound AC, requests that calf harvest be permitted for caribou in Unit 23.

Wildlife Proposal WP20-45, submitted by the Northwest Arctic Subsistence Regional Advisory Council (Northwest Arctic Council), requests a year-round bull season for caribou in Unit 23.

Wildlife Proposal WP20-46, submitted by the Western Arctic Caribou Herd Working Group (WACH Working Group), requests a year-round bull season and that calf harvest be permitted for caribou in Unit 23.

DISCUSSION

The Kotzebue Sound AC, the proponent for WP20-43, noted that a variety of conservation measures were taken during the recent decline in the WACH population, including closing the bull season during the rut. As local people generally harvest bulls in September and avoid them during rut, little effect on traditional hunting practices was anticipated. However, in recent years, the timing of the Western Arctic Caribou Herd (WACH) migration has occurred later in the year, resulting in the bull season already being closed when caribou pass through accessible areas. This has shifted harvest pressure to cows, which could become a conservation concern. If the bull season remained open year-round, hunters could harvest young bulls that do not stink during rut like older bulls, and conserve cows to help grow the herd. Compliance issues associated with distinguishing between bulls and cows for harvest would also be alleviated.

The Kotzebue Sound AC, the proponent for WP20-44, states that removing the prohibition on calf harvest would allow harvest of orphaned calves that would otherwise succumb to predators. The proponent states that no one targets calves, but in rare circumstances, it makes sense to harvest an abandoned calf for human consumption rather than leaving it for other predators.

The Northwest Arctic Council, the proponent for WP20-45, states that eliminating the bull caribou closure would allow harvest of young bulls, reducing harvest pressure on cows. As the timing of fall caribou migration has shifted later in the year, only the cow season is open when caribou are accessible for harvest. The proponent also states that eliminating the bull closure takes pressure off of Federally qualified subsistence users, who can spend a lot of time and fuel accessing hunting areas, to harvest caribou during a certain timeframe.

The WACH Working Group, the proponent for WP20-46, provided the same rationale for the removal of the bull closure and prohibition on calf harvest as the Kotzebue AC, the proponent for WP20-43/44 (see above).

Existing Federal Regulations

Unit 23—Caribou

Unit 23—that portion which includes all drainages north and west of, and including, the Singoalik River drainage	
5 caribou per day by State registration permit as follows: *Calves may not be taken.* *Bulls may be harvested*	 *July 1–Oct. 14* *Feb. 1–June 30*
Cows may be harvested. However, cows accompanied by calves may not be taken July 15–Oct. 14.	*July 15–Apr. 30*
Unit 23, remainder	
5 caribou per day by State registration permit as follows: *Calves may not be taken.* *Bulls may be harvested*	 *July 1–Oct. 31* *Feb.1–June 30*
Cows may be harvested. However, cows accompanied by calves may not be taken July 31–Oct. 14.	*July 31–Mar. 31*
Federal public lands within a 10-mile-wide corridor (5 miles either side) along the Noatak River from the western boundary of Noatak National Preserve upstream to the confluence with the Cutler River; within the northern and southern boundaries of the Eli and Agashashok River drainages, respectively; and within the Squirrel River drainage are closed to caribou hunting except by federally qualified subsistence users hunting under these regulations	

Proposed Federal Regulations

WP20-43/45

Unit 23—Caribou

Unit 23—that portion which includes all drainages north and west of, and including, the Singoalik River drainage	
5 caribou per day by State registration permit as follows: *Calves may not be taken.* *Bulls may be harvested*	*July 1–~~Oct. 14~~* *~~Feb. 1~~–June 30*
Cows may be harvested. However, cows accompanied by calves may not be taken July 15–Oct. 14.	*July 15–Apr. 30*
Unit 23, remainder	
5 caribou per day by State registration permit as follows: *Calves may not be taken.* *Bulls may be harvested*	*July 1–~~Oct. 31~~* *~~Feb.1~~–June 30*
Cows may be harvested. However, cows accompanied by calves may not be taken July 31–Oct. 14.	*July 31–Mar. 31*
Federal public lands within a 10-mile-wide corridor (5 miles either side) along the Noatak River from the western boundary of Noatak National Preserve upstream to the confluence with the Cutler River; within the northern and southern boundaries of the Eli and Agashashok River drainages, respectively; and within the Squirrel River drainage are closed to caribou hunting except by federally qualified subsistence users hunting under these regulations	

WP20-44

Unit 23—Caribou

Unit 23—that portion which includes all drainages north and west of, and including, the Singoalik River drainage

5 caribou per day by State registration permit as follows: *~~Calves may not be taken.~~* *Bulls may be harvested*	*July 1–Oct. 14* *Feb. 1–June 30*
Cows may be harvested. However, cows accompanied by calves may not be taken July 15–Oct. 14.	*July 15–Apr. 30*

Unit 23, remainder

5 caribou per day by State registration permit as follows: *~~Calves may not be taken~~.* *Bulls may be harvested*	*July 1–Oct. 31* *Feb.1–June 30*
Cows may be harvested. However, cows accompanied by calves may not be taken July 31–Oct. 14.	*July 31–Mar. 31*

Federal public lands within a 10-mile-wide corridor (5 miles either side) along the Noatak River from the western boundary of Noatak National Preserve upstream to the confluence with the Cutler River; within the northern and southern boundaries of the Eli and Agashashok River drainages, respectively; and within the Squirrel River drainage are closed to caribou hunting except by federally qualified subsistence users hunting under these regulations

<u>WP20-46</u>

Unit 23—Caribou

Unit 23—that portion which includes all drainages north and west of, and including, the Singoalik River drainage

5 caribou per day by State registration permit as follows: *~~Calves may not be taken~~.* *Bulls may be harvested*	*July 1–~~Oct. 14~~* *~~Feb. 1~~–June 30*
Cows may be harvested. However, cows accompanied by calves may not be taken July 15–Oct. 14.	*July 15–Apr. 30*

Unit 23, remainder

5 caribou per day by State registration permit as follows:
~~Calves may not be taken~~.
Bulls may be harvested *July 1–~~Oct. 31~~ ~~Feb.1~~–June 30*

Cows may be harvested. However, cows accompanied by calves may not be taken July 31–Oct. 14. *July 31–Mar. 31*

Federal public lands within a 10-mile-wide corridor (5 miles either side) along the Noatak River from the western boundary of Noatak National Preserve upstream to the confluence with the Cutler River; within the northern and southern boundaries of the Eli and Agashashok River drainages, respectively; and within the Squirrel River drainage are closed to caribou hunting except by federally qualified subsistence users hunting under these regulations

Existing State Regulations

Unit 23—Caribou

23, north of and including Singoalik River drainage	*Residents—Five caribou per day; however, calves may not be taken. Permits available online at http://hunt.alaska.gov or in person in Kotzebue, Barrow, and at license vendors in Unit 23 and 26A beginning June 20.*	*Bulls*	*RC907*	*July 1-Oct. 14 Feb. 1-June 30*
		Cows	*RC907*	*Jul. 15-Apr. 30*
	Nonresidents—One bull; however, calves may not be taken.		*HT*	*Aug. 1-Sept. 30*
23 remainder	*Residents—Five caribou per day; however, calves may not be taken. Permits available online at http://hunt.alaska.gov or in person in Kotzebue, Barrow, and at license vendors in Unit 23 and 26A beginning June 20.*	*Bulls*	*RC907*	*July 1-Oct. 14 Feb. 1-June 30*
		Cows	*RC907*	*Sept. 1-Mar. 31*
	Nonresidents—One bull; however, calves may not be taken.		*HT*	*Aug. 1-Sept. 30*

Extent of Federal Public Lands

Unit 23 is comprised of 71% Federal public lands and consist of 40% National Park Service (NPS) managed lands, 22% Bureau of Land Management (BLM) managed lands, and 9% U.S. Fish and Wildlife Service (USFWS) managed lands.

Customary and Traditional Use Determinations

Residents of Unit 21D west of the Koyukuk and Yukon Rivers, Galena, 22, 23, 24 including residents of Wiseman but not including other residents of the Dalton Highway Corridor Management Area, and 26A have a customary and traditional use determination for caribou in Unit 23 (**Map 1**).

Regulatory History

In 1990, the caribou hunting season in Unit 23 was open year round with a five caribou per day harvest limit and a restriction on the harvest of cows May 16-June 30.

In 1995, the Federal Subsistence Board (Board) adopted Proposal P95-51 to increase the caribou harvest limit from five to 15 caribou per day so that subsistence hunters could maximize their hunting efforts when caribou were available (FWS 1995a).

In 1997, the Board adopted Proposal P97-66 with modification to provide a customary and traditional use determination for caribou in Unit 23 for rural residents of Unit 21D west of the Koyukuk and Yukon rivers, Galena, Units 22, 23, 24 including residents of Wiseman, but not other residents of the Dalton Highway Corridor Management Area and Unit 26A (**Map 1**, FWS 1995b, 1997).

In 2000, the Board adopted Proposal WP00-53 with modification, allowing the use of snowmachines to position a hunter to select individual caribou for harvest in Units 22 and 23. This was done to recognize a customary and traditional practice in the region (FWS 2000a).

In 2013, an aerial photo census indicated significant declines in the Teshekpuk Caribou herd (TCH), WACH, and possibly the Central Arctic Caribou Herd (CACH) populations (Caribou Trails 2014). In response, the Alaska Board of Game (BOG) adopted modified Proposal 202 (RC76) in March 2015 to reduce harvest opportunities for both Alaska residents and nonresidents within the range of the WACH and the TCH. These regulation changes – which included lowering bag limits for nonresidents from two caribou to one bull, reductions in bull and cow season lengths, the establishment of new hunt areas, and prohibiting calf harvest – were adopted to slow or reverse the population decline. The regulatory changes took effect on July 1, 2015.

In 2015, four special actions, WSA15-03/04/05/06, requesting changes to caribou regulations in Units 23, 24, and 26, were submitted by the North Slope Council and approved with modification by the Board, effective July 1, 2015. Temporary Special Action WSA15-03 requested designation of a new hunt area for caribou in the northwest corner of Unit 23 where the harvest limit would be reduced from 15 to five caribou per day, the harvest season would be shortened for bulls and cows, and the harvest of calves would be

prohibited. The Board did not establish a new hunt area, applying the restrictions to all of Unit 23 and also prohibited the harvest of cows with calves. These State and Federal regulatory changes were the first time that harvest restrictions had been implemented for the WACH in over 30 years.

Five proposals (WP16-37, WP16-48, WP16-49/52, and WP16-61) concerning caribou regulations in Unit 23 were submitted to the Board for the 2016-2018 wildlife regulatory cycle. The Board adopted WP16-48 with modification to allow the positioning of a caribou, wolf, or wolverine for harvest on BLM lands only. Proposal WP16-37 requested that Federal caribou regulations mirror the new State regulations across the ranges of the WACH and TCH (Units 21D, 22, 23, 24, 26A, and 26B). The Board adopted Proposal WP16-37 with modification to reduce the harvest limit to five caribou per day, restrict bull harvest during rut and cow harvest around calving, prohibit the harvest of calves and the harvest of cows with calves before weaning (mid-Oct.), and to create a new hunt area in the northwest corner of Unit 23. The Board took no action on the remaining proposals (WP16-49/52, and WP16-61) due to action taken on WP16-37.

In 2015, the Northwest Arctic Council submitted a temporary special action request (WSA16-01) to close caribou hunting on Federal public lands in Unit 23 to non-Federally qualified users (NFQU) for the 2016/17 regulatory year. The Council stated that their request was necessary for conservation purposes but also needed because nonlocal hunting activities were negatively affecting subsistence harvests. In April 2016, the Board approved WSA16-01, basing its decision on the strong support of the Northwest Arctic and North Slope Councils, public testimony in favor of the request, as well as concerns over conservation and continuation of subsistence uses (FSB 2016).

In June 2016, the State submitted a special action request (WSA16-03) to reopen caribou hunting on Federal public lands in Unit 23 to NFQU, providing new biological information (e.g. calf recruitment, weight, body condition) on the WACH. The State specified that there was no biological reason for the closure and that it could increase user conflicts. In January 2017, the Board rejected WSA16-03 due to the position of all four affected Councils (Northwest Arctic, North Slope, Seward Peninsula, and Western Interior) as well as public testimony and Tribal consultation comments opposing the request. Additionally, the Board found the new information provided by the State to be insufficient to rescind the closure.

In January 2017, the BOG adopted Proposal 2, requiring registration permits for residents hunting caribou within the range of the Western Arctic and Teshekpuk herds in Units 21, 23, 24, and 26 (a similar proposal was passed for Unit 22 in 2016). The Alaska Department of Fish and Game (ADF&G) submitted the proposal in order to better monitor harvest and improve management flexibility. Also in January 2017, the BOG rejected Proposal 45, which proposed requiring big game hunting camps to be spaced at least three miles apart along the Noatak, Agashashok, Eli, and Squirrel Rivers. The proposal failed as it would be difficult to enforce.

In March 2017, the Northwest Arctic Council submitted temporary special action request, WSA17-03 to close caribou hunting on Federal public lands in Unit 23 to non-Federally qualified users for the 2017/18 regulatory year. The Council stated that the intent of the proposed closure was to ensure subsistence use in the 2017/18 regulatory year, to protect declining caribou populations, and to reduce user conflicts. The

Board voted to approve WSA17-03 with modification to close all Federal public lands within a 10 mile wide corridor (5 miles either side) along the Noatak River from the western boundary of Noatak National Preserve upstream to the confluence with the Cutler River; within the northern and southern boundaries of the Eli and Agashashok River drainages, respectively; and within the Squirrel River drainage, to caribou hunting except by Federally qualified subsistence users for the 2017/18 regulatory year. The Board considered the modification a reasonable compromise for all users, and that closure of the specified area was warranted in order to continue subsistence use.

In April 2018, the Board adopted Proposals WP18-46 with modification and WP18-48 (effective July 1, 2018). Proposal WP18-46 requested closing caribou hunting on Federal public lands in Unit 23 to non-Federally qualified users (similar to WSA16-01 and WSA17-03). The Board adopted WP18-46 with the same modification as WSA17-03 (see above) as the Northwest Arctic, Western Interior, and Seward Peninsula Councils as well as the village of Noatak supported this modification and viewed the targeted closure as effectively addressing user conflicts and the continuation of subsistence uses. The Board also adopted WP18-48 to require State registration permits for caribou hunting in Units 22, 23, and 26A to improve harvest reporting and herd management, and to align with State regulations.

Controlled Use Areas

In 1988, the Traditional Council of Noatak submitted a proposal to the BOG to create the Noatak Controlled Use Area (CUA) in order to restrict the use of aircraft in any manner for big game hunting Aug. 15 - Sept. 20 due to user conflicts (Fall 1990:86). The proposed CUA extended five miles on either side of the Noatak River, from the mouth of the Eli River upstream to the mouth of the Nimiuktuk River, including the north side of Kivivik Creek (ADF&G 1988:47). The BOG adopted the proposal with modification to close a much smaller area extending from the Kugururok River to Sapun Creek from Aug. 20-Sept. 20.

The CUA was expanded in 1994 and modified in 2017 (Betchkal 2015, Halas 2015, ADF&G 2017a). From 1994-2016, the Noatak CUA consisted of a 10-mile wide corridor (5 miles either side) along the Noatak River from its mouth to Sapun Creek with approximately 80 miles of the CUA within Noatak National Preserve (NP) (**Map 2**, Betchkal 2015). The closure dates from 1994-2009 were Aug. 25-Sept. 15. In 2009 (effective 2010), the BOG adopted Proposal 22 to expand the closure dates to Aug. 15-Sept. 30 in response to the timing of caribou migration becoming less predictable (ADF&G 2009). During the 2016/17 BOG regulatory cycle, the Noatak/Kivalina & Kotzebue AC proposed (Proposal 44) extending the upriver boundary of the Noatak CUA to the Cutler River, citing increased user conflicts as their rationale (ADF&G 2017b). In January 2017, the BOG approved amended Proposal 44 to shift the boundaries of the Noatak CUA to start at the mouth of the Agashashok River and end at the mouth of the Nimiuktuk River with approximately 105 miles within Noatak NP (**Map 2**, ADF&G 2017a).

In 1990, the Noatak CUA was adopted under Federal regulations. In 1995, the Board adopted Proposal P95-50 to expand the time period and area of the CUA to Aug. 25-Sept. 15 and the mouth of the Noatak River upstream to the mouth of Sapun Creek, respectively, which aligned with current State regulations. In 2008, Proposals WP08-50 and 51 requested modifications to the Noatak CUA dates. These proposals were submitted in response to caribou migration occurring later in the season, to improve caribou harvest

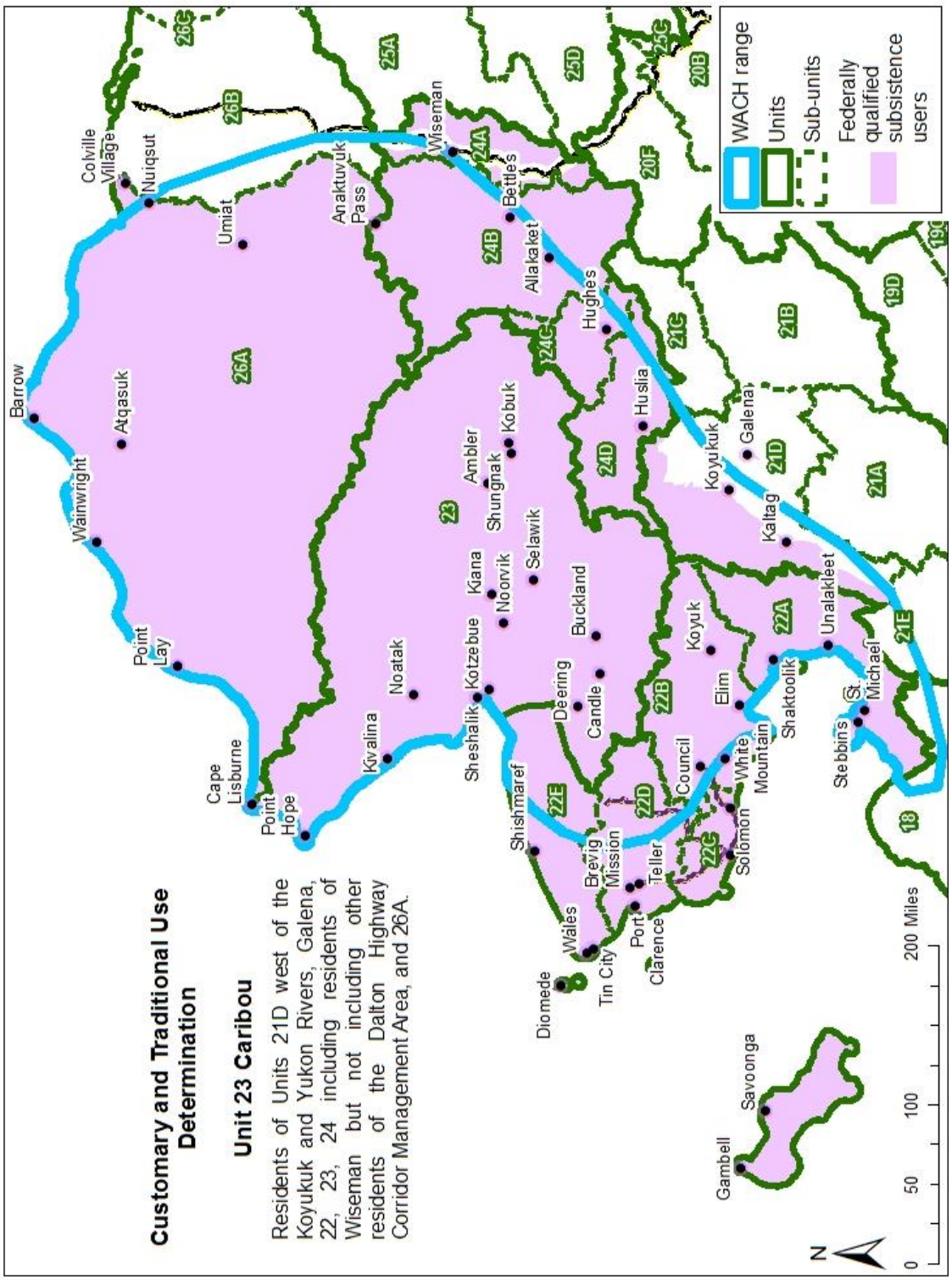
for subsistence users, and to decrease conflicts between local and nonlocal hunters. The Board deferred these proposals to the next regulatory cycle. In 2010, Proposals WP10-82, 83, and 85 requested similar date changes. The Board adopted WP10-85 to expand the time period during which aircraft are restricted in the Noatak CUA to Aug. 15-Sept. 30, which aligned with the current State regulations.

In 2011, Selawik National Wildlife Refuge (NWR) designated refuge lands in the northwest portion of the refuge as closed to big game hunting by commercial guides and transporters through their comprehensive conservation plan (FWS 2011, 2014). These refuge lands are intermingled with private lands near the villages of Noorvik and Selawik (**Map 2**). The purpose of this closure was to minimize trespass on private lands and to reduce user conflicts (FWS 2011).

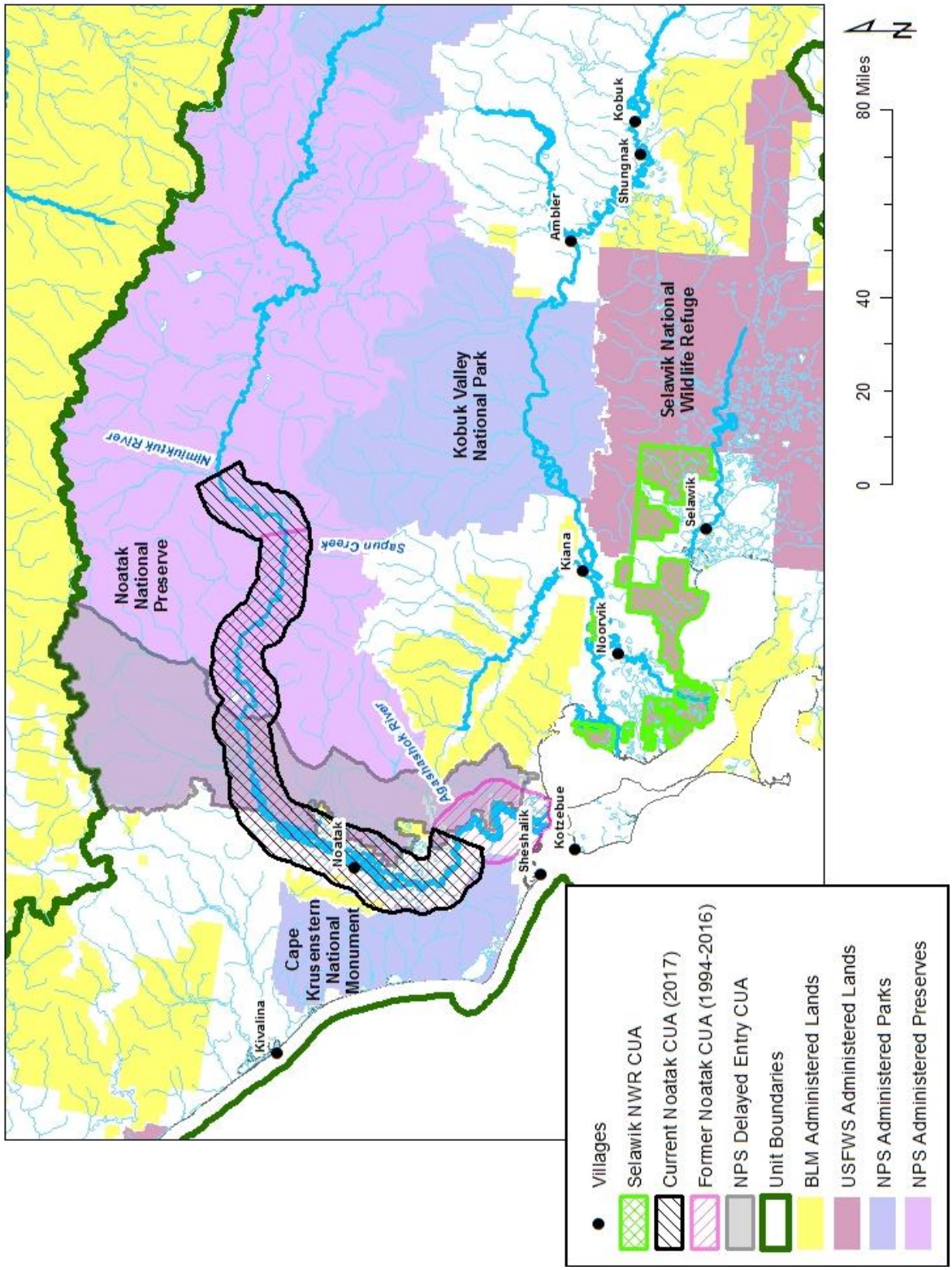
In 2012, the NPS established a Special Commercial Use Area or "delayed entry zone" in the western portion of the Noatak NP (Halas 2015, Fix and Ackerman Fix 2015). Within this zone, transporters can only transport nonlocal caribou hunters after September 15 unless otherwise specified by the Western Arctic Parklands (WEAR) superintendent in consultation with commercial operators, other agencies and local villages (Halas 2015). The purpose of this zone is to allow a sufficient number of caribou to cross the Noatak River and establish migration routes, to limit interactions between local and nonlocal hunters, and to allow local hunters the first opportunity to harvest caribou in that area (**Map 2**, FWS 2014, Halas 2015). To date, the Superintendent has not used his/her authority to alter the closure dates in response to changes in caribou herd migration or to meet the needs of local hunters (Halas 2015).

Current Events

The Kotzebue Sound AC and the WACH Working Group submitted proposals to the BOG that mirror Proposal WP20-43 (eliminate bull closure) and WP20-44 (eliminate prohibition on calves) to maintain alignment of State and Federal regulations and reduce user confusion. The BOG will act on these proposals at its Arctic/Western Region meeting in January 2020.



Map 1. Customary and Traditional (C&T) Use Determination for caribou in Unit 23. C&T Determinations indicate which Alaska rural residents are Federally qualified subsistence users. The range of the WACH is included for context.



Map 2. Federal and State Hunting Management Areas in Unit 23.

Biological Background

Caribou abundance naturally fluctuates over decades (Gunn 2001, WACH Working Group 2011). Gunn (2001) reports the mean doubling rate for Alaskan caribou as 10 ± 2.3 years. Although the underlying mechanisms causing these fluctuations are uncertain, climatic oscillations (i.e. Arctic and Pacific Decadal Oscillations) may play an important role (Gunn 2001, Joly et al. 2011). Climatic oscillations can influence factors such as snow depth, icing, forage quality and growth, wildfire occurrence, insect levels, and predation, which all contribute to caribou population dynamics (Joly et al. 2011). Density-dependent reduction in forage availability, resulting in poorer body condition may exacerbate caribou population fluctuations (Gunn 2001).

Caribou calving generally occurs from late May to mid-June (Dau 2013). Weaning generally occurs in late October and early November before the breeding season (Taillon et al. 2011). Calves stay with their mothers through their first winter, which improves calves' access to food and body condition (Holand et al. 2012). Calves orphaned after weaning (October) have greater chances of survival than calves orphaned before weaning (Holand et al. 2012, Joly 2000, Russell et al. 1991, Rughetti and Fest-Bianchet 2014).

The TCH, WACH, and CACH have ranges that overlap in Unit 26A (**Map 3**), and there can be considerable mixing of herds during the fall and winter. During the 1970s, there was little overlap between these herds, but the degree of mixing seems to be increasing. Currently, the WACH, TCH, and CACH populations are all declining (Dau 2011, 2015a, Lenart 2011, Parrett 2011, 2015c, 2015d).

The WACH has historically been the largest caribou herd in Alaska and has a home range of approximately 157,000 square miles in northwestern Alaska. In the spring, most mature cows move north to calving grounds in the Utukok Hills, while bulls and immature cows lag behind and move toward summer range in the Wulik Peaks and Lisburne Hills (**Map 4**, Dau 2011, WACH Working Group 2011).

Dau (2013) determined the calving dates for the WACH to be June 9–13. This is based upon long-term movement and distribution data obtained from radio-collared caribou (these are the dates cows ceased movements). After the calving period, cows and calves move west toward the Lisburne Hills where they mix with the bulls and non-maternal cows. During the summer, the herd moves rapidly to the Brooks Range.

In the fall, the herd moves south toward wintering grounds in the northern portion of the Nulato Hills. Rut occurs during fall migration (Dau 2011, WACH Working Group 2011). Dau (2013) determined the WACH rut dates to be October 22–26 based on back-calculations from calving dates using a 230 day gestation period. Since about 2000, the timing of fall migration has been less predictable, often occurring later than in previous decades (Dau 2015a). From 2010-2015, the average date that GPS collared caribou crossed the Noatak River ranged from Sep. 30 – Oct. 23 (Joly and Cameron 2017). The proportion of caribou using certain migration paths varies each year (**Figure 1**, Joly and Cameron 2017). In recent years (2012-2014), the path of fall migration has shifted east (Dau 2015a).

The WACH Working Group developed a WACH Cooperative Management Plan in 2003, and revised it in 2011 (WACH Working Group 2011). The WACH Management Plan identifies seven plan elements:

cooperation, population management, habitat, regulations, reindeer, knowledge, and education as well as associated goals, strategies, and management actions. As part of the population management element, the WACH Working Group developed a guide to herd management determined by population size, population trend, and harvest rate. Population sizes guiding management level determinations were based on recent (since 1970) historical data for the WACH (WACH Working Group 2011). Revisions to recommended harvest levels under liberal and conservative management (+/- 100 - 2,850 caribou) were made in December 2015 (WACH Working Group 2015, **Table 1**). The State of Alaska manages the WACH to protect the population and its habitat, provide for subsistence and other hunting opportunities on a sustained yield basis, and provide for viewing and other uses of caribou (Dau 2011). State management objectives for the WACH are the same as the goals specified in the WACH Management Plan (Dau 2011, WACH Working Group 2011) and include:

- Encourage cooperative management of the WACH among State, Federal, local entities, and all users of the herd.
- Manage for healthy populations using management strategies adapted to fluctuating population levels and trends.
- Assess and protect important habitats.
- Promote consistent and effective State and Federal regulations for the conservation of the WACH.
- Seek to minimize conflict between reindeer herders and the WACH.
- Integrate scientific information, traditional ecological knowledge of Alaska Native users, and knowledge of all users into management of the herd.
- Increase understanding and appreciation of the WACH through the use of scientific information, traditional ecological knowledge of the Alaska Native users, and knowledge of all other users.

The WACH population declined rapidly in the early 1970s, bottoming out at about 75,000 animals in 1976. Aerial photo censuses have been used since 1986 to estimate population size. The WACH population increased throughout the 1980s and 1990s, peaking at 490,000 animals in 2003 (**Figure 2**). Since 2003, the herd has declined at an average annual rate of 7.1% from approximately 490,000 caribou to 200,928 caribou in 2016 (Caribou Trails 2014; Dau 2011, 2014, Parrett 2016a). In 2017, the herd increased to an estimated 259,000 caribou (Parrett 2017a).

Between 1982 and 2011, the WACH population was within the liberal management level prescribed by the WACH Working Group (**Figure 2, Table 1**). In 2013, the herd population estimate fell below the population threshold for liberal management of a decreasing population (265,000), slipping into the conservative management level. ADF&G conducted a successful photocensus of the WACH on July 1, 2016. This census resulted in a minimum count of 194,863 caribou with a point estimate of 200,928 (Standard Error = 4,295), suggesting the WACH was still within the conservative management level, although close to the threshold for preservative management (**Figure 2, Table 1**). Results of this census indicate an average annual decline of 5% per year since 2013, representing a much lower rate than the 15% annual decline between 2011 and 2013. The large cohorts of 2015 and 2016, which currently comprise a substantial proportion of the herd, contributed to the recent decreased rate of decline, but remain vulnerable to difficult winter conditions due to their young age (Parrett 2016a).

ADF&G conducted another photocensus in the summer of 2017 and also transitioned from film to digital cameras, which enhanced their ability to complete a successful and timely census (Parrett 2017a). The 2017 photocensus yielded a minimum count of 239,055 caribou with a point estimate of 259,000 caribou (Standard Error = 29,000) (Parrett 2017a). However, the use of new technology (digital cameras) may have influenced the counts, complicating comparisons between 2017 and past years. At their 2017 meeting, the WACH Working Group voted on the status of the herd, agreeing upon the conservative stable level (WACH WG 2017, **Table 1**). While population numbers alone indicate liberal management, the Working Group supported maintaining conservative management due to the use of new technology and because a large proportion of the herd is currently young caribou that are still vulnerable to harsh winters (WACH WG 2017).

ADF&G attempted another photocensus in 2018, but could not complete one due to weather and insufficient aggregation of the caribou (NWARAC 2019). At their 2018 meeting, the WACH Working Group voted to maintain the herd's status at the conservative stable level since updated population data was not available. ADF&G completed a photocensus in July 2019, and results are currently being analyzed (Hansen 2019, pers. comm.).

Between 1970 and 2017, the bull:cow ratio exceeded critical management levels in all years except 1975, 2001, and 2014 (**Figure 3**). Reduced sampling intensity in 2001 likely biased the 2001 bull:cow ratio low (Dau 2013). Since 1992, the bull:cow ratios has trended downward (Dau 2015a). The average annual number of bulls:100 cows was greater during the period of population growth (54:100 between 1976–2001) than during the recent period of decline (44:100 between 2004–2016). Additionally, Dau (2015a) states that while trends in bull:cow ratios are accurate, actual values should be interpreted with caution due to sexual segregation during sampling and the inability to sample the entire population, which likely account for more annual variability than actual changes in composition.

Although factors contributing to the decline are not known with certainty, increased adult cow mortality, and decreased calf recruitment and survival played a role (Dau 2011). Since the mid-1980s, adult mortality has slowly increased while recruitment has slowly decreased (Dau 2013, **Figure 4**). Prichard (2009) developed a population model specifically for the WACH using various demographic parameters. Prichard (2009) found adult survival to have the largest impact on population size, followed by calf survival and then parturition rates.

Calf production has likely had little influence on the population trajectory (Dau 2013, 2015a). Between 1990 and 2003, the June calf:cow ratio averaged 66 calves:100 cows/year. Between 2004 and 2016, the June calf:cow ratio averaged 71 calves:100 cows/year (**Figure 5**). In June 2016, 85 calves:100 cows were observed, which approximates the highest parturition level ever recorded for the herd (86 calves:100 cows in 1992) (Dau 2016a).

Decreased calf survival through summer and fall and recruitment into the herd are likely contributing to the current population decline (Dau 2013, 2015a). Fall calf:cow ratios indicate calf survival over summer. Between 1976 and 2017, the fall calf:cow ratio ranged from 35 to 59 calves:100 cows/year, averaging 47 calves:100 cows/year (**Figure 5**). Fall calf:cow ratios declined from an average of 46 calves:100

cows/year between 1990-2003 to an average of 42 calves:100 cows/year between 2004-2016 (Dau 2015a, **Figure 5**). Since 2008, ADF&G has recorded calf weights at Onion Portage as an index of herd nutritional status. In September 2015, calf weights averaged 100 lbs., the highest average ever recorded (Parrett 2015b).

Similarly, the ratio of short yearlings (SY, 10-11 months old caribou) to adults provides a measure of overwintering calf survival and recruitment. Between 1990 and 2003, SY:adult ratios averaged 20 SY:100 adults/year. Since the decline began in 2003 through 2016, SY:adult ratios have averaged 16 SY:100 adults/year (**Figure 5**). However, 23 SY:100 adults were observed during spring 2016 surveys, the highest ratio recorded since 2007 (Dau 2016b). 2017 and 2018 SY:adult ratios were also high at 22 SY:100 adults and 23 SY:100 adults, respectively (NWARAC 2019). The overwinter calf survival for the 2015 cohort (Oct. 2015-Jun. 2016) was 84% (Parrett 2016b). While 2016 indices suggest improvements in recruitment, the overall trend since the early 1980s has been downward (Dau 2015a, 2016b).

Cow mortality affects the trajectory of the herd (Dau 2011, 2013, NWARAC 2019). The annual mortality rate of radio-collared adult cows increased from an average of 15% between 1987 and 2003 to 23% from 2004–2014 (Dau 2011, 2013, 2014, 2015a, **Figure 4**). Mortality rates declined in 2015 and 2016, but then increased sharply in 2017. However, the increased mortality rate in 2017 may be due to a low and aging sample size as few caribou have been collared in the past two years (NWARAC 2019). Estimated mortality includes all causes of death including hunting (Dau 2011). Dau (2015a) states that cow mortality estimates are conservative due to exclusion of unhealthy (i.e. diseased) and yearling cows. Dau (2013) attributed the high mortality rate for 2011–2012 (33%, **Figure 4**) to a winter with deep snows, which weakened caribou and enabled wolves to prey upon them more easily. Prior to 2004, estimated adult cow mortality only exceeded 20% twice, but has exceeded 20% in 7 out of 9 regulatory years between 2004 and 2012 (**Figure 4**). The annual mortality rate was 8% as of April 2016 (Dau 2016b). This may fluctuate substantially throughout the year based on changing local conditions and harvest levels. Dau (2015a) indicates that mortality rates may also change in subsequent management reports as the fate of collared animals is determined, and that these inconsistencies are most pronounced for the previous 1–3 years.

