BRISTOL BAY SUBSISTENCE REGIONAL ADVISORY COUNCIL

Meeting Materials

October 26-27, 2021
via teleconference

What's Inside

On the cover...

A moose peers across tall grass in Lake Clark National Park and Preserve

NPS Photo by J. Mills

What's Inside

BRISTOL BAY SUBSISTENCE REGIONAL ADVISORY COUNCIL

Teleconference
October 26-27, 2021
convening at 8:30 am daily

AUDIO: by teleconference ONLY – call the toll free number: **1-866-801-9605**, then when prompted enter the passcode: **29886091**

VIDEO: For visual presentations, call (907) 786-3888 or Toll Free: (800) 478-1456 for the link to Microsoft Teams videoconference. This is an additional option for visual presentations only, not a substitute for the teleconference feed.

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. 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.

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13. Adjourn (*Chair*)

Please note that **the audio portion** of this meeting will be by teleconference only. To connect to teleconference call the toll-free number: **1-866-801-9605**, then when prompted enter the passcode: **29886091**.

For the **video portion** of this meeting to see presentations through Microsoft Teams Videoconference platform call (907) 786-3888 or Toll Free: (800) 478-1456 for the link to Microsoft Teams videoconference. Audio will only be provided via the above-referenced teleconference information.

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 Katerina Wessels, 907-786-3885, katerina_wessels@fws.gov, or 800-877-8339 (TTY), by close of business on October 14, 2021.

REGION 4
Bristol Bay Subsistence Regional Advisory Council

Seat	Year Appointed *Term Expires*	Member Name and Community	
1	 ***2022***	***VACANT***	
2	 ***2022***	***VACANT***	
3	2003 ***2022***	**Nanci A. Morris Lyon** King Salmon	**Chair**
4	2020 ***2023***	**Samantha A. Herrick** Pedro Bay	
5	2017 ***2023***	**William W. Trefon, Jr.** Nondalton	
6	 ***2023***	***VACANT***	
7	2003 ***2023***	**Dan O. Dunaway** Dillingham	**Vice Chair**
8	2012 ***2021***	**Lary J. Hill** Iliamna	
9	2018 ***2021***	**Robert A. Larson** Koliganek	
10	2009 ***2021***	**Richard J. Wilson** Naknek	**Secretary**

BRISTOL BAY SUBSISTENCE REGIONAL ADVISORY COUNCIL

Meeting Minutes

Via Teleconference due to COVID-19
February 9, 2021

Invocation

Lary Hill gave an invocation.

Call to Order, Roll Call and Quorum Establishment

The meeting was called to order Tuesday, February 9, 2021, at 8:41 AM. Council members Dan Dunaway (Acting Chair), Samantha Herrick, Lary Hill, Robert Larson, William Trefon, and Richard Wilson were present via teleconference. The Council has 3 vacant seats. A quorum was established with six of seven seated Council members participating by phone.

Attendees:

Via teleconference

- Chignik InterTribal Coalition: George Anderson
- Bristol Bay Native Association (BBNA): Cody Larson
- Bureau of Indian Affairs: Dr. Glenn Chen
- U.S. Fish and Wildlife Service (USFWS): Jon Gerken (Anchorage); Susan Alexander and Danny Moss (Alaska Peninsula and Becharof National Wildlife Refuges (NWR), King Salmon); Frank Harris (Kenai); Vince Mathews (Fairbanks); Kenton Moos, Pat Walsh, and Andy Aderman (Togiak NWR, Dillingham)
- U.S. Bureau of Land Management (BLM): Walter Gusse, Bruce Seppi, and Bonnie Million (Anchorage)
- National Park Service (NPS): Linda Chisholm (Aniakchak National Monument (NM)); Mark Sturm and Leslie Skora (Aniakchak National Monument and Katmai National Park and Preserve (NP&P)); Kim Jochum (Anchorage); Lisa Rupp and Susanne Fleek-Green (Lake Clark NP&P); Troy Hammond (King Salmon); Dylan Patterson and Krista Barts
- Alaska Department of Fish and Game (ADF&G): Bronwyn Jones (Anchorage); Lee Borden (Dillingham); Mark Burch; Brian Riley (Dillingham); Todd Rinaldi (Palmer); and Rick Merizon.
- Office of Subsistence Management (OSM, USFWS): Donald Mike, George Pappas, Orville Lind, Robbin La Vine, Katya Wessels, Steve McFadden, and Jarred Stone
- National Oceanic and Atmospheric Administration (NOAA, Juneau): Ellen Yasumishi.
- Reporter: Salena Hile

Review and Adopt Agenda

Motion by Mr. Wilson, seconded by Mr. Larson, to adopt the agenda as read with the following change:

- Add discussion of brucellosis infection in the Mulchatna Caribou Herd.

The motion passed unanimously.

Election of Officers

The Council held its election of officers for a term of one year.

Nancy Lyon - Chair
Dan Dunaway - Vice Chair
Richard Wilson - Secretary

Review and Approve Previous Meeting Minutes

Motion by Mr. Wilson, seconded by Mr. Hill, to approve the Fall 2020 meeting minutes. *The motion passed* unanimously.

Council Member and Chair Reports

Robert Larson of Koliganek noted that he didn't have very much to report. He has been gone most of the winter for health reasons, and just got back last week. A few people are getting wolves.

Billy Trefon of Nondalton reported that he is representing the Tribe and wants to discuss extension of the moose and caribou subsistence hunts.

Lary Hill of Iliamna said that he didn't have much to report. They had a few winter season moose that were harvested. Some people are concerned about the brucellosis infection of the Mulchatna caribou, and how you tell if an animal is infected, if they don't show any of the outward signs. There were three to four lake Silvers that were 18-20 inches long and they didn't have anything in their stomach. Their flesh was kind of pink.

Richard Wilson of Naknek noted that they finally go a little snow on the ground and a little ice on the rivers. People are starting to cross to hunt the caribou herd south of the Naknek River. He hasn't heard of any infection of the herd. The Mulchatna caribou were spread out all the way from the west side of Kvichak Bay toward Sugerloaf. He guessed that a couple thousand had crossed the Kvichak a few weeks ago and that they were spread out. Mr. Wilson reported on the ptarmigan population and that ptarmigan seem to be coming along fairly well. People are seeing flocks of 50 to 100 birds here, and there. He noted that he had a flock of 20 birds come thru his yard every once and a while. Hunters got a few moose in December. Nobody is traveling to Big Creek and Smelt Creek, and few moose have been spotted there.

Samantha Herrick of Pedro Bay noted that she hasn't heard or seen anything that she needs to report. Mr. Trefon asked about wolves. Ms. Herrick noted that she hasn't heard of too much trouble with wolves.

Dan Dunaway (Acting Chair) of Dillingham noted that he was disappointed with the restrictions on the caribou for both the Mulchatna and Nushagak Peninsula Herds. The brucellosis infection is a huge concern, and he is looking forward to discussing it. He thinks that we'll get a report from Togiak NWR on the harvest. He has heard about a few ptarmigan. He noted that Mr. Hill's comments about winter Silver Salmon were interesting and said that people over on the Kenai River were seeing Silver Salmon up into January, but didn't discuss size. We'll get an update on the small herd sizes and more restrictive proposals with the Alaska Board of Game (BOG). He believes that BOG actions are going to be postponed for now.

Acting Chair Dunaway invited public comments

George Anderson from the Chignik InterTribal Coalition noted that they are working to ensure the well-being of their communities and noted that their social and cultural well-being is tied to the health of the lands and waters, which surround them. The abundance of one main subsistence resource has languished the past three years. He asked that the State and Federal agencies share the mutual goal of sustainable resource management. In response to closures and restrictions in 2018, 2019, and 2020 for subsistence harvest of Chinook and Sockeye Salmon, they have been requesting formal stock assessment research and recovery plans to support subsistence harvest opportunity. He requested that these comments be included in the Bristol Bay Council's Annual Report to the Federal Subsistence Board (Board) requesting help from the Federal in-season managers and staff in the Chignik Area. Acting Chair Dunaway noted that they are very concerned about the status of salmon in the Chigniks, and that the Council will work with them and the agencies to address the issue.

Old Business

Individual C&T Determinations

Dylan Patterson with the NPS reported on decisions made by the Board in January 2021 on the process used to make C&T determinations for individuals. There were lengthy presentations on this at the fall 2020 Council meetings. He noted that all most all C&T use determinations are for communities and areas, not for individuals. The NPS suggested some tweaks to the process to make it easier to understand and more timely for both the public and for staff. The NPS is suggesting improvements to something that already exists. Input from the ten Councils and seven Subsistence Resource Commissions (SRCs) last fall was incorporated for the January 2021 Board meeting. The Board will retain final decision-making authority. The process now includes formal recommendations from both the affected Councils and the affected SRCs. Perhaps the biggest change is that the process is no longer tied to the lengthy biennial Federal regulatory proposal cycle; instead, the application window is open continuously. The Board took action to help improve the process, but still welcomes any feedback for further improvements concerning individual C&Ts.

There were follow up questions by Mr. Trefon, Mr. Hill, Acting Chair Dunaway, and Mr. Wilson, and a discussion about this issue. Mr. Patterson explained that this will not affect community or area-wide

C&Ts. Individual C&Ts are very rare and they are made for individuals that have C&T use on those Park lands, but for whatever reason, do not still live in the resident zone communities for those Park lands. Ms. Jochum clarified that there is nothing new, and that there are no new permits. It is just a new process on how to handle individual C&T applications. People must be Federally qualified subsistence users to apply for individual C&Ts. This is not for people that move to an urban area and come back to follow traditional practices. Ms. Fleek-Green offered to come out and talk with residents of Bristol Bay communities if there are any questions. Mr. Sturm provided additional clarification concerning real residency. Dr. Ream clarified what is meant by "pattern of use" in making determinations for individual C&Ts and that we would be looking to the Councils and SRCs to help define that pattern of use.

Positioning of Animals

Council Coordinator Mike provided more information on positioning of animals and the working group's efforts on this. Robbin La Vine provided background on the positioning of animals issue and WP16-48, WP18-24, WP20-26, and WP20-27. The issue revolved around Federally qualified subsistence users being able to use a snow machine to position animals for hunting as long as the animals are not shot from a moving snow machine.

Mr. Wilson made a motion to recommend WP20-26 to expand this issue to include other Federal lands in Units 9B, 9C, 17B, and 17C, beyond BLM. Mr. Hill seconded the motion. *The motion passed* unanimously.

Council Charter

The Council discussed their Charter. Mr. Wilson made a motion that Council members continue to serve on the Council when their term ends, until there is a replacement appointed by the Secretary's office. Mr. Trefon seconded the motion. *The motion passed* on unanimous vote.

Annual Report

Council Coordinator Mike presented the three FY-2020 Annual Report items that the Council had discussed last fall. The Council wanted to add brucellosis as a topic. Based on Mr. Anderson's testimony earlier in the day, they also added wording reassurance to topic number 2 Concern about Poor Salmon Returns to Chignik Lake. The Council unanimously agreed that they have consensus on the FY-2020 Annual Report with these additions.

New Business

Wildlife Proposals

Ms. La Vine and Council Coordinator Mike explained that until we actually have the proposed rule published in the Federal Register, we won't be accepting wildlife proposals. However, the Council should feel free to vote to develop proposals at this meeting, so the proposal(s) can be formally submitted when the proposed rule is published.

2022 Fisheries Resource Monitoring Program

Mr. Jarred Stone with OSM presented the Council with the Fisheries Resource Monitoring Program (FRMP) summary. He noted that for the FY-2020 funding cycle, there will be about $2.25 million available for the first year of new projects throughout the Alaska. He noted that anyone who wants to apply can find information about the program on the Federal Subsistence Management Program web page or by visiting www.grants.gov. He noted that applications will be reviewed by the Technical Review Committee, and that the results will be presented at this fall's Council meeting.

Agency Reports:

- Cody Larson (Bristol Bay Native Association, Dillingham) reported on their subsistence projects and endorsed the BBNA summer internship program. He offered to help people in Bristol Bay with regulatory proposals.
- Todd Rinaldi (ADF&G, Palmer) gave an update on Mulchatna caribou, wolf distribution, brucellosis, and Unit 17A moose. He reported that nothing has changed significantly since last fall for Mulchatna caribou. The count for the herd is approximately 13,500 caribou. The density of wolves is estimated at about 4.7 wolves per thousand square miles in Unit 17. Predation accounts for about 85% of mortality in the first 15 days for caribou calves. Of these, 44% were preyed on by brown bears, 26% by wolves, 7% by black bear, 8% by golden eagle, 1% by wolverine, 6% from general bear predation, and 8% unknown predation. Brucellosis is present in caribou, moose, and bison across Alaska. In caribou, it typically can result in swollen front knees or an enlarged scrotum. People can become infected with the *Brucella* bacteria if they come in contact with bodily fluids of an infected animal. We haven't been seeing prolific signs of the disease in the past few years; however, the *Brucella* bacteria has been detected in ungulates at a relatively high rate. Hunters should be aware that there is a constant low level presence of the brucellosis disease in Mulchatna caribou and should wear gloves when cleaning animals and avoid contact with caribou body fluids. All meat needs to be cooked thoroughly. Mr. Rinaldi wasn't aware of any cases of humans being infected with brucellosis recently. Right now, we aren't seeing a harvestable surplus for the Mulchatna Caribou Herd, and don't expect things to change dramatically in the next couple years. We weren't able to hold the Unit 17C and 17B late season moose hunt this year.
- Rick Merizon (ADF&G, Palmer) gave an update on ptarmigan and hares. Beginning in 2018, they radio collared Alaska hares and have been learning a great deal about Alaska hare movements and life history. They have looked at Alaska hare regulations from Kotzebue to the Alaska Peninsula.
- Pat Walsh (Togiak NWR, Dillingham) gave an update on wolf and bear predation. The brown bear population is stable. He estimated that the population is more than 855 brown bears for the Togiak NWR. The Togiak NWR has a moderate abundance of brown bears that is strongly influenced by the availability of salmon. Wolf packs averaged about 867 square miles/pack. There are a total of 12 packs of wolves on Togiak NWR now and he doesn't expect that the wolf population will continue to grow very much, even if the food supply increases. Overall, the average pack size is 6.1 wolves/pack in the spring and 7.2/pack in the fall, with an estimate of about 90 wolves in spring and about 100 in the fall. Most moose mortality occurs in May and

June around the time of calving. Stable isotopes were looked at to evaluate what bears and wolves were eating. Caribou compose the majority, about 65%, of the diet of wolves that use the Nushagak Peninsula, while moose provided about 30% of their diet. For wolves using the rest of the Togiak NWR, moose composed about 75% of their diet, while salmon composed about 25%. It was estimated that salmon provide about 77% of the brown bear diet while moose and vegetation constitute about 23%. With moose population growth, the bear population hasn't increased. The wolf population has grown but is at a near maximum potential.