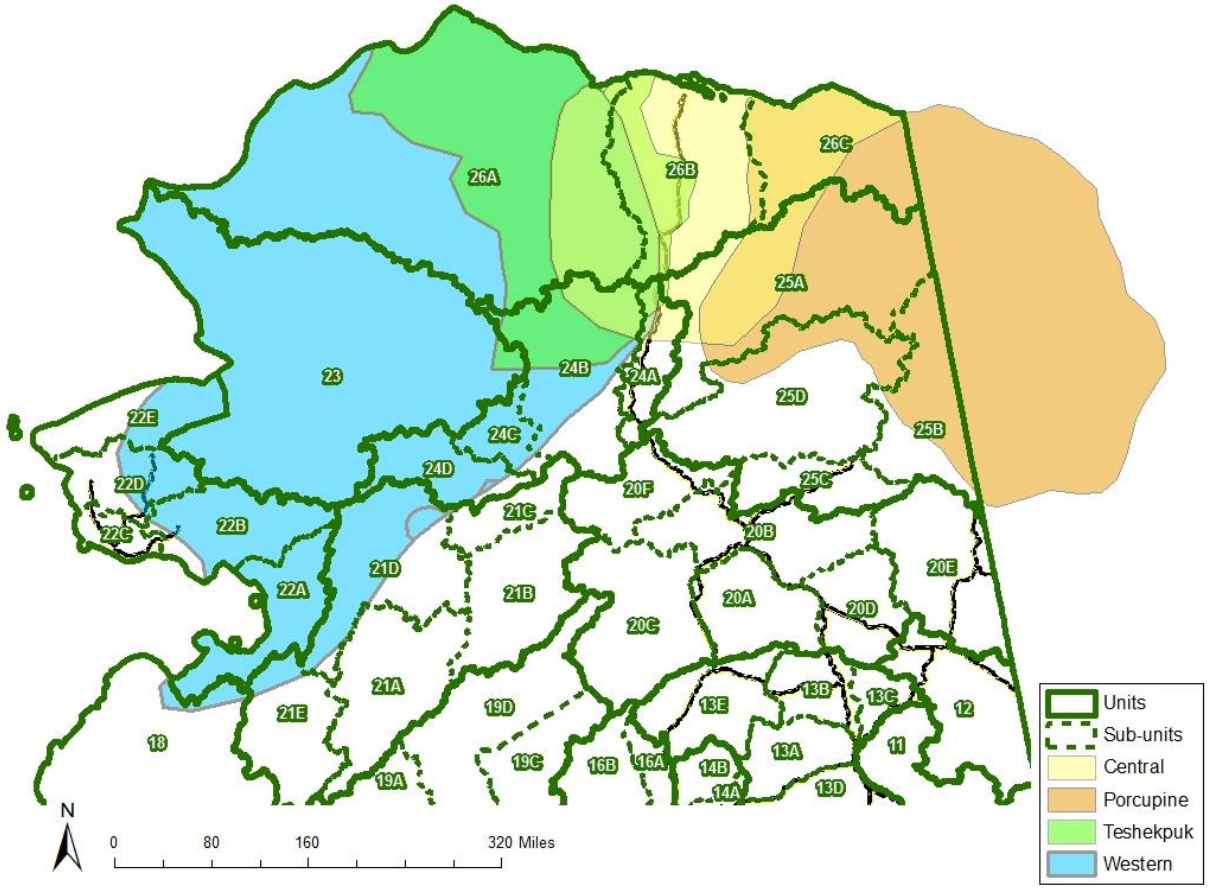
Far more caribou died from natural causes than from hunting between 1992 and 2012 (Dau 2013). Cow mortality remained constant throughout the year, but natural and harvest mortality for bulls spiked during the fall. Predation, particularly by wolves, accounted for the majority of natural mortality (Dau 2013). However as the WACH has declined and estimated harvest has remained relatively stable, the percentage of mortality due to hunting has increased relative to natural mortality. For example, during the period October 1, 2013 to September 30, 2014, estimated hunting mortality was approximately 42% and estimated natural mortality about 56% (Dau 2014). In previous years (1983–2013), the estimated hunting mortality exceeded 30% only once in 1997-1998 (Dau 2013). Additionally, Prichard (2009) and Dau (2015a) suggest that harvest levels and rates of cows can greatly impact population trajectory. If bull:cow ratios continue to decline, harvest of cows may increase, exacerbating the current population decline.

Dau (2015a) cites fall and winter icing events as the primary factor initiating the population decline in 2003. Increased predation, hunting pressure, deteriorating range condition (including habitat loss and fragmentation), climate change, and disease may also be contributing factors (Dau 2015a, 2014). Joly et

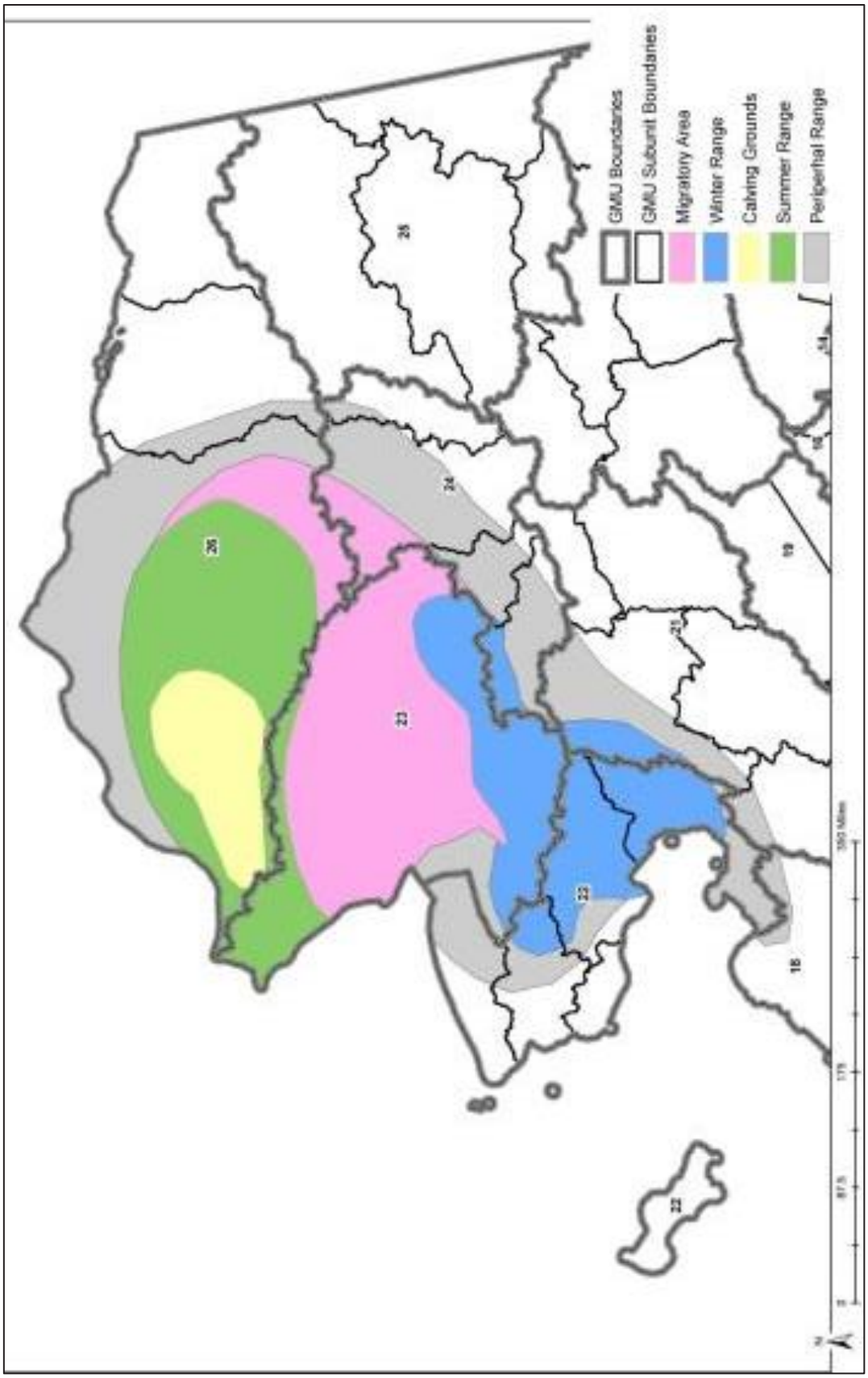
al. (2007) documented a decline in lichen cover in portions of the wintering areas of the WACH. Dau (2011, 2014) reported that degradation in range condition is not thought to be a primary factor in the decline of the herd because animals have generally maintained good body condition since the decline began. Body condition is assessed on a subjective scale from 1-5. The fall body condition of adult females in 2015 was characterized as "fat" (mean= 3.9/5) with no caribou being rated as skinny or very skinny (Parrett 2015b). However, the body condition of the WACH in the spring may be a better indicator of the effects of range condition versus the fall when the body condition of the herd is routinely assessed and when caribou are in prime condition (Joly 2015, pers. comm.).

Habitat

Caribou feed on a wide variety of plants including lichens, fungi, sedges, grasses, forbs, and twigs of woody plants. Arctic caribou depend primarily on lichens during the fall and winter, but during summer they feed on leaves, grasses and sedges (Miller 2003).



Map 3. Herd overlap and ranges of the WACH, TCH, CACH, and PCH.



Map 4. Range of the WACH.

Table 1. Western Arctic Caribou Herd management levels using herd size, population trend, and harvest rate (WACH Working Group 2011, 2015).

Management and Harvest Level	Population Trend			Harvest Recommendations May Include:
	Declining Low: 6%	**Stable Med: 7%**	**Increasing High: 8%**	
Liberal	Pop: 265,000+	Pop: 230,000+	Pop: 200,000+	• Reduce harvest of bulls by nonresidents to maintain at least 40 bulls: 100 cows • No restriction of bull harvest by resident hunters unless bull:cow ratios fall below 40 bulls:100 cows
	Harvest: 16,000-22,000	Harvest: 16,000-22,000	Harvest: 16,000-22,000	
Conservative	Pop: 200,000-265,000	Pop: 170,000-230,000	Pop: 150,000-200,000	• No harvest of calves • No cow harvest by nonresidents • Restriction of bull harvest by nonresidents • Limit the subsistence harvest of bulls only when necessary to maintain a minimum 40:100 bull:cow ratio
	Harvest: 12,000-16,000	Harvest: 12,000-16,000	Harvest: 12,000-16,000	
Preservative	Pop: 130,000-200,000	Pop: 115,000-170,000	Pop: 100,000-150,000	• No harvest of calves • Limit harvest of cows by resident hunters through permit hunts and/or village quotas • Limit the subsistence harvest of bulls to maintain at least 40 bulls:100 cows • Harvest restricted to residents only, according to state and federal law. Closure of some federal public lands to nonqualified users may be necessary
	Harvest: 8,000-12,000	Harvest: 8,000-12,000	Harvest: 8,000-12,000	
Critical Keep Bull:Cow ratio ≥ 40 Bulls:100 Cows	Pop: < 130,000	Pop: < 115,000	Pop: < 100,000	• No harvest of calves • Highly restrict the harvest of cows through permit hunts and/or village quotas • Limit the subsistence harvest of bulls to maintain at least 40 bulls:100 cows • Harvest restricted to residents only, according to state and federal law. Closure of some federal public lands to nonqualified users may be necessary
	Harvest: 6,000-8,000	Harvest: 6,000-8,000	Harvest: 6,000-8,000	

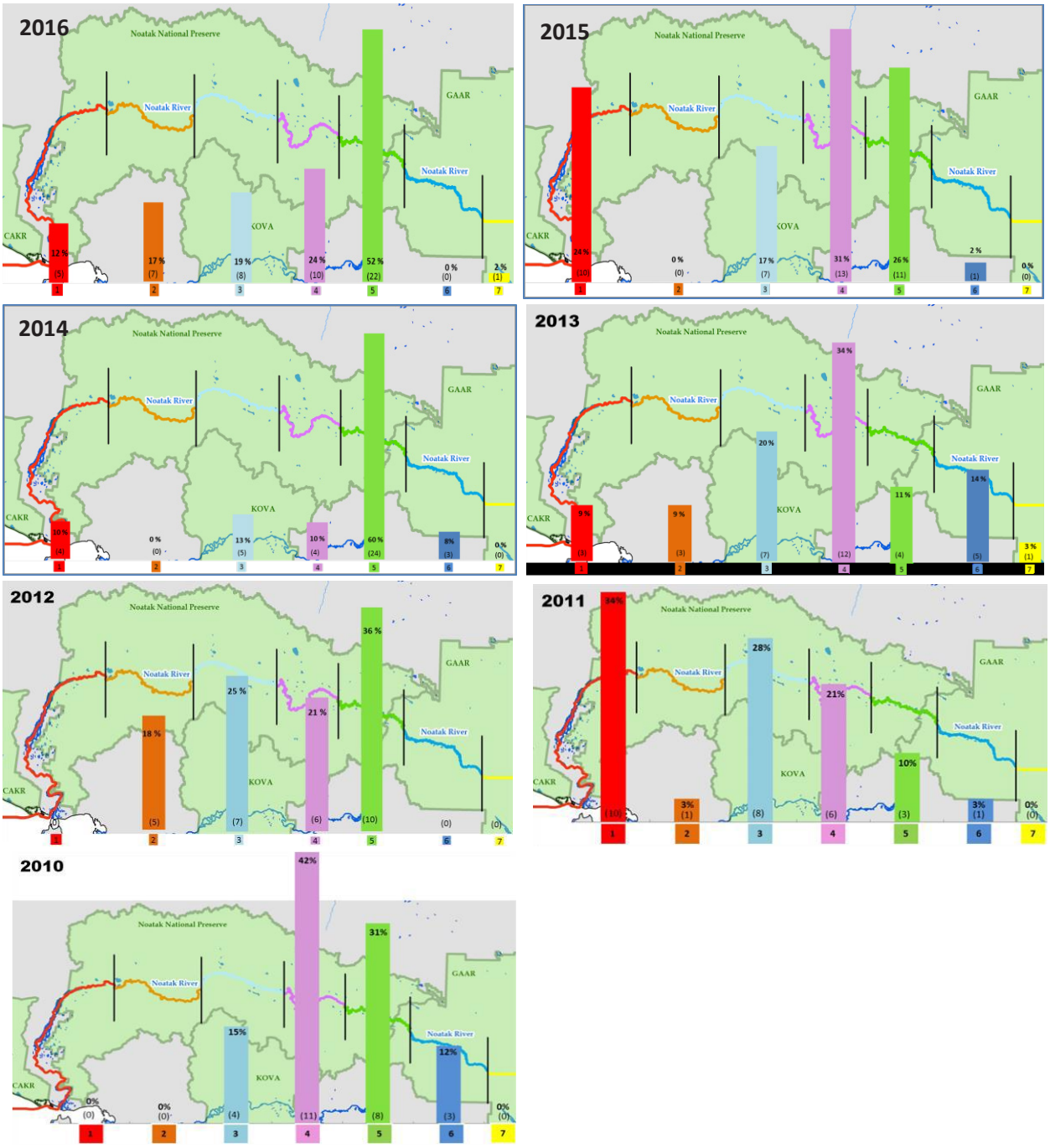


Figure 1. Distribution of caribou crossing the Noatak River during fall. Histograms depict where collared female caribou crossed the Noatak River, generally from north to south, on their fall migration. Relative percentages (top number) and the absolute number (middle number) of caribou are provided. The river is divided into seven (lowest number) color-coded segments which are displayed in the background. The middle five segments are 100 river kilometers long, while the westernmost segment (red) is 200 km (before extending into the Chukchi Sea) and the easternmost (yellow) runs as far east as WAH caribou are known to migrate. The number of caribou with GPS collars ranged from 39-79 caribou/year with later years having more collared caribou than earlier years (Joly and Cameron 2017).

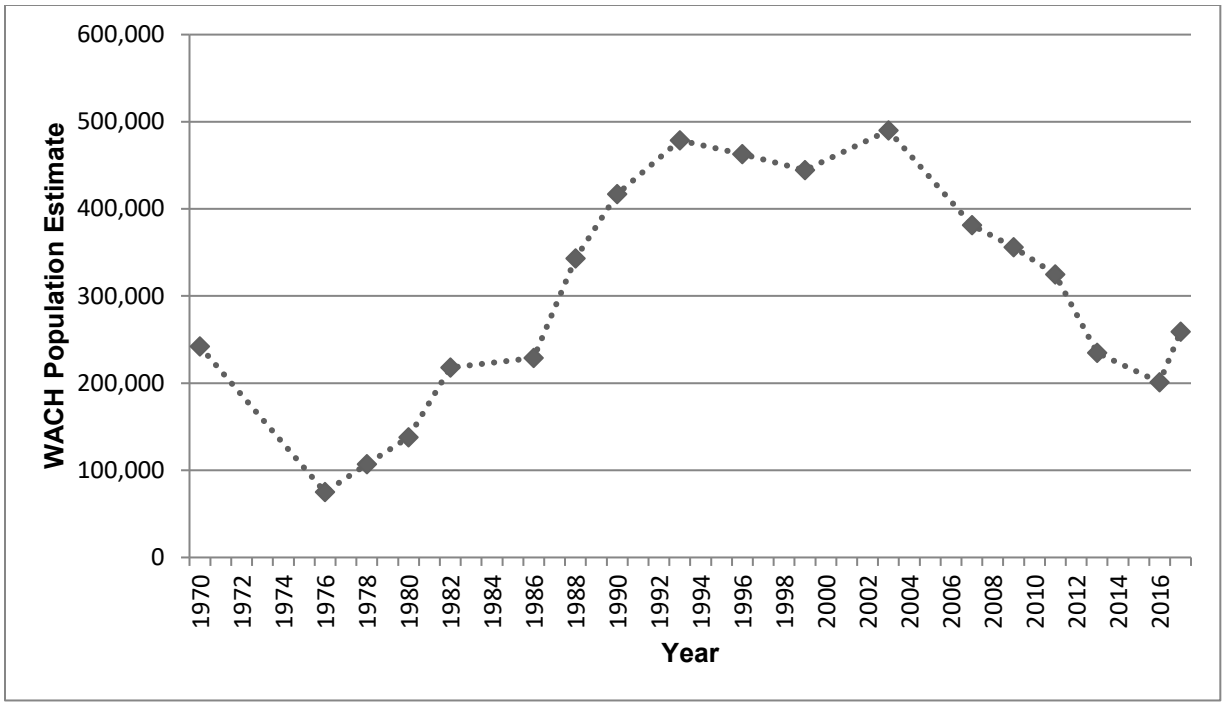


Figure 2. The WACH population estimates from 1970–2017. Population estimates from 1986–2017 are based on aerial photographs of groups of caribou that contained radio-collared animals (Dau 2011, 2013, 2014, Parrett 2016a, Parrett 2017a)**.**

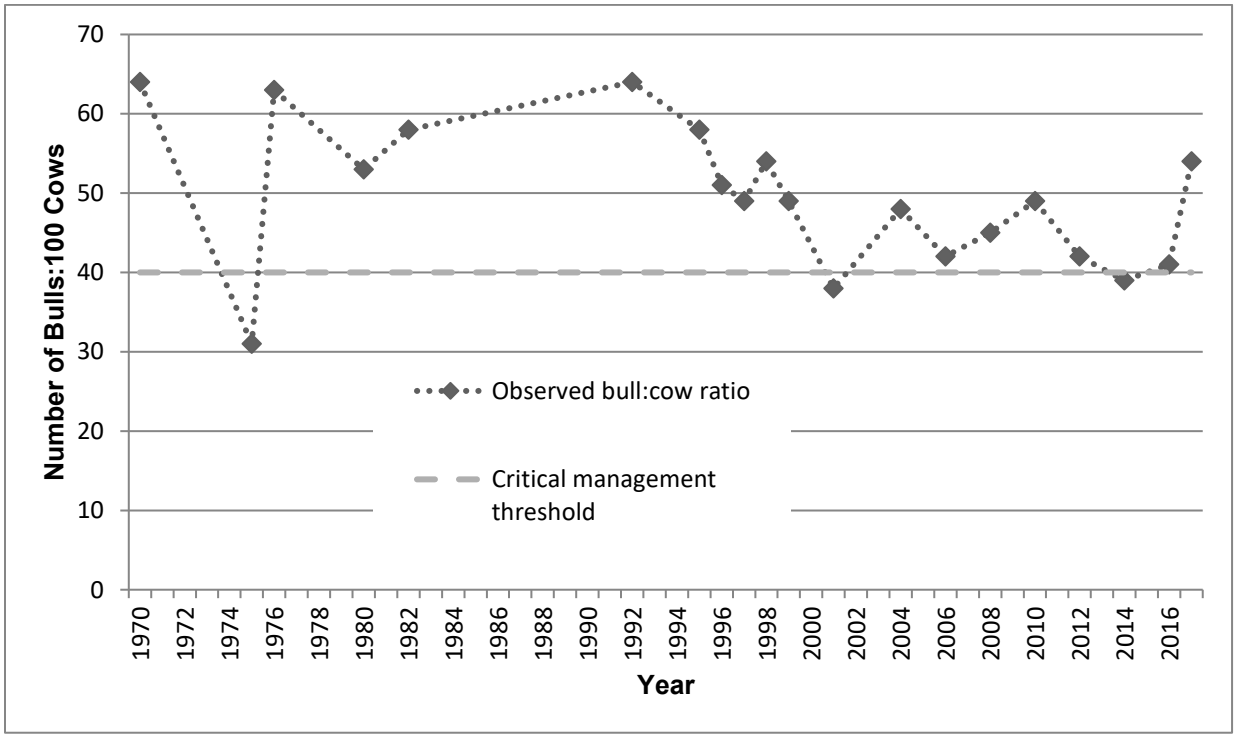


Figure 3. Bull:Cow ratios for the WACH (Dau 2015a, ADF&G 2017c, Parrett 2017a).

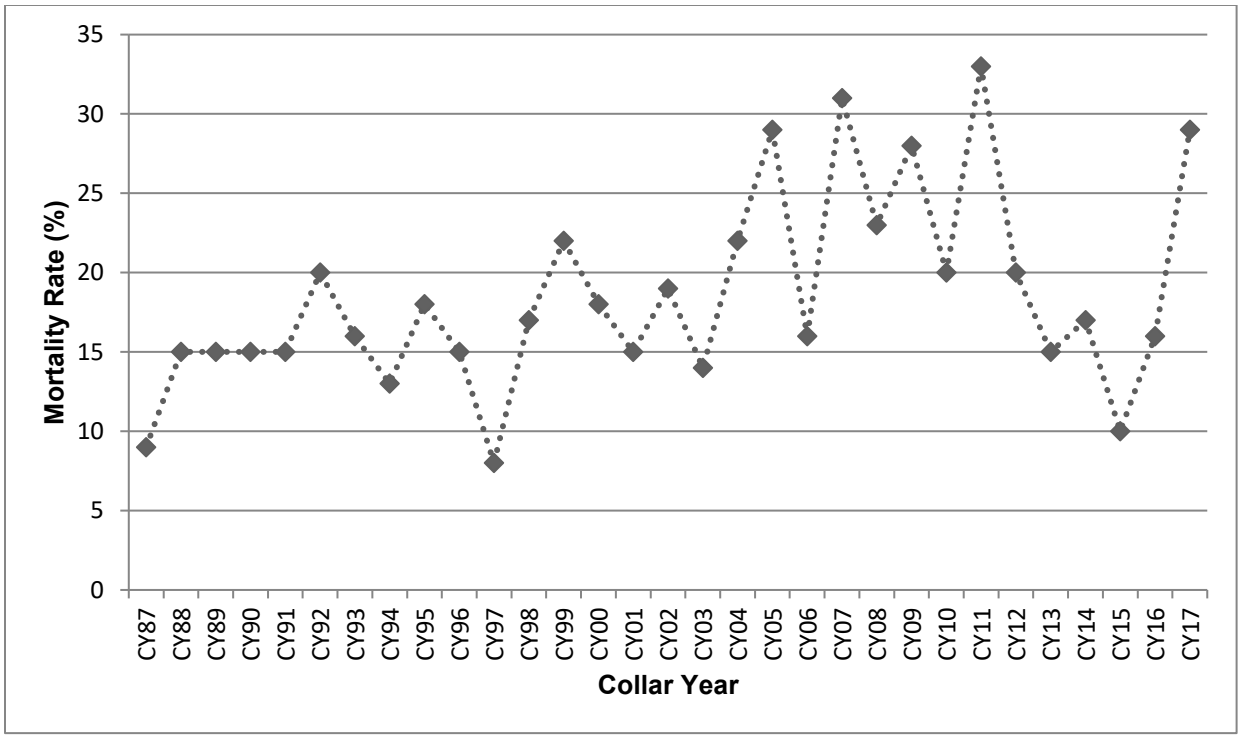


Figure 4. Mortality rate of radio-collared cow caribou in the Western Arctic caribou herd (Dau 2013, 2015a, 2016b, NWARAC 2019). Collar Year = 1 Oct-30 Sept.

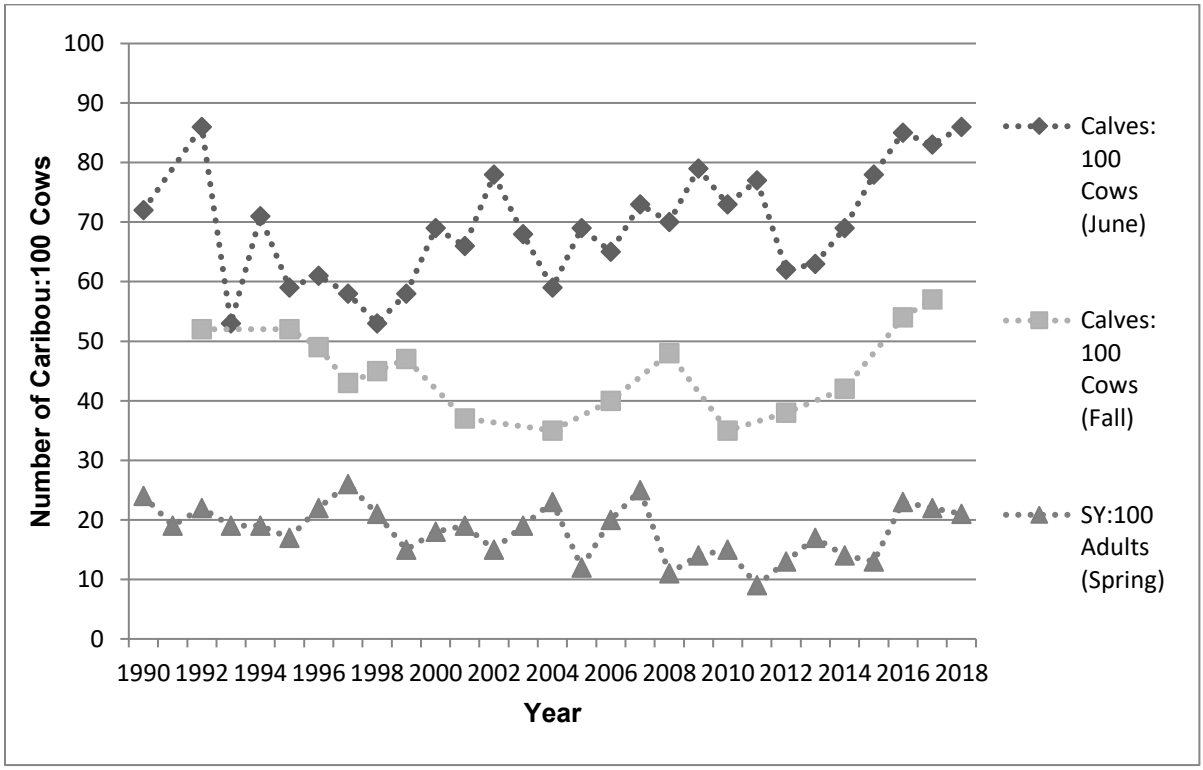


Figure 5. Calf:cow and short yearling (SY):adult ratios for the WACH (Dau 2013, 2015a, 2016a, ADF&G 2017c, Parrett 2017a, NWARAC 2019). Short yearlings are 10-11 months old caribou.

Cultural Knowledge and Traditional Practices

Meeting the nutritional and caloric needs of Arctic communities is vitally important and is the foundation of subsistence activities. However, the meaning of subsistence extends beyond human nutrition for Alaska's native peoples. Holthaus describes subsistence as the base on which Alaska Native cultures establish their identities through "philosophy, ethics, religious belief and practice, art, ritual, ceremony, and celebration" (2013: 70).

Earnest Burch describes the importance of caribou for the people of Northwest Alaska (Burch 1998). Caribou have been a primary resource for the Iñupiat of the Northwest Arctic Region for thousands of years. Caribou bones dating from 8,000 to 10,000 years ago have been excavated from archeological sites on the Kobuk River (ADF&G 1992). Historically, during fall and spring caribou migrations, people built "drive fences" out of cairns, bundles of shrubs, or upright logs. These fences were sometimes several miles long and two to three miles wide. Ideally, the closed end of the fence crossed a river, and caribou were harvested while crossing the river and retrieved later; or the fence would end in a corral where caribou were snared and killed with spears (Burch 2012). Burch notes: "The landscape of Northwest Arctic, especially in hills and mountains, is littered with the remains of drive fences that were in every stage of construction when they were abandoned" (2012:40).

Depending on where they were based, most Northwest Arctic Inupiaq Nations relied upon caribou as a primary food source and for their hides. Hides provided the best clothing material available to the Inupiat. Burch documents a preference for the late summer coats of caribou cows and calves, which were seen as providing both the softness and quality needed for high quality clothing, after the summer shedding and before acquiring a shaggy winter coat. While bulls were targeted for their fat stores and meat, cows and calves were targeted for their hides, which were considered prime during the early part of August (Burch 1998). The summer hunt's primary objective was the acquisition of hides. "It reportedly took two calf skins to make one parka, and every hunter tried to get at least twenty of them" (Burch 1998:163). Not only were the hides necessary to keep a family clothed during the winter; they also served as an important trade good.

The WACH population declined rapidly in the Northwest Arctic beginning in the late 1800s. At its low point, its range had shrunk to less than half its former size. Famine ensued, primarily due to the absence of caribou. In the early 1900s, reindeer were introduced to fill the need for food and hides. The WACH began to rebound in the 1940s. Caribou continue to be the most important land animal consumed in this region (Burch 1998, ADF&G 1992). Foote wrote about caribou hunting in the Noatak region sixty years ago, noting that life would not be possible in Noatak without this source of meat (1959, 1961).

Caribou were traditionally harvested any month of the year they were available in the Northwest Arctic Region. The objective of the summer hunt was to obtain the hides of adult caribou with their new summer coats. The fall hunt was to acquire large quantities of meat to freeze for winter (Burch 1994). Hunt timing changed—and continues to change— from year to year according to the availability of caribou and their migration paths (ADF&G 1991). Ideally, caribou harvesting occurs when the weather is cool enough to prevent spoilage of meat. If not, meat is frozen for later use. Caribou can be harvested in large

numbers, when available, and can be transported back to villages by boat before freeze-up. Hunters search for caribou and attempt to intercept them at known river crossings.

Prior to freeze-up, bulls have traditionally been preferred because they are fatter than cows (Braem et al. 2015, Georgette and Loon 1993). After freeze-up, small groups of caribou that have over-wintered may be harvested by hunters in areas that are accessible by snowmachine. Braem et al. explain, "Hunters harvest cows during the winter because they are fatter than bulls" (2015:141). Today, communities in the southern portion of Unit 23 (Buckland, Deering) harvest caribou in the winter and spring, while the other communities in Unit 23 harvest caribou in the fall, winter, and spring. Kivalina also harvests caribou in July (ADF&G 1992).

The present-day human population in Unit 23 includes 11 regional Inupiaq groups (Burch 1998). Kotzebue is the regional hub of transportation and commerce and is the home to the majority of non-Natives in the region. The population of Unit 23 was approximately 7,500 in 2010, according to the U.S. Census (ADOLWD 2016). Caribou continue to dominate the subsistence harvest of the region. In household harvest surveys conducted between 1964 and 2012, caribou were often the most harvested species, more than any other wild resource, in lbs. of edible weight (**Appendix 1**) (ADF&G 2016a). Based on these surveys, in a typical study year, the harvest of caribou was between 100 and 200 lbs. per person in northwest Alaska (**Appendix 1**) (ADF&G 2016a).

Present-day use of caribou calves appears to be limited, but does occur opportunistically. When calves are harvested, they can provide a special food for elders. At the winter 2019 Northwest Arctic Council meeting, one member from Kotzebue characterized local use of caribou calves: "We do use calves for baby garments, little mukluks and outfits and the meat is good for elders. They don't like tough food…these are desired food for elderly that is soft and tender, especially those in the long-term care" (NWARAC 2019:185). This member indicated that in cases in which calves are orphaned, they could go to good use by the community.

At the fall 2015 Northwest Arctic Council meeting, in the context of discussing cow closures due to heightened conservation concerns at that time, two members stated that local hunters do not take calves or want to take calves (NWARAC 2015). Elders in the region have participated in efforts to educate hunters to avoid orphaning caribou calves: at the fall 2018 Northwest Arctic meeting, Kotzebue community member Cyrus Harris read guidelines from the Caribou Hunter Safety Group into the record, which included advice to hunters about how to avoid accidentally taking cows with calves:

"Take your time. Observe caribou groups before you approach. Pick out the animals you want to harvest. Look for animals that are fat and in good shape before you shoot…When mature bulls are in the rut, younger bulls and barren cows can still provide good meat. Don't shoot cows with calves. If you want to take a cow, wait to see if it has a calf with it" (NWARAC 2018: 83).

There was discussion at the winter 2019 Northwest Arctic Council meeting regarding whether or not to submit a proposal mirroring WP20-44, which would rescind the ban on calf harvest. Council members explored the value of being able to take calves that have been orphaned, but had concerns about the feasibility of distinguishing between orphaned and merely temporarily separated calves in practice. There was also testimony regarding the possibility that orphaned calves may survive on their own or be adopted by

other cows in the herd, as has been observed by reindeer herders in the region. The member who had initially made a motion to submit a proposal to allow calf harvest withdrew her motion after hearing testimony from other Council members. The motion was still voted upon and failed unanimously.

Harvest History

The State manages the WACH on a sustained yield basis (i.e. managing current harvests to ensure future harvests). The harvestable surplus when the WACH population is stable is calculated as 7% of the estimated population (WACH working group 2011, Parrett 2017b, pers. comm.). In 2017, the WACH harvestable surplus was 18,130 caribou (7% of 259,000 caribou). Assuming the herd remained stable in 2018 and 2019, the harvestable surplus remains 18,130 caribou. This is a substantial increase from the 2016 harvestable surplus of 12,056 caribou when harvest likely exceeded sustainable levels. However, there is substantial uncertainty in harvestable surplus estimates (Parrett 2015a, Dau 2015a). Of particular concern is the overharvest of cows, which has probably occurred since 2010/11 (Dau 2015a). Dau (2015a:14-29) states, "even modest increases in the cow harvest above sustainable levels could have a significant effect on the population trajectory of the WACH."

Caribou harvest by local hunters is estimated from community harvest surveys, if available, and from models developed by A. Craig with ADF&G's Division of Wildlife Conservation Region V. These models incorporate factors such as community size, availability of caribou, and per capita harvests for each community, which are based on mean values from multiple community harvest surveys (Dau 2015a). In 2015, Craig's models replaced models developed by Sutherland (2005), resulting in changes to local caribou harvest estimates from past years. While Craig's models accurately reflect harvest trends, they do not accurately reflect actual harvest numbers (Dau 2015a). (Note: no model accurately reflects harvest numbers). This analysis only considers the updated harvest estimates using Craig's new model as cited in Dau (2015a). Caribou harvest by nonlocal residents and nonresidents are based on harvest ticket reports (Dau 2015a). Hunters considered local by ADF&G are functionally identical to Federally qualified subsistence users (e.g. Residents of St. Lawrence Island are technically Federally qualified subsistence users, but do not frequently harvest Western Arctic caribou) (**Map 1**).

From 2000–2014, the average estimated total harvest from the WACH was 11,984 caribou/year, ranging from 10,666-13,537 caribou/year (Dau 2015a, **Figure 6**). These harvest levels are within or below the conservative harvest level specified in the WACH Management Plan (**Table 1**). In 2015 and 2016, total local harvest estimates increased to 14,360 caribou and 14,971 caribou, respectively (Hansen 2019, pers. comm.). While these harvest estimates are below the 2017-2019 harvestable surpluses, they exceed the 2016 harvestable surplus. These are the most recent estimates available for local harvest. Of note, harvest estimates do not include wounding loss, which may be hundreds of caribou (Dau 2015a).

Local hunters account for approximately 95% of the total WACH harvest and residents of Unit 23 account for approximately 58% of the total harvest on average (**Figure 7**, ADF&G 2017c). Comparison of caribou harvest by community from household survey data (**Appendix A)** with **Figure 1** demonstrates that local community harvests parallel WACH availability rather than population trends. For example, Ambler only harvested 325 caribou when the WACH population peaked in 2003, but harvested 685 caribou in 2012

when most of the WACH migrated through eastern Unit 23. Similarly, Noatak only harvested 66 caribou in 2010 when no GPS-collared caribou migrated through western Unit 23. Harvest increased substantially (360 caribou) the following year when 37% of the GPS-collared caribou (and thus, a greater proportion of the WACH) migrated through western Unit 23.

Between 1998 and 2018, annual reported caribou harvest in Unit 23 ranged from 168-676 caribou (**Figure 8**). Over the same time period, reported harvest by non-Federally qualified users ranged from 131-657 caribou. The lowest reported harvest occurred in 2016 when all Federal public lands in Unit 23 were closed to non-Federally qualified users, but before registration permits were required for Federally qualified subsistence users. In 2017, the BOG began requiring registration permits, which is reflected in the greater number of reported caribou harvest by Federally qualified subsistence users (**Figure 8**). On average, 76% of WACH caribou harvested by nonlocals are harvested in Unit 23 (Dau 2015a).

From 1999-2013, 72% of nonlocal hunters on average accessed the WACH by plane. Most nonlocal harvest (85-90%) occurs between Aug. 25 and Oct. 7. In contrast, most local, subsistence hunters harvest WACH caribou whenever they are available using boats, 4-wheelers, and snowmachines (Dau 2015a, Fix and Ackerman 2015). In Unit 23, caribou are generally available during fall migration. In recent years, caribou migration has occurred later in fall, resulting in subsistence harvest also occurring later.

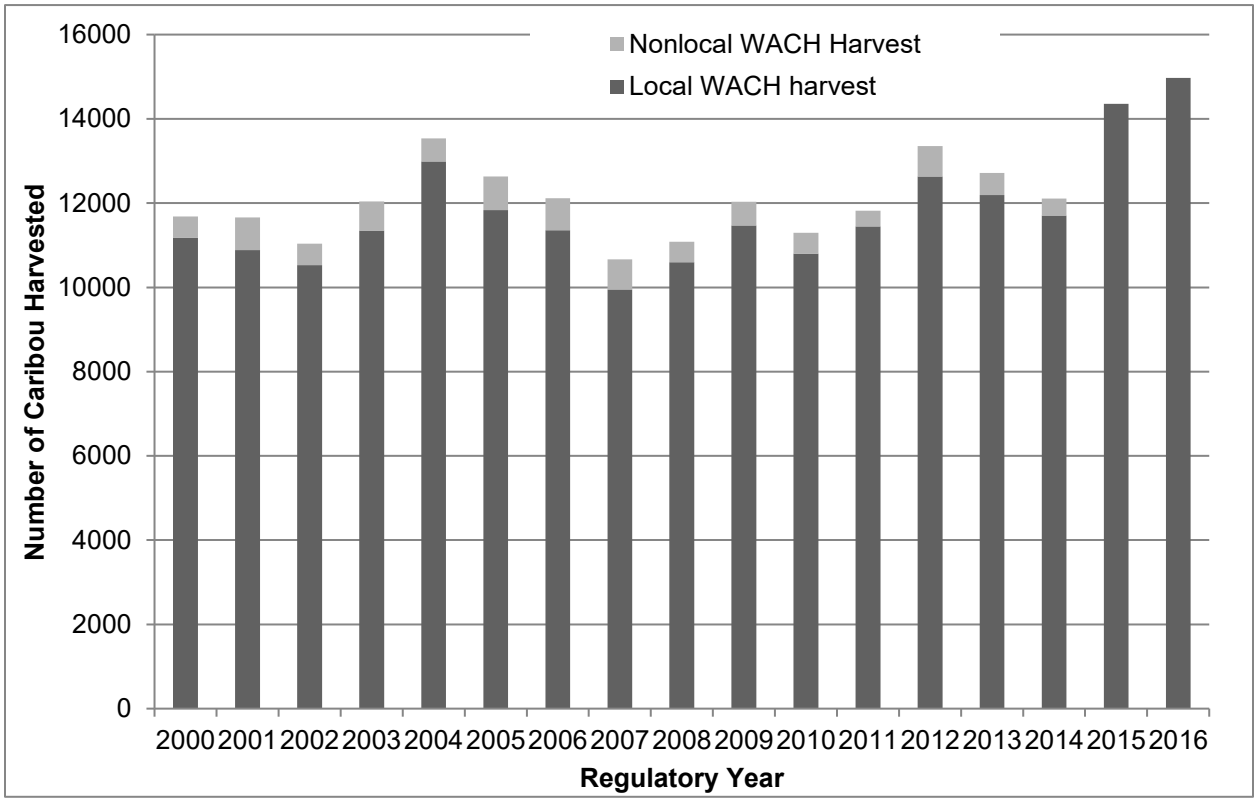


Figure 6. Estimated number of caribou harvested from the WACH by residency (Dau 2015a, Hansen 2019, pers. comm.).