- Andy Aderman (Togiak NWR, Dillingham) noted that right now, the moose harvest for 17A is at 143 moose and may increase as more harvest reports come in. He reported on recovery of overgrazed lichen on Hagemeister Island and that full recovery of the lichens will probably take about 77 years. He noted that summer camps and school presentations did not occur last summer due to COVID-19. He talked about staffing changes at the Togiak NWR.
- Susan Alexander and Danny Moss (Becharof and Alaska Peninsula NWRs) gave an overview of refuge work. Mr. Moss introduced himself and Ms. Alexander reported on refuge staffing changes. Ms. Alexander noted that the Refuge flew seven moose composition surveys from mid-November to early December 2020, in Units 9C and 9E with excellent conditions. She also addressed caribou winter forage, habitat change, water temperature, and ptarmigan monitoring.
- Ellen Yasumishi (NOAA, Juneau) reported on sea ice and temperatures in the Bering Sea. In the last 20 years, we have had the top 10 warmest summers in the last 120 years. COVID-19 drastically affected their surveys. She reported on fish surveys, oceanographic information and plankton surveys from the Bering Sea.
- Susanne Fleek-Green (Lake Clark NP&P) highlighted key subsistence issues. She reported on beaver population impacts on water quality and salmon habitat. She reported on the increase in submerged vegetation with warmer water. She reported on their fisheries project at the River Mile 22 counting tower. She reported on education and outreach efforts and the impact of COVID-19 on these efforts.
- Krista Barts (NPS, Inventory and Monitoring Division) reported on mercury in Lake Trout in two Southwest Alaska Parks. Usually, older Lake Trout at the top of the food chain will have higher concentrations of mercury. They looked at 10 lakes in Lake Clark NP&P and 6 lakes in Katmai NP&P. The median value of Lake Trout total mercury is above the State's fish consumption threshold in seven of the 16 lakes, while Sockeye Salmon levels are consistently low. The mercury in Lake Trout is mainly an issue for women who are or can become pregnant, nursing mothers and children under the age of 18.
- Mark Sturm (Katmai NP&P and Aniakchak NM) reported that COVID-19 has impacted programs and that his staff are preparing for the field season this year. They are trying to understand how access can be increased to Brooks Camp in particular. He talked about a legislative proposal to convert parts of Katmai NP&P to allow subsistence use. After discussion, Council Coordinator Mike suggested that the Council send a letter to Mr. Sturm on developing correspondence from the Council to the Park Service. Mr. Wilson made a motion to send correspondence to the Park Service about finding a legislative solution to the Katmai NP&P land use issues. Mr. Trefon seconded the motion. The motion passed unanimously. Linda Chisholm (subsistence coordinator for Aniakchak) noted that SRC members reported that caribou and

ptarmigan numbers were up from what they saw a year or two ago. She also noted that several SRC members are working on applications for Bristol Bay Council membership.

- Bonnie Million (BLM, Anchorage) noted that they are stepping up involvement to participate in Mulchatna Caribou Herd monitoring.
- Lee Borden (ADF&G, Dillingham) reported that they had been able to run the Naknek Rainbow Trout catch survey last fall for the second year of that project. Sport fishing effort was down 75-80% due to COVID-19.
- George Pappas (USFWS, OSM) gave the OSM report.

Future Meeting Dates

Fall 2021 meeting to be held Oct. 27 and 28 in Dillingham.
Winter 2022 meeting to be held Feb. 8 and 9 in Naknek.

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Tom Kron on behalf of the retired Council Coordinator, Donald Mike, Designated Federal Officer
USFWS Office of Subsistence Management

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Dan Dunaway, Acting Chair
Bristol Bay Subsistence Regional Advisory Council

These minutes will be formally considered by the Bristol Bay Subsistence Regional Advisory Council at its Fall 2021 meeting, and any corrections or notations will be incorporated in the minutes at that meeting.

A more detailed report of this meeting, copies of the transcript, and meeting handouts are available upon request. Call Katya Wessels at 1-800-478-1456 or 907-444-1376 or email her at *Katerina_Wessels@fws.gov*.

Federal Subsistence Board

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

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

FOREST SERVICE

OSM 21045.KW

AUG 26 2021

Nanci Morris Lyon, Chair
Bristol Bay Subsistence Regional Advisory Council
c/o Office of Subsistence Management
1011 E. Tudor Road, M/S 121
Anchorage, AK 99503

Dear Chairwoman Morris Lyon:

The Federal Subsistence Board (Board) met on January 26-29, 2021 via teleconference to consider proposed changes to Federal subsistence management regulations for the harvest of fish and shellfish on Federal Public lands and waters in Alaska, fisheries closure reviews, and a nonrural determination proposal. This letter is to provide a report on the actions taken by the Board on proposals and closure reviews affecting Federally qualified subsistence users.

Section 805(c) of the Alaska National Interest Lands Conservation Act (ANILCA) provides that the Board will accept the recommendations of a Subsistence Regional Advisory Council (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 14 fisheries proposals submitted, one proposal (FP21-04) was withdrawn by the proponent. The Board agreed with the recommendations of the Regional Advisory Councils, in whole or with modifications, on 9 proposals. The Board deferred its decision on Proposal FP21-10 until the next fisheries cycle to allow conflicting user groups to meet and attempt to reach a compromise. The Board reviewed 12 fisheries closure reviews and accepted the recommendations of the Regional Advisory Councils on 10 of 12 fisheries closure reviews. The Board voted to maintain status quo on 2 of them (FCR21-01 and FCR21-22) and to eliminate one of the closures (FCR21-06). The Board deferred 7 of 12 fisheries closure reviews (FCR21-08, -09, -11, -13, -16, -18, and -19) until next fisheries cycle to allow the Council to meet with communities and discuss the closures. The Board deliberated one rural determination proposal RP19-01 and agreed with the Southcentral Alaska Subsistence Regional Advisory Council recommendation with modification.

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 and closure reviews where there is agreement among the affected 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 fisheries proposals and closure reviews were deemed non-controversial and did not require a separate discussion. The consensus agenda contained four fisheries proposals affecting the Bristol Bay Region, which the Board deferred to the Bristol Bay Council recommendations as follows: the Board adopted **FP21-05** (Proposal to clarify Federal regulations regarding subsistence fishing in the marine waters of fishing districts) and **FP21-07** (Proposal to revise the Federal subsistence fishing regulations for the Bristol Bay Area by removing the scheduled fishing closures in the Egegik River); and rejected **FP21-06** (Proposal to revise Federal subsistence fishing regulations for the Bristol Bay Area to specify that salmon may be taken by dip net, beach seine, and gillnet only, unless otherwise specified) and **FP21-08** (Proposal to revise the Federal subsistence fishing regulations for the Bristol Bay Area by removing the scheduled fishing closures in the Egegik River), consistent with the Councils recommendation.

The Federal Subsistence Board appreciates the Bristol Bay 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 was noteworthy.

If you have any questions regarding the summary of the Board's actions, please contact Katerina Wessels, Council Coordination Division Supervisor, at 907-786-3885 or *katerina_wessels@fws.gov*.

Sincerely,

Anthony Christianson,
Chair

cc: Federal Subsistence Board
Bristol Bay Alaska Subsistence Regional Advisory Council members
Sue Detwiler, Assistant Regional Director, Office of Subsistence Management
Amee Howard, Deputy Assistant Regional Director and Acting Fisheries Division Lead, Office of Subsistence Management
Robbin La Vine, Policy Coordinator, Office of Subsistence Management
George Pappas, State Subsistence Liaison, Office of Subsistence Management
Katerina Wessels, Council Coordination Division Supervisor Office of Subsistence Management
Interagency Staff Committee
Administrative Record

Federal Subsistence Board

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

FOREST SERVICE

OSM 21022.KW August 4, 2021

Nancy Morris Lyon, Chair
Bristol Bay Subsistence
Regional Advisory Council
c/o Office of Subsistence Management
1101 East Tudor Road, MS 121
Anchorage, Alaska 99503-6199

Dear Chairwoman Lyon:

This letter responds to the Bristol Bay Subsistence Regional Advisory Council's (Council) Fiscal Year 2020 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 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. Public Participation in the Regional Advisory Council Public Meetings

The Council held its fall 2020 and winter 2021 public meetings via teleconference due to the COVID-19 pandemic social distancing requirements and travel restrictions and was unable to meet in person. It is important to have meaningful participation from all those attending the meeting via teleconference, especially the Council and the public. The Office of Subsistence Management (OSM) staff used Microsoft Teams' video capabilities as a way to display agency reports and track other issues for the Council to follow. During the pandemic, this was a meaningful way to get the Council members engaged, as well as other participants. The use of video conferencing capabilities (instead of teleconference phone lines) should be considered for future public meetings in order for documents and presentations to be displayed visually. During the Regional Advisory Council public meetings held via teleconference, a lack of public participation through the teleconference method was noted. This Council encourages OSM to conduct additional outreach efforts to notify the public and encourage public participation when holding public meetings via teleconference.

Response:

The Board recognizes the importance of public participation in all Council meetings no matter if they are held in person or via tele/video conference. Title VIII of ANILCA Section 805(a)(3)(B) and (C) specifically gives the authority to the Subsistence Regional Advisory Councils to provide "a forum for the expression of opinions and recommendations by persons interested in any matters related to the subsistence uses of fish and wildlife within the region" and to 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."

Fall 2020 and Winter 2021 Council meetings were held via teleconference and/or video conference due to various COVID-19 pandemic restrictions and guidelines from the U.S. Fish and Wildlife Service, State of Alaska, as well as local and Tribal governments. Well in advance of the meetings, OSM conducted its usual outreach to the agencies, tribes, and communities about the opportunity to participate in the upcoming Council's public meeting, and the meetings were widely advertised to the public via various media sources.

The Board is pleased that several Councils found it useful to utilize the Microsoft Teams platform video capabilities to display agency reports and track other issues, which OSM will be able to utilize for meetings in the future on an "as needed" basis. However, the Board also received feedback from users in rural communities that they experienced difficulties accessing the Microsoft Teams platform due to low internet capabilities or unfamiliarity with the platform. The Board asks the Council to advise your Council Coordinator on the ability to use the Teams platform and if your Council wishes to use it in the future.

The Board remains hopeful that the in-person meetings will be allowed in the fall of 2021 and is making plans for it. However, if the in-person meetings are not allowed, the Board will request OSM to conduct a more extensive outreach prior to the fall meeting to ensure more public participation in the tele/video conference.

2. Chignik Salmon Fishery

The Chignik Sockeye Salmon fishery run continues to be a stock of concern for the Council. The Council prioritized the research of Sockeye Salmon as a need in the Chignik watershed. Research, stock assessment, and recovery plans for this fishery may provide answers to the questions of what caused the run to decrease and the role of environmental factors in the conservation of healthy populations.

Funding for this fishery should continue to be a priority as it supports subsistence opportunities for rural residents. In 2018 – 2020, closures and subsistence fishery restrictions were initiated in the Chignik River drainage for Sockeye and Chinook salmon conservation reasons. The abundant salmon stocks are a main subsistence resource for the residents within the Chignik watershed and is a strong part of their social and cultural well-being tied to the health of the lands and waters surrounding the communities.

Response:

The Board understands that the last three seasons of Chignik River watershed salmon returns neither met escapement goals nor provided for much opportunity for Federally qualified users to harvest fish for subsistence. Unprecedented restrictions were warranted for all users of the Chignik River watershed Sockeye and Chinook salmon.

In 2021, the Alaska Department of Fish and Game, the U.S. Fish and Wildlife Service, Fisheries and Ecological Services, and the Chignik Intertribal Coalition applied for Fisheries Resource Monitoring Program funds to conduct harvest studies in the local area. Proposals for the Fisheries Resource Monitoring Program are under review now and funding decisions are expected in early 2022.

The Board recommends that when the Council reviews the 2022 Draft Fishery Resource Monitoring Plan at its fall meeting, they provide recommendations regarding the importance of this project for your region.

3. <u>Staffing of Alaska Department of Fish and Game office in Dillingham</u>

The position of staff wildlife biologist with the State of Alaska Department of Fish and Game (ADF&G) in Dillingham has been vacant for quite some time. In the past a person in this position was able to provide residents of the area with biological information on the Nushagak Peninsula Caribou Herd. Togiak National Wildlife Refuge has been able to assist with biological information as well. Without proper staffing, it is hard for residents to get information on the State management strategies for the herd. The Council relies on biological information of the herd's status from the State and Federal wildlife biologists. The ADF&G and Togiak NWR Refuge biologists coordinate together for cooperative management and research to manage the herd.

Additionally, the Unit 17A winter moose hunt is managed by the ADF&G, while a significant portion of the hunt occurs on Togiak NWR lands. An onsite local ADF&G wildlife biologist is important for information on Unit 17A moose management strategies.

Response:

The Board is pleased to relay the good news to the Council that the State of Alaska Department of Fish and Game successfully filled the Wildlife Biologist III Area Manager position in early 2021. Mr. Bryan Reiley was hired to fill this position and began his tenure in February of this year. OSM State Subsistence Liaison can invited Mr. Reiley through the ADF&G to attend the fall 2021 Council meeting.

4. <u>Brucellosis</u>

Recently, the ADF&G reported increased cases of Brucella suis biovar 4, that causes a disease known as rangiferine brucellosis, affecting caribou and reindeer. The Mulchatna Caribou Herd has been affected by this disease and exposure from the contaminated parts of an animal can cause illness to people. Symptoms can include a very high fever that frequently comes and goes, chills, loss of appetite, sweats and fatigue. More detailed information can be found on this website: www.adfg.alaska.gov/index.cfm?adfg=disease.general3 and in the attached ADF&G Advisory Announcement (see enclosure).

The Mulchatna Caribou Herd is an important subsistence resource for the rural residents of Bristol Bay. The Council was informed about precautions that need to be taken when processing an infected animal and to report suspected cases of brucellosis to the ADF&G. Currently, the season for Mulchatna caribou is closed for harvest across the herd's full range.

The Council expresses concerns regarding the effects of the disease on the Mulchatna Caribou Herd, and requests that the ADF&G monitors the herd to protect the health and safety for the residents of the region. The Council requests that ADF&G keep the Council and public apprised of the current status of the Mulchatna Caribou Herd.

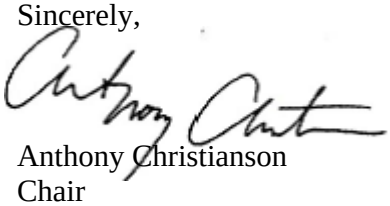
Response:

The Board fully understands the importance of the Mulchatna Caribou Herd to subsistence users in the Bristol Bay Region and shares the Council's concerns regarding the effects of the rangiferine brucellosis disease on the herd. To the Board's knowledge, ADF&G continues to monitor the Mulchatna Caribou Herd and moose for *Brucella suis biovar* 4. In January 2021, Alaska Department of Fish and Game (ADF&G) researchers received positive test results for brucellosis from a relatively high percentage of caribou sampled during collaring operations. Even though the MCH season was closed, public service announcements and outreach efforts were immediately done for public safety concerns. ADF&G will continue to monitor the herd for

brucellosis, and the public is asked to report observations of caribou exhibiting signs of infection. USFWS Refuges have worked with ADF&G to distribute informational bulletins regarding brucellosis. In addition, a team of ADF&G and USFWS outreach specialists have been working collaboratively in the development, production, and distribution of additional informational materials for the MCH. These efforts have been done jointly to maintain consistent messaging and the pooling of expertise allows for effective and efficient outreach efforts. A *Caribou Tracks* publication specific to the MCH has been produced and will be made available to the public very soon. Public Service Announcements and other printed outreach materials are also being developed and will be distributed soon. We are enclosing two information fact sheets on brucellosis prepared by the Alaska Native Tribal Health Consortium Center for Climate and Health for the Council information. Additional materials and presentations are forthcoming. Your Council Coordinator may request a presentation from ADF&G on the status of the herd.

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 Federally qualified subsistence users of the Bristol Bay Region are well represented through your work.

Sincerely,



Anthony Christianson
Chair

Enclosure

cc: Bristol Bay Subsistence Regional Advisory Council
Federal Subsistence Board
Sue Detwiler, Assistant Regional Director, Office of Subsistence Management
Amee Howard, Deputy Assistant Regional Director, Office of Subsistence Management
Robbin La Vine, Subsistence Policy Coordinator, Office of Subsistence Management
Katerina Wessels, Council Coordination Division Supervisor
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Lisa Grediagin, Wildlife Division Supervisor, Office of Subsistence Management
George Pappas, State Subsistence Liaison and Acting Fisheries Division Supervisor
Office of Subsistence Management
Jonathan Vickers, Anthropology Division Supervisor, Office of Subsistence Management
Donald Mike, Council Coordinator, Office of Subsistence Management
Interagency Staff Committee
Benjamin Mulligan, Deputy Commissioner, Alaska Department of Fish and Game
Mark Burch, Special Project Coordinator, Alaska Department of Fish and Game
Administrative Record

Brucellosis: Understanding an Important Arctic Infectious Disease

Center for Climate and Health

Michael Brubaker MS, James Berner MD, Jay Butler MD, Michael Bradley DVM

CCH Bulletin No. 5, November 30, 2010

This bulletin describes brucellosis, an infectious disease caused by bacteria found in some land and sea mammals, including Arctic species that are important subsistence foods. We discuss the history of brucellosis in Alaska, explain climate change connections, and describe some of the implications for consumers of these wild foods.

Background

Brucellosis is considered one of the most important Arctic infectious diseases and frequently affects wildlife including land and marine mammals that are important subsistence resources for Arctic people. Brucellosis is a "zoonotic disease", meaning that people can become infected by coming in contact with the same bacteria that causes the disease in animals. Ten species of *Brucella* are recognized in animals and some of these *Brucella* species include different biovars (i.e., different strain types).

Three *Brucella* species are known to cause disease in humans, *Brucella abortus* (mainly infecting cattle and bison), *Brucella melitensis* (mainly infecting sheep and goats), and *Brucella suis* (mainly infecting pigs, caribou and reindeer). *Brucella* suis "biovar 4" is the strain found in caribou and reindeer. Less frequently it can be found in dogs, moose, sheep, muskoxen and predator species. These are "spill over" hosts, meaning that the infection is usually not sustainable in the absence of a bacterial reservoir in the caribou or reindeer.

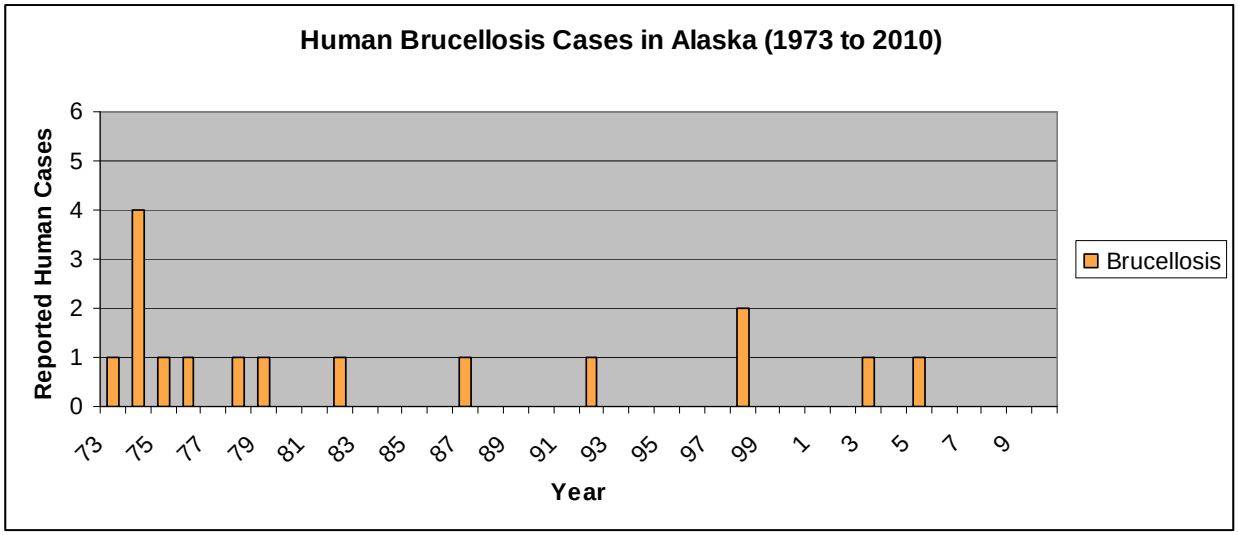
In Alaska, caribou are hunted mostly in spring, fall and winter. In the spring and fall, meat is air dried on racks and saved for later consumption. This is an efficient and economical way for preserving wild meat, as well as a traditional practice. Part of a freshly killed caribou is sometimes eaten raw, including the bone marrow and some internal organs. This can expose people to the *Brucella* bacteria. Another route of exposure is through a cut in the hand during butchering.

It is not known how frequently the infection occurs in people; although brucellosis has only rarely been reported to public health. Since 1973, there have been 17 reported cases in Alaska (DHSS). But the fact that brucellosis is difficult to diagnose may mean the disease is under reported, and that the rates are actual higher.

The *Brucella* – Caribou Connection

Brucellosis is a very old disease, and yet it has only recently been associated with wildlife in the Arctic. Up until the 1950s, reported human cases in Alaska were largely attributed to drinking

unpasteurized milk, as was common on small farms[1]. Cattle and pigs sometimes are infected with *Brucella abortus or Brucella suis* biovar 1, but in the 1950s, the disease had not yet been associated with Alaska wildlife. This changed in August of 1959 when an otherwise healthy, nineteen year old Alaska Native woman from Barrow fell ill (Edwards, S. 1959). She was admitted to the Barrow Native Hospital with flu-like symptoms, including fever, diarrhea, vomiting, and stomach pain. The following week, she was transferred to the Alaska Native Hospital in Anchorage under the care of Dr. Stan Edwards. After months of tests she was diagnosed with an uncommon type of brucellosis; not the variety found in farm animals, but rather *B. suis,* biovar 4 which had, never before been identified in Alaska. The woman was treated successfully with antibiotics, but the source of her *Brucella suis* remained a mystery.



Source: State of Alaska Department of Health and Social Services

Dr. Edwards had a strong suspicion that the young woman had received some unique exposure to *Brucella suis*. Prior to her illness, she had never been more then 120 miles from Barrow. Fresh dairy products were unheard of in Barrow, and people routinely consumed dry or canned milk. There was however, an interesting recent event in the patient's history. In August of 1958, three months prior to her illness, she had participated in a seal hunting trip. During the trip, a caribou was taken and the woman and two others from the party ate the bone marrow raw.

Dr. Edwards and Dr. Robert Phillips of the U.S. Public Health Service's Arctic Health Research Center traveled to Barrow to investigate. They were able to collect blood samples from 480 people. Of those tested, only one person was positive for anti-*Brucella* antibodies, an eighteen year old boy from Wainwright who was also a member of the seal hunting party and had eaten the raw caribou bone marrow. The third person who had eaten bone marrow was a 50 year old man. He also had been ill three months after the hunt, and had been treated with antibiotics. His tests came back negative for *Brucella*.

[1] Forty-nine cases were reported between 1939 and 1953 (Huntley et al. 1963).

Edwards and Phillips provided initial epidemiological evidence for an Alaska reservoir of *Brucella suis* in caribou. Human cases had also been described in other parts of the Arctic, including Canada in 1953 and in 1955, where caribou was also considered a possible source (Matas 1953, Corrigan 1955), and in Siberia, (Pinigin and Petukhova, 1962). More evidence of the caribou – human *Brucella suis* relationship was soon to follow.

In 1960 the 1st and 2nd Scout Battalions, of the Alaska National Guard, were mustering for their annual encampment. There were 795 members from 55 villages throughout southwest, western, northern and the interior of Alaska. It was an opportunity to assess exposure to *Brucella suis* statewide. Blood samples were collected from all guardsmen as well as from the general population of residents in the communities of Anatuvik Pass, Barrow, and Wainwright. Additionally, bone marrow for culture and blood samples was collected from 145 caribou around Anaktuvuk Pass (Huntley et al., 1963). Up to 10% of the Guardsmen tested positive for anti-*Brucella* antibodies, indicating past exposure. In Anatuvik Pass 14 people were positive, suggesting an exposure of 10 to 20% of the population.

In 1961, two more cases of brucellosis were identified, one from Anatuvuk Pass and a second from Kivalina (Huntley et al., 1963). People in both villages rely heavily on caribou in their diet. The strains isolated in these patients resembled the strains isolated in caribou, suggesting that the *Brucella* among caribou may also cause illness in humans. By 1966, the relationship had been firmly established. The strain of bacteria isolated in caribou and in people were the same (Brody et al. 1966), it was *Brucella suis* biovar 4 (Meyer, 1964).

Between 1961 and 1965 samples were collected from 763 residents in seven Arctic villages that rely heavily on caribou for food. These included Anaktuvuk Pass, Arctic Village, Fort Yukon, Kiana, Kivalina, Noatak and Shungnak. Chevak was selected as a control (unexposed) community since caribou was not commonly used there for subsistence (Brody et al. 1966). Blood samples were acquired from between 20% and 95% of the population and represented all age groups with the exception of children under five years of age.

No one tested positive in the control community Chevak, but in the others between 5% and 21% tested positive for anti-*Brucella* antibodies, showing that they had been exposed but were not necessarily experiencing illness. During the same period however, eight active infections were identified among men and women: one case in Anaktuvuk Pass, two in Kiana, two in Kivalina, one in Kotzebue, one in Wainwright, and one in Barrow. All suffered from similar flu-like symptoms and recovered after receiving antibiotics. All cases were in people who commonly ate caribou, both cooked and raw. So even though many residents had *Brucella* antibodies in their blood, it was uncommon for people to develop the disease.

During almost the same period, analysis of caribou from across Alaska identified an epidemic of brucellosis in both the Nelchina (Southcentral Alaska) and Arctic caribou herds (Neiland et al., 1967). Speculation was made about a potential caribou-dog-human connection, similar to other dog-human zoonotic disease pathways in rural Alaska; such as rabies (fox-dog-human) and echinococcus (vole-dog-human).