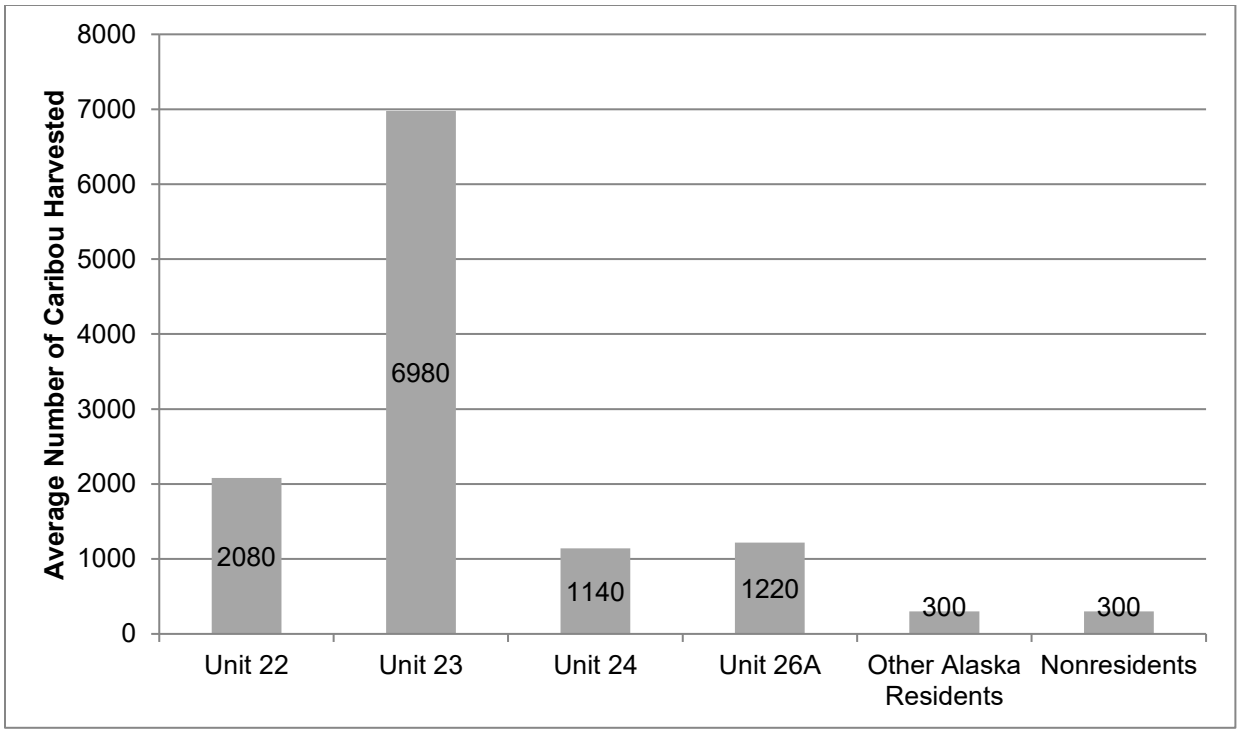


Figure 7. Average number of caribou harvested by unit and residency from 1998-2015 (ADF&G 2017c).

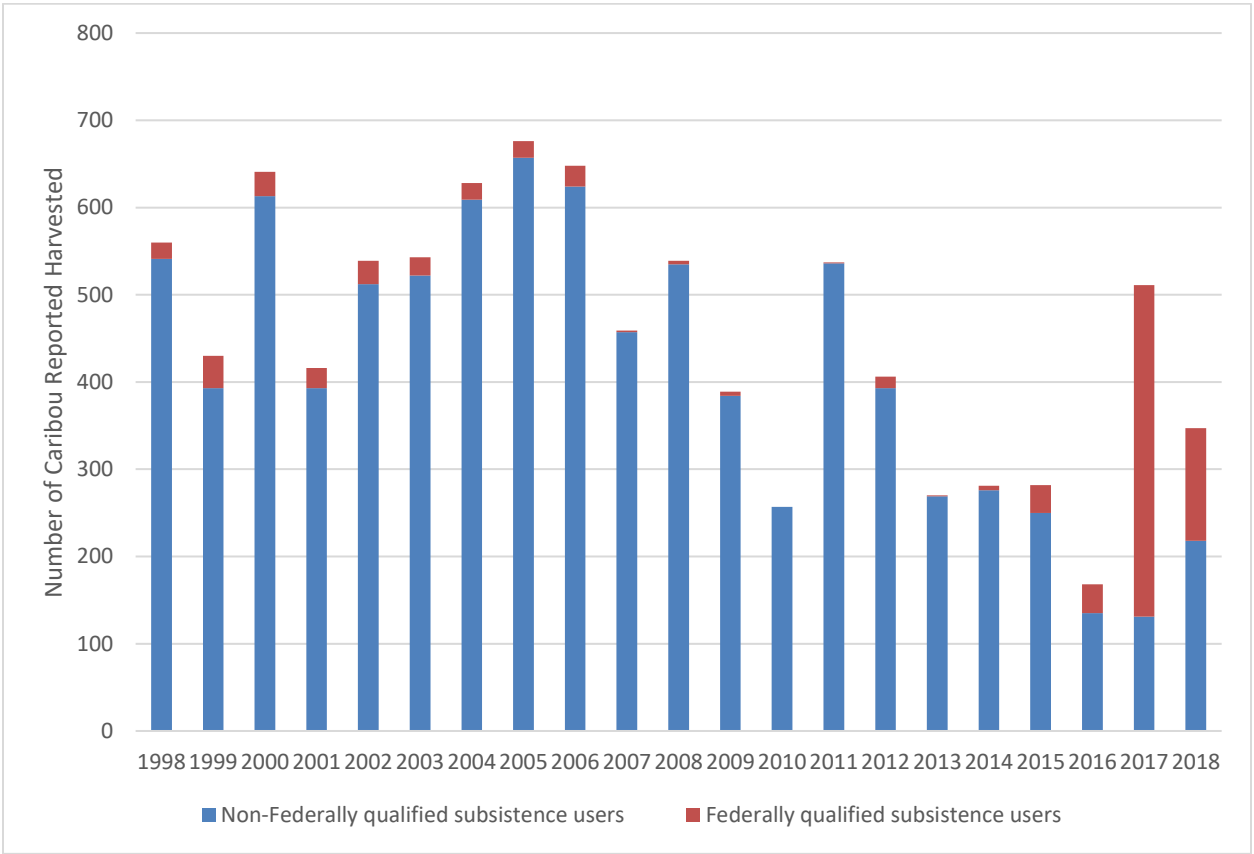


Figure 8. Reported caribou harvest in Unit 23 (WinfoNet 2018, 2019).

Other Alternatives Considered

One alternative considered was to maintain the prohibition on calf harvest. As described in the Cultural Knowledge and Traditional Practices of this analysis, some members and constituents of the Northwest Arctic Council have voiced opposition to the practice of harvesting caribou calves (NWARAC 2015; NWARAC 2018). Supporting calf harvest has the potential to undermine efforts by Kotzebue elders to educate hunters about respectful practices of selecting and hunting caribou that minimize the number of orphaned calves. Those Council members and constituents who have opposed calf harvest on record have indicated that not taking calves is a rule which informs their hunting and which contributes to the core identity of some subsistence hunters in the Northwest Arctic Region.

Under this alternative, the Office of Subsistence Management (OSM) recommends a year-round bull season for caribou but opposes permitting calf harvest in Unit 23. One of the purposes of the Alaska National Interests Land Conservation Act (ANILCA) is "to provide the opportunity for rural residents engaged in a subsistence way of life to do so" (§802(1)). Thus, increased harvest opportunity is supported, but so is practicing subsistence as a way of life, as defined locally. However, it is for the Councils, rather than OSM, to define what constitutes subsistence as a way of life for local constituents. Therefore, OSM considered and rejected this alternative. Traditions of taking or not taking calves may not be generalizable for all residents of the Northwest Arctic region as evidenced by differing opinions between members of the Northwest Arctic Council and the Kotzebue AC and WACH working group. The Northwest Arctic Council will have the opportunity to consider and discuss these proposals at their Fall 2019 meeting, and can choose to oppose or support these proposals on the record at that time.

Effects of the Proposal

If the Board adopts Proposal WP20-43/44/45/46, the bull caribou season would be open year-round and the harvest of calves would be permitted in Unit 23. This would increase harvest opportunity for Federally qualified subsistence users. No conservation concerns exist for allowing bull harvest during rut while calf harvest presents minimal conservation concerns.

Eliminating the bull closure would allow harvest of young bulls, which would reduce harvest pressure on cows, helping to grow the herd. As the timing of fall caribou migration has changed in recent years, it would also provide more harvest flexibility, alleviating pressure on Federally qualified subsistence users to harvest caribou during a particular timeframe (NWARAC 2019). While the risk of harvesting an unpalatable bull in rut exists, Federally qualified subsistence users had been selectively harvesting bulls before the closure was adopted in 2016. Furthermore, targeting younger bulls during rut is a recommended practice. The Native Village of Kotzebue (2018) produced an education flyer about winter caribou hunting, which included a recommendation to harvest younger bulls when mature bulls are in rut. The NANA regional corporation submitted comments to the BOG in 2015 in opposition to the bull closure to allow shareholders to harvest younger caribou for food security (Kramer 2015).

Eliminating the prohibition on calf harvest would allow the harvest of orphaned calves that may otherwise succumb to predation. However, it can be difficult to identify orphaned calves as caribou are scattered

across the landscape, and calves and cows can be separated by substantial distances. Additionally, orphaned calves may survive, especially if they remain with the herd. Russell et al. (1991) found survival rates of orphaned and non-orphaned calves were 63% and 78%, respectively, indicating orphaned calves still have a good chance of survival, although the sample size for orphaned calves was very small. The timing of abandonment also influences survival. Calves orphaned after weaning (October) have greater chances of survival than calves orphaned before weaning (Holand et al. 2012, Joly 2000, Russell et al. 1991, Rughetti and Fest-Bianchet 2014). As caribou migration has been occurring later in the fall, subsistence users are harvesting caribou in November rather than September, which could improve the chances of orphaned calves surviving. Additionally, educational initiatives by Unit 23 Caribou Hunter Success Working Group may help reduce the number of orphaned calves. This group is working to educate hunters on better hunting practices, including taking the time to identify cows with calves (Atkinson 2019, pers. comm.). Finally, a member of the public also testified that other cow caribou will adopt orphaned calves (NWARAC 2019).

Allowing calf harvest may also reduce wanton waste. A Northwest Arctic Council member noted that he has seen dead calves in the field, presumably mistakenly shot and then left since they are illegal to harvest (NWARAC 2019). The ADF&G caribou biologist stated many orphan calves have ended up around Kotzebue during the hunting season, but have been unavailable to harvest. He collared a few of these orphaned calves, all of which died shortly thereafter. He also stated that he receives many reports from hunters of orphaned and wounded calves out in the field that are not legally available for harvest (NWARAC 2019). In regards to the prohibition on the take of cows accompanied by calves, an NPS staff biologist voiced concern that unethical hunters could harvest calves and then harvest its mother, who would no longer be accompanied by a calf (NWARAC 2019).

The Western Arctic and Teshekpuk caribou herds are the only caribou herds in Alaska where calf harvest is prohibited. These restrictions were adopted by the BOG in 2015 and the Board in 2016 as conservation measures when both herds were declining. The WACH management plan also recommends prohibiting calf harvest when the herd is within the conservative management level. However, calves comprise a very small portion of the harvest. In his population model, Prichard (2009) assumed calves comprised only 2% of the total annual WACH harvest, which would not affect the population trajectory of the WACH. As most calves die within their first year and few hunters target calves, calf harvest may be compensatory mortality, although Prichard (2009) assumed all harvest mortality to be additive. While calf recruitment influences herd abundance and population trajectory, Prichard (2009) found adult survival to have the largest impact on WACH population size. Prohibiting cow harvest would have a greater impact on herd conservation than prohibiting calf harvest.

While calves were traditionally harvested for specific purposes, people no longer target calves in the Northwest Arctic region (NWARAC 2015, 2019). The Northwest Arctic Council discussed submitting a proposal to allow calf harvest at their winter 2019 meeting. One member mentioned that calves were traditionally used for garments and as food for elders. However, most members strongly opposed calf harvest due to conservation concerns and personal values, and the Council voted unanimously not to submit a proposal (NWARAC 2019).

§802(1) of ANILCA states, "consistent with sound management principles, and the conservation of healthy populations of fish and wildlife, the utilization of the public lands in Alaska is to cause the least adverse impact possible on rural residents who depend upon subsistence uses of the resources of such lands." While increasing harvest opportunity by liberalizing harvest limits and season lengths can certainly lessen adverse impacts on rural residents, OSM recognizes social and cultural concerns also affect the satisfaction of subsistence needs. While allowing calf harvest should not affect the conservation of the WACH and would increase harvest opportunities, maintaining the prohibition on calf harvest may be warranted due to socio-cultural concerns. Northwest Arctic Council members have stated on several occasions that no one hunts calves in the Northwest Arctic region and that hunting calves is wrong and unethical because calves are the future of the herd (NWARAC 2015, 2019). While the Northwest Arctic Council represents interests and concerns of Federally qualified subsistence users to the Board, subsistence users on the Kotzebue AC and the WACH Working Group support allowing calf harvest in the Northwest Arctic to utilize orphaned calves. The Northwest Arctic Council will have another opportunity to comment and vote on this issue at its 2019 fall meeting after considering the full analysis as well as any public and tribal comments.

The BOG will consider similar proposals at its Arctic/Western Region meeting in January 2020. If both the BOG and the Board adopt proposals to eliminate the bull closure and the prohibition on calf harvest, State and Federal regulations would maintain alignment, reducing user confusion. If only the BOG adopts these changes, Federal regulations would be more restrictive than State regulations, contrary to the rural subsistence priority mandated by ANILCA. However, Federally qualified subsistence users would still be able to harvest bulls year-round as well as calves under State regulations, except in National Parks and Monuments and the area closed to non-Federally qualified users around Noatak (see Federal regulation). Alternatively, if only the Board adopts these changes, Federal regulations would provide for a rural subsistence priority on Federal public lands only. Given that gravel bars below the mean high water mark are under State jurisdiction and that caribou are commonly harvested along rivers, lifting these restrictions under Federal regulations only could result in substantial user confusion and law enforcement concerns. Therefore, the BOG's decision on the bull closure and prohibition on calf harvest could affect the outcome of Proposals WP20-43/44/45/46.

OSM PRELIMINARY CONCLUSION

Support Proposal WP20-46 and **take no action** on Proposals WP20-43, WP20-44, and WP20-45.

Justification

Adopting Proposal WP20-46 increases harvest opportunity for Federally qualified subsistence users. Eliminating the bull closure may help grow the WACH by reducing harvest pressure on cows. As most people do not target calves, calf harvest is expected to be very low and should not affect the conservation of the herd. Additionally, allowing calf harvest may reduce wanton waste by allowing mistakenly shot calves to be legally salvaged, and would permit harvest of orphaned calves.

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Appendix 1

Estimated total caribou harvest by community, per capita caribou harvest by community, and data sources for Unit 23: Western Arctic caribou herd (ADF&G 2015).

Unit 23

Community	Year/Period	Est Caribou Harv.	# caribou per capita	Source
Ambler	2003	325	1.12	Georgette et al. 2005, unpublished data
	2009	456	1.75	Braem 2012
	2012	685	2.54	Braem et al. 2015
Buckland	2003	637	1.56	Magdanz et al. 2011
	2009	561	1.30	Braem 2012
Deering	1994	142	0.96	Magdanz et al. 2002
	2007-2008	182	1.37	Braem 2011
	2011-2012	237	1.91	Braem 2011
	2013	393	2.85	ADF&G unpublished data
Kiana	1999	488	1.23	ADF&G unpublished data
	2006	306	0.77	Magdanz et al. 2011
	2009	440	1.18	Braem 2012
Kivalina	1982	346	0.48	CSIS
	1983	564	0.78	CSIS
	1992	351	0.49	CSIS
	2007	268	0.67	Magdanz et al. 2010
	2010-2011	86	0.23	Braem et al. 2014
Kobuk	2004-2005	134	1.06	ADF&G unpublished data
	2009	210	1.72	Braem 2012
	2012	119	0.84	Braem et al. 2015
Kotzebue	1986	1917	0.71	Georgette and Loon 1993
	1991	3782	1.04	CSIS
	2001	2376	0.77	Whiting 2003
	2002	1719	0.56	Whiting 2003
	2003	1915	0.61	Whiting 2003
	2012-2013	1804	0.56	CSIS
	2013-2014	1629	0.51	ADF&G unpublished data
Noatak	1994	615	1.62	Magdanz et al. 2002
	1999	683	1.61	Georgette et al 2000., unpubd data
	2002	410	0.90	Georgette et al. 2004, unpubd data
	2007	441	0.90	Magdanz et al. 2010
	2010	66	0.13	Braem et al. 2014
	2011	360	0.66	Mikow et al. 2014
Noorvik	2002	988	1.46	Georgette et al. 2004, unpubd data
	2008	767	1.19	Braem et al. 2012
	2012	851	1.36	CSIS

-continued-

Unit 23, continued

Community	Year/Period	Est Caribou Harv.	# caribou per capita	Source
Point Hope	1994-1995	355	0.49	Bacon et al. 2009, rev. 2011
	2000-2001	219	0.31	Bacon et al. 2009, rev. 2011
Selawik	1999	1289	1.68	CSIS
	2006	934	1.11	CSIS
	2011	683	0.79	Braem et al. 2013
Shungnak	1998	561	2.17	Georgette 1999, unpubd data
	2002	403	1.62	Magdanz et al. 2004
	2008	416	1.53	Braem 2012
	2012	396	1.47	Braem et al. 2015

WP20–47 Executive Summary	
General Description	Wildlife Proposal WP20-47 requests closure of the cow moose season and to require the use of a State registration permit (RM880) to harvest moose in Unit 23. *Submitted by: Northwest Arctic Subsistence Regional Advisory Council.*
Proposed Regulation	**Unit 23—Moose** *Unit 23—that portion north and west of and including the Singoalik River drainage, and all lands draining into the Kukpuk and Ipewik Rivers—1 ~~moose~~* ***bull by State registration permit.*** ~~*Bulls may be harvested*~~ July 1 - Dec. 31 ~~*Cows may be harvested*~~ ~~*Nov. 1 – Dec. 31*~~ *No person may take a calf ~~or a cow accompanied by a calf~~* *Unit 23, remainder—1 ~~moose~~* ***bull by State registration permit.*** ~~*Bulls may be harvested*~~ Aug. 1 - Dec. 31 ~~*Cows may be harvested*~~ ~~*Nov. 1 – Dec. 31*~~ *No person may take a calf ~~or a cow accompanied by a calf~~*
OSM Preliminary Conclusion	**Support** Wildlife Proposal WP20-47 **with modification** to change the harvest limit from "one bull" to "one antlered bull". The modified regulation should read: **Unit 23—Moose** *Unit 23—that portion north and west of and including the Singoalik River drainage, and all lands draining into the Kukpuk and Ipewik Rivers—1 ~~moose~~* ***antlered bull by State registration permit.*** ~~*Bulls may be harvested*~~ *July 1 - Dec. 31*

WP20–47 Executive Summary	
	~~*Cows may be harvested*~~ ~~*Nov. 1 – Dec. 31*~~ *No person may take a calf* ~~*or a cow accompanied by a calf*~~ *Unit 23, remainder—1* ~~*moose*~~ ***antlered bull by State registration permit.*** ~~*Bulls may be harvested*~~ *Aug. 1 - Dec. 31* ~~*Cows may be harvested*~~ ~~*Nov. 1 – Dec. 31*~~ *No person may take a calf* ~~*or a cow accompanied by a calf*~~
Northwest Arctic Subsistence Regional Advisory Council Recommendation	
North Slope Subsistence Regional Advisory Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	**None**

DRAFT STAFF ANALYSIS
WP20-47

ISSUES

Wildlife Proposal WP20-47, submitted by the Northwest Arctic Subsistence Regional Advisory Council (Council), requests closure of the cow moose season and to require the use of a State registration permit (RM880) to harvest moose in Unit 23.

DISCUSSION

The proponent is concerned about declines in the Unit 23 moose population. The Council states that they would like to eliminate the cow moose season and require the use of the State registration permit to conserve cows, improve harvest reporting, and in turn, help the Unit 23 moose population recover. The Council also mentions that this request would align State and Federal regulations, which would reduce user confusion in the area.

Existing Federal Regulation

Unit 23—Moose

Unit 23—that portion north and west of and including the Singoalik River drainage, and all lands draining into the Kukpuk and Ipewik Rivers—1 moose

Bulls may be harvested	*July 1 - Dec. 31*
Cows may be harvested	*Nov. 1 – Dec. 31*
No person may take a calf or a cow accompanied by a calf	

Unit 23, remainder—1 moose

Bulls may be harvested	*Aug. 1 - Dec. 31*
Cows may be harvested	*Nov. 1 – Dec. 31*
No person may take a calf or a cow accompanied by a calf	

Proposed Federal Regulations

Unit 23—Moose

Unit 23—that portion north and west of and including the Singoalik River drainage, and all lands draining into the Kukpuk and Ipewik Rivers—1 ~~moose~~ ***bull by State registration permit.***

~~Bulls may be harvested~~	*July 1 - Dec. 31*

~~*Cows may be harvested*~~	~~*Nov. 1 - Dec. 31*~~
No person may take a calf ~~*or a cow accompanied by a calf*~~	
Unit 23, remainder—1 ~~*moose*~~ ***bull by State registration permit.***	
~~*Bulls may be harvested*~~	*Aug. 1 - Dec. 31*
~~*Cows may be harvested*~~	~~*Nov. 1 - Dec. 31*~~
No person may take a calf ~~*or a cow accompanied by a calf*~~	

Existing State Regulation

Unit 23—Moose

Unit 23, north of and including Singoalik River drainage		
Residents—One antlered bull by permit available in person at license vendors within Unit 23 villages June 1-July 15	*RM880*	*July 1-Dec 31*
or		
Residents—One bull with 50-inch antlers or antlers with 4 or more brow tines on at least one side	*HT*	*Sept 1-Sept 20*
Nonresidents		*No open season*
Unit 23, remainder		
Residents—One antlered bull by permit available in person at license vendors within Unit 23 villages June 1-July 15	*RM880*	*Aug 1-Dec 31*
or		
Residents—One bull with 50-inch antlers or antlers with 4 or more brow tines on at least one side	*HT*	*Sept 1-Sept 20*
Nonresidents—One bull with 50-inch antlers or antlers with 4 or more brow tines on at least one side by permit	*DM872/874-876/885*	*Sept 1-Sept 20*

Extent of Federal Public Lands

Federal public lands comprise approximately 71% of Unit 23 and consist of 40% National Park Service (NPS) managed lands, 22% Bureau of Land Management (BLM) managed lands, and 9% U.S. Fish and Wildlife Service (USFWS) managed lands (**Figure 1**).

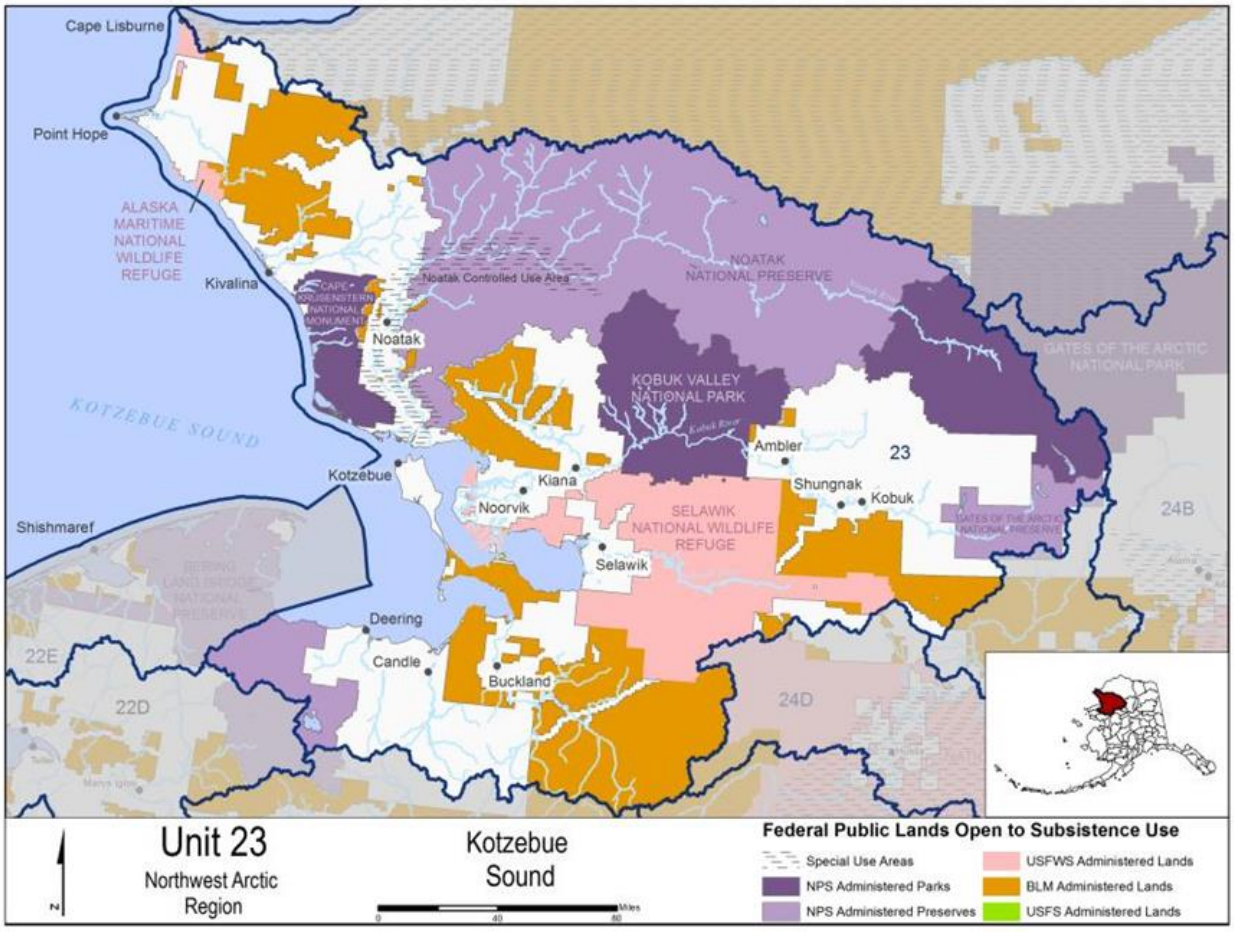

Figure 1. Federal public lands in Unit 23.

Customary and Traditional Use Determinations

Residents of Unit 23 have a customary and traditional use determination for moose in Unit 23.

Regulatory History

In 1994, the Federal moose hunt in Unit 23 consisted of three hunt areas: Unit 23 north and west of and including the Singoalik River drainage, and all lands draining into the Kukpuk and Ipewik rivers (Unit 23 NW), Unit 23 within the Noatak River drainage, and Unit 23 remainder. The harvest limit in each hunt area was one moose with a prohibition on the take of cows accompanied by calves. The season in the Unit 23 NW hunt area was July 1-Mar. 31; the season in the Noatak River drainage hunt area was Aug. 1-Sept. 15 and Oct. 1-Mar. 31, although antlerless moose could only be taken Nov. 1-Mar. 31; the season in Unit 23 remainder was Aug. 1-Mar. 31.

State moose regulations became more restrictive in 2003 when Alaska Board of Game (BOG) approved amended Proposal 15 (effective starting with the 2004/05 regulatory year), making it more difficult for nonlocal residents to hunt moose, creating four registration hunts in the unit with permits (RM880) only available in person at licensed vendors in Unit 23 villages from June 1-July 15. This early availability of

permits occurred before most of the seasons opened, requiring nonlocal hunters to make a special trip to a Unit 23 village in order to receive a permit. These permits also allowed for better tracking of harvest.

In 2005, Proposal WP05-18, submitted by the Council, requested prohibiting the harvest of calves, shortening the season for moose in most of Unit 23 from July 1 (or Aug. 1)-Mar. 31 to Aug. 1-Dec. 31 (five month season), combining the Noatak drainage and remainder hunt areas, and allowing antlerless moose to be harvested only in November and December. The Federal Subsistence Board (Board) tabled this proposal in response to a Council recommendation to provide time for residents of local villages to review the proposal and provide their input due to differing viewpoints related to the moose population and local subsistence needs (FSB 2005).

In 2006, Proposal WP06-54 was submitted by the Council to replace WP05-18, requesting that the harvest of moose calves be prohibited and that the two week seasonal closure (Sept. 16-30) in the Noatak River drainage hunt area be rescinded. The Board adopted WP06-54 under its consensus agenda.

In January 2017, the BOG adopted amended Proposal 36, changing the antlerless moose season in Unit 23 to one antlered bull due to conservation concerns (ADF&G 2017a). Of note, nonresident drawing permits had been reduced from 50 permits in 2016/17 to 34 permits in 2017/18 and, later in 2017, the Alaska Department of Fish and Game (ADF&G) cancelled the 2017/18 nonresident moose hunt in Unit 23, voiding all issued permits (ADF&G 2017a, 2017b, NWARAC 2017a, Saito 2017 pers. comm.).

In April 2017, the Board rejected Temporary Special Action WSA17-02, which requested that Federal public lands in Unit 23 be closed to moose harvest by non-Federally qualified users during the 2017/18 regulatory year. The Board stated that they wanted to allow time to assess the effects of recent State actions prior to considering a unit-wide closure.

During the 2018/20 regulatory cycle, the Council (WP18-41) and Louis Cusack (WP18-42) submitted similar proposals requesting changes to the Unit 23 moose season, including shortening the cow and overall moose seasons and aligning Federal and State hunt areas. Specifically, WP18-41 requested combining the Noatak River drainage and remainder hunt areas, changing the closing date of the bull season from Mar. 31 to Dec. 31, and restricting cow harvest to Nov. 1–Dec. 31. The Board adopted Proposal WP18-41 to protect the declining moose population and took no action on WP18-42.

In 2018, Emergency Special Action WSA18-04, which requested closing the cow moose season in Unit 23, was submitted to the Board. The Board approved with modification to close the Federal winter cow moose season and close moose hunting in Unit 23 except by Federally qualified subsistence users for the 2018/19 regulatory year. ADF&G also closed the non-resident moose season in Unit 23 and planned to continue the nonresident closure until moose populations rebound (NWARAC 2018a).

Controlled Use Areas

In 1988, the BOG established the Noatak Controlled Use Area (CUA) in part, “to help reduce harvests on a declining moose population” (ADF&G 1988:47, Alaska Board of Game 1995: 1). In 1990, the Noatak CUA was adopted under Federal subsistence regulations. The Noatak CUA is closed to the use of aircraft

in any manner for big game hunting, including transportation of big game hunters, their hunting gear, and/or parts of big game from Aug. 15-Sep. 30. Currently, the Noatak CUA under State regulations consists of a corridor extending five miles on either side of, and including, the Noatak River beginning at the mouth of Agashashok River, and extending upstream to the mouth of the Nimiuktuk River. Currently, the Noatak CUA under Federal regulations consists of a corridor extending five miles on either side of the Noatak River beginning at the mouth of the Noatak River and extending upstream to the mouth of Sapun Creek.

In 2011, Selawik National Wildlife Refuge designated refuge lands in the northwest portion of the refuge as closed to big game hunting by commercial guides and transporters through their comprehensive conservation plan (FWS 2011, 2014). These refuge lands are intermingled with private lands near the villages of Noorvik and Selawik. The purpose of this closure was to minimize trespass on private lands and to reduce user conflicts (FWS 2011).

Current Events

The Council also submitted a wildlife special action request (WSA19-04) to close the cow moose harvest for the 2019/20 regulatory year to ensure that the cow harvest in the unit remains closed until the Board can take action on this regulatory proposal.

The State of Alaska submitted written comments in support of WSA19-04. The State mentioned that the moose population has declined from an estimate of 7,500 moose in 2017 to a current population estimate of 5,600.

Biological Background

Moose first appeared in eastern Unit 23 during the 1920s, expanding their range from the east. Over the next several decades, moose spread northwest across Unit 23 to the Chukchi Sea coast (**Figure 2**) (LeResche et al. 1974, Tape et al. 2016, Westing 2012). The Unit 23 moose population grew through the late-1980s (Westing 2012). This rise in population was followed by severe winters and extensive flooding from 1988-1991 which, in conjunction with predation by brown bears and wolves, reduced the population and overall moose density (Westing 2012).

State management objectives for moose in Unit 23 include (Saito 2014):

- Maintain a unit-wide adult moose population of 8,100-10,000 moose
    - Noatak River and northern drainages 2,000-2,300 moose
    - Upper Kobuk River drainage 600-800 moose
    - Lower Kobuk River drainage 2,800-3,400 moose
    - Northern Seward Peninsula drainages 700-1,000 moose
    - Selawik River drainage 2,000-2,500 moose
- Maintain a minimum fall ratio of 40 bulls:100 cows, except in the Lower Kobuk where bull:cow ratios are skewed by its disproportional use by maternal cows. The higher bull:cow ratio goals are due to the low densities and wide distribution of moose throughout Unit 23 (Saito 2014).

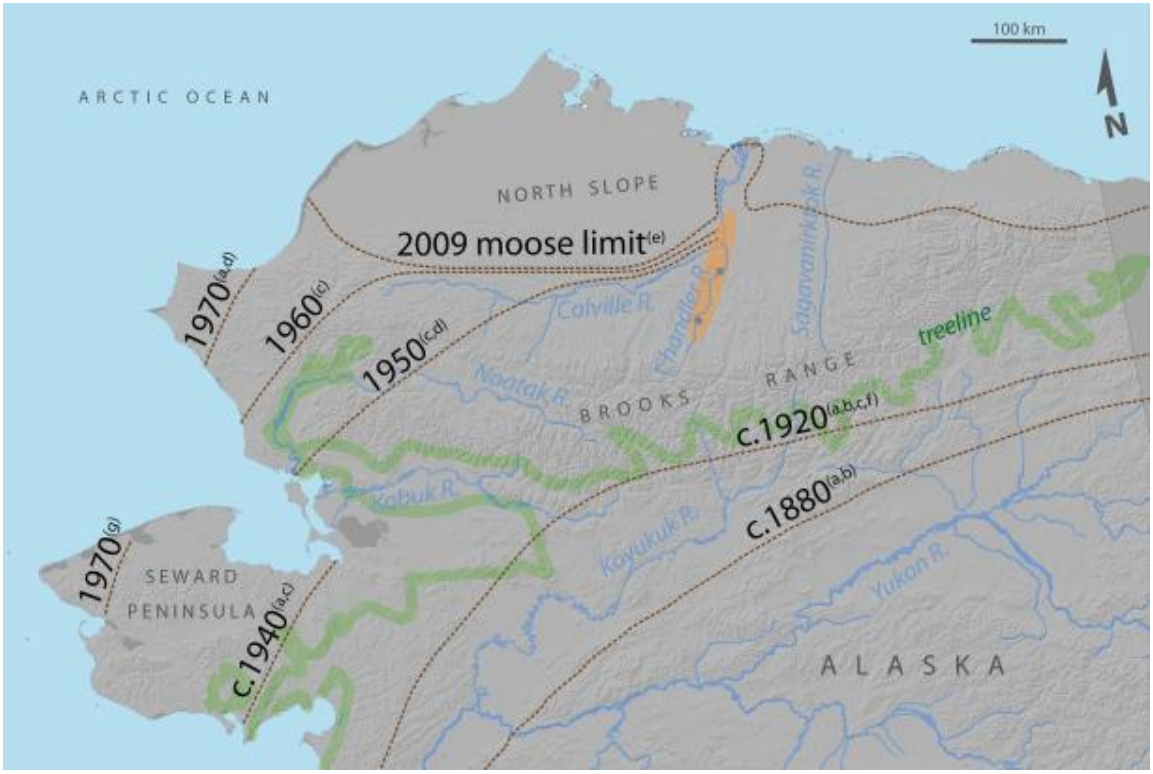

Figure 2. Temporal moose distribution changes in northern Alaska (figure from Tape et al. 2016).

ADF&G, in cooperation with Federal partners, conducts spring population and fall composition surveys for moose in Unit 23. Surveys are conducted within census areas on a rotating basis with each census area being surveyed approximately every five years (**Figure 3**) (Alaska Board of Game 2017). Census areas have fluctuated throughout the years due to time and financial constraints as well as evolving survey techniques (Saito 2017, pers. comm.). In 2012, the Squirrel River drainage was moved from the Lower Noatak census area to the Lower Kobuk census area (Saito 2014). In 2014, the Upper Kobuk census area was expanded to include previously unsurveyed areas (Saito 2017, pers. comm.). Current census areas are static for the foreseeable future.

Moose density is primarily influenced by local factors such as snow depth, fire frequency, forage availability, and predators (Gasaway et al. 1992, Stephenson et al. 2006, Boertje et al. 2009, Street et al. 2015). Therefore, moose in Unit 23 are not evenly distributed across the landscape, with some drainages experiencing higher densities of moose than others. Between 2001 and 2017, total moose densities ranged across census areas from 0.03-0.7 moose/mi² while adult moose densities ranged from 0.03-0.59 moose/mi² (**Table 1**) (Robison 2017, Saito 2014, 2016a, pers. comm.).

Since 2009, the estimated moose population in every census area has declined (**Figure 4**), and the most recent population estimates are well below population objectives in every area except the Upper Kobuk, which just meets its lower population objective (**Table 2**) (Saito 2014, 2016a, pers.comm., Robison 2017, NWARAC 2019). An estimated 70% of the Unit 23 moose population is found in the Selawik, Lower Kobuk, and Lower Noatak River census areas (NWARAC 2018a). All three of these areas have

experienced >40% population declines since 2011. (Note: Both the old (smaller) and new (larger) Upper Kobuk census areas were surveyed in 2014. The old census area data is depicted in **Figure 3** for better comparability across years while the new census area data is listed in **Table 2**).