Brucellosis serology in 7 villages above the Arctic Circle (Brody, 1966)

Village	Number Tested	% Positive Male	% Positive Female	% Positive Total
Anaktunuk Pass	98	7	10	8
Arctic Village	45	24	13	18
Fort Yukon	174	20	21	21
Kiana	174	4	8	6
Kivalina	64	3	11	6
Noatak	131	4	7	5
Shungnak	77	14	14	14
TOTAL	763	9	13	11

A later blood survey by the State of Alaska Department of Fish and Game, suggested that the disease was present in all caribou herds in Alaska, but with a high prevalence in the Northwest, and a low prevalence in southern part of the state (Zarnke, 2001). Similarly, in Canada, caribou continued to be identified as carriers of *Brucella suis* biovar 4. Arctic people were considered at particular risk for infection because of the raw caribou meat in their diet. As advised in a 1989 report on brucellosis among Canadian Inuit, "physicians should consider brucellosis in these individuals who present with persistent fever or hepatosplenomegaly (an enlarged liver or spleen)" (Chan et al., 1989).

The *Brucella* – Marine Mammal Connection

In 1994 a new *Brucella* species was described; the first case of brucellosis in a sea mammal, a captive dolphin in California (Ewalt et al. 1994). The fact that the animal had an aborted pregnancy (a common outcome of brucellosis in animals including caribou) suggests that this new *Brucella* species was not only present but was also causing disease. Two different marine mammal *Brucella* species *Brucella pinnipedialis,* infecting preferentially seals, and *Brucella ceti,* infecting preferentially whales and porpoises, have since been isolated in a variety of marine mammals.

Marine mammals strains were different than any of the terrestrial strains of the bacteria. A survey from the North Atlantic found that 38% of surveyed hooded seals were sero (blood) positive for *Brucella* (Tryland et al, 2005). Brucellosis was also found to have high prevalence in 49% of tested common seals and 33% of harbor porpoises on the Scottish coast (Foster et al., 2002). Anti-*Brucella* antibodies have also been detected in 10% of ringed seals tested in the Barents Sea (Tryland et al., 1999). In Alaska, a 2006 study in the Gulf of Alaska, Prince William Sound, Kodiak Island and the Southeast, described 46% sero-positivity in Harbor seals (11% for pups and 54% for non pups), the highest of any species tested in Alaska (Zarnke et al., 2006).

Climate change may be increasing the opportunity for *Brucella* and other infectious agents to spread throughout the Arctic. Whereas some Alaska sea mammals were once geographically isolated, the opening of ice-free routes across the Arctic Ocean are increasing opportunities for interaction and the spread of infectious disease. The social behavior of seals, sea lions and other pinniped species, especially during haulout periods, provides added opportunity for

transmission of infectious disease (Zarnke et al. 2006). Transfer may occur through prey species, from mother to calf (or pup), or through a parasite such as lung worms that were reported to have infected a Pacific harbor seal (Garner et al., 1997).

But can marine *Brucella* also affect people? The occupational acquired infection of a laboratory worker suggested that the marine *Brucella* may also be contagious to humans. The lab worker had headache, sinusitis and fatigue, and had bacteria in his blood (Brew et al. 1999). Marine *Brucella* species have also infected people in a community setting. Two incidents of community-acquired human infections from marine *Brucella* were reported in Peru, both resulting in neurobrucellosis, a rare, severe form of systemic nervous system infection. Neither of the patients reported consuming or having contact with sea mammals, despite the fact that the strain of *Brucella* they acquired, *B. pinnipedialis* is associated with seals. This raises questions about the possible routes of human exposure to marine *Brucella* (Sohn et al, 2003).

Because each *Brucella* species has distinctive characteristics of infection, the complexity of the interaction between the bacteria, the animals and humans has increased (Godfroid et al., 2005). At least two newly identified species, *B. ceti* infecting cetaceans like whales, dolphins and porpoises) and *Brucella pinnipedialis* (infecting different seal species) are now present in the Arctic (Godfroid J, 2002) and new *Brucella* strains or species may emerge as existing *Brucella* adapt to a changing environment. Marine *Brucella* species may utilize non-mammal species such as fish or round worms as intermediate hosts. Marine ecosystems may add complexity to the marine *Brucella* life – cycle, and may pose additional possible sources of human exposure. It is not known whether antibodies developed to *Brucella* from caribou will protect against infection from marine forms of *Brucella*, or to what extent standard tests for infections in humans exposed to terrestrial forms of *Brucella*, will also detect antibodies to marine *Brucella*.

Conclusion

In Alaska, little is know about the prevalence of brucellosis in humans. Although rarely reported, it may be diagnosed and treated more frequently than is apparent. Surveillance and reporting systems to improve understanding about this disease are needed, both in wildlife and for the people who depend on these animals as a staple in their diet.

Caribou as well as reindeer are the reservoir of *Brucella suis* biovar 4 brucellosis infection in people. This can be a severe disease and requires prompt diagnosis and treatment. There is also a possible reservoir of *Brucella ceti* and *Brucella pinnipedialis* in Arctic marine mammals. However, to date no human infection with marine *Brucella* has been described in the Arctic. On the basis of the blood tests available, a determination of the origin of the *Brucella* infection, marine versus terrestrial, is not possible.

The extent of exposure and infection by marine *Brucella* in humans is currently unknown. Worldwide, only three naturally acquired human cases have been described, for which the route of transmission is not known.

Alaska Natives depend upon traditional foods to provide a healthy, affordable, sustainable, and culturally meaningful diet. Sea and land mammals used for food are often eaten raw (such as bone marrow), dried, or raw after freezing. These practices are known to carry more risk for food-borne illnesses than eating food that has been cooked, which effectively kills most bacteria and parasites. The risks are highest for people who are susceptible to infection, such as pregnant mothers, the elderly, or people that are immune suppressed due to illness or cancer therapy. But how great is the risk, what benefits would be lost, and do the risks justify changing behaviors and traditions that have been passed down for generations?

More information is needed to answer these questions, and to help us understand the risks and benefits associated with different methods of food preparation. With better information, consumers of traditional foods can make choices based on sound science and their own personal and cultural priorities. In the meantime, some basic precautions such as wearing protective gloves during butchering can help consumers protect themselves from brucellosis while continuing to use and enjoy these important subsistence resources.

The bulletin entitled ***Brucellosis – Answers to Frequently Asked Questions,*** provides information for subsistence food consumers and some basic guidelines on how to prevent exposure to *Brucella*. The fact sheet is available at the ANTHC Center for Climate and Health website. Google us with: “Center for Climate and Health.”

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ANTHC would like to acknowledge the contributions of Louisa Castrodale DVM, with the State of Alaska Department of Public Health; Jacques Godfroid DVM PhD, with the Norwegian School of Veterinary Medicine; and Alan Parkinson PhD with the U.S. Centers for Disease Control Arctic Investigations Program. Thank you very much for your help in developing this bulletin.

Any opinions expressed are strictly those of the authors.

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Visit our website at: www.anthc.org/chs/ces/climate

Brucellosis: Answers to Frequently Asked Questions
Center for Climate and Health

Michael Brubaker MS, James Berner MD, Jay Butler MD, Michael Bradley DVM
CCH Bulletin No. 6, November 30, 2010

This bulletin describes brucellosis, an infectious disease caused by bacteria found in some land and sea mammals, including species that are important food resources. As climate change is providing new opportunities for the spread of infectious disease, ANTHC developed this bulletin to provide prevention guidelines and answer some commonly asked questions. The risk of infection from brucellosis is thought to be low, but it can be a serious illness. This information can help Alaska Natives reduce risk while continuing to enjoy a healthy, subsistence diet.

What is Brucellosis?

Brucellosis (pronounced: brew-cell-o-sis) is a disease caused by a bacteria called *Brucella*, that infects some animals and can also infects people. In Alaska, the most common source of *brucellosis* in people is from exposure to infected caribou and reindeer. *Brucella* can also infect other land mammals including wolves, bears, musk ox, and moose among others. It has also recently been identified in sea mammals including seals and whales.

Where does it occur?

Brucellosis is most commonly associated with the four Arctic caribou herds: the Western Arctic, the Teshekpuk, the Central Arctic, and the Porcupine. These herds occupy parts of Norton Sound, the Northwest Arctic Borough, the North Slope Borough, the Interior, and across the border into Canada's Northwest Territory. Brucellosis is also reported in other caribou and reindeer herds in Alaska.

Bearded Seal Courtesy E. Regehr, U.S. Fish and Wildlife.

Caribou (Courtesy APIA Photo Archives).

How frequently does it occur in animals?

In surveillance performed since 1971 by the Alaska Department of Fish and Game, more then 1000 North Slope caribou have been sampled, and antibodies against brucella have been found in 5% of the animals tested (Personal communication, Kimberlee Beckmen, ADF&G 2010). Efforts are underway by ADF&G and others to describe this disease in caribou and other wildlife. Tests in marine mammals showed that in parts of Alaska, 46% of harbor seals had been

exposed to brucella. However, to date no Alaskan cases of human brucellosis associated with marine mammals have been identified so the potential risk to hunters and consumers is unknown.

What are the signs of brucellosis in caribou?
Brucellosis usually affects caribou reproductive organs and the legs. Infected animals may have swollen joints causing limping or lameness, especially in the front legs. However, this is not the only disease or condition that can cause these symptoms in caribou. In fact, an infected animal may appear healthy. It is for this reason that people handling caribou should be aware of the disease so that they can take precautions.

Photo of swollen caribou fore leg. Courtesy of the Government of Northwest Territories, Canada.

Would I notice anything different when butchering?
In caribou, you may find a swollen joint, testicle or womb, but typically you will not find anything unusual. As for marine mammal brucellosis, infected seal usually appear healthy whereas in whales and other cetaceans, lesions in reproductive organs, in the brain, skin and joints have been reported.

How often does brucellosis occur in people?
Brucellosis has rarely been diagnosed in people. Since 1973, there have been only 17 reported cases in Alaska (DHSS). The fact that brucellosis is difficult to diagnose may mean the disease is under reported, and rates may actually be higher.

How does brucellosis affect people?
In people, the effects of brucellosis can range from having no symptoms at all, to a very serious and sometimes chronic infection of the brain, heart or other internal organs. Untreated it can result in death. When there are symptoms, they can include fever, sweats, headaches, back pains, and physical weakness. Long-lasting, chronic symptoms include fevers that come and go, joint pain, and fatigue. Brucellosis in people can be diagnosed in a laboratory by testing samples of blood or bone marrow.

What should you do if you think you have been exposed?
People that experience symptoms and are concerned about infection should tell their health care provider that they may have been exposed to *Brucella*.

What is the treatment?
Treatment for a confirmed case of brucellosis involves antibiotics. Depending on the timing of treatment and severity of illness, recovery may take a few weeks to several months. Brucellosis can be cured with treatment.

How common is it in people?
It is difficult to say as there are few records in Alaska and it is possible that some cases go without ever being diagnosed. A 1981 State of Alaska Epidemiology Bulletin reported that since 1958, brucellosis averaged about one case per year (ranging between 0 and 5), with 24 cases in all (Ribar, J., 1981).

How are people exposed to *Brucella*?
It is usually while butchering, when cuts in a person's hand come in contact with the fluids from the womb, swollen joints and possibly the blood. It can also be contracted if infected fluids are splashed into the eyes, nose or mouth, or through eating uncooked or improperly cooked bone marrow.

If a caribou looks like it has brucellosis, can I still eat it?
Remember, it may not be possible to tell if an animal is infected. If it appears infected, you can still eat the healthy looking meat and marrow of the animal as long as it is properly cooked. Freezing, drying, pickling or smoking *will not* kill most bacteria, including *Brucella* either in caribou or in other animals.

Can the disease be passed from person to person?
The spread of brucellosis from person to person is extremely rare. However, infected mothers can transmit brucellosis to their infants. This is why cooking meat and marrow is especially important for nursing mothers.

How can I protect myself while butchering?
If part of the animal appears diseased, avoid cutting into it. If you have an open cut on your hand, ask someone else to do the butchering and preparation; or wear a pair of rubber gloves. Avoid wiping your eyes or mouth with anything that has come in contact with blood or fluids. Wearing glasses or sunglasses can help to avoid this kind of exposure.

What about clean up?
The bacteria can remain viable for months so thorough cleaning of tools after butchering or preparation is strongly recommended. In the field, hand sanitizers are a good alternative if water is not readily available. At home, take care to clean the area where butchering has occurred. Water mixed with bleach, (one part bleach to ten parts water) works well to clean counters and other surfaces.


Wearing gloves helps to prevent exposure to brucella during butchering. Photos M. Brubaker, 2010

Does this mean I should only eat cooked meat?

Much of the sea and land mammal that is consumed by Alaska Natives is dried, or eaten raw after freezing. This is an economical and efficient way to prepare meat, and also has cultural and nutritional value. But consumers need to be aware that these practices may carry more risk for brucellosis and other foodborne diseases than cooked meat. Deciding how to eat (cooked, uncooked or otherwise) is a personal decision that should be made based on good information about the specific food resource.

Are some people more vulnerable to infection?

Although brucella is difficult to detect in people, the risk for infection is thought to be low. However, special precautions are recommended for people who are more vulnerable to infectious disease, such as infants, pregnant mothers, the elderly, or people that are immune suppressed due to illness or cancer therapy. With these populations, cooking meat and marrow can help to prevent a serious infection.

What is the connection to climate change?

Brucellosis is one of the diseases commonly discussed in relation to climate change in the Arctic. Warming temperature is changing the range of many animals and other wildlife, and improving conditions for the spread of some types of disease. Little is known about climate change influence on brucellosis rates in animals or people, but efforts are on-going to improve understanding of the disease and to monitor for new diseases or changes in disease patterns.

Where can I get more information?

For more information about brucellosis in wildlife, contact the State of Alaska Department of Fish and Game, or visit their Wildlife Disease Website. For more information about brucellosis in people, you can contact the Alaska Native Tribal Health Consortium, Center for Climate and Health, or the State of Alaska Section of Epidemiology. If you are concerned about your own health or that of your family, contact your health care provider or regional health corporation.

Conclusion - Alaska Natives depend upon traditional foods to provide a healthy, affordable, sustainable, and culturally meaningful diet. Wild land and sea mammals are generally more nutritious then the meat that is available at the store. More research is needed into the risks and benefits associated with different methods of preparing wild foods, as well as ways for reducing risk, and broader surveillance for brucellosis is needed. With good information, consumers can make choices based on sound science and their own personal and cultural priorities. Brucellosis is not a new problem in Alaska, nor is it thought to be a common one. But brucellosis can be serious, especially in people who are vulnerable to infections. By taking a few precautions everyone can enjoy the benefits of these important subsistence foods and prevent illness.

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ANTHC would like to acknowledge the contributions of Louisa Castrodale DVM, with the State of Alaska Department of Public Health; Kimberlee Beckmen DVM, with the State of Alaska Department of Fish Game; Jacques Godfroid DVM PhD, with the Norwegian School of Veterinary Medicine; and Alan Parkinson PhD with the U.S. Centers for Disease Control Arctic Investigations Program. Thank you very much for your help in developing this bulletin.

Any opinions expressed are strictly those of the authors.

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ANNUAL REPORT REPLY PROCESS REVIEW

During the Federal Subsistence Board's (Board) August 2021 work session, the Interagency Staff Committee (ISC) briefed the Board on the annual report reply process and possible revisions to improve response to Regional Advisory Council (Council) concerns. The Board reviewed and discussed the annual report reply process and agreed to add this topic to the Councils Fall meeting agendas for Council input on suggested revisions.

ANILCA, Section 805 authorizes the Councils to prepare an annual report containing information related to current and future subsistence uses of fish and wildlife populations, an evaluation of current and future subsistence needs for these populations, a strategy for their management, and recommendations related to policies, standards, guidelines, and regulations to implement the strategy. These reports are invaluable as they provide the Board with a broad, holistic picture of local resource conditions, and the needs and challenges facing communities across rural Alaska. With this knowledge, the Board can make more informed decisions.

Historically, the Federal Subsistence Management Program has strived to provide responses to every topic listed in annual reports, regardless of the Board's ability to address the issues raised. While all topics are important to Board understanding of local conditions, many are on issues over which the Board has no regulatory authority, and some of the same or similar topics are often repeated in subsequent years with no resolution. ANILCA does not require replies to annual reports from the Councils and currently the Code of Federal Regulations state that the Board "consider the reports and recommendations of the Regional Councils." For these and other reasons, it is unclear if Board responses on all annual report topics are helpful to the Councils and warrant the use of often very limited staff capacity.

One way to address Council reports and recommendations would be to change the process of how the Board responds to Council issues. Process revisions could include that Councils consider letter writing as the most appropriate means for requesting a response to topics of concern, and that the annual report process be streamlined as a mechanism for informing the Board of local conditions and needs. This revision would allow for more substantive and timely responses from the Board on topics most critical to the Councils. Under this scenario, Councils could ask their Coordinators to write a letter to the Board if there are annual report topics to which they are specifically requesting a response. Any other topics, such as those outside the regulatory authority of the Board, can be addressed to the appropriate Federal agency staff at Council meetings, or Councils can write letters requesting a response directly from them, thus streamlining the response process and encouraging direct agency communications with the Councils.

These suggested revisions are not intended to diminish the ability of the Councils to report to the Board on topics of concern, and Councils will still receive responses when requested from the Board. At this time, the Board is seeking input from the Councils on these suggested changes to the annual report process. Council feedback on this issue is critical as the Board evaluates how to make the reply process more efficient and responsive. The Board will consider Council input on the annual report reply process at its winter work session at the end of January 2022.

Presentation Procedure for Proposals and Closure Reviews

1. **Introduction and Presentation of Draft Staff 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 Advisory 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 Draft Staff Analysis
9. **Restate final motion for the record**
10. **Council's Vote**

WP22-39 Executive Summary	
General Description	Wildlife Proposal WP22-39 requests to create specific harvest regulations for Alaska hare (*Lepus othus*) in Units 9 and 17. *Submitted by: Alaska Department of Fish and Game.*
Proposed Regulation	*§100.25(j)(2) If you take wildlife for subsistence, you must salvage the following parts for human use:* *(iv) The hide or meat of squirrels, hares, marmots, beaver, muskrats, or unclassified wildlife.* **Unit 9—Hare** *Snowshoe hare (~~Snowshoe and Tundra~~): No limit* — *July 1-June 30* ***Alaska hare: 1 hare per day / 4 per season*** — ***Nov. 1 – Jan. 31*** **Unit 17 - Hare** *Snowshoe hare (~~Snowshoe and Tundra~~): No limit* — *July 1-June 30* ***Alaska hare: 1 hare per day / 4 per season*** — ***Nov. 1 – Jan. 31***
OSM Preliminary Conclusion	**Support** Proposal WP22-39 with **modification** to modify the definition of hare in Federal regulations. The modified regulations should read: **§100.25(a) Definitions:** *Hare or hares collectively refers to all species of hares (commonly called rabbits) in Alaska and includes snowshoe hare and tundra* ***or Alaska*** *hare.*
Bristol Bay Subsistence Regional Advisory Council	
Kodiak/Aleutians Subsistence Regional Advisory Council	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	None

DRAFT STAFF ANALYSIS
WP22-39

ISSUES

Proposal WP22-39, submitted by Alaska Department of Fish and Game (ADF&G), requests to create specific harvest regulations for Alaska hare (*Lepus othus*) in Units 9 and 17.

DISCUSSION

The proponent states that, the once (as recently as the 1980s) abundant Alaska hare in Units 9 and 17 are now at a very low density and has a patchy distribution throughout Bristol Bay and the Alaska Peninsula. In Alaska, the species ranges throughout the western and southwestern portions of the state. Very little is known about the Alaska hare, the apparent decrease in abundance may have been caused by changes in habitat, predation, human harvest, or other natural cyclical events. There are infrequent observations of Alaska hares near King Salmon, Dillingham, and other communities throughout the Bristol Bay region. Alaska hares are not highly productive; they have only one, relatively small-sized litter of young per year. The proponent believes that the limited-management approach of the last 50 years no longer sufficiently addresses appropriate conservation of this species. This proposal would reduce hunting opportunity for this species both in terms of season duration and harvest limits. The reduction in harvest may assist hare populations to increase throughout Units 9 and 17.

The proponent also requested establishing a human use salvage requirement for hare in Units 9 and 17. However, this provision already exists under Federal regulations (see existing Federal regulations section) and is therefore not considered further in this analysis.

Note: The Alaska hare is sometimes called jack rabbits, tundra hare or arctic hare (e.g. Anderson 1974; Klein 1995; Murray 2003; ADF&G 2019a). Federal subsistence regulation uses the term tundra hare, but Alaska hare appears to be the dominate term in contemporary usage, including in State regulation. This analysis contains the terms Alaska hare and tundra hare, used synonymously. It should also be noted that the Alaska or tundra hare is a distinct species from the snowshoe hare, despite the inclusion of both species in the same Federal regulation.

Existing Federal Regulation

§100.25(j)(2) If you take wildlife for subsistence, you must salvage the following parts for human use:

(iv) The hide or meat of squirrels, hares, marmots, beaver, muskrats, or unclassified wildlife.

Unit 9—Hare

Hare (Snowshoe and Tundra): No limit	*July 1-June 30*

Unit 17 - Hare

Hare (Snowshoe and Tundra): No limit *July 1-June 30*

Proposed Federal Regulation

§100.25(j)(2) If you take wildlife for subsistence, you must salvage the following parts for human use:

(iv) The hide or meat of squirrels, hares, marmots, beaver, muskrats, or unclassified wildlife.

Unit 9—Hare

Snowshoe hare (~~Snowshoe and Tundra~~): No limit *July 1-June 30*

Alaska hare: 1 hare per day / 4 per season ***Nov. 1 – Jan. 31***

Unit 17 - Hare

Snowshoe hare (~~Snowshoe and Tundra~~): No limit *July 1-June 30*

Alaska hare: 1 hare per day / 4 per season ***Nov. 1 – Jan. 31***

Existing State Regulation

Unit 9—Hare

Snowshoe hare: No limit *No closed season*

Alaska hare: One per day, four total *Nov. 1 – Jan. 31*

Hunters must salvage the hide or meat of Alaska hares taken in Unit 9. Hunters are also encouraged to report harvest of Alaska hares to ADF&G in King Salmon at (907) 246-3340

Unit 17 - Hare

Hare: No limit *No closed season*

Including Alaska and snowshoe hare.

Relevant Federal Regulation

§100.25(a) Definitions:

Hare or hares collectively refers to all species of hares (commonly called rabbits) in Alaska and includes snowshoe hare and tundra hare.

Extent of Federal Public Lands

Unit 9 is comprised of 52.8% Federal public lands and consist of 28.1% National Park Service (NPS) managed lands, 21.9% U.S. Fish and Wildlife Service (USFWS) managed lands, and 2.8% Bureau of Land Management (BLM) managed lands.

Unit 17 is comprised of 27.8% Federal public lands and consist of 21.0% USFWS managed lands, 3.5% BLM managed lands, and 3.3% NPS managed lands.

Customary and Traditional Use Determinations

The Federal Subsistence Board (Board) has not made a customary and traditional use determination for hare in Units 9 and 17. Therefore, all rural residents of Alaska may harvest this species in these units.

Regulatory History

Federal subsistence regulations for hare in Units 9 and 17 have not been changed since 1990, when the Federal management of subsistence fish and wildlife resources on Federal public lands began. At that time, a year-round season with no harvest limit was adopted from State regulation.

State regulation included a year-round season with no harvest limit for hare in Unit 9 until RY2018/19, when ADF&G submitted Proposal 135 for the BOG's consideration. Noting very low densities and patchy distribution of Alaska hares on the southern Alaska Peninsula, ADF&G originally requested that the season for Alaska hares in a portion of Unit 9 be closed entirely. After discussion with locals and staff, they amended their proposal to reduce the season throughout Unit 9 to Nov. 1 – Jan. 31, with a harvest limit of one per day and four annually, and require that either the hide or the meat be salvaged (RC55). ADF&G noted that Alaska hares are of interest to residents of Unit 9 and that offering a season, even restricted one, allows for opportunistic harvest of Alaska hares. They also noted that it provides an opportunity for biologists to gather information from hunters about Alaska hare locations and relative abundance. To this end, ADF&G recommended inclusion of language encouraging voluntary reporting of Alaska hare harvest. This proposal had the support of both active Fish and Game Advisory Committees in the region. The BOG adopted the amended version of the proposal and supported inclusion of the voluntary reporting language. The BOG also adopted a positive finding for customary and traditional use of Alaska hare in Units 9, 10 and 17 (BOG 2019).

In 2020, Proposal WP20-30, was submitted by the Alaska Peninsula/Becharof National Wildlife Refuges requesting to shorten the year-round season for Alaska hares in Unit 9 to Nov. 1 – Jan. 31, and to reduce the harvest limit from no limit to one per day and four annually, which would have aligned

with the recently adopted State regulations. The proposal was rejected by the Board, stating that harvest and population numbers were unknown, and the season end date appeared to be too restrictive. The Board felt that more research was needed to understand the status of the species and is needed prior to adopting the proposal to set season dates. Traditionally, the winter months are when hares are harvested for winter protein.

Current Events Involving the Species

The ADF&G also submitted Wildlife Proposal WP22-45 to create specific harvest regulations for Alaska hare in Units 18, 22, and 23.

The ADF&G has submitted Proposal 24 to the BOG (January 2022) to include Unit 17 with an identical Alaskan hare management structure as Unit 9. ADF&G states that given the ongoing research, continued low abundance, and public concern about this species, it is important to consider a cohesive and comprehensive management framework for this species across the entire Alaska hare range within Alaska.

Biological Background

Taxonomy of the three species of northern hares remains unresolved, which almost certainly contributes to the confusion around common names. Current taxonomic descriptions rely on geographic distributions, rather than morphologic or molecular distinctions, which remain ambiguous. The arctic hare (*Lepus arcticus*) is widely distributed across tundra habitats of Greenland and northern Canada. The mountain hare (*L. timidus*) occurs in northern Eurasia, from eastern Russia to Scandinavia (Cason 2016). Alaska hares are limited to coastal western and southwestern Alaska, ranging from the Baldwin and Seward Peninsulas in the north, to the Alaska Peninsula in the south (Merizon and Carroll 2019).

Alaska hares are among the largest of the *Lepus* genus, weighing approximately 8.5 – 10.5 pounds (Murray 2003). They occupy coastal lowlands, wet meadows, and willow and alder thickets (Merizon and Carroll 2019), and feed on willow buds, leaves, and crowberries (Murray 2003). They are typically solitary, except during breeding season. Alaska hares reproduce a single litter each year, breeding between April and June and giving birth approximately 6.5 weeks later. Litters contain 6.3 young on average, which are fully weaned within 5 – 9 weeks (Murray 2003). Alaska hares can be identified by the black-tipped ears and are significantly larger than the snowshoe hare (ADG&G 2019).

The Alaska hare is among the most poorly understood wildlife species in Alaska. Hunter questionnaires have been the only source of information about the species and there has been no long-term population monitoring.

Alaska Peninsula/Becharof NWR ranked the Alaska hare as the Refuge's #3 prioritized Resource of Concern as an ecologically significant endemic species vulnerable to the influence of climate change. Resource managers know little about Alaska hare habitat preference (Smith 2021, pers. comm.). Alaska hares occur at low density, and exhibit much lower fecundity than snowshoe hares and are

perhaps decreasing in range and numbers (Best & Henry, 1994). The last known eruptive population on the Peninsula occurred in the winter of 1953-54 (Schiller and Rausch 1956). The pervasive influence of predation on hares implies strong selection on their cryptic coloration (Merilaita 2009) and against sustained seasonal mismatch in coat color (Griffin and Mills 2009, Litvaitis 1991). It is unknown how much plasticity exists in these traits, nor how much seasonal color mismatch is expected in the future with climate change, as snow cover now lasts a shorter time in the fall and spring (Mills et al. 2013).