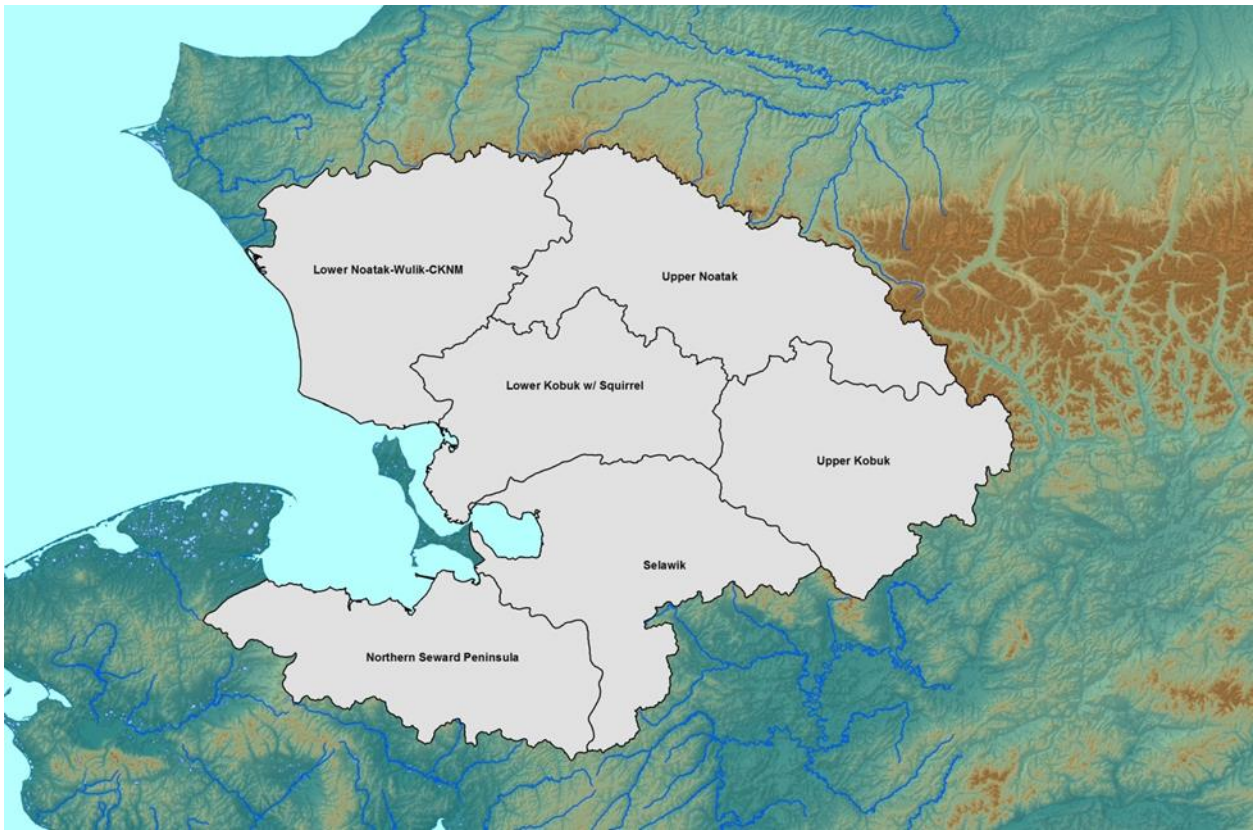

Figure 3. ADF&G moose census areas in 2017 (figure from Saito 2017, pers. comm.).

In 2016 and 2017, ADF&G provided a unit-wide population estimate of 7,500 moose (ADF&G 2017a). In 2018, ADF&G estimated the Unit 23 moose population at 6,300 moose, representing a 16% decline in the unit-wide population estimate (NWARAC 2018a). The Council and the public have also repeatedly reported at recent meetings that there are noticeably fewer moose than in the past (NWARAC 2017b, 2018a).

ADF&G conducts composition surveys in the fall to estimate bull:cow and calf:cow ratios. In 2008, ADF&G changed the methodology of fall composition surveys, and data are not comparable between survey methods (Saito 2014). From 2004-2007, Unit 23 bull:cow ratios averaged 39 bulls:100 cows. Since 2008, bull:cow ratios have ranged across survey areas from 34-54 bulls:100 cows, although composition surveys are conducted sporadically (**Table 3**) (Saito 2014, 2016a pers.comm., 2018 pers. comm.). However, in all census areas with multiple composition surveys since 2008, bull:cow ratios have declined and are below or near the State management objectives (**Table 3**).

Table 1. Moose population data collected during spring population census surveys in Unit 23 since 2001. The Upper Kobuk was surveyed in 2014 using both the older census area and the updated census area (Robison 2017; Saito 2016a pers. comm., 2018 pers. comm., NWARAC 2019).

Census Area	Year	Moose Observed	Total Moose Estimated	Census Area (mi^2)	Area Surveyed (mi^2)	Total Density ($/mi^2$)	Adult Density ($/mi^2$)	Calves :100 adults
Lower Noatak-Upper Squirrel	2001	709	1731	5230.2	832.0	0.33	0.30	10
	2005	575	1838	5349.7	915.5	0.34	0.30	13
	2008	596	2008	5349.7	1510.4	0.38	0.33	13
Lower Noatak-Wulik	2008	685	2273	6404.5	--	0.35	0.31	14
	2013	413	1478	6404.5	1310.2	0.23	0.21	11
	2018	--	866	--	--	--	--	--
Upper Noatak	2010	100	153	4485.6	1972.1	0.03	0.03	12
N. Seward Peninsula	2002	520	612	5888.5	1220.7	0.10	0.10	7
	2004	610	810	5882.9	1934.3	0.14	0.12	12
	2009	293	966	5773.2	1271.2	0.17	0.16	8
	2014	264	--	--	--	--	--	12
	2015	310	617	5767.8	1791.2	0.11	0.09	15
Upper Kobuk	2003	252	856	4001.5	895.4	0.21	0.19	12
	2006	219	737	4001.5	973.7	0.18	0.16	15
	2014	136	538	3990.8	839.2	0.13	0.13	7
	2014	186	727	5056.8	1082.5	0.14	0.13	7
	2019	--	601	--	--	--	--	23
Lower Kobuk	2006	1532	3398	4870.5	1457.6	0.70	0.59	15
	2012	789	2497	4870.5	1457.6	0.51	0.48	8
Lower Kobuk-Squirrel	2012	789	2546	5338.0	1290.8	0.48	0.44	8
	2017	796	1346	5338.0	--	0.25	--	15
Selawik	2007	678	2319	6580.1	1845.2	0.35	0.32	10
	2011	448	1739	6559	1289.1	0.27	0.24	11
	2015	532	--	--	--	--	--	14
	2016	520	940	6559	2273	0.14	0.13	14

Fall calf:cow ratios of < 20 calves:100 cows, 20-40 calves:100 cows, and > 40 calves:100 cows may indicate declining, stable, and growing moose populations, respectively (Stout 2010). Since 2008, calf:cow ratios have ranged across survey areas from 4-24 calves:100 cows (**Table 3**) (Saito 2014, 2016a pers. comm., 2018 pers. comm.). These low calf:cow ratios indicate the Unit 23 moose population is declining, with the possible exception being the Lower Kobuk survey area which has a larger percentage of maternal cows. During spring population surveys, ratios of calves:100 adults are also estimated as a measure of recruitment. Between 2001 and 2019, ratios ranged across survey areas from 7-23 calves:100 adults (Saito 2016a, pers. comm., 2018, pers. comm., Robison 2017, NWARAC 2019). No clear trend is detectable with ratios increasing over time in some survey areas and decreasing or fluctuating in others.

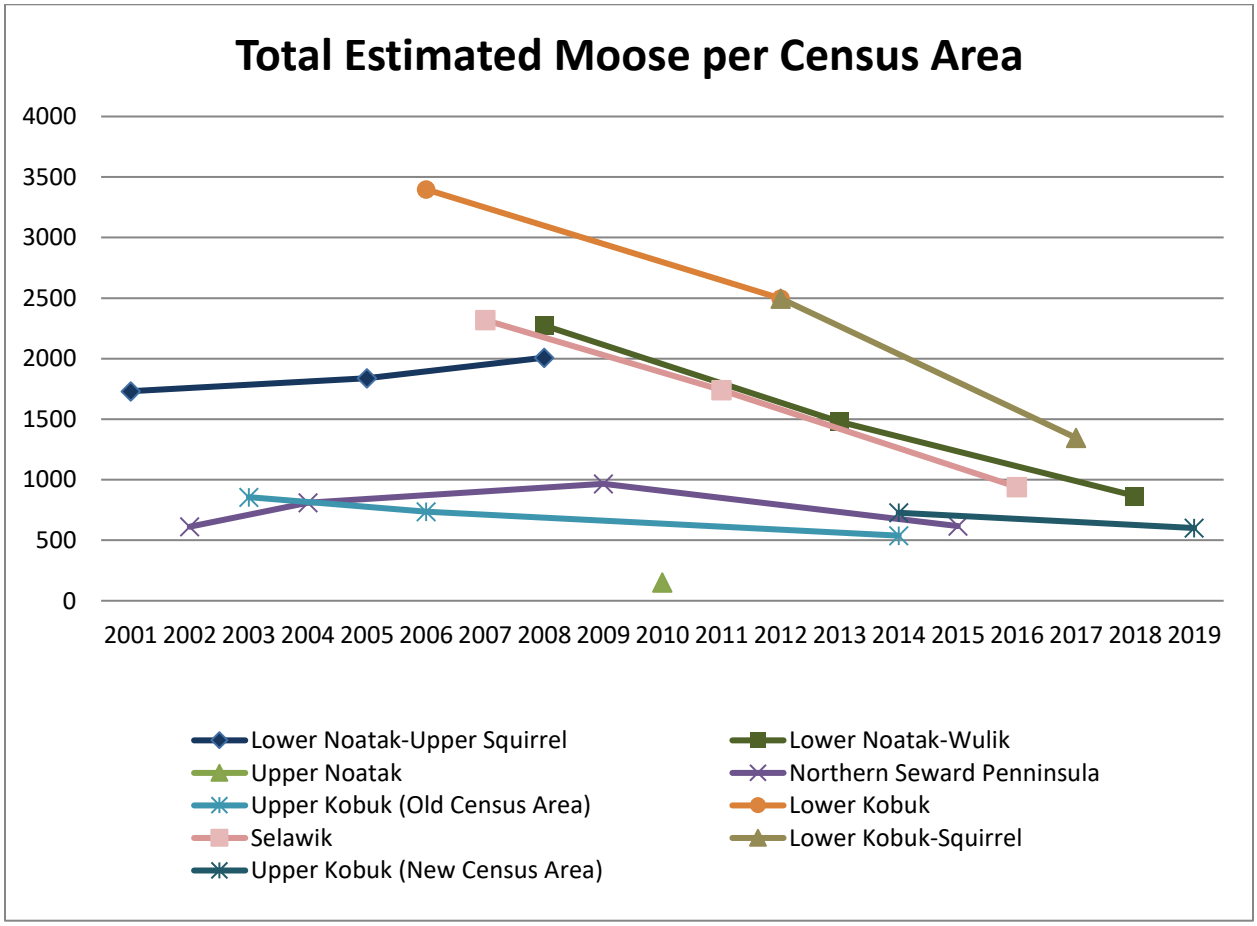

Figure 4. Total moose population estimates from 2001 to 2019 by census area. The old Upper Kobuk and new Upper Kobuk census area population estimates are both shown here (Robison 2017, Saito 2016a, pers. comm., NWARAC 2019).

While predation by brown bears, black bears, and wolves affects moose population dynamics in Unit 23, the overall level of impact of predators in relation to other factors such as weather, snow depth, disease, and human harvest is unknown, although deep snow and icing events limit moose movements, increasing their susceptibility to predation (Saito 2014, Fronstin 2018 pers. comm.). Relatively high moose densities and calf:cow ratios in the Kobuk River delta, where predator populations are lower due to its proximity to year-round human travel routes, suggest predators may be affecting moose in the more remote portions of

the unit (Saito 2014). However, preliminary results from the first 6 months of a 3-year calf survival study in the Lower Kobuk drainage indicate 60% (46 out of 77) of collared calves died from bear predation, which is comparable to other moose populations in Alaska (Hansen 2018 pers. comm., NWARAC 2018b). As humans primarily harvest bull moose and bull:cow ratios have not substantially declined across years despite substantial population declines, human harvest may not be a limiting factor (NWARAC 2017a).

Table 2. Comparisons across Unit 23 study areas of the most recent moose population estimates, population objectives, and harvestable surpluses. The harvestable surplus is calculated as 6% of the population. The Upper Kobuk census area represents the updated census area that was created in 2014. The spring 2017 and 2018 surveys in the Lower Kobuk and Lower Noatak-Wulik survey areas, respectively are incorporated in the table, but not into the extrapolated population total. Extrapolated total incorporates estimated populations in non-surveyed portions of Unit 23 (Robison 2017, Saito 2016a pers. comm., 2018 pers. comm., NWARAC 2018a, 2019).

Unit 23 Study Area	Most Recent Survey Year	Population Estimate	Population Objective	% Below Population Objective	Harvestable Surplus
Noatak River Drainages	2010 (Upper) 2018 (Lower)	1019	2,000-2,300	49	61
Lower Kobuk River Drainage	2017	1,346	2,800-3,400	52	81
Upper Kobuk River Drainage	2019	601	600-800	0	36
Selawik River Drainage	2016	940	2,000-2,500	53	56
Northern Seward Peninsula	2015	617	700-1,000	12	37
Total		**4,523**			**271**
Extrapolated 2017 Total		**7,500**			**450**
Extrapolated 2018 Total		**6,300**			**378**

Table 3. Bull:cow and calf:cow ratios in fall composition surveys conducted after 2007 (Saito 2014, 2016a pers. comm., 2018 pers. comm.).

Survey Area	Year	Bulls:100 Cows	Calves:100 Cows
Selawik	2008	54	18
	2010	47	19
	2015	43	20
Lower Kobuk	2011	45	15
	2017	38	24
Lower Noatak	2013	53	4
	2018	41	17
Northern Seward Peninsula	2009	53	4
Seward Peninsula	2014	34	16

Habitat is not thought to be a limiting factor (NWARAC 2018a). Moose rely on willow and shrub habitats for browsing and for cover from predators. Shrub and willow productivity, height, and cover have

increased and expanded in Unit 23 in response to rising average temperatures (Tape et al. 2016). Taller vegetation provides more suitable cover and increased available forage above the snowpack (Tape et al. 2016). Wildfire (the primary driver of boreal forest succession) frequency and shrub habitat is also forecasted to increase in Northern Alaska as the Arctic climate warms, resulting in more moose habitat in Unit 23 (Joly et al. 2012, Swanson 2015). During a 2005 habitat survey in Unit 23, willows did not appear to be over-browsed by moose (Westing 2012). A 2017 browse survey, completed in the Lower Kobuk, suggested that winter forage is not a limiting factor for moose populations (NWARAC 2018a). Twinning rates are another indicator of habitat and food limitations. In 2016, 41% of cows surveyed in Unit 23 had twins, further suggesting food is not a limiting factor and the population is not experiencing a density-dependent response (NWARAC 2018a).

Cultural Knowledge and Traditional Practices

Unit 23 encompasses the Northwest Arctic Borough, which was established in 1986 and is home to 7,523 residents from 11 communities (NAB 2016). Approximately 86% of the residents identify as Alaska Native or part Native, with the majority of these identifying as Iñupiat Eskimo (NAB 2016). The borough comprises approximately 39,000 mi^2 on which subsistence activities are a vital part of the lifestyle for local residents (NAB 2016).

Historically, the people of the Northwest Arctic lived in small family clusters that were spread widely across the landscape (Burch 1980: 265). It was not until the 20th century that most residents of the region became centralized in more permanent winter villages (Georgette and Loon 1993: 3). Kotzebue became the largest community in the region and is currently considered the hub of economic activity in the area. In 1985, Kotzebue was more than eight times larger than the average community in the region by population (2,633 individuals), and four times larger than the second largest community – Selawik (Georgette and Loon 1993: 3). In 2010 the population of Kotzebue was recorded as 3,201 individuals (DCCED 2016). The community is near the mouth of several major river systems. It is surrounded by the marine waters of Kotzebue Sound, and the original village was named "Qikiqtagruk" (Georgette and Loon 1993: 4).

The resources of the Northwest Arctic region are relatively rich and varied despite its high latitude (Burch 1984: 306). A variety of animal species are available and utilized for subsistence including marine mammals, terrestrial mammals, birds, and fish (Burch 1984: 306). Caribou has been a staple in the diet of many Iñupiat peoples for centuries (Georgette and Loon 1993: 78). In many parts of the Northwest Arctic, however, shifts in herd migration and size often cause variability in the availability of this resource, with the use of caribou and harvest strategies often changing accordingly over time (Georgette and Loon 1993: 78).

Despite the diversity of resources in the region, moose are a relatively recent addition, especially in lowland and coastal areas (Georgette and Loon 1993: 83). Archaeological sites in tundra and northern tree-line areas of Alaska have reported few moose remains until the mid-20th century and this is consistent with historical accounts and minor representation in Iñupiat culture (Hall 1973, Coady 1980, Tape et al. 2016). Reports of nineteenth century explorers also lacked observations of moose along the Kobuk, Noatak, or Colville Rivers, as well as along the Arctic coast (Coady 1980).

Moose were present in the tributaries of the upper and middle Noatak River in the 1940s and became more common downriver after 1960 (Georgette and Loon 1993: 83). In the upper Kobuk River, moose did not appear until the 1920s but soon thereafter populated the entirety of the drainage (Georgette and Loon 1993: 83). Uhl and Uhl (1977) reported that residents of the Cape Krusenstern area lacked historic traditions that included moose. By the 1980s, moose were present in suitable habitat throughout northwest Alaska (Georgette and Loon 1993: 84).

According to Georgette and Loon (1993), residents of Kotzebue continued to consider moose as secondary to caribou in their importance and desirability as a subsistence food; they were taken to add dietary variety. Residents hunted moose in the fall, but moose were also harvested throughout the winter as needed (Georgette and Loon 1993: 84). The relative size of moose made them more difficult to butcher and pack than caribou, and hunters often preferred to harvest the species as close as possible to the edge of a river or a lake in proximity to their boat (Georgette and Loon 1993: 84). Moose were generally prepared and preserved by similar means as caribou, most often aged and frozen (Georgette and Loon 1993: 84). The cartilaginous parts of the nose were the only part of the heads used. Because moose hides were not generally smoked or tanned, they were rarely salvaged (Georgette and Loon 1993: 84). Although much of this information was collected more than 25 year ago, much of this still holds true today.

The average per capita harvest of moose in Kotzebue in 1986 was 13 pounds, accounting for only 3% of the average household harvest (Georgette and Loon 1993: 84). Approximately 8% of Kotzebue households harvested moose (compared to 45% harvesting caribou), but 18% indicated that they hunted for moose but were unsuccessful (Georgette and Loon 1993: 84). Despite the small percentage of households harvesting moose, sharing of this resource was widespread with approximately 42% of households using it (Georgette and Loon 1993: 84). The use and harvest of moose by Kotzebue residents was similar in 2012 with approximately 13 pounds of this resource harvested per capita, 9% of households harvesting moose, and 37% of households using moose (ADF&G 2012).

The harvest and use of a resource in regional hubs may be different than that of a rural village since the former tends to be more heterogeneous in "culture, birthplace, education, employment, and length of residency" (Georgette and Loon 1993: 4). In 1992, the rural northwest arctic community of Kivalina harvested approximately 26 pounds of moose per capita, with 23% of the households harvesting the resource and 47% of households using the resource (ADF&G 1992). In 2010, residents of Kivalina harvested approximately 19 pounds of moose per capita with 13% of households harvesting the resource and 16% using the resource (ADF&G 2010).

Changes in harvest and use patterns may be attributable to many factors including the availability of moose and other resources in a given a year. Georgette and Loon (1993) suggested that future declines in caribou availability in the region could result in increased reliance on moose to meet the subsistence harvest demands of Kotzebue residents. Given recent declines in the Western Arctic Caribou Herd (Dau 2015), moose may already be becoming a more prominently sought after resource for meeting subsistence needs in the region.

Harvest History

Harvest data is derived from State harvest reports and community household surveys. Community household surveys are used, in part, as a method to determine whether harvest is being reported accurately in State harvest reports. Harvest reports provide data on an annual basis. Community household surveys gather data from local communities pertaining to subsistence harvest on an irregular basis, with many communities only being visited once over a five year time span. In Unit 23, community household surveys show that moose harvest is underreported by local users (users residing in Unit 23), but nonlocal user harvest can be assumed accurate based on the requirement of registration permits and drawing permits in some areas. This section will discuss State harvest report data prior to reviewing community household survey data.

Between 2005 and 2018, total reported moose harvest in Unit 23 ranged from 55-189 moose, averaging 137 moose (**Table 4**) (ADF&G 2016, 2018a). The lowest reported harvest was in 2018, after ADF&G cancelled the nonresident moose season and Federal public lands were closed to moose harvest except by Federally qualified subsistence users (WSA18-04). Local resident (residents of Unit 23), nonlocal resident, and nonresident reported harvest averaged 73 moose (54%), 42 moose (31%), and 21 moose (15%) per year, respectively (**Table 4**) (ADF&G 2016, 2018a). Cows comprised 7% of the annual reported harvest on average, with 1-21 cows being harvested each year, although the actual cow harvest is likely double what is reported (Alaska Board of Game 2017). The vast majority of moose are harvested in September (**Figure 5**) (WINFONET 2017). Since 2006, more moose have been harvested from the Kobuk River drainage than from other drainages within Unit 23 (**Figure 6**) (ADF&G 2017a).

Table 4. Reported moose harvest in Unit 23 for 2005-2018 from ADF&G harvest ticket and permit reports (ADF&G 2016, 2018a).

Year	Local Resident Harvest	Nonlocal Resident Harvest	Nonresident Harvest	Total Harvest	Male	Female	Unknown
2005	65	41	41	148	137	10	1
2006	79	49	30	159	150	7	2
2007	64	29	25	123	116	7	0
2008	62	48	40	151	143	7	1
2009	80	50	23	155	144	10	1
2010	102	63	22	189	169	17	3
2011	72	45	26	144	133	11	0
2012	75	57	24	156	146	10	0
2013	88	53	21	164	151	12	1
2014	74	40	10	124	109	14	1
2015	85	59	20	165	144	21	0
2016	63	18	11	95	90	4	1
2017	66	18	0	84	78	5	1
2018	42	13	0	55	54	1	0
Average	**73**	**42**	**21**	**137**	**126**	**10**	**1**

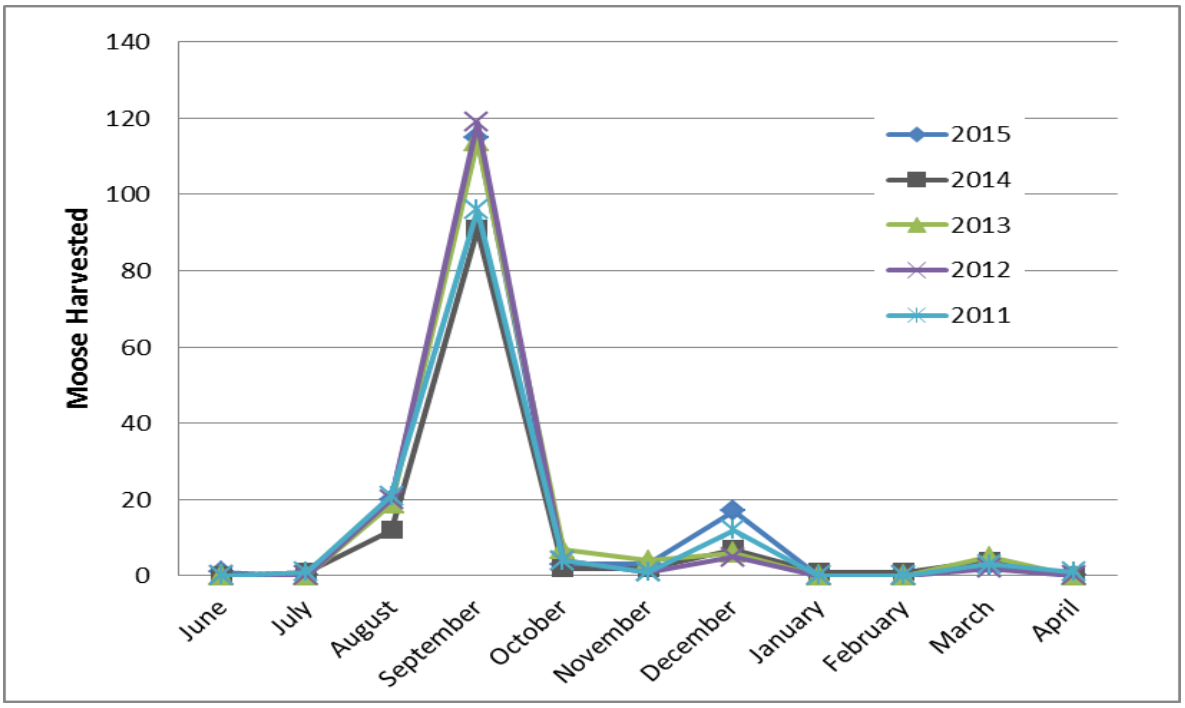

Figure 5. Moose harvest, by month, among users of Unit 23 from 2011-2015 according to State harvest reports (WINFONET 2017).

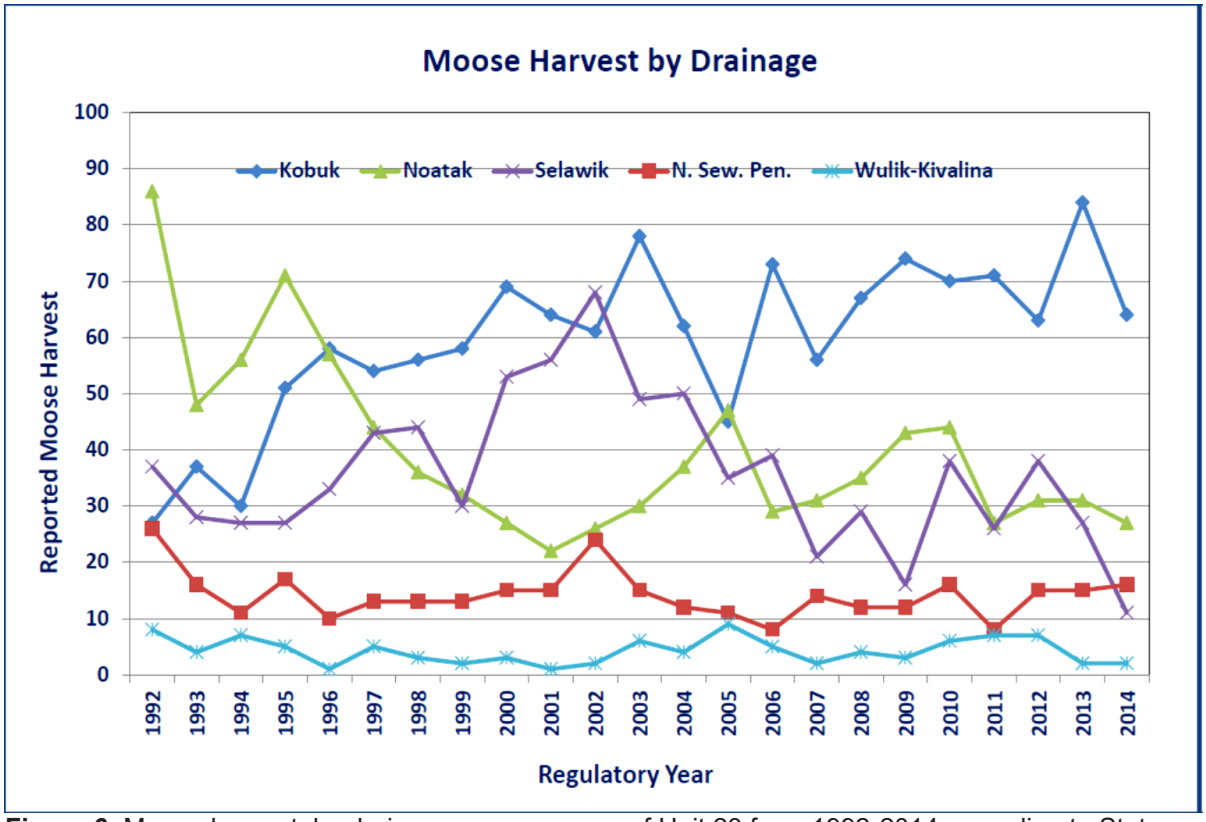

Figure 6. Moose harvest, by drainage, among users of Unit 23 from 1992-2014 according to State harvest reports (figure from ADF&G 2017a).

Since 2000, community household survey data has indicated 350-450 moose are harvested each year by local residents (Saito 2014). In regulatory year 2012/13 specifically, ADF&G estimated moose harvest by local residents as 342 moose (**Table 5**) (Saito 2014). The only community household survey data available for the number of cow moose harvested by local residents are for 2008 and 2009 in the villages of Noorvik, Shungnak, Ambler, Buckland, Kiana, and Kobuk. These data indicate 3 out of 67 total moose harvested were cows, although 6 moose were of unknown sex (ADF&G 2018b).

Table 5. Estimated moose harvest in Unit 23 villages from community harvest estimates 1991-2013 (Saito 2014).

Village	Year of Survey	Mean human population in survey years	Mean number of moose reported harvested	Per capita moose harvest	Estimated village population in 2012	Estimated annual moose harvest in 2012-2013
Ambler	2002, 2009, 2012	271	10	0.04	283	11
Buckland	2003, 2009	421	13	0.03	421	13
Deering	1994, 2007	159	8	0.05	153	8
Kiana	1999, 2006, 2009	387	13	0.03	378	13
Kivalina	1992, 2007, 2010	380	11	0.03	367	11
Kobuk	2004, 2009, 2012	135	6	0.04	164	7
Kotzebue	1991, 2013	3,362	154	0.05	3,076	154
Noatak	1994, 1999, 2001, 2007, 2010, 2011	481	7	0.02	545	11
Noorvik	2002, 2008, 2012	621	35	0.06	585	35
Point Hope	1992	685	14	0.02	674	14
Selawik	1999, 2006, 2011	797	50	0.06	856	51
Shungnak	1998, 2002, 2008, 2012	258	12	0.05	275	14
Unit 23 Total					**7,777**	**342**

ADF&G calculates the harvestable surplus of moose in Unit 23 as 6% of the population (Saito 2016a, pers. comm.). As the 2018 unit-wide population estimate is 6,300 moose, 378 moose is the estimated harvestable surplus. Reported harvest by nonlocal residents and nonresidents (~67 moose/year) combined with community household survey harvest estimates for local residents (350-450 moose/year) indicate that total Unit 23 moose harvests likely exceed the harvestable surplus. While the State has closed the nonresident season, and nonlocal resident reported harvest declined in 2016 and 2017 (**Table 4**), harvest estimates by local residents alone may still exceed the harvestable surplus (Saito 2014).

Harvest within individual drainages may be particularly high or have disproportionate effects on the population. For example, ADF&G estimates that approximately 70 moose are taken from Selawik drainage each year, which translates to a 7% harvest rate (**Table 2**) (NWARAC 2016). During winter months, large congregations of moose have been observed near villages, which can make these moose highly susceptible to harvest (Alaska Board of Game 2017). The Lower Kobuk River drainage hosts a

disproportionate number of maternal cows, possibly because this area appears to support fewer large predators due to its proximity to human travel corridors (Saito 2014). More moose are also harvested from the Kobuk River drainage than any other drainage (**Figure 6**). This suggests cow moose in the Kobuk River drainage are particularly susceptible to harvest, although the taking of cows with calves is prohibited under both State and Federal regulations. While recent restrictions to State regulations have decreased reported moose harvest, decline of the Western Arctic Caribou Herd has likely increased moose harvest by local residents trying to meet their subsistence needs (Saito 2014, NWARAC 2017b, 2018a). During recent Council meetings, subsistence users have commented on the importance of moose as a subsistence resource, particularly when caribou are scarce (OSM 2017, NWARAC 2017b, 2018a).

Other Alternatives Considered

One alternative considered is that in addition to closing the cow moose season to Federally qualified users, closure of Federal public lands in Unit 23 to moose hunting by non-Federally qualified users may be warranted for the continuation of subsistence uses. The estimated 2018 harvestable surplus is 378 moose. As harvest estimates for Federally qualified subsistence users (local residents) are 350-450 moose per year, the harvestable surplus may be met or exceeded by local resident harvest alone. Additionally, bull:cow ratios have declined in all census areas (**Table 3**).

Due to recent declines in the Western Arctic Caribou Herd population, local subsistence users are depending more on moose to meet their subsistence needs (NWARAC 2017b, 2018a). Therefore, moose harvest by Federally qualified subsistence users has likely increased in recent years. Local residents have emphasized that non-Federally qualified and Federally qualified subsistence users should share the burden of restricted moose harvest; this burden should not be put upon Federally qualified subsistence users alone who depend on moose to increase their food security (NPS 2016, OSM 2017, NWARAC 2017b, 2018a).

While the State closed the non-resident moose hunt in Unit 23, nonlocal residents still harvest approximately 44 moose from Unit 23 each year. While nonlocal resident harvest comprises only 12% of the harvestable surplus, ANILCA mandates a rural subsistence priority and indicates restrictions to non-Federally qualified users are necessary if resources are limited.

Due to comments shared by the Council at their April 2019 meeting and due to this alternative being outside the scope of the request, this alternative was not considered further. At this meeting, the Council shared their apprehension about closing Federal public lands due to the possibility of concentrating non-local hunters on State lands near the villages (NWARAC 2019).

Another alternative considered would be to not require a State registration permit under Federal regulations and to instead require a Federal registration permit. Current regulations for State registration permit RM880 state that these registration permits must be obtained by the user in person at license vendors within Unit 23 villages from June 1 through July 15. If a user is not able to make it to a village, or to a license vendor in their village, to pick up a permit during that time-frame, then they would not be permitted to harvest a moose for that year or they would need to participate in the short, antlered restricted, harvest ticket season under State regulations. It may be warranted to make the registration permit available for Federally qualified subsistence users to obtain year-round, so that local users can comply with regulations while not

interfering with their seasonal subsistence practices. One way to accomplish this could be to require a Federal registration permit, rather than the current State registration permit. This alternative was not considered further due to Federal offices not having a system in place to distribute permits in all the villages.

Effects of the Proposal

If this proposal is adopted, the Federal cow moose season in Unit 23 will be closed and moose harvest in the unit would require the use of the current State registration permit, which must be obtained between June 1 and July 15 in local villages (although users could still hunt under State regulations from Sept. 1–20 with a harvest ticket). This would decrease opportunity for Federally qualified subsistence users, as fewer moose would be available for harvest and would add the additional burden of traveling to a license vendor to obtain a registration permit every summer. If a Federally qualified subsistence user did not obtain a registration permit in person in one of the Unit 23 villages, then they would not be legally permitted to harvest a moose under Federal regulations for that year. The use of registration permits would, however, allow for better documentation of harvest in the area and would be beneficial to future moose population management in Unit 23. It may be important to note that education/outreach efforts would need to be put in place to ensure that locals are made aware of new permit requirements, if this proposal is adopted. Adoption of WP20-47 would also align State and Federal moose seasons in Unit 23, which could decrease user confusion and regulatory complexity, and would maintain the harvest limit of "one bull" rather than "one antlered bull" (which is the current State harvest limit), which would retain Federal priority for local users.

Adoption of WP20-47 could also aid in the recovery of the Unit 23 moose population. There are substantial conservation concerns that threaten the viability of the population. Surveys indicate substantial declines in almost every survey area (**Figure 3**), population estimates are below State objectives, and calf:cow ratios are below 20:100, which indicates a declining population. The Selawik, Lower Noatak, and Lower Kobuk census areas, where most of the moose in Unit 23 reside, have experienced > 40% population declines since 2011. Moose densities vary by drainage, and winter populations can be highly concentrated near villages, making them more susceptible to harvest. While most of the land immediately surrounding villages are Native lands that are already closed to cow moose harvest under State regulations, Federal lands are within 10-15 miles of every village in Unit 23.

Additionally, the harvestable surplus has likely been exceeded. While harvest data show relatively few cows are harvested, conserving cows is particularly important in maintaining a healthy moose population as cow moose are the engine of population growth (NWARAC 2017a). Typically, cow moose harvest is only permitted in populations showing signs of nutritional stress and/or to limit a growing population (ADF&G 2008). Cow harvest is not advised in areas with low or declining moose populations (ADF&G 2008) such as Unit 23. Closing the cow season would help the population recover more quickly and curtail further declines, especially in drainages where moose congregate during winter months. As the cow moose season is closed under State regulations, adopting this proposal would result in no legal harvest of cow moose in Unit 23.

OSM PRELIMINARY CONCLUSION

Support Wildlife Proposal WP20-47 **with modification** to change the harvest limit from "one bull" to "one antlered bull".

The modified regulation should read:

Unit 23—Moose

Unit 23—that portion north and west of and including the Singoalik River drainage, and all lands draining into the Kukpuk and Ipewik Rivers—1 ~~moose~~ ***antlered bull by State registration permit.***

~~Bulls may be harvested~~	*July 1 - Dec. 31*
~~Cows may be harvested~~	*~~Nov. 1 - Dec. 31~~*

No person may take a calf ~~or a cow accompanied by a calf~~

Unit 23, remainder—1 ~~moose~~ ***antlered bull by State registration permit.***

~~Bulls may be harvested~~	*Aug. 1 - Dec. 31*
~~Cows may be harvested~~	*~~Nov. 1 - Dec. 31~~*

No person may take a calf ~~or a cow accompanied by a calf~~

Justification

There are serious population viability concerns for the Unit 23 moose population due to substantial declines in population estimates, low calf:cow ratios, and likely exceedance of the harvestable surplus. Actual cow moose harvest is likely double what is reported, according to household surveys. Since cow moose are the keystone to population growth, conserving cows is essential to maintaining a healthy moose population. Cow moose harvest is not recommended in a low density, declining population. Closing the cow season and requiring a State registration permit to help managers more accurately track harvest should help the Unit 23 moose population recover more quickly and prevent further declines. Likewise, modifying the harvest limit to "one antlered bull" could further limit cow harvest, as well as cow harassment by hunters, by ensuring that a cow is not inadvertently harvested when the user believes they are targeting an antlerless bull in December, after antlers have dropped.. While adoption of this proposal reduces opportunity for Federally qualified subsistence users to harvest cow moose, they will still be able to harvest antlered bulls during the winter season under either Federal and State regulations.

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WP20–49 Executive Summary	
General Description	Proposal WP20-49 requests to open the Arctic Village Sheep Management Area in Unit 25A to the harvest of sheep by non-Federally qualified users. *Submitted by: Alaska Department of Fish and Game*
Proposed 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.*~~
OSM Preliminary Conclusion	**Oppose**
Eastern Interior Alaska Subsistence Regional Advisory Council Recommendation	
North Slope Subsistence Regional Advisory Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	**None**

DRAFT
STAFF ANALYSIS
WP20-49

ISSUES

Proposal WP20-49, submitted by the Alaska Department of Fish and Game, requests to open the Arctic Village Sheep Management Area in Unit 25A to the harvest of sheep by non-Federally qualified users.