There is an effort to better understand this species. Beginning in 2017, ADF&G began to evaluate capture techniques. They also embarked on a tour of rural communities throughout the range of the Alaska hare to discuss local observations, historical abundance, and harvest patterns. In 2018, a multi-year study was initiated to evaluate movement and mortality, as well as long-term capture techniques. Anecdotal observations suggest that Alaska hare abundance is well below that observed in the 1950s and 1960s, throughout its range. It is unknown whether the population has been in a long-term decline, or whether it experienced a crash and now exists as a low density but relatively stable population (Merizon and Carroll 2019).

Harvest History

Little is known about the harvest of Alaska hare, which is one of the least accessible small game species. However, it is harvested throughout the communities of western and southwestern Alaska as documented in household harvest surveys (Merizon and Carroll 2019, **Table 1**). Some insights into smaller wildlife species harvest are available in ADF&G's Statewide Small Game Hunter Survey, results for which were compiled for, regulatory year, RY2011/12 and RY2013/14.

The most recent results, from RY2013/14, show that half of the hunters responding to the survey reported hunting small game in Units 13, 14 or 20, while only about 5% of respondents reported hunting small game in Unit 9 and about 4% in Unit 17. Response rates were not similar among geographic areas of the State. The Alaska Peninsula (Unit 9; 24%) and Western Rural (Units 17, 18, 22, and 23; 16%) had much lower survey response rates than compared to the larger urban centers of Alaska, like Anchorage (35%) and the Mat-Su (34%). Therefore, it is difficult to accurately understand the overall harvest pressure on small game in those areas. Most Alaska resident respondents reported hunting within the geographic region where they reside, but only 3% of respondents reported participating in Federal subsistence small game hunts. Respondents reported that they hunt small game opportunistically while engaging in other activities, but also target small game specifically. Statewide, ptarmigan and spruce grouse were targeted most frequently. Within the Alaska Peninsula, respondents reported hunting for Alaska hare for an average of 2.5 days each year (Merizon et al. 2015).

Table 1. Alaska hare harvest by community (Wiita et al. 2018)

Unit 9

Community	Study Year	Estimated total Harvest
Chignik City	1984	4
	1989	0
	1991	0
Chignik Lagoon	1984	0
	1989	3
Chignik Lake	1984	0
	1989	3
	1991	0
Egehik	1984	3
Igiugig	1983	0
	1992	17
Iliamna	1983	0
	1991	34
Ivanof Bay	1984	3
	1989	0
King cove	1992	38
King Salmon	1983	20
Kokhanok	1983	43
	1992	293
Levelock	1988	51
	1992	9
Naknek	1983	24
	2007	3
Newhalen	1983	0
	1991	80
Nondalton	1973	0
	1980	38
	1981	18
	1983	0
Pedro Bay	1982	1
	1996	0
Perryville	1984	7
	1989	0
Pilot Point	1987	7
Port Alsworth	1983	20
Sand Point	1992	147

Unit 17

Community	Study Year	Estimated total Harvest
Aleknagik	1989	23
	2008	0
Clarks Point	1989	26
	2008	0
Dillingham	2010	83
Ekwok	1987	13
Koliganek	1987	13
Manokotak	2008	0
New Stuyahok	1987	20
Togiak	2008	0

Unit 9		
South Naknek	1983	12
	1992	0

*Note- Some Community/Study years not included in this table only showed harvest for "Hares, Jackrabbits, Unknown." Actual harvest maybe higher.

Effects of the Proposal

If this proposal is adopted, opportunity to harvest Alaska hares under Federal subsistence regulation will be reduced. Given that the State season has already been reduced for Unit 9, and ADF&G submitted a proposal to the BOG (January 2022) to include Unit 17, this represents an actual reduction of opportunity for Federally qualified subsistence users. This change will result in reduced harvest of Alaska hare, particularly since it includes both a daily and an annual harvest limit. Though neither harvest nor population size are quantified, harvest reduction has the potential to improve the conservation status of the Unit 9 and Unit 17 Alaska hare populations, which is reported to be well below historical size. Adoption of this proposal will also reduce regulatory complexity in Unit 9 by aligning Federal regulation with recently changed State regulation, as well as in Unit 17 if the BOG adopts Proposal 24.

OSM Preliminary Conclusion

Support Proposal WP22-39 with **modification** to modify the definition of hare in Federal regulations.

The modified regulations should read:

§100.25(a) Definitions:

Hare or hares collectively refers to all species of hares (commonly called rabbits) in Alaska and includes snowshoe hare and tundra ***or Alaska*** *hare.*

Unit 9—Hare

Snowshoe hare (~~Snowshoe and Tundra~~): No limit	*July 1-June 30*
Alaska hare: 1 hare per day / 4 per season	***Nov. 1 – Jan. 31***

Unit 17 - Hare

Snowshoe hare (~~Snowshoe and Tundra~~): No limit	*July 1-June 30*
Alaska hare: 1 hare per day / 4 per season	***Nov. 1 – Jan. 31***

Justification

Anecdotal information indicates that Alaska hares in Units 9 and 17 are scarcer than they have been in the past. Local managers concur that Alaska hares in this region exist at a low density and is the #3 prioritized Resource of Concern as an ecologically significant endemic species vulnerable from the influence of climate change. Biologically, it is appropriate to restrict harvest in such a situation. Reducing the season from July 1 – June 30 to Nov. 1 – Jan. 31 reduces the season by 75% yet continues to offer Federally qualified subsistence users the opportunity to harvest Alaska hares during winter when they are engaging in other subsistence activities.

Imposing a harvest limit of 1 per day and 4 annually may have a greater effect on reducing overall harvest and promoting population recovery. Collectively, changes in season and harvest limit offer a balance between imposing conservation measures and allowing for the continuation of subsistence uses in the near term. Any positive effect these changes have on the Alaska hare population will benefit subsistence users in the long term.

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WP22-40 Executive Summary	
General Description	Proposal WP22-40 requests that Federally qualified subsistence users be allowed to use a snowmachine to position wolves and wolverines for harvest on Federal public lands in Units 9B, 9C, 17B, and 17C, provided the animals are not shot from a moving snowmachine. *Submitted by the Bristol Bay Subsistence Regional Advisory Council.*
Proposed Regulation	**§____.26 Subsistence taking of wildlife** . . . *(b) Except for special provisions found at paragraphs (n)(1) through (26) of this section, the following methods and means of taking wildlife for subsistence uses are prohibited:* . . . *(4) Taking wildlife from a motorized land or air vehicle when that vehicle is in motion, or from a motor-driven boat when the boat's progress from the motor's power has not ceased.* *(5) Using a motorized vehicle to drive, herd, or molest wildlife.* **§_____.26(n)(9)(iii) Unit 9—Unit-specific regulations** . . . ***(I) In Units 9B and 9C, on Federal-managed lands, a snowmachine may be used to position a wolf or wolverine for harvest, provided that the animal is not shot from a moving snowmachine.*** . . . **§_____.26(n)(17)(iii) Unit 17—Unit-specific regulations** . . . ***(D) In Units 17B and 17C, on Federal-managed lands, a snowmachine may be used to position a wolf or wolverine for harvest, provided that the animal is not shot from a moving snowmachine.***

WP22-40 Executive Summary	
OSM Preliminary Conclusion	**Support** Proposal WP22-40 **with modification** to utilize the same regulatory language the Board adopted in Proposal WP20-27, and to include all Federal public lands in Unit 17. The modification should read: **§_____.26(n)(9)(iii) Unit 9—Unit-specific regulations** . . . ***(I) In Units 9B and 9C, on Federal-managed lands, a snowmachine may be used to assist in the taking of a wolf or wolverine and a wolf or wolverine may be shot from a stationary snowmachine. "Assist in the taking of a wolf or wolverine" means a snowmachine may be used to approach within 300 yards of a wolf or wolverine at speeds under 15 miles per hour, in a manner that does not involve repeated approaches or that causes the animal to run. A snowmachine may not be used to contact an animal or to pursue a fleeing animal.*** . . . **§_____.26(n)(17)(iii) Unit 17—Unit-specific regulations** . . . ***(D) In Unit 17, on Federal-managed lands, a snowmachine may be used to assist in the taking of a wolf or wolverine and a wolf or wolverine may be shot from a stationary snowmachine. "Assist in the taking of a wolf or wolverine" means a snowmachine may be used to approach within 300 yards of a wolf or wolverine at speeds under 15 miles per hour, in a manner that does not involve repeated approaches or that causes the animal to run. A snowmachine may not be used to contact an animal or to pursue a fleeing animal.***
Bristol Bay Subsistence Regional Advisory Council Recommendation	
Western Interior Alaska Subsistence Regional	

WP22-40 Executive Summary	
Advisory Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	**None**

DRAFT STAFF ANALYSIS
WP22-40

ISSUES

Proposal WP22-40, submitted by the Bristol Bay Subsistence Regional Advisory Council (Council), requests that Federally qualified subsistence users be allowed to use a snowmachine to position wolves and wolverines for harvest on Federal public lands in Units 9B, 9C, 17B, and 17C, provided the animals are not shot from a moving snowmachine.

DISCUSSION

The proponent states that the use of snowmachines to position wolves and wolverines is a traditional practice in rural areas, and the proposed regulation will mirror Federal regulations in Unit 23. The proponent continues "in April 2020, the Federal Subsistence Board (Board) addressed Proposal WP20-26 to position wolves and wolverines on Bureau of Land Management (BLM) managed lands in Units 17B and C. The Board deferred the proposal to a working group of the Council and Federal/State staff to develop and recommend language to define positioning of animals for the Board to consider." This proposal replaces deferred Proposal WP20-26.

Existing Federal Regulation

§____.26 Subsistence taking of wildlife

. . .

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

. . .

(4) Taking wildlife from a motorized land or air vehicle when that vehicle is in motion, or from a motor-driven boat when the boat's progress from the motor's power has not ceased.

(5) Using a motorized vehicle to drive, herd, or molest wildlife.

Proposed Federal Regulation

§____.26 Subsistence taking of wildlife

. . .

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

. . .

(4) Taking wildlife from a motorized land or air vehicle when that vehicle is in motion, or from a motor-driven boat when the boat's progress from the motor's power has not ceased.

(5) Using a motorized vehicle to drive, herd, or molest wildlife.

§_____.26(n)(9)(iii) Unit 9—Unit-specific regulations

. . .

(I) In Units 9B and 9C, on Federal-managed lands, a snowmachine may be used to position a wolf or wolverine for harvest, provided that the animal is not shot from a moving snowmachine.

. . .

§_____.26(n)(17)(iii) Unit 17—Unit-specific regulations

. . .

(D) In Units 17B and 17C, on Federal-managed lands, a snowmachine may be used to position a wolf or wolverine for harvest, provided that the animal is not shot from a moving snowmachine.

Existing State Regulations

AS 16.05.940. Definitions.

. . .

(34) "take" means taking, pursuing, hunting, fishing, trapping, or in any manner disturbing, capturing, or killing or attempting to take, pursue, hunt, fish, trap, or in any manner capture or kill fish or game.

5 AAC 92.080. Unlawful methods of taking game; exceptions

The following methods of taking game are prohibited:

. . .

(4) unless otherwise provided in this chapter, from a motor-driven boat or a motorized land vehicle, unless the motor has been completely shut off and the progress from the motor's power has ceased, except that a

. . .

(B) motorized land vehicle may be used as follows:

(iii) notwithstanding any other provision in this section, in Units 9(B), 9(C), 9(E), 17, 18, 19, 21, 22, 24, 25(C) and 25(D), except on any National Park Service or National Wildlife Refuge lands not approved by the federal agencies, a snowmachine may be used to position a hunter to select an individual wolf for harvest, and wolves may be shot from a stationary snowmachine;

. . .

(5) except as otherwise specified, with the use of a motorized vehicle to harass game or for the purpose of driving, herding, or molesting game.

5 AAC 92.990. Definitions

(a) In addition to the definitions in AS 16.05.940 , in 5 AAC 84 – 5 AAC 92, unless the context requires otherwise,

. . .

(70) "harass" means to repeatedly approach an animal in a manner which results in the animal altering its behavior;

NOTE: The complete text for 5 AAC 92.080(4)(B) is in **Appendix 1.**

Relevant Federal Regulations

50 CFR 100.4 and 36 CFR 242.4 Definitions

Take or taking as used with respect to fish or wildlife, means to pursue, hunt, shoot, trap, net, capture, collect, kill, harm, or attempt to engage in any such conduct.

§_____.26(n)(17)(iii) Unit 17—Unit-specific regulations

. . .

(D) In Unit 17, a snowmachine may be used to assist in the taking of a caribou and caribou may be shot from a stationary snowmachine. "Assist in the taking of a caribou" means a snowmachine may be used to approach within 300 yards of a caribou at speeds under 15 miles per hour, in a manner that does not involve repeated approaches or that causes a caribou to run. A snowmachine may not be used to contact an animal or to pursue a fleeing caribou.

§_____.26(n)(23)(iv) Unit 23—Unit-specific regulations

. . .

(E) A snowmachine may be used to position a hunter to select individual caribou for harvest provided that the animals are not shot from a moving snowmachine. On BLM-managed lands

only, a snowmachine may be used to position a caribou, wolf, or wolverine for harvest provided that the animals are not shot from a moving snowmachine.

There is a difference between the proposed regulation and agency-specific regulations. Adoption of this proposal may require clarification between new regulation and conflicting agency-specific regulations. Federal subsistence and agency-specific regulations are as follows:

§_____.26(n)(17)(ii) Unit 17—In the following areas, the taking of wildlife for subsistence uses is prohibited or restricted on public lands:

(A) Except for aircraft and boats and in legal hunting camps, you may not use any motorized vehicle for hunting ungulates, bear, wolves, and wolverine, including transportation of hunters and parts of ungulates, bear, wolves, or wolverine in the Upper Mulchatna Controlled Use Area consisting of Unit 17B, from Aug. 1-Nov. 1.

50 CFR 36.12 (Alaska National Wildlife Refuges) Use of snowmobiles, motorboats, dog teams and other means of surface transportation traditionally employed by local rural residents engaged in subsistence uses.

(a) Notwithstanding any other provision of subchapter C of title 50 CFR the use of snowmobiles, motorboats, dog teams and other means of surface transportation traditionally employed by local rural residents engaged in subsistence uses is permitted within Alaska National Wildlife Refuges except at those times and in those areas restricted or closed by the Refuge Manager.

. . .

(d) Snowmobiles, motorboats, dog teams and other means of surface transportation traditionally employed by local rural residents engaged in subsistence uses shall be operated (1) in compliance with applicable State and Federal law, (2) in such a manner as to prevent waste or damage to the refuge, and (3) in such a manner as to prevent the herding, harassment, hazing or driving of wildlife for hunting or other purposes.

36 CFR 13.460 (Alaska National Park System) Use of snowmobiles, motorboats, dog teams, and other means of surface transportation traditionally employed by local rural residents engaged in subsistence uses.

(a) Notwithstanding any other provision of this chapter, the use of snowmobiles, motorboats, dog teams, and other means of surface transportation traditionally employed by local rural residents engaged in subsistence uses is permitted within park areas except at those times and in those areas restricted or closed by the Superintendent.

…

(d) Motorboats, snowmobiles, dog teams, and other means of surface transportation traditionally employed by local rural residents engaged in subsistence uses shall be operated:

(1) In compliance with applicable State and Federal law;

(2) In such a manner as to prevent waste or damage to the park areas; and

(3) In such a manner as to prevent the herding, harassment, hazing or driving of wildlife for hunting or other purposes.

43 CFR 8341.1 (Bureau of Land Management)

(f.) No person shall operate an off-road vehicle on public lands: ... (4) In a manner causing or likely to cause significant, undue damage to or disturbance of ... wildlife

Extent of Federal Public Lands

Unit 9B is comprised of approximately 34% Federal public lands and consist of 26% National Park Service (NPS) managed lands, and 8% BLM managed lands.

Unit 9C is comprised of approximately 85% Federal public lands and consist of 78% NPS managed lands, 4% BLM managed lands, and 4% U.S. Fish and Wildlife Service managed lands (USFWS). Katmai National Park lands are closed to subsistence hunting.

Unit 17B is comprised of approximately 8% Federal public lands and consist of 6% NPS managed lands, 1% BLM managed lands, and < 1% USFWS managed lands.

Unit 17C is comprised of approximately 25% Federal public lands and consist of 15% USFWS managed lands and 10% BLM managed lands.

Customary and Traditional Use Determination

The Federal Subsistence Board has not made a customary and traditional use determination for wolverines in Unit 9 or Unit 17. Therefore, all rural residents of Alaska may harvest this species in these units.

Rural residents of Units 6, 9, 10 (Unimak Island only), 11-13, Chickaloon, and 16-26 have a customary and traditional use determination for wolves in Units 9 and 17.

Regulatory History

In 1995, Proposal P95-52 requested that snowmachines and motor-driven boats be allowed in the taking of caribou and moose in Unit 25 during established seasons, except shooting from a snowmachine in motion was prohibited. There was no existing regulation on the use of motorized vehicles in Unit 25 prior to this. The Federal Subsistence Board (Board) adopted the recommendation of the Eastern Interior Alaska and Southcentral Alaska Subsistence Regional Advisory Councils who

supported the proposal in recognition that methods change over time and because it supported subsistence uses.

In 2000, the Board adopted Proposal P00-53 with modification allowing the use of snowmachines to position a hunter and select individual caribou for harvest in Units 22 and 23. The Board did this to recognize a longstanding customary and traditional practice in the region (FWS 2000). However, the proponent had asked to position a caribou, not a hunter. The Interagency Staff Committee provided a rationale for the modification:

Following the Regional Council winter meetings, the Deputy Regional Director of the U.S. Fish and Wildlife Service (FWS), Alaska Region, met with the Assistant Regional Director for Law Enforcement, the Staff Committee member for FWS, the Refuge Supervisor for Northern Refuges, and the Native Liaison and, after lengthy discussion, agreed to recommend substituting "a hunter" for "caribou" in the proposal language. They agreed that this is consistent with conservation principles and existing agency regulations as long as herding does not occur and shooting from a moving snowmachine is prohibited (FWS 2000:13).

In 2012, Proposal WP12-53 was submitted by the Yukon Delta National Wildlife Refuge, and requested unit specific regulation prohibiting a hunter in Unit 18 from pursuing an ungulate that is "fleeing" with a motorized vehicle. The Board adopted the proposal with modification and prohibited the pursuit with a motorized vehicle of an ungulate that was "at or near a full gallop" in Unit 18, providing greater clarity of allowable methods of harvest (FWS 2012).

At its March 2014 meeting, the Alaska Board of Game adopted Proposal 177, which allows a hunter to use a snowmachine in Units 22, 23 and 26A to position a caribou, wolf, or wolverine for harvest, as long as these animals are shot from a stationary snowmachine (see *5 AAC 92.080(4)(B)(i)* at **Appendix 1**). The purpose of the proposal was to allow the use of snowmachines to track these animals.

In 2016, Proposal WP16-48, submitted by the Native Village of Kotzebue, requested that Federally qualified subsistence users be allowed to use snowmachines to position a caribou, wolf, or wolverine for harvest in Unit 23. The Board adopted the proposal with modification to allow this method of harvest only on those lands managed by the Bureau of Land Management. The Board recognized uses of snowmachines to position animals as customary and traditional practice. However, positioning animals by snowmachine is prohibited on National Park Service and U.S. Fish and Wildlife Service lands under agency-specific regulations. Bureau of Land Management regulatory language does not specifically prohibit the use of snowmachines to position animals for hunting and this harvest method is allowed on some State managed lands.

In the spring of 2017, Kenneth Nukwak of Manokotak submitted Proposal WP18-24 requesting that Federally qualified subsistence users be allowed to use a snowmachine to position caribou, wolves, and wolverines for harvest in Unit 17, provided the animals were not shot from a moving vehicle. During the fall 2017 meeting cycle, the Bristol Bay Subsistence Regional Advisory Council voted to oppose Proposal WP18-24, noting a lack of clear definitions for positioning and chasing of an animal.

At its February 2018 meeting in Dillingham, the Alaska Board of Game (BOG) adopted Proposal 148, also submitted by Kenneth Nukwak of Manokotak, with modification. The original proposal requested that Federally qualified subsistence users be allowed to use a snowmachine to position caribou, wolves, and wolverines for harvest in Unit 17, provided the animals would not be shot from a moving vehicle. The modified regulation was limited to caribou and stated that a snowmachine may be used in Unit 17 to assist in the taking of a caribou, and caribou may be shot from a stationary snowmachine, with further clarification describing exactly how the snowmachine may be used for assistance (see *5 AAC 92.080(4)(B)(viii)* at **Appendix 1**).

At its winter meeting in March of 2018, the Bristol Bay Subsistence Regional Advisory Council voted to request Proposal WP18-24 be removed from the consensus agenda at the next Board meeting. Reasoning for this included providing an opportunity for the Board to deliberate the proposal on record, in light of BOG deliberation, modification, and adoption of the same proposal on State lands in Unit 17. During the April 2018 Board meeting, Proposal WP18-24 was taken off the consensus agenda. Some public testimony was received in support of the proposal. The Board deliberated the proposal on record and rejected it.

In 2020, the Council submitted Proposals WP20-26 and WP20-27. Proposal WP20-26 requested that Federally qualified subsistence users be allowed to use a snowmachine to position wolves, and wolverines for harvest on BLM managed lands only in Units 9B, 9C, 17B, and 17C, provided the animals are not shot from a moving snowmachine. Proposal WP20-27, also submitted by the Council, requested a unit-specific regulation for Unit 17 allowing use of a snowmachine to assist in taking caribou and allowing caribou to be shot from a stationary snowmachine, using the regulatory language adopted by the BOG in February 2018. That regulatory language read:

> *In Unit 17, a snowmachine may be used to assist in the taking of a caribou and caribou may be shot from a stationary snowmachine. "Assist in the taking of a caribou" means a snowmachine may be used to approach within 300 yards of a caribou at speeds under 15 miles per hour, in a manner that does not involve repeated approaches or that causes a caribou to run. A snowmachine may not be used to contact an animal or to pursue a fleeing caribou.*

During the April 2020 regulatory Board meeting, the Board first took up Proposal WP20-27, discussed and adopted it. The Board then considered Proposal WP20-26, which was supported by the Bristol Bay, Western Interior, and Yukon-Kuskokwim Delta Councils as it increased subsistence opportunity. The Board deferred Proposal WP20-26 and suggested further consideration of the proposal by the Council working group to 1) expand the analysis to include all Federal lands in Units 9B, 9C, 17B, and 17C; 2) identify specific language that may reduce complexity between State and Federal regulations; and 3) anticipate and address regulatory conflicts between the proposed regulatory language and agency specific regulations.

Current Events

The Nushagak Fish and Game Advisory Committee (AC) submitted Proposal 23 to the BOG for consideration at their January 2022 meeting. Proposal 23 requested allowing the use of a snowmachine

to position wolves or wolverines for harvest in Unit 17, and that they may be shot from a stationary snowmachine. The Nushagak AC stated that Proposal 23 seeks to eliminate current conflicts between regulatory prohibitions and common local hunting practices and that this opportunity is already available to users in Units 18, 22, 23, and 26A.

Following direction from the Board, a working group of Bristol Bay Council members, Federal agency and ADF&G staff formed to develop recommendations for deferred Proposal WP20-26. The working group met several times via teleconference between July 2020 and May 2021. At the February 2021 Council meeting the working group reported to the Council an agreement to expand the analysis to include all Federal public lands in Units 9B, 9C, 17B, and 17C. The working group met again in May and agreed to further clarify the term "position" using the same regulatory language as proposed in Proposal WP20-27.

Biological Background

Wolves and wolverines are present throughout Units 9 and 17. As with other furbearers in Alaska, there is scant objective data on abundance of these animals. Rather, relative abundance has typically been estimated using the results of trapper questionnaires, as well as incidental observations by biologists, hunters, trappers, guides, and others.

Wolves

Historically, wolf density has varied in response to harvest pressure, prey availability, and disease. In Unit 9, wolf densities were low in the early 1980s following the end of the Federal wolf control program. Abundance appears to have increased during the 1990s. Currently, the population is believed to be relatively stable, and monitoring efforts in Units 9C and 9E indicate that the population is 250 – 550 wolves, or 16-18 wolves/1,000 mi^2 (Crowley and Peterson 2018). Wolf dynamics in Unit 17 have been similar to those in Unit 9, with abundance increasing during the mid-1980s and early 1990s (Barten 2018). Recent observations suggesting that the population is relatively stable (Spivey 2019).

Wolverines

Compared to other furbearers, wolverines occur at low densities (Copeland and Whitman 2003). Though wolverine abundance remains unquantified due to the impracticality of formal assessment (Crowley 2013), low densities appear to be confirmed by local trappers, who report that wolverines in Units 9 and 17 are scarce but stable (Spivey 2019).

Cultural Knowledge and Traditional Practices

During his study years in 1964 and 1965, VanStone (1967:134) documented winter travel along the Nushagak River occurring almost exclusively by dog team. During the winter months dog teams were used to harvest caribou, access trap lines, and provide for the transportation of supplies and people throughout the region. Hunters used traditional methods to harvest wildlife. These methods included a hunter moving animals towards another hunter's position (Nelson 1983 [1899] and Oswalt 1990). At

the time of his study, VanStone was only aware of a few Bristol Bay residents that possessed snowmachines. Approximately 10 years later, when ADF&G first began conducting research on subsistence harvest activities, dog teams were barely mentioned. Instead, reports noted that the communities of Nushagak Bay had mostly transitioned to the use of boats, aircrafts, and snowmachines as a preferred means of travel and for accessing animals for harvest (Coiley-Kenner et al. 2003; Evans et al. 2013; Fall et al. 1986; Holen et al. 2012; Holen et al. 2005; Krieg et al. 2009; Schichnes and Chythlook 1988; Seitz 1996; Wolfe et al. 1984; Wright et al. 1985).

In the past, prior to the use of snowmachines, people in the region were more nomadic. Residents of Southwest Alaska practiced an annual round of harvest activities that allowed them to effectively position themselves in proximity to important resources that supported their families through extended travel to seasonal subsistence camps. In La Vine and Lisac (2003), elders describe a harvest year that began at fish camp in the early summer, moved up the river to hunting and trapping camps for the fall and winter, traveled through mountain passes and down rivers to bays and estuaries for the spring harvest of migratory waterfowl and eggs, finally returning to fish camp once again in early summer. A trip such as this required travel by boat, sled, and foot and took the family hundreds of miles and 12 months to complete. As village life solidified around schools and economic opportunities, technological advances like boats with outboard motors and snowmachines allowed people to travel further over shorter periods of time in order to access resources they once had to follow over seasons instead of hours.

Wolves and Wolverine

Across Alaska, both wolves and wolverines are highly prized for their fur, which is used to trim locally made parkas and other items of clothing or handicrafts. While not as prominent an activity as in the past, rural residents still participate in trapping as a source of income in the Bristol Bay region, particularly for wolverine, which continues to fetch a high price for quality fur (Woolington 2013). Snowmachines were the primary means of transportation used by hunters and trappers for taking wolves and furbearers in Unit 17 from 2008 through 2012 (Woolington 2012 and 2013). Most wolves were harvested by firearm between the regulatory years of 1992 and 2010, while wolverines were more frequently taken by trap or snare.