DISCUSSION

The proponent states that the restriction of sheep hunting to only residents of a few communities (Arctic Village, Chalkyitsik, Fort Yukon, Kaktovik, and Venetie) is not necessary to accommodate local subsistence uses. Harvest records indicate residents of these communities rarely hunt sheep. Furthermore, there is no biological reason to preclude sheep hunting opportunities by the public in the Arctic Village Sheep Management Area. The proponent states that this restriction is not necessary to provide for subsistence uses.

The proponent continues there is no conservation concern associated with hunting opportunity in the Arctic Village Sheep Management Area. Sheep populations across the eastern Brooks Range appear to be stable. Because this is a full curl only harvest area during the fall hunting season, any harvest associated with this change would have no effect on the sheep population. On average, during the winter registration permit season, four hunters harvest a total of three sheep per year throughout the entire hunt area. Ninety-five percent of these sheep are males. Travel to the registration permit hunt area is difficult and methods are limited by regulations and statutes. The proponent states it has no concerns that harvest would increase to levels that could be of concern, should this area be opened to non-Federally-qualified users.

The proponent further states that it is unknown if Federally qualified subsistence users will be impacted from adoption of this proposal. Based on biological data, Federally qualified subsistence users will retain opportunity to meet their subsistence needs. Non-Federally qualified users will regain an opportunity to harvest sheep in the Arctic Village Sheep Management Area. This change would provide additional harvest opportunity for non-Federally qualified users. It would also provide some opportunity for guide businesses in the area.

Existing 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.

Proposed 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.*~~

Existing State Regulation

Unit 25A Sheep

Resident hunters, 1 ram with full-curl horn or larger may be taken only from Aug. 10–Sept. 20; up to 3 sheep may be taken by registration permit only Oct. 1–Apr. 30;	*HT*	*Aug. 10–Sept. 20*
	RS595	*Oct. 1–Apr. 30*
or		
Resident hunters, 1 ram with full-curl horn or larger, by youth hunt only.	*HT*	*Aug. 1–5*
Nonresident hunters, 1 ram with full-curl horn or larger every 4 regulatory years.	*HT*	*Aug. 10–Sept. 20*
or		
Nonresident hunters, 1 ram with full-curl horn or larger, by youth hunt only; every 4 regulatory years.	*HT*	*Aug. 1–5*

Note: Codified regulations are shown above. Concerning the Arctic Village Sheep Management Area in Unit 25A, the Alaska Department of Fish and Game has used its discretion to allow the distribution of RS595 registration permits only after September 12, to prohibit the use of aircraft for access to hunt sheep, and to close the nonresident youth hunt. HT=harvest ticket, RS=registration permit.

5 AAC 92.003 Hunter education and orientation requirements

(i) Before a person hunts sheep within the Red Sheep and Cane Creek drainages within the Arctic Village Sheep Management Area of Unit 25(A), that person must possess proof of completion of a

department-approved hunter ethics and orientation course, including land status and trespass information.

Extent of Federal Public Lands

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

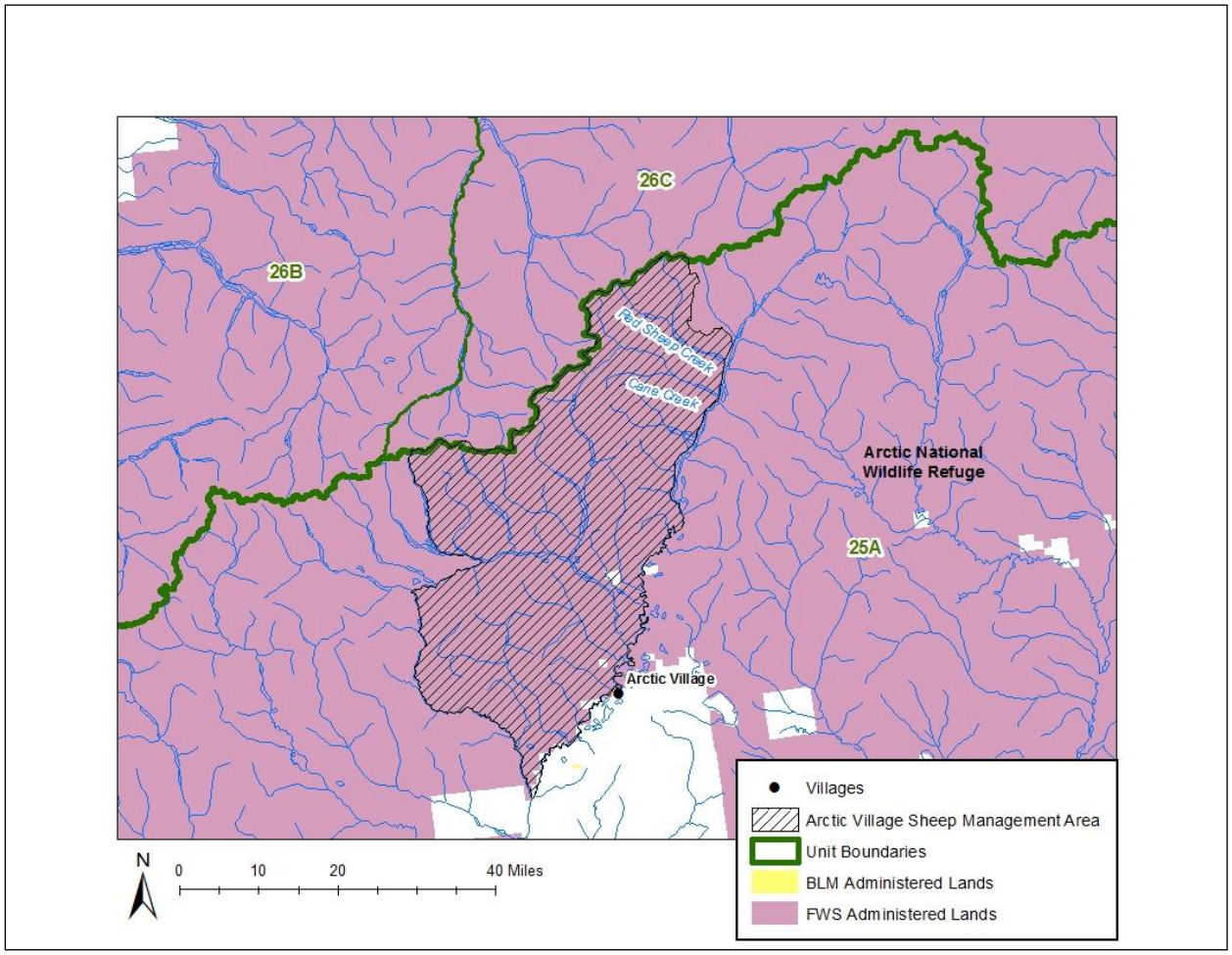

Figure 1. The Arctic Village Sheep Management Area in Unit 25A.

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

Knowledge of regulatory history necessary to analyze Proposal WP20-49 is extensive. It is described in **Appendix 1**.

Current Events

The Eastern Interior Alaska Council submitted Proposal 82, concerning the Arctic Village Sheep Management Area, to the Alaska Board of Game to take up at its March 6–14, 2020, meeting in Fairbanks (ADF&G 2019b: 94–97). The Council is requesting that the State recognize the Management Area and implement new harvest limits by changing the resident harvest limit from 3 sheep every regulatory year to 1 ram with full curl horn or larger every 4 regulatory years and replacing harvest tickets (HT) with drawing permits (DS). Additionally, the Council is requesting the nonresident youth hunt be eliminated in the Management Area. The Council states in the proposal that it "intends for this proposal to become a joint effort between the Alaska 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" (ADF&G 2019: 95). The proposed changes to the State regulation are described below.

Unit 25A Sheep—Arctic Sheep Management Area

Resident hunters, 1 ram with full-curl horn or larger ***every 4 regulatory years by permit****;* ~~*may be taken only from Aug. 10–Sept. 20; up to 3 sheep may be taken by registration permit only Oct. 1–Apr. 30;*~~	***DSXXX*** ~~*HT*~~	*Aug. 10–Sept. 20*
or		
Resident hunters, 1 ram with full-curl horn or larger every 4 regulatory years ***by permit*** ~~*may be taken only from Aug. 10–Sept. 20; up to 3 sheep may be taken by registration permit only Oct. 1–Apr. 30;*~~	*RS595*	*Oct. 1–Apr. 30*
or		
Resident hunters, 1 ram with full-curl horn or larger, by youth hunt only.	*HT*	*Aug. 1–5*
Nonresident hunters, 1 ram with full-curl horn or larger every 4 regulatory years ***by permit***	***DSXXX*** ~~*HT*~~	*Aug. 10–Sept. 20*
~~*or*~~		
~~*Nonresident hunters, 1 ram with full-curl horn or larger every 4 regulatory years by permit by youth hunt only; every 4 regulatory years.*~~	~~*HT*~~	~~*Aug. 1–5*~~

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 Arctic Village Sheep Management Area.

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 (ADF&G 2017a).

The Arctic National Wildlife Refuge conducts periodic aerial sheep surveys of the Arctic Village Sheep Management Area and surrounding areas. Due to differences in survey areas, comparisons across years are difficult. Sheep densities within the Management Area have generally been low compared to some other areas in the Brooks Range (Payer 2006 in OSM 2014a). Within the Management Area, sheep densities north of Cane Creek have been much higher than sheep densities south of Cane Creek, presumably because habitat quality is lower in that area (Mauer 1990 in OSM 2014a, Wald 2012). This is probably related to shale formations supporting more vegetation and therefore more sheep that are more common 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) were clustered around such licks (OSM 2014a).

In 1991, sheep densities in the Management Area north and south of Cane Creek averaged 2.25 sheep/mi^2 and 0.2 sheep/mi^2, respectively (Mauer 1996 in OSM 2014a). In 2006, sheep density north of Cane Creek averaged 1.7 sheep/mi^2 (Wald 2012). The observed decline in density is thought to be weather related (OSM 2014).

The sheep population in the Management Area likely declined between 2012 and 2015 due to several years of poor lamb production and severe winters (particularly the winters of 2012-13 and 2013-14). In 2012, surveys within and near the Management Area indicated an average sheep density of 0.79 sheep/mi^2 and 27 lambs:100 ewes (Arthur 2017, pers. comm.). Density north and south of Cane Creek ranged from 1.5–1.8 sheep/mi^2 and 0.25–0.7 sheep/mi^2, respectively (Wald 2012). In 2015, estimated sheep density for the

same areas averaged 0.67 sheep/mi^2 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 Management Area. While the 2016 overall sheep density averaged 0.86 sheep/mi^2, density within the Management Area was likely 0.70-0.75 sheep/mi^2 (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/mi^2. Due to improved lamb production in 2015 and 2016 (>30 lambs:100 ewes), the sheep population in the Management Area has likely not declined below 2015 levels and may be increasing. However, it will be at least 3–5 years before an increase in mature (8+ year old) rams are observed in the population (Arthur 2017, pers. comm., 2019 pers. comm.). No surveys have been conducted since 2016.

Cultural Knowledge and Traditional Practices

The Arctic Village Sheep Management Area was traditionally occupied by *Netsi Gwich'in* whose traditional territory was the northern reaches of the East Fork Chandalar, Koness, and Sheenjek rivers. Netsi 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 (McKennan 1965).

Netsi Gwich'in followed to the arctic coast routes that were situated within the Arctic Village Sheep Management Area. Gwich'in regularly visited the arctic coast for the purposes of trade (Burch 1979). Hadleigh-West, writing 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. Traders went forward to the Barter Island area to exchange hides for Western goods from whalers. Hadleigh-West reported people preferring the Phillip Smith Mountains for sheep hunting, which is the source of many East Fork Chandalar tributaries including Red Sheep and Cane creeks and other drainages situated within the Arctic Village Sheep Management Area. This trade continued irregularly until 1928. In 1938, Albert Tritt took two grandchildren to the ridge to look down on the north face of the Brooks Range, probably the last such trip by Netsi Gwich'in (Hadleigh-West 1963: 256–259).

The Sheenjak River to Hulahula River and arctic coast was a common route, and Red Sheep Creek was a recognized favorite sheep hunting area on a route to the arctic coast (Hadleigh-West 1963: 257). At the Eastern Interior Alaska Regional Advisory Council (Eastern Interior Alaska Council) meeting in 2017, Hollis Twitchell related an onsite conversation with Trimble Gilbert who said that food and tools were cached in the mountains in the Red Sheep Creek drainage for the returning traders and for future trips, indicating the cultural importance of the area (EIASRAC 2017: 286)

While located approximately 45 miles from Arctic Village, Red Sheep Creek is situated well within the historical territory of Netsi Gwich'in. Native allotments cover the confluence of Red Sheep and Cane 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 the Refuge does not assign guides to this area (EIASRAC 2017). The allotment contains a large airstrip identifiable from the air. Another, smaller airstrip is situated between the two Red Sheep Creek 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.

Netsi Gwich'in possessed specialized skills for traveling in mountainous areas, as described below by Hadleigh-Smith (1963):

> The extent to which the Netsi 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-Smith 1963:270).

Traditionally, after caribou, mountain sheep were the most important large land mammal for food. Moose were scarce (Hadleigh-West 1963: 172). Netsi 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 Arctic Sheep Management Area.

The customary and traditional use determination for sheep in Unit 25A, including the Arctic Village Sheep Management Area, consists of five communities with a total population of roughly 1,200 people according to the 2010 U.S. Census (**Table 1**).

Table 1. The population of communities in the customary and traditional use determination for sheep in Unit 25A, 1960-2010 (Source: ADCCED 2017).

Community	1960	1970	1980	1990	2000	2010
Arctic Village	110	85	111	96	152	152
Chalkyitsik	57	130	100	90	83	69
Fort Yukon	701	448	619	580	595	583
Kaktovik	No data	123	165	224	293	239
Venetie	107	112	132	182	202	166
Total	975	898	1,127	1,172	1,325	1,209

Of the five communities with recognized customary and traditional uses of sheep in Unit 25A, the residents of Arctic Village have the strongest ties to and are the primary users of the area (OSM 1993; see also Dinero 2003, Gustafson 2004, and Reed et al. 2008). Sheep hunting is a longstanding tradition for Arctic Village residents, most of whom are Gwich'in Athabascan (Caulfield 1983:68; Dinero 2003; EISRAC 2006:110–137, 2007, 2011; Gustafson 2004), and the Cane Creek 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 (cf. Caulfield 1983 and Dinero 2003 for discussion). Sheep are also known as an important "hunger food," that is, a food source that is critical when caribou are unavailable (Caulfield 1983, Dinero 2011, pers. comm.; Gilbert 2011, pers. comm.). Local people report increasing uncertainty of caribou migrations in recent years, declining quality of caribou meat, and increasing difficulty and travel distance to obtain moose in recent years: 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 supports the fact that Arctic Village residents have a long history of using the Cane Creek and Red Sheep Creek drainages, which continue be a culturally significant area. Extensive discussion included in previous proposal analyses (OSM 1993, 1995a, 2014a and 2018) pointed to 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. Testimony by Arctic Village residents in 2006, 2007, 2011, and 2017 at the Eastern Interior Alaska Council meeting about hunting in Cane Creek and Red Sheep drainages demonstrates continued hunting in these areas. Discussions with Refuge Information Technicians from Arctic Village, other Arctic National Wildlife Refuge staff, researchers working in the area, and subsistence hunters from Arctic Village also confirm continued sheep hunting in the Cane Creek and Red Sheep 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 and residents use 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.). The residents of Arctic Village have repeatedly expressed concerns about non-Federally qualified users hunting sheep in Red Sheep Creek and Cane 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 (EIASRAC 2006, 2007, 2011, and 2017; FSB 1991a:291-311, 1995, 2006a, 2007:292–306, and 2012; (OSM 1993, 1995a, 1996, 2006b, 2007a, and 2014a; Swaney 2011, pers. comm.; Gilbert 2011, pers. comm.; John 2011, pers. comm.). Additionally, in their 2018 annual report to the Board, the Eastern Interior Alaska Council noted their concern about existing sheep harvest limits and seasons in State regulations: "The Council is . . . troubled by the possibility that with the three sheep harvest limit, a lot of ewes and lambs can be taken during the late winter [to] early spring seasons. The Council believes that the existing three sheep harvest limit in both State and Federal regulations could potentially result in overharvest and a conservation issue" (EIASRAC 2018:4).

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, and sheds some light on why Arctic Village residents consider Red Sheep Creek a revered place (Dinero 2007; Dinero 2011, pers. comm.). 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 have harvested sheep in early fall (late August or early September) or in early winter (November) (Caulfield 1983, FSB 2007:292–306). "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).

Arctic Village residents have commented that allowing non-Federally qualified users to harvest sheep in Red Sheep Creek and Cane Creek drainages during the time when Arctic Village residents customarily and traditionally harvested sheep affects Arctic Village residents' ability to access an important sheep hunting area. Since 1993, Arctic Village residents have noted to the Board that plane traffic by non-Federally qualified users have interfered with their ability to successfully hunt sheep in the Red Sheep and Cane 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 Red Sheep and Cane Creek are both very narrow valleys, and consequently flights through the area disturb sheep (FSB 2012:201). These disturbances have continued to be described by Arctic Refuge staff (Mathews 2011, pers. comm.), and local residents (Swaney 2011, pers. comm., John 2011 pers. comm., Gilbert 2011, pers. comm.). Frid (2003) found that fixed-wing aircraft disrupted resting or caused fleeing behavior in Dall sheep in the Yukon Territory during overflights. This disruption was of a longer duration during direct flight approaches. Results of this study could help provide managers with guidelines for determining spatial and temporal restrictions to aircraft in areas frequented by this species.

Harvest History

A Federal closure to the harvest of sheep in the Arctic Village Sheep Management Area by non-Federally qualified users has been in effect since 1991. In 1995, the Management Area was expanded to include the area from Cane Creek north to, and including, the Red Sheep Creek drainage. The closure to the take of sheep in the area north of Cane Creek by non-Federally qualified users was rescinded for a portion (from August 10 through September 30) of the season from 2006 through 2011 regulatory years

Data on the reported use of the Management Area by Federally qualified subsistence users is sparse, and just how many sheep are harvested by Federally qualified subsistence users in the Management Area is unknown. It is likely that many Gwich'in hunters have not reported their harvest efforts (Van Lanen et al. 2012, Anderson and Alexander 1992). One source of data is the U.S. Fish and Wildlife Service harvest reporting system.

Since 1995, Federally qualified subsistence users have been required to get a Federal registration permit to hunt for sheep in the Management Area. **Table 2** shows data kept by the U.S. Fish and Wildlife Service from permits issued from 1995 through 2018. Federally qualified subsistence users have requested 40 permits to hunt for sheep in the Management Area. Only some hunters returned their permits so these following data are incomplete. Seventeen hunters reported hunting sheep, and 9 hunters reporting harvesting sheep in the Management Area. Hunters did not always report areas they used to hunt for sheep within the Management Area. Of these incomplete data, three hunters reported using the Red Sheep Creek drainage to hunt for sheep and one sheep harvest 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. Of those reporting, hunting trips were a median average of 5 days (OSM 2019).

Table 2. *Federal permits only*: Reported effort to harvest sheep and reported sheep harvests in the Arctic Village Sheep Management Area in Unit 25A (Federal Permit FS2502) from 1995 through 2018 regulatory years cumulative (Source: OSM 2019).

Community	Number of Federal permits issued	Number of hunts reported	Number of sheep harvests reported
Arctic Village	33	11	5
Fort Yukon	7	6	4
Total	**40**	**17**	**9**

The Alaska Department of Fish and Game maintains a harvest reporting database where hunters using State harvest tickets and permits report their hunting efforts (ADF&G 2019a). Complete records were not kept until the mid-1980s, and it is likely that many Gwich'in hunters have not reported their harvest efforts or have reported their harvest efforts on Federal permits (see above). The following description of hunter effort and success begins with Unit 25A. This is the finest level of reporting in the State harvest reporting system. A description of hunter effort and success within the Management Area at the uniform coding unit level is also described, although harvest site documentation is much less precise and is an approximation. Another reason that hunter effort and harvest in Unit 25A is described here is that the Board justified the original closure, in part, because the remainder of Unit 25A supported a substantial opportunity for all hunters (FSB 1991b:150–164).

From 1983 to 2017 regulatory years, hunters with State harvest tickets and permits reported harvesting 1,746 sheep (about 50 sheep annually) from within the entire Unit 25A area (see **Table 3**, ADF&G 2019a).

The Arctic Village Sheep Management Area is a small area with Unit 25A (see **Unit 25 Map**). From 1983 to 1990 regulatory years, approximately 61 sheep harvests (about 8 sheep annually) were reported on State harvest tickets and permits in an area approximating the Arctic Village Sheep Management Area using uniform coding units, including the area north of Cane Creek and the Red Sheep Creek drainage, before most of this area was closed to the harvest of sheep by non-Federally qualified users in 1991 (OSM 2019, 4 of these 61 sheep harvests were reported by Federally qualified subsistence users). The Arctic Village

Table 3. *State harvest tickets and permits only*: Reported effort to harvest sheep and reported sheep harvested in Unit 25A, from 1983 through 2017, by user group (Source: ADF&G 2019a).

Year	Federally qualified subsistence users: Permits issued	Federally qualified subsistence users: Reported sheep harvest	Other Alaska residents: Permits issued	Other Alaska residents: Reported sheep harvest	Non-residents of Alaska: Permits issued	Non-residents of Alaska: Reported sheep harvest	Total: Permits issued	Total: Reported sheep harvest
2017			61	20	40	26	101	46
2016			62	20	37	24	99	44
2015			62	16	41	24	103	40
2014			77	24	41	21	118	45
2013			91	36	48	31	139	67
2012			90	36	41	26	131	62
2011			93	42	59	44	152	86
2010			107	47	52	30	159	77
2009			86	45	59	39	145	84
2008			91	39	57	37	148	76
2007			75	36	54	41	132	80
2006			60	36	46	33	107	70
2005			56	28	52	38	108	66
2004			35	9	47	37	82	46
2003			50	20	51	33	102	53
2002			44	14	45	25	89	39
2001			40	15	50	36	90	51
2000			37	12	35	19	72	31
1999			37	16	33	25	70	41
1998			30	12	21	15	51	27
1997			36	16	22	17	58	33
1996			33	13	19	13	52	26
1995			41	14	20	9	61	23
1994			16	2	15	8	31	10
1993			52	17	18	10	70	27
1992			62	15	33	24	96	40
1991			44	19	46	36	92	56
1990			78	27	44	40	126	71
1989			35	23	52	39	87	62
1988			38	24	46	38	85	62
1987			46	22	34	29	80	51
1986			54	22	31	27	86	49
1985			46	22	29	23	75	45
1984			34	14	19	16	53	30
1983			35	13	25	17	60	30
Total	14[1]	11[1]	1,934	786	1,362	950	3,310	1,746

[1] Four or fewer reports were received in any given year. Only the total is provided to protect confidentiality of Federally qualified subsistence users reporting their effort and harvest.

Sheep Management Area does not have the same boundaries as uniform coding units and harvest site reporting at the uniform coding unit level is often imprecise and is an approximation.

From 1983 to 1994 regulatory years, approximately 27 sheep harvests (about 2 sheep annually) 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 in the Red Sheep Creek drainage while it was open to the harvest of sheep from August 10 through September 30 by non-Federally qualified users (OSM 2019, harvest site information is not readily available after the 2011 regulatory year). One sheep harvest was reported in 2005 by a non-Federally qualified user when the area was closed.

Effects of Proposal

If adopted, Proposal WP20-49 would open the Arctic Village Sheep Management Area to the harvest of sheep under State regulations.

Adopting this proposal and opening the Management Area to non-Federally qualified users may adversely affect subsistence users' access and ability to harvest sheep in the Management Area and thereby fail to provide a meaningful preference for Federally qualified subsistence users.

If adopted, this proposal could negatively impact the sheep population in the Management Area, especially south of Cane Creek where sheep density estimates are low.

If Proposal WP20-49 is not adopted, sheep hunting in the Management Area by non-Federally qualified users will remain closed.

OSM PRELIMINARY CONCLUSION

Oppose Proposal WP20-49.

Justification

Federal public lands in the Arctic Village Sheep Management Area should remain closed to the harvest of sheep except by Federally qualified subsistence users. Sheep densities within the Management Area have generally been low compared to other areas in the Brooks Range, which is likely due to poor habitat quality (Payer 2006 in OSM 2014a). In 1991, when the closure was adopted by the Board, portions of the area did not appear to be able to support more sheep than were present, and the Board said that the remainder of Unit 25A supported a substantial opportunity for all hunters (FSB 1991b:150–164). Sheep populations in the Management Area situated south of Cane Creek continue to exist at low densities (Arthur 2017, pers. comm.) and should remain closed to nonsubsistence uses in order to protect healthy populations of sheep, as mandated in ANILCA Section 815(3).

Since 1995 the Board has continued to hear substantial testimony and ethnographic evidence demonstrating the importance of Cane Creek and Red Sheep Creek drainages to Federally qualified subsistence users, especially Netsi Gwich'in who occupied the area historically and continue to occupy the area today. In 2012, the Board reiterated that the closure was needed to ensure the continuation of traditional subsistence uses of sheep by Arctic Village hunters (OSM 2012b:7), and again in 2014 (OSM 2014a:350), and 2018 (OSM 2018b). This area should remain closed to nonsubsistence uses in order to protect subsistence uses, as mandated in ANILCA Section 815(3).

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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 for residents of Arctic Village, Chalkyitsik, Fort Yukon, Kaktovik, and Venetie. The Board has not received a proposal to modify the determination.

In 1991, Proposal 75 was submitted by the Yukon Flats Fish and Game Advisory Committee and Proposal 100A by the Arctic National Wildlife Refuge. The Board met in March 1991 and based on the submitted proposals took action to propose new regulations and published them in the Federal Register (56 Fed. Reg. 73 15433 [April 16, 1991]2). At its meeting in March 1991, the Board acted on Proposals 100A and 75.

The Chair stated,

> As far as the Board's concerned, our first compliance is—or obligation—is compliance with the Federal [regulations], that will be its guiding principle that will be used by the Board. It considers this responsibility for various recommendations and proposals. The policy is that the State will reassume full responsibility to manage fish and game subsistence use on Federal lands, and that will be a principle that will guide the coming decisions of the Board. In keeping with that, we will want to minimize actions that will duplicate or complicate the State's resumption of the program. However, there are certain things that are happening that will cause us to make some decisions that may do that to some extent, but those will be well-discussed, well-considered, and well-calculated before we have to do that. So those are some of the general guidance policies that the Board will function under (FSB 1991c:5–6).

Proposal 100A requested the Board to close Federal public lands in an area of Unit 25A encompassing most of the contemporary Arctic Village Sheep Management Area, modify the harvest limit from one mature ram to 2 rams and extend the hunting season to April 20. 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 Advisory Councils did not meet until fall 1993, and 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 extend the hunting season to April 30. The justification was that portions of the area did not appear to be able to support more sheep than were currently present, the population of sheep in the Red Sheep Creek drainage was of much higher densities and could continue to support the then existing seasons and harvest limits, the Red Sheep Creek drainage

[2] The Federal Register notice mistakenly included both the existing regulation (1 ram with 7/8 curl horn or larger, Aug. 10–Sept. 20) as well as the proposed regulation.

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 requested that the Board close to the harvest of sheep except by Federally qualified subsistence users the drainages of Junjik River, East Fork Chandalar River, Red Sheep Creek, Cane Creek, Water Creek, Spring Creek, Ottertail Creek, and Crow Next Creek. 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 comments (called "proposals") received during the public comment period on the specific season and harvest limit changes which were a part of the proposed rule resulting from the March 1991 meeting. Proposals 09, 10, and 11 were submitted by the Arctic Village Council and Proposal 21 was submitted by Brooks Range Arctic Hunts.

In Proposal 09, the Arctic Village Council requested the Board to include Cane Creek and Red Sheep Creek drainages in the Arctic Village Sheep Management Area that was closed to the harvest of sheep except by Federally qualified subsistence users. The proponent said that the area set aside 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 Creek and Red Sheep Creek only for a short time when air taxi service was available. These two areas could support both subsistence and sport harvest (FSB 1991a:297–299). Proposals 10 and 11 requested that the Board eliminate harvest limits in the Arctic Village Sheep Management Area (Proposal 10) or increase the harvest limit to 3 sheep (Proposal 11). The Board adopted the Interagency Staff Committee recommendations and rejected both proposals. The Board said the sheep population in the Sheep Management Area 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 Sheep Management Area 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, Wildlife Request for Reconsideration (WRFR) 92-23 was submitted by the Arctic Village Council requesting that the Board reconsider its decision on Proposal 9, which if adopted would have added Cane Creek and Red Sheep Creek drainages to the Arctic Village Sheep Management Area. The Board did not act on the request until 1993 when it received Proposal 58 from the Arctic Village Council requesting that the Board add Cane Creek and Red Sheep Creek drainages to the Management Area and implement a community harvest limit. At its meeting in April 1993, the Board adopted the Interagency Staff Committee recommendation and rejected the proposal. The Board said that Cane Creek 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, Proposal 54 was submitted by the Arctic Village Council requesting that the Board add Cane Creek and Red Sheep Creek drainages to the Arctic Village Sheep Management Area. The Eastern Interior Council took no action on the proposal (EIASRAC 1995:88–97, OSM 1995a:359). The North Slope Subsistence Advisory Council (North Slope Council) recommended that the Board adopt the proposal (NSSRAC 1995:206, OSM 1995a:359). The Board adopted the proposal with modification. The modification was that the Board would revisit the proposal in another year. The Board said that although there was no biological reason for closing Cane Creek 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, 686–693; 60 Fed. Reg. 115. 31545 [June 15, 1995]).

In 1995, WRFR 95-06 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 was not based on information that was not previously considered by the Board, or that demonstrated that the existing information used by the Board was incorrect, or that demonstrated that the Board's interpretation of information, applicable law, or regulation was in error or contrary to existing law. One of these factors would need to be present for the Board to reconsider its decision, as described in regulation (50 CFR 100.20).

In 1996, Proposal 55 was submitted by ADF&G. It requested that the Board open Cane Creek and Red Sheep Creek drainages to the harvest of sheep by non-Federally qualified users. The Eastern Interior Council recommended opposing the proposal. The Eastern Interior Council said 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 Council's representative from Arctic Village. The Council affirmed its support for the existing Arctic Village Management Area. The North Slope Council recommended deferring action for one year until more information concerning Kaktovik residents' use of the Management Area 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 the previous year in 1995, described above, and that there had still 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 2006, Proposal WP06-57 was submitted by ADF&G. It requested that the Board open the Arctic Village Sheep Management Area 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 hunters. The Council said that people of Arctic Village were totally dependent on the land for food 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 the 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 here was an opportunity for the people in the area to work with nonsubsistence 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 drainages of Red Sheep Creek and Cane Creek or to defer action on the proposal with respect to the remainder of the Arctic Village Sheep Management Area. The Board did not see a need for action at this time because of the commitment of the Arctic National Wildlife Refuge 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 Creek and Red Sheep Creek drainages to the harvest of sheep by non-Federally qualified users from Aug. 10 through Sept. 20, 2006. The Board approved the request. It said it reviewed new information on sheep abundance in the Arctic Village Sheep Management Area from a survey conducted by the Service in June 2006 and presented in an assessment report. During the course of its consideration, the Board said it received an excerpt from the transcript of the May 2006 meeting of the Board relative to consideration of this issue concerning Proposal WP06-57, a staff analysis prepared by OSM, ADF&G comments, and written and telephonic public testimony (OSM 2017).

In 2007, Proposal WP07-56 was submitted by ADF&G. It requested that the Board open Cane Creek and Red Sheep Creek drainages to the harvest of sheep by non-Federally qualified users from Aug. 10 through 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 for its March 2008 meeting. The Council said the proposal could contain the number of non-Federally qualified hunters to be allowed to hunt in the Cane Creek and Red Sheep Creek area. The Council said the working group timeline would give the Federal Subsistence Board time to monitor the progress of the working group, the Board of Game proposal(s), and the actions of the Board of Game before the Federal Subsistence 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 who all had requested the closure of the Red Sheep and Cane Creek area 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 other hunters. 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 and was overridden by the Board. The Council sympathized with Arctic Village concerns, but it believed the closure of the Cane Creek and Red Sheep Creek drainages would be lifted by the Board based on its action with the recent special action to open the area (WSA06-03, which the Board approved). Several Council members worked with village leaders to see what options were available 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 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 nonsubsistence 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 nonsubsistence hunting of sheep in the Red Sheep Creek and Cane 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 in 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 nonsubsistence 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 nonsubsistence hunters. The existing closure was also not justified for reasons of public safety, administration, or pursuant other applicable law (OSM 2007b).

In 2012, Proposal WP12-76 was submitted by the Eastern Interior Council. It requested that the Board close Cane Creek and Red Sheep Creek drainages to the harvest of sheep by non-Federally qualified users from Aug. 10 through Sept. 20. The Eastern Interior Council 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 nonsubsistence users were interfering with subsistence users, particularly the people of Arctic Village. The North Slope Council recommended the Board support the proposal. The Council said that the amount of travel time by rural residents was a concern due to distance required to travel and the cost of fuel. The Board adopted the proposal (OSM 2012a:355). The Board said there was no conservation concern, and the closure was needed to ensure the continuation of traditional subsistence uses of sheep by Arctic Village hunters (OSM 2012b:7).

In 2014, Proposal WP14-51 was submitted by the State of Alaska. It requested the Board to open Cane Creek and Red Sheep Creek drainages to the harvest of sheep by non-Federally qualified users from Aug. 10 through Sept. 20. It also requested that hunters be required to complete a course on hunter ethics and an orientation course, 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 and community members form Arctic Village and Venetie expressing the importance of sheep in this area to their culture and community. The Council said that the 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 for this hunt area was their overriding concern. The North Slope Council 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 that was shared in 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 the history and relationship of the community as well the mineral licks that the sheep frequented in this area, which made their 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 and the testimony presented to the Board in the 2012 review of a similar proposal. The Board referenced extensive public testimony of local community concerns and cultural importance of this area and the long established administrative record on this issue. The Board recognized the cultural importance of the Cane Creek and Red Sheep Creek areas for subsistence harvest of sheep for the residents of Arctic Village and Venetie. The Board said the importance of this area was also known 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 said it had heard testimony and reports that subsistence users attempts to harvest sheep in this area may have been interfered with by aircraft and nonsubsistence hunter activity. The Board concurred with this testimony that the activities in this area by nonsubsistence users had resulted in the displacement of sheep, pushing them out of range and preventing subsistence hunters from being able to harvest sheep. The Board supported keeping the closure in place to help insure the continued subsistence use of sheep for residents of Artic Village, Venetie, and the several other villages with customary and traditional use determinations 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 nonsubsistence 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 Frank Bishop of Fairbanks requesting that the Board open the Arctic Village Sheep Management Area 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 nonsubsistence users are conservation concerns and/or detrimental effects on 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 Arctic Village Sheep Management Area to the harvest of sheep by nonsubsistence 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 governments 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 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 Euroamerican 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 land 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 it would be detrimental to subsistence users to open up the area to non-Federally qualified user hunting, 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 even 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 with the nonresident hunting activity and plane access 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 was noted that hunters from Kaktovik hunted in this area 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 helpful for recovery from illness. It was noted that sheep become more

important for 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 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 in order to provide for opening up the hunt and currently the census data is 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 were concerns about recruitment and stabilizing the population (OSM 2018a).

The Federal Subsistence Board rejected Proposal WP18-56. The Board stated that the Arctic Village Sheep Management Area needs to remain closed because of the significant religious and cultural importance of that 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).

WP20–08 Executive Summary	
General Description	Proposal WP20–08 requests implementing a statewide requirement that traps and snares be marked with either the trapper's name or State identification number. *Submitted by: East Prince of Wales Advisory Committee.*
Proposed Regulation	**Statewide— Trapping (General Provisions)** ***Traps or snares must be marked with trapper's name or state identification number (Alaska driver's license number or State identification card number).***
OSM Preliminary Conclusion	**Oppose**
Southeast Alaska Subsistence Regional Advisory Council Recommendation	
Southcentral Alaska Subsistence Regional Advisory Council Recommendation	
Kodiak/Aleutians Subsistence Regional Advisory Council Recommendation	
Bristol Bay Subsistence Regional Advisory Council Recommendation	
Yukon-Kuskokwim Delta Subsistence Regional Advisory Council Recommendation	
Western Interior Alaska Subsistence Regional Advisory Council Recommendation	
Seward Peninsula Subsistence Regional Advisory Council Recommendation	

WP20–08 Executive Summary	
Northwest Arctic Subsistence Regional Advisory Council Recommendation	
Eastern Interior Alaska Subsistence Regional Advisory Council Recommendation	
North Slope Subsistence Regional Advisory Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	**1 Support, 1 Oppose**

DRAFT STAFF ANALYSIS
WP20-08

ISSUES

Wildlife Proposal WP20-08, submitted by the East Prince of Wales Fish and Game Advisory Committee, requests implementing a statewide requirement that traps and snares be marked with either the trapper's name or State identification number.

DISCUSSION

The proponent believes that current regulations do not allow for accountability if a trapper leaves their traps out and set after the close of the season, or chooses to use illegal baits (i.e., whole chunks of deer meat or whole migratory birds). The proponent believes requiring trap identification (Alaska issued driver's license number or personal identification number) would make enforcement easier and may prevent these issues. Clarification with the proponent indicated that the proposed marking requirement is to apply Statewide.

Existing Federal Regulation

There are no statewide trap marking requirements under Federal regulations.

Proposed Federal Regulation

Statewide— Trapping (General Provisions)

Traps or snares must be marked with trapper's name or state identification number (Alaska driver's license number or State identification card number).

Existing State Regulation

There are no statewide trap marking requirements under State regulations.

Extent of Federal Public Lands/Waters

Alaska is comprised of 65% Federal public lands and consist of 23% Bureau of Land Management (BLM) managed lands, 21% U.S. Fish and Wildlife Service (USFWS) managed lands, 15% National Park Service (NPS) managed lands, and 6% U.S. Forest Service (USFS) managed lands.

Customary and Traditional Use Determinations

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

Regulatory History

The Alaska Board of Game (BOG) adopted a marking requirement for traps and snares in Units 1–5 in 2006. Federal regulations were aligned with the State requirements in Units 1–5 when the Federal Subsistence Board (Board) adopted Proposal WP12-14 in 2012. The rationale of the Board was that the BOG adopted trap marking requirements for Units 1-5 in 2006 in response to concerns by Alaska Wildlife Troopers, the Alaska Department of Fish and Game (ADF&G), and members of the public, that trapping as a whole would benefit from having some way of identifying ownership of traps and snares. This was prompted by incidences of traps being placed in areas where trapping was not allowed, pets being caught in traps, and unattended snares still capable of capturing a passing deer, bear, or wolf, being found following the close of season (FSB 2012).

The Southeast Alaska Subsistence Regional Advisory Council (Council) expressed concern that there was a lack of evidence why traps should be marked in either State or Federal regulations, and stated that regulations should be adopted for a good reason and not because of "*one bear caught in a snare, set by an unknown person for an unknown reason*". However, the Council supported the proposal, stating the benefit of aligning Federal and State regulations, and reducing the uncertainty about whether current regulations required traps to be marked (SEASRAC 2011).

In 2014, the Board considered Proposal WP14-01, requesting new statewide Federal provisions requiring trapper identification tags on all traps and snares, the establishment of a maximum allowable time limit for checking traps, and establishment of a harvest/trapping report form to collect data on non-target species captured in traps and snares. The proposal analysis indicated statewide application would be unmanageable, would require substantial law enforcement and public education efforts, and could cause subsistence users to avoid the regulation by trapping under State regulations. The proposal was unanimously opposed by all ten Federal Subsistence Regional Advisory Councils, ADF&G, and the public as reflected in written public comments. The Board rejected the proposal as part of its consensus agenda (FSB 2014).

In March 2016, the BOG removed trap marking requirements in response to Proposal 78. The BOG determined that trappers are generally responsible and that the 2006 regulation was not addressing the reasons why it was implemented, noting that marking traps does not prevent illegal trapping activity or prevent dogs from getting trapped.

In 2018, the Board considered Proposal WP18-13, requesting removal of the trap marking requirement in Units 1-5. The proposal was submitted to remove an unnecessary and burdensome requirement on Federally qualified subsistence users and to realign State and Federal regulations. While ADF&G was neutral on the proposal, it was unanimously supported by the Council (SEASRAC 2017). The proposal was adopted by the Board as part of its consensus agenda (FSB 2018).

Current Events Involving the Species

Wildlife proposal WP20-20 has been submitted requesting that trap sites be marked with brightly colored surveyor's tape in plain view on a nearby tree or overhanging branch in Unit 7.

Effects of the Proposal

The proposal will not result in any positive or negative effects to furbearer or other non-furbearer wildlife populations.

If the proposal is adopted, Federally qualified subsistence users trapping under Federal regulations throughout the State will be required to mark traps and snares with identification tags. The proposed requirement could potentially benefit law enforcement by allowing easier identification of traps and snares set in the field. However, differences in land ownership, population concentrations, terrain, and habitats would limit the effectiveness of the proposed statewide regulation. Individual traplines can span across Federal and State managed lands and, therefore, could have different regulatory requirements along the line. Alternatively, Federally qualified subsistence users could simply choose to trap under State regulations and avoid the proposed requirement, as both Federal and State trapping regulations are applicable on most Federal public lands, as long as the State regulations are not inconsistent with or superseded by Federal regulations, or unless Federal lands are closed to non-Federally qualified users.

Within portions of Unit 15, over 60 percent which lies within Kenai National Wildlife Refuge, and those portions of Unit 7 that are contained within Kenai NWR, a trapping permit is required and a stipulation of Kenai NWR's permit includes the marking of traps and snares. Also, under State regulations, all snares within a quarter mile of a public road in Units 12 and 20E are required to be marked. Federally qualified subsistence users trapping on Federal public lands outside of these specific areas would be required to mark traps and snares with identification tags that include the trapper's name and license number. However, Federally qualified subsistence users trapping on Federal public lands would not be required to mark traps and snares under State regulations.

The requirement to mark traps and snares would also result in additional burden and cost for Federally qualified subsistence users trapping under Federal subsistence regulations. Copper tags stamped with a trapper's identification information, including fasteners, cost approximately $26 per 100 tags (including shipping) or less (approximately $15–$20) for "write-your own" tags (FWS 2012). In addition, trappers often trade or borrow equipment from family members or friends, and changes of identification tags on large numbers of traps or snares would require significant effort (FWS 2014).

Re-implementation of a mandatory requirement to mark traps under Federal regulations creates unnecessary divergence of State and Federal regulations, which may create confusion for Federally qualified subsistence users. Although adoption of the proposal could allow law enforcement to more easily identify trappers that have traps deployed outside the open season or have otherwise violated regulations, mandatory trap marking does not necessarily prevent illegal trapping activity or prevent dogs from getting trapped. Also, adoption of this proposal will not affect State regulations, which would allow Federally qualified subsistence users to operate traps under State regulations to avoid this requirement.

OSM PRELIMINARY CONCLUSION

Oppose Proposal WP20-08.

Justification

Requiring Federally qualified subsistence users to mark traps is an unnecessary burden, as mandatory marking does not prevent illegal trapping activity. With State regulations being less restrictive, Federally qualified subsistence users could avoid the requirement by trapping under those regulations, essentially rendering a Federal marking requirement unenforceable. There is no anticipated conservation concern to furbearers with opposing this proposal, as there is no established correlation between furbearer harvest levels and trap marking requirements. Adoption of this proposal also creates unnecessary divergence between State and Federal regulations.

LITERATURE CITED

FSB. 2012. Transcripts of Federal Subsistence Board proceedings, January 17-20, 2012. Office of Subsistence Management, USFWS. Anchorage, AK.

FSB. 2014. Transcripts of Federal Subsistence Board proceedings, April 15-17, 2014. Office of Subsistence Management, USFWS. Anchorage, AK.

FSB. 2018. Transcripts of Federal Subsistence Board proceedings, April 11-13, 2018. Office of Subsistence Management, USFWS. Anchorage, AK.

FWS. 2012. Staff Analysis WP12-14. Pages 969-976 in Federal Subsistence Board Meeting Materials January 17–2012. Office of Subsistence Management, USFWS. Anchorage, AK. 1,020 pages.

FWS. 2014. Staff Analysis WP14-01. Pages 352-367 in Federal Subsistence Board Meeting Materials April 15-17, 2014. Office of Subsistence Management, USFWS. Anchorage, AK. 628 pages.

SEASRAC. 2011. Transcripts of the Southeast Alaska Subsistence Regional Advisory Council, September 27-29, 2011 in Wrangell, Alaska. Office of Subsistence Management, USFWS. Anchorage, AK.

SEASRAC. 2017. Transcripts of the Southeast Alaska Subsistence Regional Advisory Council, October 31-November 2, 2017 in Juneau, Alaska. Office of Subsistence Management, USFWS. Anchorage, AK.

WRITTEN PUBLIC COMMENTS

Ketchikan Advisory Committee
June 6th, 2019
ADF&G Conference Room

I. **Call to Order**: 5:40pm by Matt Allen, Secretary

II. **Roll Call:** 8 voting members present, 1 via phone
Members Present: Allen, Crittenden, Dale, James, Westlund, Roth, Shaw, Bezneck, Fox, Scoblic (Phone)
Members Absent (Excused): Doherty, McQuarrie, Skan, Franulovich, Miller
Members Absent (Unexcused):
Number Needed for Quorum on AC: 8
List of User Groups and Public Present: Public, Sportfish Charter, ADFG (Sport Fish, Wildlife)
Motion: Bezneck, motion to make Allen meeting Chair, Roth, second. 9-0 in favor. Allen sits as meeting Chair

III. **Approval of Agenda:**
Allen, motion to amend agenda to include discussion of Federal Subsistence Proposals 10, 11, 13,14. Westlund seconded. Motion passed unanimously (9-0). Westlund, moved to approve agenda, Dale seconded. Motion passed unanimously (9-0)

IV. **Approval of Previous Meeting Minutes:**
Previous meeting minutes incomplete at this time

V. **Fish and Game Staff Present:**
Kelly Reppert, Ross Dorendorf, Tessa Hasbrouck

VI. **Guests Present: Jim Moody, Nick Hashagan, Martin Caplan, Tony Azure**

VII. **Chairman Report: Allen** read co-chair letter from Scoblic/Doherty

VIII. **ADF&G Sportfish Report: Reppert**, report regarding catch and release chinook fishing. Discussion and comment followed report.

IX. **Old Business:**
Federal Subsistence Proposals 2020-2022, WP20-01-08, WP20-10-15

X. **New Business:**
Catch and Release of chinook by Charter fishermen
Set next meeting date, September 12th, 2019, 5:30pm ADFG Conference Room

Federal Subsistence Management Program 2020-2022 Wildlife Proposal Comments			
Proposal Number	**Proposal Description**		
Support, Support as Amended, Oppose, No Action	**Number Support**	**Number Oppose /Abstain**	**Comments, Discussion (list Pros and Cons), Amendments to Proposal, Voting Notes**
WP20-01	Southeast, Moose, Unit 1C, Eliminate Unit 1C – Berners Bay moose hunt		
Support	8	0/1 abstain	A biological concern does not currently exist necessitating a subsistence priority. Majority of traditional use comes from Juneau area. A fair system is currently in place to provide for opportunity
WP20-02	Southeast, Deer, Unit 2, Remove harvest limits to non-federally qualified users		
Support	9	0	We support State managers in their assessment of the deer population and the opportunity it can support.
WP20-03	Southeast, Deer, Unit 2, Eliminate doe harvest		
Oppose	1	8	Though the AC does not agree with doe harvest, we do not support this proposal because it would have minimal impact.
WP20-04	Southeast, Deer, Unit 2, Revise harvest limit		
Oppose	3	6	Some AC members support cessation of doe harvest if only for a short period of time.
WP20-05	Southeast, Deer, Unit 2, Establish a registration permit for does		
Support	7	1/1	AC supports the proposal as it may lead to better data for management.
WP20-06	Southeast, Deer, Unit 2, Revise season		
Support	9	0	AC supports removal of January hunt due to small amount of harvest, reduced quality of meat and difficulty in distinguishing bucks and does.
WP20-07	Southeast, Deer, Unit 2, Revise harvest limit		
Support	9	0	
WP20-08	Statewide, All Trapping Species, Require traps or snares to be marked with name or State Identification number		
Oppose	1	8	Though some type of compromise should be reached in regards to labelling of traps/snares a one size fits all regulation could be overly burdensome in some areas
WP20-09	Southeast, Beaver, Units 1-4, Revise trapping season		
No Action			
WP20-10	Statewide, Black Bear, Units 1-5, Revise Customary and Traditional Use Determination		

Oppose	2	6	Hunting of Black Bear is not customary and traditional in all units residing in Southeast
WP20-11	Statewide, Brown Bear, Units 1-5, Revise Customary and Traditional Use Determination		
	3	4	Hunting of Brown Bear is not customary and traditional in all units residing in Southeast.
WP20-12	Southeast, Deer, Unit 3, Revise hunt areas, season dates, and harvest limits		
WP20-13	Statewide, Elk, Unit 3, Establish Customary and Traditional Use Determination		
	0	9	This is a population introduced by the State in 1986, due to this fact we do not believe this population is traditional and customary for any Unit in Southeast Alaska. The authors of this proposal do not demonstrate how this particular species in this area has been used to meet the definition as customary and traditional.
WP20-14	Statewide, Goat, Unit 1-5, Revise Customary and Traditional Use Determination		
	4	4	Hunting of Mountain Goat is not Customary and Traditional in all Units residing in Southeast.
WP20-15	Statewide, Moose, Unit 1-5, Revise Customary and Traditional Use Determination		
	0	8	Hunting of Moose is not customary and traditional in all units residing in Southeast.
WP20-16	Statewide, Wolf, Unit 2, Eliminate harvest limit/quota and revise sealing requirement		
No Action			
WP20-17	Statewide, Wolf, Unit 2, Eliminate harvest limit/quota and revise sealing requirement		
No Action			

Adjournment:

Minutes Recorded By: _____
Minutes Approved By: _____
Date: _____

June 25, 2019
TO: Federal Board of Subsisence Management, (Att: Theo Mutskowitz)
FROM: Alaskans FOR Wildlife and any Cooperating Entities
RE: Comments on Subsistence Proposals

Please consider these comments on numbered proposals. Comments are offered from a public perspective that reflects several major considerations which we earnestly wish you and the board to keep clearly in mind as you make decisions on these and all proposals offered, namely,

1) The lands in question are publically owned lands belonging to all US citizens who in theory and in law all have interest in how wildlife on these lands are managed, and
2) Article 8 of our Alaska Constitution clearly sets forth that ALL (emphasis) Alaskans are stakeholders, all essentially owners, with respect to its natural resources and how they are managed .

WP-20 Wolf Trapping lifting harvest restrictions and extending sealing time.
OPPOSE

-2-

This proposal leads to spreading unrestricted wolf take everywhere. Given especially the substantial science on the value of apex predators plus the high interest in sustaining wolf populations on American public lands including here in Alaska as essential to maintenance of ecosystem biodiversity, we maintain that enactment of this proposal would result in another chapter in the unscientific overall continued war on wolves. This proposal to lift harvest limits and to extend sealing limits also already excessive in length are not scientifically justified nor justified as a pubic matter given the overall value of wolves to maintenance of biodiversity. It must not pass.

WP20-17 – Removing harvest quotas and sealing requirements for hunting wolves, OPPOSE.
We oppose this proposal for the same reasons offered to oppose the previous proposal, WP20-16.
The values of wolves as apex predator and its place in American culture must have bearing upon this consideration. No science and no national or even Alaskan public cultural norms can possibly support this permissively reckless proposal to expand wolf take without bounds. It must not pass.

WP20-26 Permitting the use of snowmachines to "position" wildlife for harvest. OPPOSE

This proposal would expand this practice apparently from other land management units. In essence "positioning" is another term for what in reality will result in chasing, and harassing wildlife to exhaustion, prohibitions in the regulation notwithstanding, due to impossible enforcement limitations. As an example, when asked to explain existing regulations for snowmachine use in trapping and hunting, an Alaska wildlife trooper explained he does not even understand the regulation.

Expanded snowmachine use, "positioning," will amount to a continued enforcement challenge. Widespread abuse will surely result and will continue to give subsistence the reputation of abuse when it really needs public support: we feel that as we now face mass extinctions of wildlife species; there is new public and growing focus on the crisis. This is an extremely unwise plunge to the bottom and we caution a futuristic consideration.

WP20-08 Proposal to require traps and snares to be marked with name and state identification number.

SUPPORT This proposal is topical, even in urban municipalities of Alaska as conflicts in public use areas resulting in injuries to hikers, pets and other outdoor public land users rise .

Keeping in mind even the use of more remote public lands grows as outdoor users of their lands increase, the potential for conflicts including serious injuries resulting from hidden owner-unidentified traps will increase.

Organized trappers have strongly opposed such requirements as proposed here in past requests for change considered by the Alaska Board of Game. We witness the public land users (including of federal lands) would most certainly strongly favor this accountability. We strongly favor this proposal.

In closing, please carefully consider these comments as you go forward with the process over the next year or so. WE thank you for your consideration of these comments.

Sincerely,

Jim Kowalsky,
Chair, Alaskans FOR Wildlife
PO Box 81957
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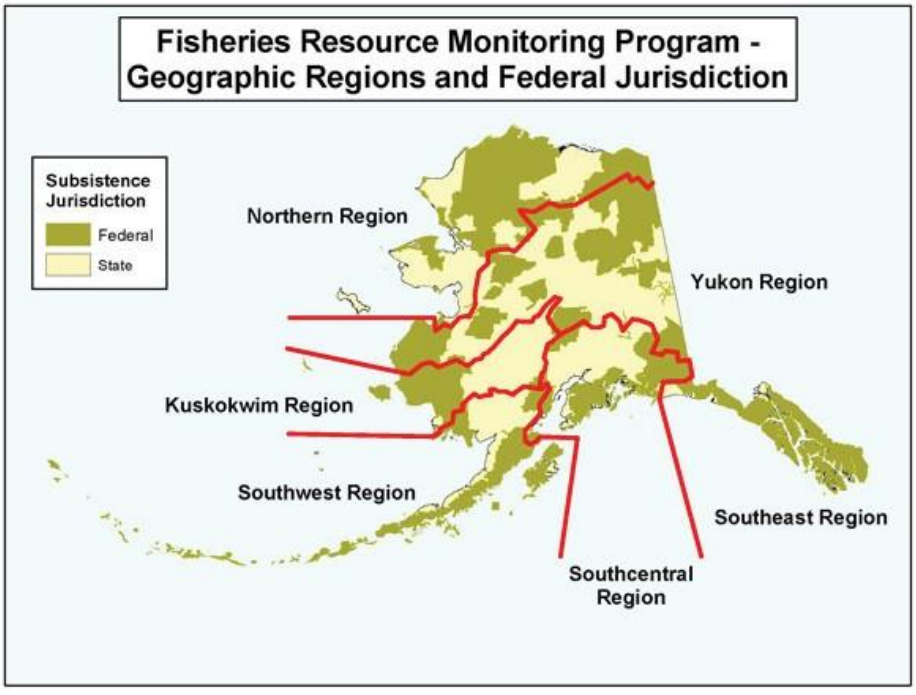
FISHERIES RESOURCE MONITORING PROGRAM

BACKGROUND

Section 812 of the Alaska National Interest Lands Conservation Act (ANILCA) directs the Departments of the Interior and Agriculture, cooperating with other Federal agencies, the State of Alaska, and Alaska Native and other rural organizations, to research fish and wildlife subsistence uses on Federal public lands; and to seek data from, consult with, and make use of the knowledge of local residents engaged in subsistence. When the Federal government assumed responsibility for management of subsistence fisheries on Federal public lands and waters in Alaska in 1999, the Secretaries of the Interior and Agriculture made a commitment to increase the quantity and quality of information available to manage subsistence fisheries, to increase quality and quantity of meaningful involvement by Alaska Native and other rural organizations, and to increase collaboration among Federal, State, Alaska Native, and rural organizations. The Fisheries Resource Monitoring Program (Monitoring Program) is a collaborative, interagency, interdisciplinary approach to enhance fisheries research and data in Alaska and effectively communicate information needed for subsistence fisheries management on Federal public lands and waters.

Every two years, the Office of Subsistence Management announces a funding opportunity for investigation plans addressing subsistence fisheries on Federal public lands. The 2020 Notice of Funding Opportunity focused on priority information needs developed by the Subsistence Regional Advisory Councils with input from strategic plans and subject matter specialists. The Monitoring Program is administered through regions to align with stock, harvest, and community issues common to a geographic area. The six Monitoring Program regions are shown below.



Strategic plans sponsored by the Monitoring Program have been developed by workgroups of fisheries managers, researchers, Subsistence Regional Advisory Councils, and by other stakeholders for three of the six regions: Southeast, Southcentral (excluding Cook Inlet Area), and Southwest Alaska, and for Yukon and Kuskokwim drainages whitefish (available for viewing at the Monitoring Program webpage at https://www.doi.gov/subsistence/frmp/plans). These plans identify prioritized information needs for each major subsistence fishery. Individual copies of plans are available from the Office of Subsistence Management by calling (907) 786-3888 or toll Free: (800) 478-1456 or by email subsistence@fws.gov. An independent strategic plan was completed for the Kuskokwim Region for salmon in 2006 and can be viewed at the Alaska-Yukon-Kuskokwim Sustainable Salmon Initiative website at https://www.aykssi.org/salmon-research-plans/.

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

Project executive summaries are assembled into a draft 2020 Fisheries Resources Monitoring Plan. The draft plan is distributed for public review and comment through Subsistence Regional Advisory Council meetings, beginning in September 2019. The Federal Subsistence Board will review the draft plan and will accept written and oral comments at its January 2020 meeting. The Federal Subsistence Board forwards its comments to the Assistant Regional Director of the Office of Subsistence Management. Final funding approval lies with the Assistant Regional Director of the Office of Subsistence Management. Investigators are subsequently notified in writing of the status of their proposals.

HISTORICAL OVERVIEW

The Monitoring Program was first implemented in 2000 with an initial allocation of $5 million. Since 2000, a total of $117 million has been allocated for the Monitoring Program to fund a total of 452 projects (**Figure 1** and **Figure 2**).

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

Figure 1. Monitoring Program Funds Distributed, by Organization Type, Since 2000

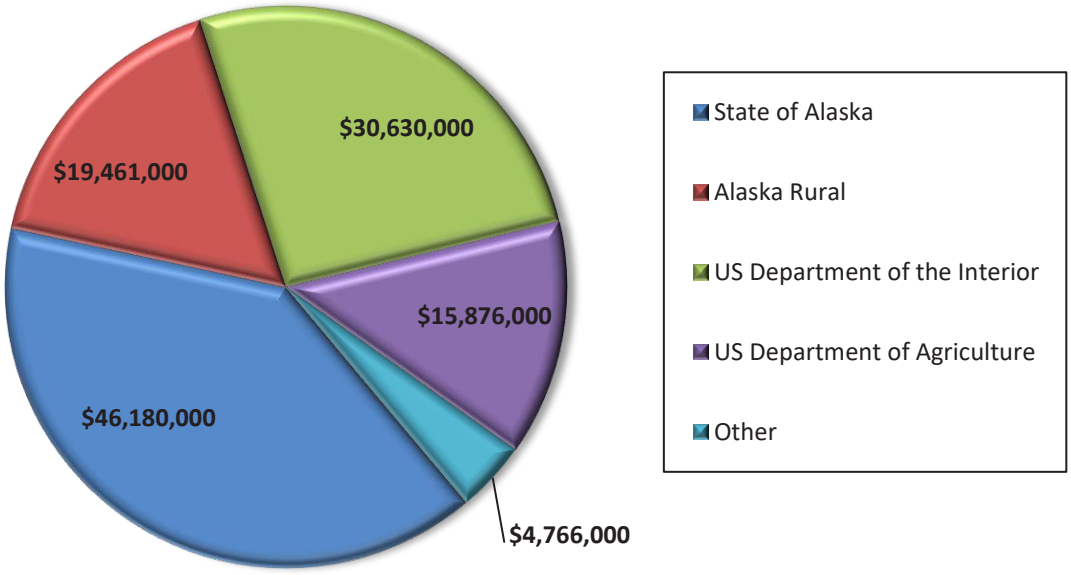


Figure 2. Number of Monitoring Program Projects Funded, by Organization Type, since 2000

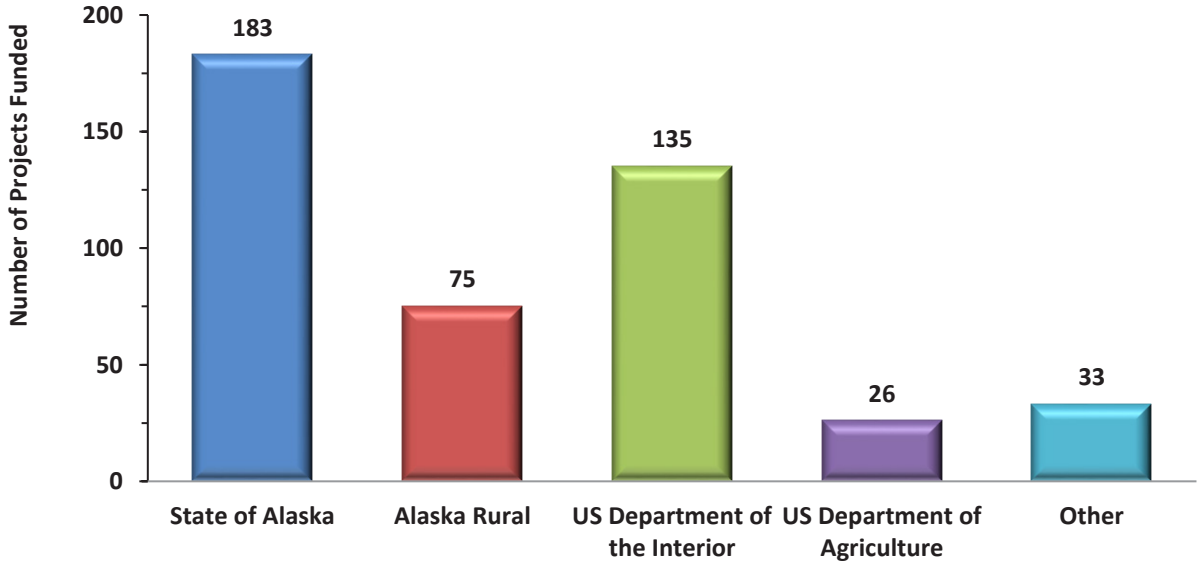
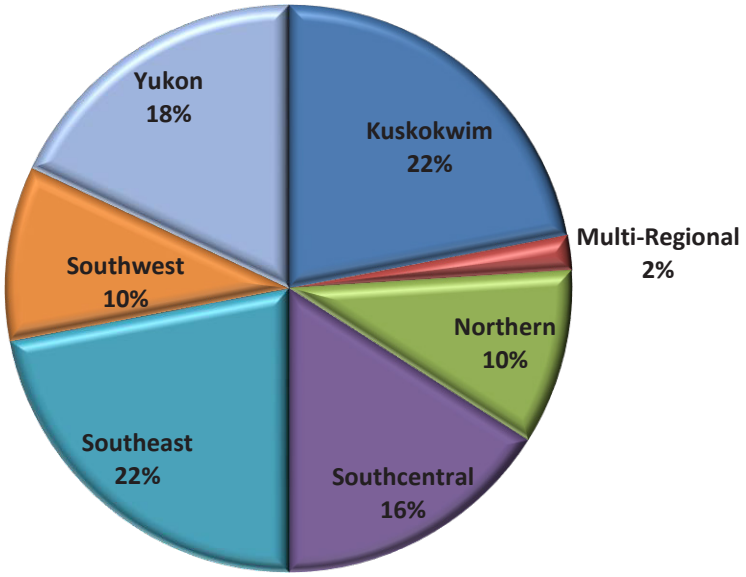


Table 1. Regional allocation guideline for Fisheries Resource Monitoring Program Funds.

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

Figure 3. Percentages of Monitoring Program Funding Distributed to Each Region since 2000



The following three broad categories of information that are solicited for the Monitoring Program: (1) harvest monitoring, (2) traditional ecological knowledge, and (3) stock status and trends. Projects that combine these approaches are encouraged. Definitions of these three categories of information are listed below.

Harvest monitoring studies provide information on numbers and species of fish harvested, locations of harvests, and gear types used. Methods used to gather information on subsistence harvest patterns may

include harvest calendars, mail-in questionnaires, household interviews, subsistence permit reports, and telephone interviews.

Traditional ecological knowledge studies are investigations of local knowledge directed at collecting and analyzing information on a variety of topics, including: the sociocultural aspects of subsistence, fish ecology, species identification, local names, life history, taxonomy, seasonal movements, harvests, spawning and rearing areas, population trends, environmental observations, and traditional management systems. Methods used to document traditional ecological knowledge include ethnographic fieldwork, key respondent interviews with local experts, place name mapping, and open-ended surveys.

Stock status and trends studies provide information on abundance and run timing; age, size, and sex composition; migration and geographic distribution; survival of juveniles or adults; stock production; genetic stock identification; and mixed stock analyses. Methods used to gather information on stock status and trends include aerial and ground surveys, test fishing, towers, weirs, sonar, video, genetics, mark-recapture, and telemetry.

PROJECT EVALUATION PROCESS

In the current climate of increasing conservation concerns and subsistence needs, it is imperative that the Monitoring Program prioritizes high quality projects that address critical subsistence questions. Projects are selected for funding through an evaluation and review process that is designed to advance projects that are strategically important for the Federal Subsistence Management Program, are technically sound, administratively competent, promote partnerships and capacity building, and are cost effective. Projects are evaluated by a panel called the Technical Review Committee. This committee is a standing interagency committee of senior technical experts that is foundational to the credibility and scientific integrity of the evaluation process for projects funded by the Monitoring Program. The Technical Review Committee reviews, evaluates, and makes recommendations about proposed projects, consistent with the mission of the Monitoring Program. Fisheries and Anthropology staff from the Office of Subsistence Management provide support for the Technical Review Committee. Recommendations from the Technical Review Committee provide the basis for further comments from Subsistence Regional Advisory Councils, the public, the Interagency Staff Committee, and the Federal Subsistence Board, with final approval of the Monitoring Plan by the Assistant Regional Director of the Office of Subsistence Management.

To be considered for funding under the Monitoring Program, a proposed project must have a nexus to Federal subsistence fishery management. Proposed projects must have a direct association to a Federal subsistence fishery, and the subsistence fishery or fish stocks in question must occur in or pass through waters within or adjacent to Federal public lands in Alaska (National Wildlife Refuges, National Forests, National Parks and Preserves, National Conservation Areas, National Wild and Scenic River Systems, National Petroleum Reserves, and National Recreation Areas). A complete project package must be submitted on time and must address the following five specific criteria to be considered a high quality project.

1. ***Strategic Priorities***—Studies should be responsive to information needs identified in the 2020 Priority Information Needs available at the Monitoring Program webpage at https://www.doi.gov/subsistence/frmp/funding. All projects must have a direct linkage to Federal public lands and/or waters to be eligible for funding under the Monitoring Program. To assist in evaluation of submittals for projects previously funded under the Monitoring Program, investigators must summarize project findings in their investigation plans. This summary should clearly and concisely document project performance, key findings, and uses of collected information for Federal subsistence management. Projects should address the following topics to demonstrate links to strategic priorities:

    - Federal jurisdiction—The extent of Federal public waters in or nearby the project area
    - Direct subsistence fisheries management implications
    - Conservation mandate—Threat or risk to conservation of species and populations that support subsistence fisheries
    - Potential impacts on the subsistence priority—Risk that subsistence harvest users' goals will not be met
    - Data gaps—Amount of information available to support subsistence management and how a project answers specific questions related to these gaps
    - Role of the resource—Contribution of a species to a subsistence harvest (number of villages affected, pounds of fish harvested, miles of river) and qualitative significance (cultural value, unique seasonal role)
    - Local concern—Level of user concerns over subsistence harvests (upstream vs. downstream allocation, effects of recreational use, changes in fish abundance and population characteristics)

2. ***Technical-Scientific Merit***—Technical quality of the study design must meet accepted standards for information collection, compilation, analysis, and reporting. To demonstrate technical and scientific merit, applicants should describe how projects will:

    - Advance science
    - Answer immediate subsistence management or conservation concerns
    - Have rigorous sampling and/or research designs
    - Have specific, measurable, realistic, clearly stated, and achievable (attainable within the proposed project period) objectives
    - Incorporate traditional knowledge and methods

    Data collection, compilation, analysis, and reporting procedures should be clearly stated. Analytical procedures should be understandable to the non-scientific community. To assist in evaluation of submittals for continuing projects previously funded under the Monitoring

Program, summarize project findings and justify continuation of the project, placing the proposed work in context with the ongoing work being accomplished.

3. ***Investigator Ability and Resources***—Investigators must show they are capable of successfully completing the proposed project by providing information on the ability (training, education, experience, and letters of support) and resources (technical and administrative) they possess to conduct the work. Investigators that have received funding in the past, via the Monitoring Program or other sources, are evaluated and scored on their past performance, including fulfillment of meeting deliverable and financial accountability deadlines. A record of failure to submit reports or delinquent submittal of reports will be taken into account when rating investigator ability and resources.

4. ***Partnership and Capacity Building***—Investigators must demonstrate that capacity building has already reached the communication or partnership development stage during proposal development and, ideally, include a strategy to develop capacity building to higher levels, recognizing, however, that in some situations higher level involvement may not be desired or feasible by local organizations.

   Investigators are requested to include a strategy for integrating local capacity development in their study plans or research designs. Investigators should inform communities and regional organizations in the area where work is to be conducted about their project plans, and should also consult and communicate with local communities to ensure that local knowledge is utilized and concerns are addressed. Investigators and their organizations should demonstrate their ability to maintain effective local relationships and commitment to capacity building. This includes a plan to facilitate and develop partnerships so that investigators, communities, and regional organizations can pursue and achieve the most meaningful level of involvement. Proposals demonstrating multiple, highly collaborative efforts with rural community members or Alaska Native Organizations are encouraged.

   Successful capacity building requires developing trust and dialogue among investigators, local communities, and regional organizations. Investigators need to be flexible in modifying their work plan in response to local knowledge, issues, and concerns, and must also understand that capacity building is a reciprocal process in which all participants share and gain valuable knowledge. The reciprocal nature of the capacity building component(s) should be clearly demonstrated in proposals. Investigators are encouraged to develop the highest level of community and regional collaboration that is practical including joining as co-investigators.

   Capacity can be built by increasing the technical capabilities of rural communities and Alaska Native organizations. This can be accomplished via several methods, including increased technical experience for individuals and the acquisition of necessary gear and equipment. Increased technical experience would include all areas of project management including logistics, financial accountability, implementation, and administration. Other examples may include internships or providing opportunities within the project for outreach, modeling, sampling design,

or project specific training. Another would be the acquisition of equipment that could be transferred to rural communities and tribal organizations upon the conclusion of the project.

A "meaningful partner" is a partner that is actively engaged in one or more aspects of project design, logistics, implementation and reporting requirements. Someone who simply agrees with the concept or provides a cursory look at the proposal is not a meaningful partner.

5. ***Cost/Benefit*—**This criterion evaluates the reasonableness (what a prudent person would pay) of the funding requested to provide benefits to the Federal Subsistence Management Program. Benefits could be tangible or intangible. Examples of tangible outcomes include data sets that directly inform management decisions or fill knowledge gaps and opportunities for youth or local resident involvement in monitoring, research and/or resource management efforts. Examples of possible intangible goals and objectives include enhanced relationships and communications between managers and communities, partnerships and collaborations on critical resource issues, and potential for increased capacity within both communities and agencies.

   Applicants should be aware that the Government shall perform a "best value analysis" and the selection for award shall be made to the applicant whose proposal is most advantageous to the Government. The Office of Subsistence Management strives to maximize program efficiency by encouraging cost sharing, partnerships, and collaboration.

POLICY AND FUNDING GUIDELINES

Several policies have been developed to aid in implementing funding. These policies include:

- Projects of up to four years in duration may be considered
- Proposals requesting Monitoring Program funding that exceeds $215,000.00 in any one year are not eligible for funding
- Studies must not duplicate existing projects
- Long term projects will be considered on a case by case basis

Activities that are not eligible for funding include:

- Habitat protection, mitigation, restoration, and enhancement
- Hatchery propagation, restoration, enhancement, and supplementation
- Contaminant assessment, evaluation, and monitoring
- Projects where the primary or only objective is outreach and education (for example, science camps, technician training, and intern programs), rather than information collection

The rationale behind these policy and funding guidelines is to ensure that existing responsibilities and efforts by government agencies are not duplicated under the Monitoring Program. Land management or regulatory agencies already have direct responsibility, as well as specific programs, to address these activities. However, the Monitoring Program may fund research to determine how these activities affect Federal subsistence fisheries or fishery resources.

The Monitoring Program may fund assessments of key Federal subsistence fishery stocks in decline or that may decline due to climatological, environmental, habitat displacement, or other drivers; however, applicants must show how this knowledge would contribute to Federal subsistence fisheries management. Similarly, the Monitoring Program may legitimately fund projects that assess whether migratory barriers (e.g., falls, beaver dams) significantly affect spawning success or distribution; however, it would be inappropriate to fund projects to build fish passes, remove beaver dams, or otherwise alter or enhance habitat.

2020 FISHERIES RESOURCE MONITORING PLAN

For 2020, a total of 28 investigation plans were received and all are considered eligible for funding. For 2020, the Department of the Interior, through the U.S. Fish and Wildlife Service, will provide an anticipated $1.5 million in funding statewide for new projects. The U.S. Department of Agriculture, through the U.S. Forest Service, has historically provided some funding. The amount of U.S. Department of Agriculture funding available for 2020 projects is uncertain.

FISHERIES RESOURCE MONITORING PROGRAM
NORTHERN ALASKA REGION OVERVIEW

Since the inception of the Monitoring Program in 2000, a total of 49 projects have been undertaken in the Northern Alaska Region costing $11.8 million (**Figure 1**). Of these, the State of Alaska received funds to conduct 26 projects, the Department of the Interior conducted 15 projects, Alaska Rural Organizations conducted 5 projects, and other organizations conducted three projects (**Figure 2**). See **Appendix 1** for more information on Northern Alaska Region projects completed since 2000.

Figure 1. Monitoring Program Funds Distributed, by Orginization Type, in the Northern Alaska Region since 2000

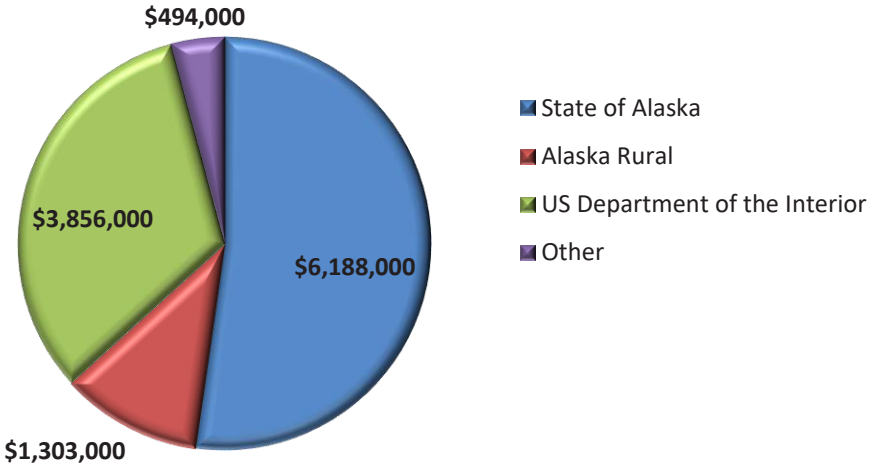
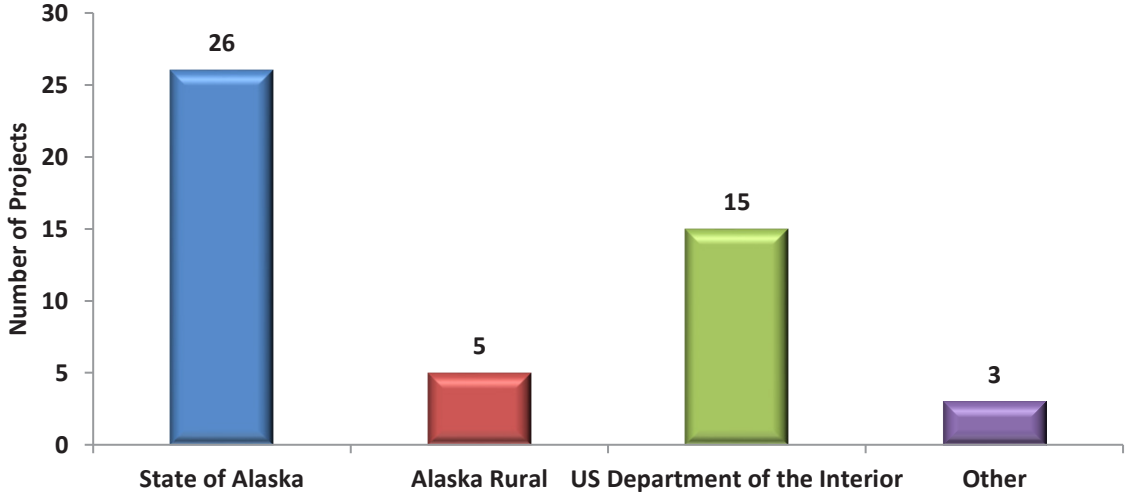


Figure 2. The Number of Monitoring Program Projects Funded, by Organization Type, in the Northern Alaska Region Since 2000



PRIORITY INFORMATION NEEDS

The 2020 Notice of Funding Opportunity for the Northern Alaska Region identified six priority information needs:

- Inventory and baseline data of fish assemblages in major rivers of northern Seward Peninsula tied to subsistence use, including Shishmaref, with the intent to add to the anadromous fish catalog.
- Agiapuk River Chum Salmon abundance estimates for both summer/fall runs.
- Coho Salmon abundance estimates for Pargon, Boston, and Wagon Wheel Rivers.
- Changes in species compositions, abundance, and migration timing, especially of Dolly Varden and whitefish species in the Northwest Arctic, to address changing availability of subsistence fishery resources. When possible, applicants are encouraged to include fisheries proximal to the communities of Kotzebue, Deering, and Noatak.
- The effects of expanding beaver populations and range on subsistence fisheries in the Northwest Arctic. Includes the effects of dams on fish migration and the effects of changes to water quality on fish health.
- Document temporal changes in harvest patterns, resource availability and abundance of Broad Whitefish in the tributaries of Smith Bay and Lake Tusikvoak. Including application to Federal subsistence management, such as identifying critical habitat, refining range maps and understanding ecological relationships. Identify spawning locations of Broad Whitefish in central and western North Slope.

AVAILABLE FUNDS

Federal Subsistence Board guidelines direct initial distribution of funds among regions. Regional budget guidelines provide an initial target for planning. For 2020, the Department of the Interior, through the U.S. Fish and Wildlife Service, will provide an anticipated $1.5 million in funding statewide for new projects in 2020. The U.S. Department of Agriculture, through the U.S. Forest Service, has historically provided some funding. The amount of U.S. Department of Agriculture funding available for 2020 projects is uncertain.

ROLE OF THE TECHNICAL REVIEW COMMITTEE

The mission of the Monitoring Program is to identify and provide information needed to sustain subsistence fisheries on Federal public lands for rural Alaskans through a multidisciplinary and collaborative program. It is the responsibility of the Technical Review Committee to develop the strongest possible Monitoring Plan for each region and across the entire state.

For the 2020 Monitoring Program, four proposals were submitted for the Northern Alaska Region. The Technical Review Committee evaluated and scored each proposal on Strategic Priority, Technical and

Scientific Merit, Investigator Ability and Resources, Partnership and Capacity Building, and Cost/Benefit (**Table 1**). These scores remain confidential. An executive summary for each proposal submitted to the 2020 Monitoring Program for the Northern Alaska Region is in **Appendix 2**.

Table 1. Projects submitted for the Northern Alaska Region, 2020 Monitoring Program, including total funds requested and average annual funding requests.

Project Number	Title	Total Project Request	Average Annual Request
20-100	Fish Assemblages and Genetic Stock Determination of Salmon in Bering Land Bridge National Preserve	$316,800	$79,200
20-101	Life-history Variability and Mixed-stock Analysis of Dolly Varden in the Noatak River	$246,177	$82,059
20-150	Traditional Ecological Knowledge of Dolly Varden and Whitefish Species in Northwest Alaska	$172,684	$86,342
20-151	Increasing Beaver Activity in Northwest Alaska: Traditional Ecological Knowledge and Geospatial Analysis of Impacts to Subsistence Fish Resources	$486,070	$162,063
	Total	$1,221,731	$409,664

TECHNICAL REVIEW COMMITTEE JUSTIFICATIONS FOR PROJECT SCORES

Project Number: 20-100
Project Title: Fish Assemblages and Genetic Stock Determination of Salmon in Bering Land Bridge National Preserve

Technical Review Committee Justification: This project seeks to document the presence and distribution of important subsistence fish species that utilize Federal public lands/waters in Bering Land Bridge National Preserve (BELA). Information on stock status, species distribution, and population age structure are lacking for this area with many of the major rivers surveyed sporadically, or not at all. This project contains a linkage to Federal public lands/waters for subsistence use as it focuses on the fisheries of BELA. It involves several species of fish harvested by Federally qualified subsistence users and directly addresses a 2020 Priority Information Need: Inventory and baseline data of fish assemblages in major rivers of northern Seward Peninsula tied to subsistence use, including Shishmaref, with the intent to add to the anadromous fish catalog. The proposer intends to identify fish species and habitats within the BELA. The project would then use biological methods to survey for these species. These research objectives would support effective management for several subsistence resources with a focus on salmon. This project proposes to build / increase capacity by using local hire to help with the field sampling, but it does not describe any training that would build capacity. The proposal involves a partnership between State and Federal agencies. The principal investigator provided a letter of support from Native Village of Shishmaref IRA council.

Project Number: 20-101
Project Title: Life-history Variability and Mixed-stock Analysis of Dolly Varden in the Noatak River

TRC Justification: This project seeks to directly address a Northern Alaska Region 2020 Priority Information Need to address the changing availability of Dolly Varden subsistence fishery resources by using otolith microchemistry. Specifically, to determine life-history variability throughout the drainage and compare life-histories of present-day spawners and harvests to fish sampled in the early 1980s. Additionally, genetic analysis will be used to identify the genetic makeup of the harvests of spawning populations of mixed-stocks. The investigative plan draws a clear connection between the importance of the research and management implications for subsistence. Given the backgrounds of the principal investigators and co-investigators, it is likely the project goals and objectives will be achieved and project deliverables submitted in a timely manner. The investigator proposes to hire two locals each year to assist with the in-season collection of fish samples, and an Alaska Science and Engineering student to work in the field and laboratory alongside professional mentors to provide a meaningful internship. Additionally, this project will support a Master of Science thesis student's research at University of Alaska Fairbanks. The investigators have a proven track record and are employed in agencies that have the necessary administrative and technical support, and resources for the successful completion of the project. Each of the investigators is considered an expert in their field including, genetics, stable isotope microchemistry, and research of Arctic fishes. All four of the Principal Investigators have completed Monitoring Program projects in the past and have submitted deliverables on time. The project goals will likely improve our understanding of this complex fish species. Although Dolly Varden are not currently considered to be a species of conservation concern, the changing climate of the Arctic may produce new environmental stressors leaving this species at risk.

Project Number: 20-150
Project Title: Traditional Ecological Knowledge of Dolly Varden and Whitefish Species in Northwest Alaska

Technical Review Committee Justification: This project seeks to address a 2020 Priority Information Need for the Northern Alaska Region, "Changes in species compositions, abundance and migration timing, especially of Dolly Varden and whitefish species in the Northwest Arctic, to address changing availability of subsistence fishery resources." Ms. Mikow has the ability and experience to conduct this project. She would have substantial resources available through her position with the Alaska Department of Fish and Game. Her plan for engaging with communities is well-conceived. However, the proposal does not adequately demonstrate how the planned research activities would address the relevant priority information need; management application is not clearly demonstrated. One letter of support from the National Park Service was provided. There were no letters of support from the communities where the proposed research would be undertaken.

Project Number: 20-151
Project Title: Increasing Beaver Activity in Northwest Alaska: Traditional Ecological Knowledge and Geospatial Analysis of Impacts to Subsistence Fish Resources

Technical Review Committee Justification: This project seeks to document beaver activity over time in the Northwest Arctic for the purpose of evaluating landscape level effects of expanding beaver populations on subsistence fisheries. While the methods proposed appear adequate to document knowledge and concerns regarding beavers, as well as visible landscape effects of beaver dams, the project does not adequately link the resultant data to the effects on subsistence fisheries and only marginally addresses a priority information need. The proposed methods are scientifically sound and proven in achieving the intended results though it is unclear why individual methods were chosen over others. The partnership and capacity components of this proposal are limited. The budget for this project appears reasonable for meeting stated objectives but may be high given the limited applicability to Federal subsistence fishery management outcomes. There is also limited money allocated to local hires. The project leverages resources from a concurrent project and expands the scope of that project significantly. Both project investigators and their associated organizations appear to have substantial experience and resources to make this project successful.

APPENDIX 1
PROJECTS FUNDED IN THE NORTHERN ALASKA REGION SINCE 2000

Project Number	Project Title	Investigators
	North Slope	
00-002	Eastern NS Dolly Varden Spawning and Over-wintering Assessment	ADF&G, USFWS
01-113	Eastern NS Dolly Varden Genetic Stock ID Stock Assessment	ADF&G, USFWS
01-101	Eastern NS (Kaktovik) Subsistence Fish Harvest Assessment	AD&FG, KIC
02-050	NS (Anaktuvuk Pass) Subsistence Fish Harvest Assessment	ADF&G, NSB, AKP
03-012	SST of Arctic Cisco and Dolly Varden in Kaktovik Lagoons	USFWS
04-103	North Slope Dolly Varden Sonar Feasibility	USFWS
06-108	North Slope Dolly Varden Aerial Monitoring	ADF&G
07-105	North Slope Dolly Varden Genetic Baseline Completion	USFWS
07-107	Hulahula River Dolly Varden Sonar Enumeration	USFWS
12-154	North Slope Salmon Fishery HM/TEK	ADF&G
14-103	Beaufort Sea Dolly Varden Dispersal Patterns	UAF
16-101	Arctic Dolly Varden Telemetry	USFWS
16-106	Aerial Monitoring of Dolly Varden Overwintering Abundance	ADF&G, USFWS
16-107[a]	Chandler Lake Trout Abundance Estimation	ADF&G
16-152[b]	Meade River Changes in Subsistence Fisheries	ADF&G
18-100[b]	Colville River Grayling Habitat and Migration	ADF&G

Project Number	Project Title	Investigators
	Northwest Arctic	
00-001	Northwestern Dolly Varden and Arctic Char Stock Identification	ADF&G, USFWS
00-020	Hotham Inlet Kotzebue Winter Subsistence Sheefish Harvest	ADF&G
01-136	Northwestern Alaska Dolly Varden Genetic Diversity	ADF&G, USFWS
01-137	Northwestern Alaska Dolly Varden Spawning Stock Assessment	ADF&G
02-023	Qaluich Nigingnaqtuat: Fish That We Eat	AJ
02-040	Kotzebue Sound Whitefish Traditional Knowledge	ADF&G, MQ
03-016	Selawik River Harvest ID, Spring and Fall Subsistence Fisheries	USFWS
04-101	Selawik River Inconnu Spawning Abundance	USFWS
04-102	Selawik Refuge Whitefish Migration and Habitat Use	USFWS
04-109	Wulik River Dolly Varden Wintering Stocks	USFWS, ADF&G
04-157	Exploring Approaches to Sustainable Fisheries Harvest Assessment	ADF&G, MQ
07-151	Northwest Alaska Subsistence Fish Harvest Patterns and Trends	ADF&G, MQ
08-103	Kobuk River Sheefish Spawning and Run Timing	ADF&G, USFWS
10-100	Selawik Drainage Sheefish Winter Movement Patterns	UAF, USGS, USFWS, NVK
10-104	Hotham Inlet Kotzebue Winter Subsistence Sheefish Harvest	USFWS
10-152	Climate Change and Subsistence Fisheries in Northwest Alaska	UAF
12-100	Selawik River Sheefish Spawning Abundance and Age Structure	USFWS
12-103	Kobuk River Sheefish Spawning Frequency, Location, and Run Timing	ADF&G, USFWS
12-104	Noatak River Dolly Varden Evaluation of Overwintering Populations	ADF&G, NPS
12-153	NW AK Key Subsistence Fisheries Harvest Monitoring Program	ADF&G, MQ
14-104	Selawik R Inconnu Spawning Population Abundance	USFWS
16-103	Kobuk River Dolly Varden Genetics	ADF&G, USFWS
16-104[a]	Selawik Sheefish Age Structure and Spawning Population	USFWS
16-105[b]	Kobuk River Sheefish Abundance	ADF&G
18-101[b]	Kobuk River Dolly Varden Genetic Diversity	ADF&G, USFWS
	Seward Peninsula	
01-224	Nome Sub-district Subsistence Salmon Survey	ADF&G, KI
02-020	Pikmiktalik River Salmon Site Surveys and Enumeration	USFWS, NPS, STB, KI
04-105	Pikmiktalik River Chum and Coho Salmon Enumeration	KI
04-151	Customary Trade of Fish in the Seward Peninsula Area	ADF&G, KI
05-101	Unalakleet River Coho Salmon Distribution and Abundance	ADF&G, NVU
06-101	Pikmiktalik River Chum and Coho Salmon Enumeration	KI
10-102	Unalakleet River Chinook Salmon Abundance Estimate	ADF&G, BLM, NSEDC
10-151	Local Ecological Knowledge of Non-Salmon Fish in the Bering Strait	KI
14-101	Unalakleet River Chinook Salmon Abundance Estimate	NSEDC,NVU
18-103[b]	Unalakleet River Chinook Salmon Escapement Assessment	ADF&G, BLM NSEDC,NVU ADF&G, BLM

Project Number	Project Title	Investigators

a = Final Report in Preparation.
b = On-going projects during 2020.
Abbreviations used for investigators are: **ADF&G** = Alaska Department of Fish and Game, **AJ** = Anore Jones, **AKP** = City of Anaktuvuk Pass, **BLM** = Bureau of Land Management, **KI** = Kawarek Inc., **KIC** = Kaktovik Inupiat Corp., **MQ** = Maniilaq, **NSEDC** = Norton Sound Economic Development Corporation, **NVU** = Native Village of Unalakleet, **NSB** = North Slope Borough, **STB** = Stebbins IRA, **SWCA** = SWCA Environmental Consultants, **UAF** = University Alaska Fairbanks, **USFWS** = U.S. Fish and Wildlife Service, and **USGS** = U.S. Geological Survey.

APPENDIX 2
EXECUTIVE SUMMARIES

The following executive summaries were written by principal investigators and were submitted to the Office of Subsistence Management as part of proposal packages. They may not reflect the opinions of the Office of Subsistence Management or the Technical Review Committee. Executive summaries may have been altered for length.

Project Number:	20-100
Title:	Fish Assemblages and Genetic Stock Determination of Salmon in Bering Land Bridge National Preserve
Geographic Region:	Northern Alaska Region
Data Type:	Stock Status and Trends
Principal Investigator:	Letty Hughes, National Park Service, Bering Land Bridge National Preserve
Co-investigator:	Nicole Braem M.A., National Park Service, Bering Land Bridge National Preserve Dr. Carol Ann Woody, National Park Service Jenefer Bell M.S., Alaska Department of Fish and Game Tyler Dann M.S., Alaska Department of Fish and Game
Project Cost:	**2020:** $101,700 **2021:** $129,400 **2022: $**82,200 **2023:** $3,500
Total Cost:	$316,800

Issue: We propose to examine fish assemblages within major rivers systems of the Bering Land Bridge National Preserve (BELA) with an emphasis on Pacific salmon (Oncorhynchus spp). Salmon and nonsalmon species are essential subsistence resources to residents living in proximity to BELA. At this time essential baseline information is missing on fish in BELA such as species presence and essential habitat locations, and characteristics critical for salmon success (e.g., spawning, rearing, and feeding areas). No northern Seward Peninsula populations have been included in any genetic population structure analyses, to date, that include this region1,2, leaving a large gap in knowledge. The Federal Office of Subsistence Management identified inventory and baseline data of fish assemblages in major rivers of the

northern Seward Peninsula tied to subsistence use as a priority information need for the 2020 FRMP. This area encompasses most of the Bering Land Bridge National Preserve and includes the past and current subsistence hunting and fishing areas of several federally recognized tribes. Wales, Shishmaref, and Deering are most closely affiliated with the preserve, but residents of other Seward Peninsula communities also make use of fish and wildlife resources within the preserve.

Bering Land Bridge National Preserve's enabling legislation directs the preserve to protect the viability of subsistence resources as well as "manage to protect habitat for, and populations of, fish and wildlife including, but not limited to marine mammals." There is an ethic of stewardship of cultural and natural resources for future generations. None of these management goals can be achieved without adequate data.

Adding to the urgency of this data need are ongoing rapid environmental changes occurring across the Arctic. Ecosystems are changing, noted authors of the 2017 Snow, Water, Ice and Permafrost in Arctic report, and arctic ecosystems will face significant stresses and disruptions3. The science reflects what residents of northern Alaska communities have described for more than a decade: earlier spring breakups and later fall freeze-up, thawing permafrost, reduced thickness of sea ice, increasingly brushy vegetation, drying tundra lakes and erratic weather patterns4. These changes will affect the abundance and distribution of fish and wildlife species that support and sustain subsistence lifeways.

Objectives: The long-term overarching goal is to create a baseline inventory of subsistence fish assemblages, and salmon genetic stock structure in major rivers flowing through BELA. The Project Executive Summary For Bering Land Bridge National Preserve measurable and achievable objectives for this 3-year collaborative field study project will investigate the Serpentine, Nuluk, Arctic, and Nugnugaluktuk rivers to 1) document fish species assemblages, with emphasis on Pacific salmon, 2) evaluate genetic variation within salmon species and potential for mixed stock analysis, and 3) collect age sex, and length (ASL) on salmon species identified and sampled for genetics.

Methods: Three methods of data collection will be used in order to meet the objectives of this study: fish presence baseline, genetic sampling, and age-sex-length (ASL).

Fish Inventory: We will survey primary subsistence rivers and streams to document subsistence fish species presence, distribution and habitats in and near within BELA. For wadeable streams a crew transported by a Robinson R-44 helicopter will visit approximately 30 headwater target sites throughout the study area for a total of 10 field days in July and August over the course of 1 year. Over the course of two years crew will visit approximately 7 unwadeable and main stream sites. Unwadeable streams requires one cataraft crew to be transported by a Bell 206BIII helicopter to visit headwater streams throughout the study area for a total of 10 field days. In rivers and streams fish sampling will be conducted using a backpack electrofishing unit. The unit will be operated by biologists and aided by one technician. Size of sampling reach will be dependent on channel size (small wadeable <12.5 m, medium wadeable 12.5 to 25 m, or large wadeable 25 + m), and fishing will focus on all habitat types in a reach. Stunned fish will be captured in nets and placed in a bucket. Fish stress and mortality will be minimized whenever possible by minimizing handling of fish. GPS coordinates of all survey reaches will be logged,

and characteristics recorded. Beach seins will be deployed from shore when feasible (no large obstructions, shoreline is accessible).

Genetics: Genetic baseline samples will be collected from spawning populations of salmon ranging from each of the four proposed rivers. One hundred genetic samples will be targeted from each species of salmon per proposed river. We will genotype chum salmon for genetic markers common to a regional baseline and assess the population genetic structure of chum salmon in the region. We will evaluate that structure for the potential to use mixed stock analysis to determine local area contributions to mixed stock fisheries.

ASL: Nonsalmon species fork lengths [measured from tip of snout to fork of tail (or to tip of tail, if no fork)] will be measured to the nearest millimeter on all collected & identified fish in wadeable and unwadeable streams. Salmon length will be measured mideye to tail fork (METF), to the nearest 1 mm. Scales will be cleaned of slime and debris, mounted on gummed cards and returned to the ADF&G office in Nome. One scale per fish will be collected on chum salmon; for all other species 3 scales will be collected per salmon. Each year, age and gender of salmon will be summarized by species and river location. The data will be reviewed for patterns of similarity between rivers.

Partnership/Capacity Building: Consultation with Shishmaref IRA Council, residents of Shishmaref, and ADF&G was initiated in August 2018. Residents of Shishmaref have been instrumental in developing the proposed project, providing target areas of study, a willingness to assist with logistics, and the desire to provide a local hire to work on the project. The principal investigator will work with Shishmaref to bring on a local hire for 3-year field season. This project will help develop a broader understanding of northern Seward Peninsula subsistence fisheries and water resources through collaborative partnerships between Shishmaref, BELA, state and federal subsistence management agencies. Building these relationships will provide a timely response to potential changes to current salmon and nonsalmon species in addition to potential new species entering that enter the region as the environment undergoes changes.

Project Number:	20-101
Title:	Life-history Variability and Mixed-stock Analysis of Dolly Varden in the Noatak River
Geographic Region:	Northern Alaska Region
Data Type:	Stock Status and Trends
Principal Investigator:	Philip Joy, Alaska Department of Fish and Game- Sport Fish Division, Fairbanks
Co-investigators:	Andrew Seitz, University of Alaska Fairbanks, College of Fisheries and Ocean Sciences Randy Brown, United States Fish and Wildlife Service, Fairbanks Penny Crane, United States Fish and Wildlife Service, Anchorage
Project Cost:	**2020:** $85,572 **2021:** $80,225 **2022: $**80,380 **2023**: $0
Total Cost:	$246,177

Issue: Dolly Varden (*Salvalinus malma*) in northwest Alaska constitute one of the most important subsistence resources for residents of Noatak, Kivalina, and Kotzebue and Dolly Varden that spawn in the

Noatak River contribute to fishery harvests occurring in Noatak, Kotzebue, and Kivalina. While current harvests appear to be sustainable, managers have little to no information to decide whether or not a subsistence and/or sport fishery should be restricted or liberalized if fisheries change due to changing climate, increased oil and gas exploration, or shifting resource use by locals. The complex life histories of this species coupled with many spawning populations located throughout the Noatak River watershed make management of this species problematic and challenging. There is also limited information on the abundance of Dolly Varden in the Noatak River, but the spawning population is thought to be relatively small at 12-20,000 fish (Scanlon 2011). There is data on life-history traits from the 1980s (DeCicco 1985) and identifying changes in life-history patterns would allow managers to identify shifts in the population structure that may portend problems in the future. For these reasons, gaining a better understanding of basic life-history patterns is critical to understanding the population dynamics of this species and the harvest levels the population can sustain.

The stock composition of the subsistence harvests is also relatively undocumented and understanding which stocks are most critical to subsistence users would allow managers to design cost-effective abundance estimates focusing on a subset of the most important stocks. Given the uncertainty of a rapidly changing climate as well as increased human activities such as transpolar shipping and hydrocarbon exploration and extraction (Reist et al. 2006a; Reist et al. 2006b) it is critical that we gain a better understanding of life-history traits within the drainage and a thorough understanding of the relative importance of the different spawning stocks to the harvest.

This proposal directly speaks to a 2020 priority information need to address the changing availability of Dolly Varden subsistence fishery resources for the Northern Region by, 1) using otolith microchemistry to elucidate life-history variability throughout the drainage and compare the life-history of harvested fish , fish spawning in the lower, middle, and upper Noatak River tributaries, and fish sampled in the early 1980's (DeCicco 1985); and, 2) using mixed-stock analysis (MSA) to identify the genetic make-up of the harvests as it relates to spawning populations.

Objectives: The objectives for this project will be to:

1. Collect life history information for Dolly Varden sampled from the Noatak and Kivalina subsistence harvests and the Kotzebue commercial fishery bycatch harvest, and stock-specific life history information from 9 tributaries from the Noatak River (N=50 per fishery sample and per tributary sample). Life history characteristics to be estimate are:

    a. Age
    b. Age-at-length
    c. Age at first seaward migration
    d. Frequency of seaward migration

2. Estimate the stock proportions of Dolly Varden sampled from the Noatak and Kivalina subsistence harvests and the Kotzebue commercial fishery bycatch harvest in 2020, 2021, and 2022 using mixed-stock analysis with genetic characters (N=200 per fishery sample).

Methods: This project will use otolith microchemistry to examine life-history variability in the drainage and fisheries and compare it to historical data from the 80s to determine if there have been changes in population structure. We will also use genetic samples to determine the stock-of-origin of fish being harvested in subsistence fisheries.

We propose to determine the life-history traits of Dolly Varden sampled from the Noatak and Kivalina subsistence harvests and the Kotzebue commercial fishery in 2020, 2021, and 2022 using otolith chemistry methods similar to Gallagher et al. (2018). We also propose to determine stock specific traits from 9 different tributaries of the Noatak River. Otolith analysis will provide data to estimate the age-of-smolting for fish that survived to maturity, frequency of seaward migration, and age-at-length. Otoliths will be collected from 50 fish from the three fisheries and from the various tributaries.

Mixed-stock analysis will be used to estimate the stock proportions of Dolly Varden sampled from subsistence harvests and as bycatch in the Kotzebue commercial fishery in 2020, 2021, and 2022. Fin clips will be collected from N=200 Dolly Varden from subsistence fisheries in Noatak and Kivalina, and from Dolly Varden bycatch in the Kotzebue commercial fishery in 2020, 2021, and 2022.

Three tributaries per year will be accessed between mid-July and mid-August by a combination of jet boat, raft, and fixed-wing aircraft. In year one, two teams of biologists will sample the Kelly, Kugururok, and Nimiuktuk rivers, in year two biologists will sample the Nakolik and Kaluktavik rivers and the most upper Noatak River Dolly Varden populations in Kavachurak, Lower Kugrak, and Kugrak creeks, and in year three biologists will sample the Eli and Anisak rivers and Evaingiknuk Creek Crews will travel from Kotzebue up the Noatak River in a large inboard-powered jet boat and use small jet-powered rafts to ascend tributaries. A fixed-wing aircraft from Kotzebue will be used to transport crews to more remote locations.

Partnerships and Capacity Development: An ANSEP internship, up to four weeks in duration in August 202-2022, will be available in the CGL. The principal investigator will work closely with local communities to learn about the rivers to be sampled and gain any insight from their knowledge of fish in those areas. Local hires will be employed to sample fish in the Noatak and Kivalina subsistence fisheries with assistance from ADF&G and USFWS biologists and results from this study will be shared with the cooperating communities and the Northwest Alaska RAC.

Project Number:	20-150			
Title:	Traditional Ecological Knowledge of Dolly Varden and Whitefish Species in Northwest Alaska			
Geographic Region:	Northern Alaska Region			
Data Type:	Harvest Monitoring/Traditional Ecological Knowledge			
Principal Investigator:	Elizabeth Mikow, Division of Subsistence, Alaska Department of Fish and Game			
Project Cost:	**2020:** $88,001	**2021:** $84,683	**2022:** $0	**2023:** $0
Total Cost:	$172,684			

Issue: This proposed project addresses a priority information need identified for the Arctic region regarding changes in species composition, abundance, and migration timing of Dolly Varden (scientific name) and whitefish species to address changing availability of subsistence fishery resources (USFWS 2019). Dolly Varden, multiple whitefish species, and sheefish are critical subsistence resources for communities in the Kotzebue District, and the relative importance of these resources is higher in this region compared to many other areas of the state. Based on recent Division of Subsistence harvest assessment projects in 6 Kotzebue District communities, subsistence harvests of whitefish in the region average 74,000 fish annually and harvests of sheefish average well over 10,000 fish. In some Kotzebue area communities, Dolly Varden account for a larger component of total subsistence harvests than salmon and whitefish; since 1991, subsistence harvests in the community of Noatak have ranged from 3,000 to over 11,000 Dolly Varden. Very few biological assessment projects exist for Dolly Varden and sheefish, and there are currently no assessment projects for whitefish in the Kotzebue District (Braem et al. 2017; 2018; Menard et al. 2018). Recent ethnographic information collected by the Division of Subsistence as a part of harvest assessment projects has documented concerns by residents of the Kotzebue District regarding changes to whitefish and Dolly Varden abundance. Building on recently collected harvest assessment and ethnographic information, this project will document Traditional Ecological Knowledge (TEK) information from residents of Deering, Kotzebue, and Noatak. Due to the amount of recent harvest data in the region, this study will focus solely on TEK of Dolly Varden and whitefish species. Key respondent interviews will document observations of fish behavior, health, and abundance. Additionally, interviews will assess the amounts, areas, and means of harvest of key species along with the social and cultural importance of fish resources.

Objectives: There are three objectives for this project:

1. In the communities of Deering, Kotzebue, and Noatak, conduct indepth ethnographic interviews about the TEK of sheefish, whitefish species, and Dolly Varden ecology. Interviews will include questions about a) nonsalmon fish species utilized for subsistence; b) life history/biological information including habitat preferences, spawning & rearing areas, seasonal movements of fish; c) traditional/contemporary harvest methods, including timing of harvest, and gear used; d) observations of fish behavior including seasonal movements, migration timing, spawning and rearing areas, and fish health; e) relative abundance and population trends for key fish species; and f) general observations of environmental change.

2. Map historical and contemporary subsistence harvest locations, observed fish migrations, and other important habitats (spawning, juvenile rearing, etc).

3. Contribute to local capacity building by utilizing a framework of community involvement in research.

Methods: The research will employ standard anthropological data gathering methods of key respondent interviews, participant observation, and mapping to document the TEK of Dolly Varden and whitefish species in northwest Alaska. ADF&G staff will work closely with participating communities to assure effective local participation. As such, tribal governments will serve as project collaborators, supporting the research through tribal resolutions and assisting investigators in local logistics. In each of the study communities local research assistants will be hired to assist with data collection.

Semi-structured interview protocols provide a format for systematically documenting comparable information about the same or an overlapping set of topics in each community while providing flexibility for each key respondent's level of expertise, experience, and focus. Investigators will use a general semi-structured interview guide framed around the topics listed in Objective 2 and developed in consultation with the tribal councils and other knowledgeable community members. The guide may be modified to reflect regional differences along each river, such as variations in resource use or ceremonial life. Davis and Ruddle (2010:891) stress the importance of a systematic methodology for gathering local knowledge, primarily through peer recommendations. In each community, individuals knowledgeable about Dolly Varden and whitefish will be identified using a snowball method to learn about other experts with the assistance of tribal council and other community members (Usher 2000). Researchers will attempt to interview 10 individuals in Deering and Noatak, and, due to the size of the community, 15 individuals in Kotzebue. These sample sizes are based on researchers' previous research experience with the proposed communities and residents' collective subsistence use practices. Because this type of knowledge is likely to be highly specialized, researchers will strive to include all experts with this knowledge without attempting to represent a variety of demographics, including age, gender, and profession.

During interview sessions, key respondents will be asked to map historical and contemporary subsistence harvest areas, as well as historical and contemporary areas of observed fish migration. The temporal focus of these two mapping topics will allow for the documentation of changes to productive areas of harvest as well as any changes to fish abundance and movement in key waterways utilized for subsistence.

Partnerships and Capacity Building: The principal investigator will work with tribal councils in the study communities to hire local project assistants to assist with key respondent interviews and facilitate community meetings. The local research assistants will be trained in ethnographic interview methods. Local research assistants are well positioned to aide in interview data collection due their understanding of the key species harvested by their community as well their knowledge of local geography for mapping sessions. The PI will work with local research assistants to develop a presentation on study results for community review. Working together in data collection increases communication and leads to better understanding of local issues and local understanding of science and management issues.

Project Number:	20-151
Title:	Increasing Beaver Activity in Northwest Alaska: Traditional Ecological Knowledge and Geospatial Analysis of Impacts to Subsistence Fish Resources
Geographic Region:	Northern Alaska Region
Data Type:	Traditional Ecological Knowledge
Principal Investigator:	Elizabeth Mikow, Division of Subsistence, Alaska Department of Fish and Game

Project Cost:	**2020:** $183,892	**2021:** $179,981	**2022: $**122,197	**2023:** $0
Total Cost:	$486,070			

Issue: Local observations and recent research analyzing satellite imagery has shown that beavers (*Castor canadensis*) have begun to colonize the arctic tundra of northwest Alaska. Residents in communities throughout the northwest Alaska region have expressed concerns about the impacts that beaver dams may have on water quality, fish migration, and fish health. While some ethnographic data exist for this topic in the region (Braem et al. 2015, Braem et al. 2017, Braem at al. 2017b, Brubaker et al. 2011), very little traditional ecological knowledge (TEK) has been documented on on the relationship between fish and beavers in Northwest Alaska to date. Thus, the effects of beaver colonization on the Arctic environment are not understood, but substantial research from the boreal forest and temperate ecosystems indicate likely impacts to fish populations (Kemp et al. 2012; Lokteff et al. 2013; Pollock et al. 2004). This project seeks to 1) document TEK regarding the relationship between expanding beaver populations and subsistence fisheries in Northwest Arctic communities; and 2) collect and analyze quantitative spatial data to characterize beaver range expansion and interaction with the environment.

Objectives:

1) Document TEK related on beaver ecology and impacts to whitefish and salmon migration, habitat, and health will be collected from local experts in Noatak, Kotzebue, Shungnak, and Kobuk. Data collection will include two phases.

During the first phase researchers will 1.) Collect a baseline body of valuable local information and observations of beaver activity on the landscape and impacts to fish behavior, health, and movements, 2.) Generate maps depicting harvest areas for whitefish and salmon species, as well as the presence of beaver activity in the study area, and 3.) Use information collected in interviews to help inform and guide the process of collecting drone imagery and determining placement of game cameras.

During the second phase of data collection, key respondents will be interviewed a second time following spatial imagery analysis. During this phase researchers will 1.) Share satellite imagery and drone/game camera footage with key respondents, as well as maps of harvest areas and known areas of beaver activity gathered during the first phase of data collection and 2.) Conduct semi-structured interviews with key respondents with questions developed during data analysis of both ethnographic and spatial imagery data.

2) Spatial Imagery Analysis:

a) Map regional beaver activity during recent decades in the Upper Kobuk and Lower Noatak (Figure 1), including categorizing dams according to setting (oxbow, stream, spring, etc.) and year of formation.
b) Collect high-resolution satellite and drone imagery to assess visible impacts of beaver activity on the landscape, and to aide discussion of TEK with key local respondents.

Methods: For the TEK component, researchers will identify key respondents by working closely with tribal governments and other knowledgeable individuals in Noatak, Kotzebue, Shungnak, and Kobuk through systematic peer recommendations, a sampling method in which community residents recommend respondents who are then rank-ordered and approached to be interviewed (Davis and Ruddle 2010). Researchers will attempt to interview 10 individuals in Noatak, Shungnak, and Kobuk. Due to the size of Kotzebue, researchers will attempt to interview 15 individuals. These sample sizes are based on researchers' previous research experience with the proposed communities and residents' collective subsistence use practices. Key respondent interviews will be in-depth, semi-structured, and open-ended to enable the researchers to more fully explore some of the key concepts that emerge during the interview process. The first phase will include the collection of baseline TEK of beaver ecology and impacts to fish species, including ethnographic mapping. In the second phase, the same key respondents will be interviewed and researchers will share spatial imagery and ask questions prompted by both spatial and ethnographic data analysis.

For the spatial imagery analysis, researchers will implement a semi-automated workflow that analyzes Landsat imagery time series to identify the formation and disappearance of beaver ponds in Noatak National Preserve, Cape Krusenstern National Monument, and the upper Kobuk River region.). Beaver dam sites will be classified according to their setting on a stream, oxbow, spring, lake outlet, or other feature. Very high resolution imagery of select beaver dam sites (n=3 per community) will be collected in the field using a drone. Imaging will be completed in two communities per year during July/August of each project year, allowing each community to be visited twice during the project. Sites will be accessed by boat by hiring local residents, some who have already been identified, others who will be approached in the initial community meetings. Game cameras will be deployed and downloaded concurrent with the drone imaging. Drone imaging will be analyzed for landscape impacts and aide with TEK discussions; game cameras will illuminate beaver behavior and seasonal events, and will also aide with TEK discussions.

Partnerships and Capacity Building: The principal investigator will work with tribal councils in the study communities to hire local project assistants to assist with key respondent interviews and facilitate community meetings. The local research assistants will be trained in ethnographic interview methods. Local research assistants are well positioned to aide in interview data collection due their understanding of the key species harvested by their community as well their knowledge of local geography for mapping sessions. The PI will work with local research assistants to develop a presentation on study results for community review. Co-PI Tape will also contract local residents of the study area to take staff out in boats to access field sites for drone imaging and game camera deployment. This collaborative effort will allow for valuable knowledge exchanges between local residents and researchers. Working together in data collection increases communication and leads to better understanding of local issues and local understanding of science and management issues.

ANNUAL REPORTS

Background

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

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

Report Content

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

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

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

Report Clarity

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

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

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

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

Report Format

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

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

Federal Subsistence Board

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

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

FOREST SERVICE

SEP 09 2019

OSM 19063.KW

Gordon Brower, Chair
North Slope Subsistence
Regional Advisory Council
c/o Office of Subsistence Management
1101 East Tudor Road, MS 121
Anchorage, Alaska 99503-6119

Dear Chairman Brower:

This letter responds to the North Slope Subsistence Regional Advisory Council's (Council) fiscal year 2018 Annual Report. The Secretaries of the Interior and Agriculture have delegated to the Federal Subsistence Board (Board) the responsibility to respond to these reports. The Board appreciates your effort in developing the Annual Report. Annual Reports allow the Board to become aware of the issues outside of the regulatory process that affect subsistence users in your region. We value this opportunity to review the issues concerning your region.

1. <u>Development impacts to caribou and access to healthy subsistence resources</u>

The Council has had extensive discussion about the importance of caribou for communities across the North Slope and expressed concern about development impacts to caribou habitat and migration. The Council is especially concerned about the increasing development surrounding Nuiqsut, such as the current proposed changes to the Willow Project, and further industrial development to come with future leasing activities. Specifically, the Council is very concerned about the Alaska National Interest Lands Conservation Act (ANILCA) Section 810 Analysis submitted by the Bureau of Land Management (BLM) to the Council on June 21, 2018 (enclosed) regarding the Alpine Satellite development plan for the Greater Moose's Tooth 2 Project. The finding in this analysis indicated that three of the proposed alternatives in the Draft Environmental Impact Statement "may significantly restrict subsistence use for the community of Nuiqsut" and also found that "the cumulative effects may significantly restrict subsistence uses for the communities of Anaktuvuk Pass, Atqasuk, Nuiqsut, and Utqiagvik." The Council is very concerned about these ongoing and increasing impacts to communities' subsistence resources

and subsistence way of life. The community of Nuiqsut in particular has been working very hard in various ways to create protections for subsistence resources and activities, and ensuring continued access to traditional areas used for subsistence. However, there is now development to the north, east and west sides of Nuiqsut, with only the south side free of such development. The south side is vital to the subsistence needs of the community and extremely important for sharing and exchange of subsistence foods and access to hunting areas for the people of Anaktuvuk Pass.

The Council has repeatedly asked the Federal Subsistence Board for assistance and support in ensuring the continuation of subsistence opportunities when development activities on Federal public lands are deflecting or impacting subsistence resources and interfering with subsistence activities. The Council has been willing to facilitate discussions on possible strategies for mitigating impacts to subsistence and on suggestions for staggered development that would help to maintain access to healthy subsistence resources. The community of Nuiqsut is very concerned for its future if it becomes completely cut off by the industrial development encircling its traditional hunting, fishing, and gathering areas. The Council requests assistance from the Board to ensure that subsistence opportunities on Federal public lands continue into the future.

Response:

The Board is aware of the Council's concern regarding ongoing and potential future impacts from of oil and gas development on Federal public lands on the continuation of subsistence activities in and around Nuiqsut, Anaktuvuk Pass, Atqasuk, and Utqiagvik. The most immediate concern expressed by the Council is ensuring the continued access to traditional subsistence use areas around Nuiqsut, especially to the south of the community, which is the only area not currently impacted by industrial development. The Board's authority does not extend to actions involving the protection of land or the development of policies to limit industrial activities in traditional hunting, fishing, and gathering areas. However, the Board looks forward to continuing to address the Council's concerns through regulatory proposals and special actions within its jurisdiction.

Federal and State land managers are responsible for making decisions concerning land use. The Bureau of Land Management, as indicated in the ANILCA Section 810 analysis, is aware of the potential impacts of the three alternatives proposed for the Alpine Satellite Development Plan for the Greater Moose's Tooth Project on Nuiqsut. The Board recommends that the Council and affected communities continue to work closely with the North Slope Borough, Federal and State land managers, and industry to develop a plan that will protect areas critical to maintaining the cultural and traditional lifestyle of local subsistence users. The Board encourages the Council to offer solutions to Federal agencies addressing how they may better protect subsistence uses of wild renewable resources, and in so doing, protect subsistence economies.

Chairman Brower 3

2. Effective communication networks and navigating the complex regulatory process

The Council sees a need to increase communication networks in support of the Federal subsistence regulatory process. Changing policies and overlapping Federal and State management make it difficult for communities to navigate the regulatory process. Many communities in the region are stretched very thin and beleaguered by the sheer volume of meetings and issues they must remain engaged with in order to protect subsistence resources and their way of life. The Council asks for support for communities to develop Federal subsistence proposals that will protect subsistence resources and ensure subsistence opportunity into the future.

Response:

The Board relies heavily on Federally qualified subsistence users when it comes to the generation of proposals to change Federal subsistence regulations. The Office of Subsistence Management (OSM) serves as technical support to the Board and can offer assistance to the public when it comes to the development of proposals. The Council is encouraged to work with OSM staff to generate proposals and inform members of the communities they represent to contact OSM staff if they need assistance in generating proposals as well.

3. Concern about recent muskox fatalities

The Council received a report at its winter 2018 meeting about the death of seven muskox as a result of vehicle collisions on the Dalton Highway. The Council was saddened to hear this news, such a blow to lose so many muskox from this very small population. Muskox is a special subsistence resource but has not been accessible for a long time due to a hunting moratorium put in place to allow the population to recover. Not only are muskoxen important for food security, but muskox hides are used for traditional crafts and as blankets for snow machine sleds. People in Nuiqsut also use muskox skin and fur for mask-making.

The Council wishes to avoid senseless loss of vital resources in the future. To that end, the Council will be sending a letter to the appropriate State office to initiate a roadkill recovery and distribution program for the Dalton Highway, similar to that in operation around Anchorage, Fairbanks and the Mat-Su Valley for moose. The goal is to distribute the carcasses to North Slope villages to continue customary and traditional uses of muskox lost from highway collisions. The villages would share the resource within the community. The Council will keep the Board apprised of its efforts.

Response:

The Board understands that muskox are an important subsistence resource for North Slope communities. The Board also recognizes the efforts of these same communities to support the muskox hunting moratorium to help the population grow to a healthy size that can be hunted

sustainably once again. It is unfortunate that so many muskox were lost to vehicle collision on the Dalton Highway and is a setback for the conservation efforts for this herd. The Board commends the Council's efforts to make sure this important subsistence resource is protected and properly managed.

The Board is highly supportive of all efforts by the Council to find creative solutions to problems such as this and to network with other agencies and groups in support of subsistence communities. The Board encourages the Council to explore options in the future with the State Department of Transportation and ADF&G to reduce collisions, like signing, deterrents, etc.

4. <u>Ongoing concerns about aircraft harassing and deflecting wildlife</u>

The Council remains very concerned about ongoing observations from subsistence hunters that aircraft use in the North Slope region has harassed wildlife, caused deflection of migrating animals, and disturbed subsistence activities. The Council has expressed this concern for years and yet the issue has not been addressed.

The Council recognizes that aircraft control is beyond the direct authority of the Federal Subsistence Board; however, impacts to subsistence remain and we respectfully request that the Board elevate the problem of aircraft harassment of wildlife via low level flights and intentional cruising of animals to the Federal Aviation Administration (FAA). The Council wants to highlight that the North Slope Borough and the Bureau of Land Management have established some guidelines for industrial flights for permitted projects in the region to help mitigate noise and disturbance. However, other air traffic is only required by FAA to maintain 500 feet above ground level and are not required to throttle noise or prop speed at lower elevations. The Council would like to ensure that research flights, commercial guides, and private planes also adhere to local guidelines for avoiding disturbance of wildlife and subsistence activities.

We appreciate the assistance from the Federal Subsistence Board to elevate these ongoing issues of concern to the FAA and other agencies that can implement solutions. At a minimum, local information that could aid in the avoidance of aircraft disturbance to wildlife and subsistence activities could be conveyed to agencies that conduct research in the region, such as the U.S. Fish and Wildlife Service, U.S. Geological Survey, and other agencies.

Response:

The Board is aware of this concern regarding low flying aircraft and the potential effects to wildlife. In Unit 23, the Alaska Department of Fish and Game developed an online training for private pilots transporting big game (http://www.adfg.alaska.gov/index.cfm?adfg=unit23pilot.main). This is an excellent program and may be something for the Council, State and Federal agencies, and other partners to consider for the North Slope region. Adding outreach materials to local airports is also a strategy the Council could promote along with partners and agencies.

Chairman Brower 5

The Federal Aviation Administration (FAA) is indeed responsible for regulations pertaining to aircraft in-flight activity. Because that agency is outside of both the Department of the Interior and the Department of Agriculture, the Board does not have a direct line of communication with them. We suggest that your Council invites a representative of the FAA to an upcoming Council meeting to learn more about the FAA's jurisdiction and regulatory process or write a letter to the FAA.

5. Information on emergency preparedness and prevention to address increased marine shipping traffic through the Northwest Passage.

The Council appreciates the Federal Subsistence Board's reply to our 2017 Annual Report addressing the increased shipping traffic due to declining sea ice in the Beaufort and Chukchi Seas. The Council is alarmed at the volume of shipping traffic passing by our shores and potential impacts to critical subsistence resources our communities depend on. The Council would appreciate more information on the work of the Arctic Waterways Safety Committee and will request that our Council Coordinator arrange for a presentation from the U.S. Coast at our next Council meeting to further discuss marine shipping safety and emergency response preparedness for our communities. The Council is not asking the Board for any action at this time, other than the continued administrative and technical support provided by staff at the Office of Subsistence Management to arrange for such presentations.

Response:

The Board recognizes the importance of the Chukchi and Beaufort Seas to subsistence communities in the North Slope region and the possible impact that loss of sea ice and increased ship traffic could have on subsistence resources. The Chukchi and Beaufort Sea is a productive ocean ecosystem that provides habitat for a multitude of important fish and wildlife species and sea ice central to subsistence hunting and fishing. The Board understands that loss of sea ice may impact the health of marine mammals and also pose danger or difficulty for conducting traditional subsistence activities. A surge in shipping traffic may increase the possibility of a vessel incident that could be harmful to those resources. As recognized by the Council, the Board has limited jurisdiction or authority over Federal undertakings that occur outside of the Federal Subsistence Management Program. However, the Board does seek to remain informed about anticipated shifts or changes in harvest of subsistence resources that are under the purview of the Federal Subsistence Management Program and wants to hear from the Council if impacts to the marine environment create greater need for subsistence resources on Federal lands.

There are numerous efforts underway to track changes to sea ice in the region, monitor impacts to subsistence resources, develop community based mitigation plans, and work proactively to manage for increased shipping traffic in Arctic waters to prevent or respond to marine accidents. The Board is supportive of providing the Council with more information and helping to connect to resources to address concerns about changes to the marine environment. The Council can

work with their Coordinator to arrange for marine shipping and emergency preparedness information or presentations to be included on the agenda for upcoming meetings. Some programs and initiatives underway that may be of interest to the Council are:

- The U.S. Coast Guard has been involved in planning and outreach to communities in the region to address the potential for marine accidents and oil spills. Recently, in the summer of 2017, the Coast Guard visited the North Slope communities of Point Hope, Point Lay, Wainwright, and Utqiagvik to meet and learn from local people and address local strategies for oil spill response. A three day oil spill response seminar and workshop was also held in Utqiagvik. Recognizing the growing threat of oil spills in the Arctic, the U.S. Coast Guard and National Oceanic and Atmospheric Administration (NOAA) have begun conducting month-long scientific expeditions each fall. One of the goals of the expeditions is to demonstrate and evaluate tools, technologies, and techniques for dealing with Arctic oil spills. The expeditions also feature a simulated oil spill to give crews practice in cleanup procedures. The Coast Guard has also launched a new study of vessel traffic in the Chukchi and Beaufort seas off the northwest and north coast of Alaska. The study, which was announced in January 2019, will assess current and predicted vessel traffic in the region and, if warranted, recommend measures to improve safety and environmental protection. The Coast Guard has invited the public to participate in this process. More information can be provided to the Council at your next meeting if interested or found online at: https://toolkit.climate.gov/case-studies/preparing-respond-oil-spills-arctic.

- The Arctic Waterways Safety Committee, formed in 2015, has broad representation from subsistence groups in the region including the Alaska Beluga Whale Committee, Alaska Eskimo Whaling Commission, Eskimo Walrus Commission, and ice seal committee as well as tribal representation and engagement from the North Slope Borough. The purpose of the Arctic Waterways Safety Committee is to bring together local marine interests in the Alaskan Arctic in a single forum, and to act collectively on behalf of those interests to develop best practices to ensure a safe, efficient, and predictable operating environment for all current and future users of the waterways. More information can be provided to the Council at your next meeting if interested or found online at: http://www.arcticwaterways.org.

In closing, I want to thank you and your Council for your continued involvement and diligence in matters regarding the Federal Subsistence Management Program. I speak for the entire Board in expressing our appreciation for your efforts and am confident that the subsistence users of the North Slope Region are well represented through your work.

Sincerely,

Anthony Christianson
Chair

Chairman Brower 7

cc: Federal Subsistence Board
Thomas Doolittle, Acting Assistant Regional Director, Office of Subsistence Management
Thomas Whitford, Acting Deputy Assistant Regional Director
Office of Subsistence Management
Jennifer Hardin, PhD, Subsistence Policy Coordinator, Office of Subsistence Management
Steven Fadden, Acting Council Coordination Division Supervisor,
Office of Subsistence Management
Chris McKee, Wildlife Division Supervisor, Office of Subsistence Management
Greg Risdahl, Fisheries Division Supervisor, Office of Subsistence Management
George Pappas, State Subsistence Liaison, Office of Subsistence Management
Eva Patton, Council Coordinator, Office of Subsistence Management
North Slope Subsistence Regional Advisory Council
Benjamin Mulligan, Deputy Commissioner, Alaska Department of Fish and Game
Mark Burch, Special Project Coordinator, Alaska Department of Fish and Game
Interagency Staff Committee
Administrative Record

Applying for an Alaska Real ID License, Permit or ID Card?

U.S. Citizens, Permanent Residents, Temporary Resident with Lawful Status in the U.S. need the following documents:

DMV Division of MOTOR VEHICLES

To ensure your application process is as smooth as possible, please complete all elements below:

Use the checklist below to ensure that you have the correct documentation before visiting a Driver License office. If you have any questions about what is required, please visit our website at *www.Alaska.gov/DMV*

To be issued an Alaska **Real ID** driver license, permit or ID card, you must prove the following elements: your full legal name, identity, date of birth, lawful status in the United States, social security number, and proof of residential address. Multiple documents may be required to show all name changes.

All documents presented must be unaltered certified originals, certified amended originals, or true copies certified by the issuing agency. Documents **must** be valid and unexpired and may not be laminated. Foreign documents must have certified English translation (DMV Form COFAT.PDF).

If you cannot prove each of the required elements with the documents set forth below, you may be eligible to apply for a standard card. These guidelines may not cover every situation. Knowledge, vision, and/or other eligibility criteria may apply to your individual situation.

Proof of your Name, Identity, Date of Birth, Lawful Status, and Primary Residency:

You can provide any combination of documents that prove the elements (some documents may be used to prove more than one element)

Identity
Name / Date of Birth

- ☐ Valid, unexpired U.S. passport or passport card
- ☐ Certified copy of U.S birth certificate (issued by a city, county, or state vital statistics office)
- ☐ Certified copy of birth certificate from a U.S. Territory. Puerto Rico birth certificates issued on or after July 1, 2010
- ☐ Consular Report of Birth Abroad of U.S. Citizen
- ☐ Unexpired foreign passport with valid U.S. Visa and approved I-94 form
- ☐ Certificate of Naturalization or Certificate of U.S. Citizenship
- ☐ Valid, unexpired I-551 Resident Alien / Permanent Resident Card
- ☐ Valid, unexpired I-766 Employment Authorization Document Card
- ☐ Valid REAL ID license or ID card from a compliant state (Documentation of U.S. citizenship or lawful status is required)

Lawful Status

- ☐ Valid, unexpired U.S. passport or passport card
- ☐ Certified copy of U.S birth certificate (issued by a city, county, or state vital statistics office)
- ☐ Certified copy of birth certificate from a U.S. Territory. Puerto Rico birth certificates issued on or after July 1, 2010
- ☐ Consular Report of Birth Abroad of U.S. Citizen
- ☐ Certificate of Citizenship / Certificate of Naturalization
- ☐ Unexpired foreign passport with valid U.S. Visa and approved I-94 form
- ☐ Refugee/Asylee I-94
- ☐ I-551 Resident Alien / Permanent Resident Card
- ☐ I-766 Employment Authorization Document Card

Name Change

- ☐ Adoption documents that contain the legal name as a result of the adoption
- ☐ Court Certificate of document that contains the legal name both before and after the name change
- ☐ Marriage certificate
- ☐ A certificate, declaration, or registration document verifying the formation of a civil union or domestic partnership
- ☐ Certified Divorce Decree, Dissolution of marriage/civil union/domestic partnership document that contains the legal name as a result of the court action
- ☐ Amended Birth Certificate
- ☐ Certificate of Naturalization/ Certificate of Name Change
- ☐ Certified Court Order That Contains all previous and current Names, and Date of Birth.

SSN
Complete SSN

- ☐ Social security card (not metal)
- ☐ W-2 form
- ☐ Social Security Administration (SSA) 1099 form
- ☐ Non-SSA-1099 form
- ☐ Pay stub
- ☐ I am ineligible for a social security number, a letter from SSA will issued within 90 days be required

Principal Residency
Two documents must be presented and cannot be handwritten.
One document must have been issued within 90 days
Resident documents may have account numbers and balances redacted.

- ☐ Rental or Lease Agreement with The Signature of The Owner/Landlord and The Tenant/Resident
- ☐ Deed or Title to Residential Real Property
- ☐ Mortgage Document
- ☐ Home Utility Bills (Including Cellular Phone)
- ☐ Employment Documents
- ☐ Insurance Documents, Including Medical, Dental, Vision, Life, Home, Rental and Vehicle
- ☐ Government Issued Tax Document
- ☐ Statement from A Financial Institution/Bank
- ☐ Voter Registration Confirmation Letter or Postcard Issued by The Alaska Division of Elections
- ☐ Proof of Payment of Resident Tuition at A Public Institution of Higher Education in Alaska
- ☐ A Letter on Letterhead from A Homeless Shelter, Shelter for Abused Women, Nonprofit Entity, Faith-Based Organization, Employer or Government Agency Within the United States Attesting That the Applicant Resides in Alaska
- ☐ Alaska Certificate of Vehicle Titles or Registration (Issued At Least 30 Days Prior To The Date of Application)
- ☐ Change of Address Confirmation by The U.S.P.S.
- ☐ 1st Class Mail with Postmark (Mail May Be Handwritten)
- ☐ Alaska Tribal Card (For Non-Standard Remote Alaska Addresses Only, Within the Tribal Area Indicated on The Card)
- ☐ At DMV's Discretion Other Documents May Be Accepted. Please Contact 907-269-5551 For Assistance

The Alaska DMV must electronically verify documents to determine validity and status before Issuance of an ID / Driver License

For Renewals, you may be able to skip the office completely – Go to *ALASKA.GOV/DMV* to see if you are eligible!

(06/19/2019)

Applying for an Alaska Standard License, Permit or ID Card?

U.S. Citizens, Permanent Residents, Temporary Resident with Lawful Status in the U.S. need the following documents:

DMV Division of MOTOR VEHICLES

To ensure your application process is as smooth as possible, please complete all elements below:

Use the checklist below to ensure that you have the correct documentation before visiting a Driver License office. If you have any questions about what is required, please visit our website at *www.Alaska.gov/DMV*.

To be issued a Standard Alaska driver license, permit or ID card, you must prove the following elements: your full legal name, identity, date of birth, lawful status in the United States, social security number, and proof of residential address. Multiple documents may be required to show all name changes.

All documents presented must be unaltered certified originals, certified amended originals, or true copies certified by the issuing agency. Documents must be valid and unexpired and may not be laminated. Foreign documents must have certified English translation (DMV Form COFAT.PDF).

FEDERAL LIMITS APPLY

Proof of your Name, Identity, Date of Birth, Lawful Status and Primary Residency:

You can provide any combination of documents that prove the elements (some docs may be used to prove more than one element)

Identity
Name / Date of Birth

- ☐ Valid, Unexpired U.S. Passport or Passport Card
- ☐ Certified Copy Of U.S Birth Certificate (Issued by A City, County, Or State Vital Statistics Office)
- ☐ Certified Copy of Birth Certificate from A U.S. Territory. Puerto Rico Birth Certificates Issued on Or After July 1, 2010
- ☐ Consular Report of Birth Abroad of U.S. Citizen
- ☐ Unexpired Foreign Passport with Valid U.S. Visa And Approved I-94 Form
- ☐ Certificate of Naturalization or Certificate of U.S. Citizenship
- ☐ Valid, unexpired I-551 Resident Alien / Permanent Resident Card
- ☐ Valid, unexpired I-766 Employment Authorization Document Card
- ☐ Valid REAL ID License or ID Card from A Compliant State, Additional Documentation of U.S. Citizenship or Lawful Status Is Required
- ☐ US Adoption Order W/Birth Information
- ☐ Active or Retired Military ID / Common Access Card

Secondary Identity

- ☐ Any Document in The Previous Column
- ☐ Social Security Card
- ☐ Canadian Tribal Card
- ☐ State Issued Driver License or ID Card That Has NOT Been Expired Over A Year
- ☐ Court Order That Contains the Applicant's Date of Birth
- ☐ Foreign Birth Certificate
- ☐ Health Insurance Card
- ☐ Marriage License or Certificate
- ☐ Individual's Medical Records from A Doctor or A Hospital
- ☐ Military Dependent Identification
- ☐ Military Discharge or Separation Papers (DD214)
- ☐ Gun Permit
- ☐ Pilot's License
- ☐ Certified School Record or Transcript
- ☐ Photographic Government / Employer / School Identification Card
- ☐ Vehicle Title (Must Be Issued 30 Days Prior To Application)
- ☐ Welfare Card
- ☐ Prison Release Document or Photographic Prison Identification Card
- ☐ TWIC Card (Transportation Worker Identification Credential)

Lawful Status

- ☐ U.S. Passport or Passport Card
- ☐ Certified Copy Of U.S Birth Certificate (Issued by A City, County, Or State Vital Statistics Office)
- ☐ Certified Copy of Birth Certificate from A U.S. Territory. Puerto Rico Birth Certificates Issued on Or After July 1, 2010
- ☐ Consular Report of Birth Abroad of U.S. Citizen
- ☐ Certificate of Citizenship / Certificate of Naturalization
- ☐ Unexpired Foreign Passport with Valid U.S. Visa And Approved I-94 Form
- ☐ Refugee/Asylee I-94
- ☐ I-551 Resident Alien / Permanent Resident Card
- ☐ I-766 Employment Authorization Document Card

Name Change.

- ☐ Adoption Documents That Contain the Legal Name as A Result of The Adoption
- ☐ Court Certificate of Name Change Document That Contains the Legal Name Both Before and After the Name Change
- ☐ Marriage Certificate
- ☐ A Certificate, Declaration, Or Registration Document Verifying the Formation of a Civil Union or Domestic Partnership
- ☐ Certified Divorce Decree, Dissolution of Marriage/Civil Union/Domestic Partnership Document That Contains the Legal Name as A Result of The Court Action
- ☐ Amended Birth Certificate
- ☐ Certificate of Naturalization/ Certificate of Name Change
- ☐ Certified Court Order That Contains All Previous and Current Names, And Date of Birth.

SSN
Complete SSN

- ☐ SSN On Application Verified By SSA
- ☐ Social Security Card (Not Metal)
- ☐ W-2 Form
- ☐ SSA-1099

Form

- ☐ Non-SSA-1099 Form
- ☐ Pay Stub
- ☐ I Am Ineligible for A Social Security Number, A Letter from SSA Issued Within 90 Days Will Be Required

Principal Residency
(Cannot Be Handwritten)

- ☐ Rental or Lease Agreement with The Signature of The Owner/Landlord and The Tenant/Resident
- ☐ Deed or Title to Residential Real Property
- ☐ Mortgage Document
- ☐ Home Utility Bills (Including Cellular Phone)
- ☐ Employment Documents
- ☐ Insurance Documents, Including Medical, Dental, Vision, Life, Home, Rental and Vehicle
- ☐ Government Issued Tax Document
- ☐ Statement from A Financial Institution/Bank
- ☐ Voter Registration Confirmation Letter or Postcard Issued by The Alaska Division of Elections
- ☐ Proof of Payment of Resident Tuition at A Public Institution of Higher Education in Alaska
- ☐ A Letter on Letterhead from A Homeless Shelter, Shelter for Abused Women, Nonprofit Entity, Faith-Based Organization, Employer or Government Agency Within the United States Attesting That the Applicant Resides in Alaska
- ☐ Alaska Certificate of Vehicle Titles or Registration (Issued At Least 30 Days Prior To The Date of Application)
- ☐ Change of Address Confirmation by The U.S.P.S.
- ☐ 1st Class Mail with Postmark (Mail May Be Handwritten)
- ☐ Alaska Tribal Card (For Non-Standard Remote Alaska Addresses Only, Within the Tribal Area Indicated on The Card)
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(06/19/2019)

Winter 2020 Regional Advisory Council Meeting Calendar

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

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Feb. 2	*Feb. 3* *Window Opens*	*Feb. 4* **BB — Naknek**	*Feb. 5*	*Feb. 6*	*Feb. 7*	*Feb. 8*
Feb. 9	*Feb. 10*	*Feb. 11* **YKD — Bethel** **WI — Fairbanks**	*Feb. 12*	*Feb. 13*	*Feb. 14*	*Feb. 15*
Feb. 16	*Feb. 17* ***PRESIDENT'S DAY*** ***HOLIDAY***	*Feb. 18*	*Feb. 19* **NS — Utqiaġvik**	*Feb. 20* **NWA — Kotzebue**	*Feb. 21*	*Feb. 22*
Feb. 23	*Feb. 24*	*Feb. 25* **SE — Petersburg**	*Feb. 26*	*Feb. 27* **KA — Kodiak**	*Feb. 28*	*Feb. 29*
Mar. 1	*Mar. 2*	*Mar. 3* **EI — Fairbanks**	*Mar. 4* **SC — Anchorage**	*Mar. 5*	*Mar. 6*	*Mar. 7*
Mar. 8	*Mar. 9*	*Mar. 10*	*Mar. 11* **SP — Nome**	*Mar. 12*	*Mar. 13* *Window Closes*	*Mar. 14*

Fall 2020 Regional Advisory Council Meeting Calendar

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

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Aug. 16	*Aug. 17 Window opens*	*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*	*Sep. 5*
Sep. 6	*Sep. 7* **LABOR DAY HOLIDAY**	*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* **COLUMBUS DAY HOLIDAY**	*Oct. 13*	*Oct. 14*	*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	*Nov. 2*	*Nov. 3*	*Nov. 4*	*Nov. 5*	*Nov. 6 Window closes*	*Nov. 7*

Subsistence Regional Advisory Council Correspondence Policy

The Federal Subsistence Board (Board) recognizes the value of the Regional Advisory Councils' role in the Federal Subsistence Management Program. The Board realizes that the Councils must interact with fish and wildlife resource agencies, organizations, and the public as part of their official duties, and that this interaction may include correspondence. Since the beginning of the Federal Subsistence Program, Regional Advisory Councils have prepared correspondence to entities other than the Board. Informally, Councils were asked to provide drafts of correspondence to the Office of Subsistence Management (OSM) for review prior to mailing. Recently, the Board was asked to clarify its position regarding Council correspondence. This policy is intended to formalize guidance from the Board to the Regional Advisory Councils in preparing correspondence.

The Board is mindful of its obligation to provide the Regional Advisory Councils with clear operating guidelines and policies, and has approved the correspondence policy set out below. The intent of the Regional Advisory Council correspondence policy is to ensure that Councils are able to correspond appropriately with other entities. In addition, the correspondence policy will assist Councils in directing their concerns to others most effectively and forestall any breach of department policy.

The Alaska National Interest Lands Conservation Act, Title VIII required the creation of Alaska's Subsistence Regional Advisory Councils to serve as advisors to the Secretary of the Interior and the Secretary of Agriculture and to provide meaningful local participation in the management of fish and wildlife resources on Federal public lands. Within the framework of Title VIII and the Federal Advisory Committee Act, Congress assigned specific powers and duties to the Regional Advisory Councils. These are also reflected in the Councils' charters. *(Reference: ANILCA Title VIII §805, §808, and §810; Implementing regulations for Title VIII, 50 CFR 100 _.11 and 36 CFR 242 _.11; Implementing regulations for FACA, 41 CFR Part 102-3.70 and 3.75)*

The Secretaries of Interior and Agriculture created the Federal Subsistence Board and delegated to it the responsibility for managing fish and wildlife resources on Federal public lands. The Board was also given the duty of establishing rules and procedures for the operation of the Regional Advisory Councils. The Office of Subsistence Management was established within the Federal Subsistence Management Program's lead agency, the U.S. Fish and Wildlife Service, to administer the Program. *(Reference: 36 CFR Part 242 and 50 CFR Part 100 Subparts C and D)*

Policy

1. The subject matter of Council correspondence shall be limited to matters over which the Council has authority under §805(a)(3), §808, §810 of Title VIII, Subpart B §___.11(c) of regulation, and as described in the Council charters.

2. Councils may, and are encouraged to, correspond directly with the Board. The Councils are advisors to the Board.

3. Councils are urged to also make use of the annual report process to bring matters to the Board’s attention.

4. As a general rule, Councils discuss and agree upon proposed correspondence during a public meeting. Occasionally, a Council chair may be requested to write a letter when it is not feasible to wait until a public Council meeting. In such cases, the content of the letter shall be limited to the known position of the Council as discussed in previous Council meetings.

5. Except as noted in Items 6, 7, and 8 of this policy, Councils will transmit all correspondence to the Assistant Regional Director (ARD) of OSM for review prior to mailing. This includes, but is not limited to, letters of support, resolutions, letters offering comment or recommendations, and any other correspondence to any government agency or any tribal or private organization or individual.
    a. Recognizing that such correspondence is the result of an official Council action and may be urgent, the ARD will respond in a timely manner.
    b. Modifications identified as necessary by the ARD will be discussed with the Council chair. Councils will make the modifications before sending out the correspondence.

6. Councils may submit written comments requested by Federal land management agencies under ANILCA §810 or requested by regional Subsistence Resource Commissions (SRC) under §808 directly to the requesting agency. Section 808 correspondence includes comments and information solicited by the SRCs and notification of appointment by the Council to an SRC.

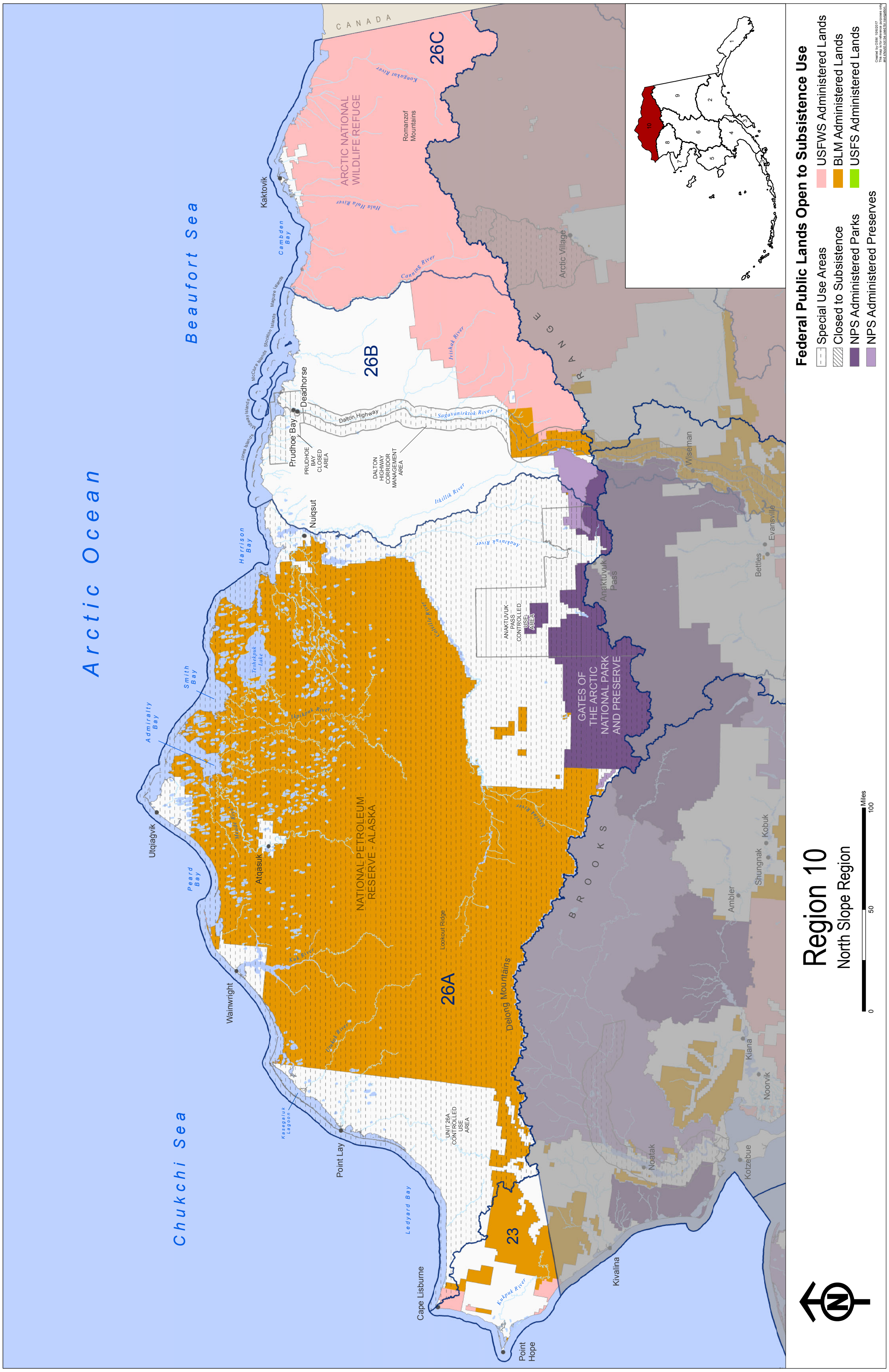
7. Councils may submit proposed regulatory changes or written comments regarding proposed regulatory changes affecting subsistence uses within their regions to the Alaska Board of Fisheries or the Alaska Board of Game directly. A copy of any comments or proposals will be forwarded to the ARD when the original is submitted.

8. Administrative correspondence such as letters of appreciation, requests for agency reports at Council meetings, and cover letters for meeting agendas will go through the Council's regional coordinator to the appropriate OSM division chief for review.

9. Councils will submit copies of all correspondence generated by and received by them to OSM to be filed in the administrative record system.

10. Except as noted in Items 6, 7, and 8, Councils or individual Council members acting on behalf of or as representative of the Council may not, through correspondence or any other means of communication, attempt to persuade any elected or appointed political officials, any government agency, or any tribal or private organization or individual to take a particular action on an issue. This does not prohibit Council members from acting in their capacity as private citizens or through other organizations with which they are affiliated.

Approved by the Federal Subsistence Board on June 15, 2004.


Region 10
North Slope Region
Federal Public Lands Open to Subsistence Use
USFWS Administered Lands
BLM Administered Lands
USFS Administered Lands
Special Use Areas
Closed to Subsistence
NPS Administered Parks
NPS Administered Preserves
Miles
0
50
100
Arctic Ocean
Beaufort Sea
Chukchi Sea
CANADA
26A
26B
26C
23
ARCTIC NATIONAL WILDLIFE REFUGE
NATIONAL PETROLEUM RESERVE - ALASKA
GATES OF THE ARCTIC NATIONAL PARK AND PRESERVE
BROOKS RANGE
DALTON HIGHWAY CORRIDOR MANAGEMENT AREA
PRUDHOE BAY CLOSED AREA
ANAKTUVUK PASS CONTROLLED USE AREA
UNIT 26A CONTROLLED USE AREA
Dalton Highway
Romanzof Mountains
Delong Mountains
Lookout Ridge
Kaktovik
Deadhorse
Prudhoe Bay
Nuiqsut
Utqiaġvik
Atqasuk
Wainwright
Point Lay
Cape Lisburne
Point Hope
Kivalina
Noatak
Kotzebue
Kiana
Noorvik
Ambler
Shungnak
Kobuk
Bettles
Evansville
Wiseman
Arctic Village
Anaktuvuk Pass
Camden Bay
Harrison Bay
Smith Bay
Admiralty Bay
Peard Bay
Ledyard Bay
Kasegaluk Lagoon
Teshekpuk Lake

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

North Slope Subsistence Regional Advisory Council

Charter

1. **Committee's Official Designation.** The Council's official designation is the North Slope Subsistence Regional Advisory Council (Council).

2. **Authority.** The Council is renewed by virtue of the authority set out in the Alaska National Interest Lands Conservation Act (ANILCA) (16 U.S.C. 3115 (1988)), and under the authority of the Secretary of the Interior, in furtherance of 16 U.S.C. 410hh-2. The Council is regulated by the Federal Advisory Committee Act (FACA), as amended, 5 U.S.C. Appendix 2.

3. **Objectives and Scope of Activities.** The objective of the Council is to provide a forum for the residents of the Region with personal knowledge of local conditions and resource requirements to have a meaningful role in the subsistence management of fish and wildlife on Federal lands and waters in the Region.

4. **Description of Duties.** Council duties and responsibilities, where applicable, are as follows:

    a. Recommend the initiation of, review, and evaluate proposals for regulations, policies, management plans, and other matters relating to subsistence uses of fish and wildlife on public lands within the Region.

    b. Provide a forum for the expression of opinions and recommendations by persons interested in any matter related to the subsistence uses of fish and wildlife on public lands within the Region.

    c. Encourage local and regional participation in the decision-making process affecting the taking of fish and wildlife on the public lands within the Region for subsistence uses.

    d. Prepare an annual report to the Secretary containing the following:

        (1) An identification of current and anticipated subsistence uses of fish and wildlife populations within the Region.

        (2) An evaluation of current and anticipated subsistence needs for fish and wildlife populations within the Region.

(3) A recommended strategy for the management of fish and wildlife populations within the Region to accommodate such subsistence uses and needs.

(4) Recommendations concerning policies, standards, guidelines, and regulations to implement the strategy.

e. Appoint one member to the Gates of the Arctic 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.

i. Provide recommendations for implementation of Secretary's Order 3347: Conservation Stewardship and Outdoor Recreation, and Secretary's Order 3356: Hunting, Fishing, Recreational Shooting, and Wildlife Conservation Opportunities and Coordination with States, Tribes, and Territories. Recommendations shall include, but are not limited to:

(1) Assessing and quantifying implementation of the Secretary's Orders, and recommendations to enhance and expand their implementation as identified;

(2) Policies and programs that:

(a) increase outdoor recreation opportunities for all Americans, with a focus on engaging youth, veterans, minorities, and other communities that traditionally have low participation in outdoor recreation;

(b) expand access for hunting and fishing on Bureau of Land Management, U.S. Fish and Wildlife Service, and National Park Service lands in a manner that respects the rights and privacy of the owners of non-public lands;

(c) increase energy, transmission, infrastructure, or other relevant projects while avoiding or minimizing potential negative impacts on wildlife; and

(d) create greater collaboration with states, tribes, and/or territories.

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

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

(1) eliminate jobs, or inhibit job creation;

(2) are outdated, unnecessary, or ineffective;

(3) impose costs that exceed benefits;

(4) create a serious inconsistency or otherwise interfere with regulatory reform initiative and policies;

(5) rely, in part or in whole, on data or methods that are not publicly available or insufficiently transparent to meet the standard for reproducibility; or

(6) derive from or implement Executive Orders or other Presidential and Secretarial directives that have been subsequently rescinded or substantially modified.

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

5. **Agency or Official to Whom the Council Reports.** The Council reports to the Federal Subsistence Board Chair, who is appointed by the Secretary of the Interior with the concurrence of the Secretary of Agriculture.

6. **Support.** The U.S. Fish and Wildlife Service will provide administrative support for the activities of the Council through the Office of Subsistence Management.

7. **Estimated Annual Operating Costs and Staff Years**. The annual operating costs associated with supporting the Council's functions are estimated to be $160,000, including all direct and indirect expenses and 1.0 staff years.

8. **Designated Federal Officer**. The DFO is the Subsistence Council Coordinator for the Region or such other Federal employee as may be designated by the Assistant Regional Director – Subsistence, Region 7, U.S. Fish and Wildlife Service. The DFO is a full-time Federal employee appointed in accordance with Agency procedures. The DFO will:

(a) Approve or call all of the advisory committee's and subcommittees' meetings;

(b) Prepare and approve all meeting agendas;

(c) Attend all committee and subcommittee meetings;

(d) Adjourn any meeting when the DFO determines adjournment to be in the public interest; and

(e) Chair meetings when directed to do so by the official to whom the advisory committee reports.

9. **Estimated Number and Frequency of Meetings.** The Council will meet 1-2 times per year, and at such times as designated by the Federal Subsistence Board Chair or the DFO.

10. **Duration.** Continuing.

11. **Termination.** The Council will be inactive 2 years from the date the Charter is filed, unless, prior to that date, it is renewed in accordance with the provisions of section 14 of the FACA. The Council will not meet or take any action without a valid current charter.

12. **Membership and Designation.** The Council's membership is composed of representative members as follows:

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. A vacancy on the Council will be filled in the same manner in which the original appointment was made. Members serve at the discretion of the Secretary.

Council members will elect a Chair, Vice-Chair, and Secretary for a 1-year term.

Members of the Council will serve without compensation. However, while away from their homes or regular places of business, Council and subcommittee members engaged in Council, or subcommittee business, approved by the DFO, may be allowed travel expenses, including per diem in lieu of subsistence, in the same manner as persons employed intermittently in Government service under section 5703 of title 5 of the United States Code.

13. **Ethics Responsibilities of Members.** No Council or subcommittee member will participate in any Council or subcommittee deliberations or votes relating to a specific party matter before the Department or its bureaus and offices including a lease, license, permit, contract, grant, claim, agreement, or litigation in which the member or the entity the member represents has a direct financial interest.

14. **Subcommittees.** Subject to the DFOs approval, subcommittees may be formed for the purpose of compiling information and conducting research. However, such subcommittees must act only under the direction of the DFO and must report their recommendations to the full Council for consideration. Subcommittees must not provide advice or work products directly to the Agency. Subcommittees will meet as necessary to accomplish their assignments, subject to the approval of the DFO and the availability of resources.

15. **Recordkeeping.** Records of the Council, and formally and informally established subcommittees or other subgroups of the Council, shall be handled in accordance with General Records Schedule 6.2, and other approved Agency records disposition schedule. These records shall be available for public inspection and copying, subject to the Freedom of Information Act, 5 U.S.C. 552.

Secretary of the Interior

DEC 0 1 2017

Date Signed

DEC 0 4 2017

Date Filed

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