The Division of Subsistence at ADF&G conducts household subsistence harvest surveys periodically throughout Alaska. Though this survey data is only available for some communities in some years, it is an additional source for documenting patterns of use in rural Alaska. The most recent surveys conducted in the Bristol Bay region describe the harvest and use of wolves and wolverines as varied between communities and study years (Evans et al. 2013; Holen et al. 2012; Holen et al. 2011; Holen et al. 2005; Krieg et al. 2009). A common pattern described in most reports is that a smaller percentage of households in each community report harvest or attempted harvest and use of furbearers than those reporting harvest and use of salmon or large land mammals like moose and caribou. In most cases only a few households are responsible for the majority of the harvest and use of furbearers, likely in association with keeping a trap line.

Harvest History

Wolves

Harvest of wolves is influenced by weather and travel conditions, which can result in variable harvest from year to year. Alaska Department of Fish and Game sealing records indicate that from 2010 to 2014, the most recent five-year period for which unit-specific sealing data is available, reported harvest ranged from 44 to 142 wolves in Unit 9. On average 64 wolves were harvested annually (Crowley and Peterson 2018).

Reported harvest was also variable in Unit 17, where between 6 and 105 wolves were harvest annually from 2010 to 2014. During that period, annual harvest averaged 47 wolves. In Unit 17, 70% of harvested wolves were shot, 18% were trapped or snared, and 69% of hunters and trappers used snowmachines to harvest wolves (Barten 2018).

Wolverines

Like wolf harvest, wolverine harvest can vary from year to year, reflecting trapper effort that varies with travel conditions. For 2007 – 2016, the most recent ten-year period for which unit-specific sealing data is available, reported harvest ranged from 9 to 36 wolverines in Unit 9. On average, annual reported harvest was 25 wolverines, 89% of which were trapped or snared, and 10% of which were shot. Snowmachines were used in 28% of wolverines harvested during this period (Crowley 2013; Rinaldi 2019, pers. comm.).

In Unit 17, sealing records indicate that reported harvest ranged from 8 to 63 wolverines annually during 2007 – 2016, averaging 37 wolverines annually. During this time period, 79% of wolverines were trapped or snared and 17% were shot. Snowmachines were used 46% of the time (Woolington 2013; Rinaldi 2019, pers. comm.).

Other Alternatives Considered

When Proposal WP20-26 was proposed, it requested changes to regulations on BLM lands only in Units 9 and 17. BLM lands only occur in Subunits 9B, 9C, 17B, and 17C. When the proponent submitted Proposal WP22-40, the request was expanded to include all Federal public lands in the same subunits as before. An alternative to consider is that leaving out Unit 17A was an oversight, and the proposed regulatory changes should take place on all Federal public lands in Units 9B, 9C, and all of Unit 17. The Council may want to further consider this alternative.

Effects of the Proposal

If adopted, Proposal WP22-40 would allow hunters to use a snowmachine to position wolves and wolverines for selection and harvest, as long as they are not shot from a moving snowmachine. The most recent available reports suggest that, in the Bristol Bay region, the majority of wolves are harvested by firearm, while the majority of wolverine are harvested by trapping. The proposed

regulation may not result in an increase in harvest of wolves and wolverines by trap or snare. However, such regulatory changes could increase the take of wolves and wolverines by firearm and may result in more opportunistic harvest. Currently, the wolf population is believed to be stable. Less is known about the resident wolverine population. However, as this is a traditional and common local practice, adopting the proposal may simply legalize a practice that is already occurring, therefore resulting in minimal changes in harvest.

Regulations for the use of snowmachines when harvesting wolves or wolverines would be different on State managed lands. However, this is already the case and should the proposal be adopted, it does not add regulatory complexity that does not already exist. Specifically, in State regulations, a snowmachine may be used to position a hunter to select an individual wolf for harvest, and wolves may be shot from a stationary snowmachine; in Federal regulations, a snowmachine could be used to position a wolf or wolverine for harvest, and shot from a stationary snowmachine. If both this proposal and State Proposal 23 are adopted, then State and Federal regulations would align in Units 17B and 17C but remain disparate in Units 9 and 17A.

OSM PRELIMINARY CONCLUSION

Support Proposal WP22-40 **with modification** to utilize the same regulatory language the Board adopted in Proposal WP20-27, and to include all Federal public lands in Unit 17.

The modification should read:

§_____.26(n)(9)(iii) Unit 9—Unit-specific regulations

. . .

(I) In Units 9B and 9C, on Federal-managed lands, a snowmachine may be used to assist in the taking of a wolf or wolverine and a wolf or wolverine may be shot from a stationary snowmachine. "Assist in the taking of a wolf or wolverine" means a snowmachine may be used to approach within 300 yards of a wolf or wolverine at speeds under 15 miles per hour, in a manner that does not involve repeated approaches or that causes the animal to run. A snowmachine may not be used to contact an animal or to pursue a fleeing animal.

. . .

§_____.26(n)(17)(iii) Unit 17—Unit-specific regulations

. . .

(D) In Unit 17, on Federal-managed lands, a snowmachine may be used to assist in the taking of a wolf or wolverine and a wolf or wolverine may be shot from a stationary snowmachine. "Assist in the taking of a wolf or wolverine" means a snowmachine may be used to approach within 300 yards of a wolf or wolverine at speeds under 15 miles per hour,

in a manner that does not involve repeated approaches or that causes the animal to run. A snowmachine may not be used to contact an animal or to pursue a fleeing animal.

Justification

Hunters using snowmachines to position wolves and wolverines for harvest is a traditional practice in the Bristol Bay area. While methods and means for taking wildlife in ethnographic literature describe hunters employing traditional strategies that might affect game behavior, until the 1960s hunters largely used dog seld or walked (Nelson 1983 [1899]; Oswalt 1990; VanStone 1967). As means for travel, access, and harvest continue to change over time, hunters persist in using traditional methods purposefully meant to alter the behavior of wildlife and position them for harvest because these methods are efficient. Additionally, the Board adopted a similar regulation in Unit 23, in recognition of the snowmachine as a customary and traditional harvest method. The proposed regulation change might increase opportunity through a more efficient method to harvest wolverines and could result in more harvest. Impacts to wolverine populations are unknown at this time and are difficult to track.

Finally, the proposed modification would align with similar regulations for hunting caribou on Federal public lands in all of Unit 17 as well as comply with agency specific regulations.

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APPENDIX 1

5 AAC 92.080. Unlawful methods of taking game; exceptions

The following methods of taking game are prohibited:

. . .

(4) unless otherwise provided in this chapter, from a motor-driven boat or a motorized land vehicle, unless the motor has been completely shut off and the progress from the motor's power has ceased, except that a

. . .

(B) motorized land vehicle may be used as follows:

i) In Units 22, 23, and 26(A), a snowmachine may be used to position a caribou, wolf, or wolverine, for harvest, and caribou, wolves and wolverines may be shot from a stationary snowmachine.

(ii) notwithstanding any other provision in this section, in the wolf control implementation areas specified in 5 AAC 92.111 - 5 AAC 92.113, 5 AAC 92.118, and 5 AAC 92.121 - 5 AAC 92.124, a snowmachine may be used to position a hunter to select an individual wolf for harvest, and wolves may be shot from a stationary snowmachine;

(iii) notwithstanding any other provision in this section, in Units 9(B), 9(C), 9(E), 17, 18, 19, 21, 22, 24, 25(C) and 25(D), except on any National Park Service or National Wildlife Refuge lands not approved by the federal agencies, a snowmachine may be used to position a hunter to select an individual wolf for harvest, and wolves may be shot from a stationary snowmachine;

(iv) notwithstanding any other provision in this section, in the bear control implementation areas specified in 5 AAC 92.111 - 5 AAC 92.113, 5 AAC 92.118, and 5 AAC 92.121 - 5 AAC 92.124, a snowmachine may be used to position a hunter to select an individual bear for harvest, and bears may be shot from a stationary snowmachine;

(v) notwithstanding any other provision in this section, in Units 9(B), 9(C), 9(E), 17, 22 and 25(C), except on any National Park Service or National Wildlife Refuge lands not approved by the federal agencies, an ATV may be used to position a hunter to select an individual wolf for harvest, and wolves may be shot from a stationary ATV;

(vi) under authority of a permit issued by the department;

(vii) in Unit 18, a snowmachine may be used to position a wolf or wolverine for harvest, and wolves or wolverines may be shot from a stationary snowmachine;

(viii) in Unit 17, a snowmachine may be used to assist in the taking of a caribou and caribou may be shot from a stationary snowmachine. "Assist in the taking of a caribou" means a snowmachine may be used to approach within 300 yards of a caribou at speeds under 15 miles per hour, in a manner that does not involve repeated approaches or that causes a caribou to run. A snowmachine may not be used to contact an animal or to pursue a fleeing caribou.

(5) except as otherwise specified, with the use of a motorized vehicle to harass game or for the purpose of driving, herding, or molesting game;

(6) with the use or aid of a machine gun, set gun, or a shotgun larger than 10 gauge;

(7) with the aid of

(A) a pit;

(B) a fire;

(C) artificial light, except that artificial light may be used.

WP22–41 Executive Summary	
General Description	Wildlife Proposal, WP22-41, requests that the Federal in-season manager be delegated authority to open and close seasons, announce harvest limits, and set sex restrictions for caribou in all or portions of Units 9A, 9B, 9C, 17A, 17B, 17C, 18, 19A, and 19B via delegation of authority letter (**Appendix 1**). *Submitted by: Togiak National Wildlife Refuge (NWR) and Yukon Delta NWR*
Proposed Regulation	**Unit 9−Caribou** *Unit 9A—**up to** 2 caribou by State registration permit* — *Aug. 1 – Mar. 15.* ***Season may be announced*** *Unit 9B— **up to** 2 caribou by State registration permit* — *Aug. 1 – Mar. 31.* ***Season may be announced*** *Unit 9C, that portion within the Alagnak River drainage— **up to** 2 caribou by State registration permit* — *Aug. 1 – Mar. 15.* ***Season may be announced*** *Unit 9C, that portion draining into the Naknek River from the north, and Graveyard Creek and Coffee Creek— **up to** 2 caribou by State registration permit.* — *Aug. 1 – Mar. 15.* ***Season may be announced*** **Unit 17−Caribou** *Unit 17A-all drainages west of Right Hand Point— **up to** 2 caribou by State registration permit* — *Aug. 1 – Mar. 31.* ***Season may be announced*** *Units 17B and 17C-that portion of 17C east of the Wood River and Wood River Lakes— **up to** 2 caribou by State registration permit* — *Aug. 1 – Mar. 31.* ***Season may be announced*** **Unit 18−Caribou** *Unit 18-that portion to the east and south of the Kuskokwim River— **up to** 2 caribou by State registration permit* — *Aug. 1 – Mar. 15.* ***Season may be announced*** *Unit 18, remainder— **up to** 2 caribou by State registration permit* — *Aug. 1 – Mar. 15.*

WP22–41 Executive Summary		
		Season may be announced
	Unit 19−Caribou	
	*Units 19A and 19B (excluding rural Alaska residents of Lime Village)— **up to** 2 caribou by State registration permit*	*Aug. 1 – Mar. 15.* ***Season may be announced***
OSM Preliminary Conclusion	**Support**	
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		
Interagency Staff Committee Comments		
ADF&G Comments		
Written Public Comments	None	

DRAFT STAFF ANALYSIS
WP22-41

ISSUES

Wildlife Proposal, WP22-41, submitted by Togiak National Wildlife Refuge (NWR) and Yukon Delta NWR, requests that the Federal in-season manager be delegated authority to open and close seasons, announce harvest limits, and set sex restrictions for caribou in all or portions of Units 9A, 9B, 9C, 17A, 17B, 17C, 18, 19A, and 19B via delegation of authority letter (**Appendix 1**).

DISCUSSION

The proponents state that the summer 2019 and 2020 population estimate for the Mulchatna Caribou Herd (MCH) was 13,500 caribou, which represents a 50% decline from the previous five years and is well below the State's minimum population objective of 30,000 caribou. The proponents note that 2019/20 Federal and State seasons were shortened due to conservation concerns. The 2020/21 season was also shortened, providing for a bulls-only harvest in August and September, while the rest of the season remained closed. The proponents state that this request will help conserve and recover the MCH and provide the flexibility needed to make harvest management decisions in a timely manner. The proponents recognize that this request will reduce harvest opportunity in the short run, but that conserving the MCH now will increase harvest opportunity in the future. The proponents also state that harvest of other resources such as moose may increase in response to this proposal.

Existing Federal Regulation

Unit 9−Caribou

Unit 9A—2 caribou by State registration permit	*Aug. 1 – Mar. 15.*
Unit 9B—2 caribou by State registration permit	*Aug. 1 – Mar. 31.*
Unit 9C, that portion within the Alagnak River drainage—2 caribou by State registration permit	*Aug. 1 – Mar. 15.*
Unit 9C, that portion draining into the Naknek River from the north, and Graveyard Creek and Coffee Creek—2 caribou by State registration permit.	*Aug. 1 – Mar. 15.*

Unit 17−Caribou

Unit 17A-all drainages west of Right Hand Point—2 caribou by State registration permit	*Aug. 1 – Mar. 31.*
Units 17B and 17C-that portion of 17C east of the Wood River and Wood River Lakes—2 caribou by State registration permit	*Aug. 1 – Mar. 31.*

Unit 18−Caribou

Unit 18-that portion to the east and south of the Kuskokwim River—2 caribou by State registration permit	*Aug. 1 – Mar. 15.*
Unit 18, remainder—2 caribou by State registration permit	*Aug. 1 – Mar. 15.*

Unit 19−Caribou

Units 19A and 19B (excluding rural Alaska residents of Lime Village)—2 caribou by State registration permit	*Aug. 1 – Mar. 15.*

Proposed Federal Regulation

Unit 9−Caribou

*Unit 9A—**up to** 2 caribou by State registration permit*	*Aug. 1 – Mar. 15.* ***Season may be announced***
*Unit 9B— **up to** 2 caribou by State registration permit*	*Aug. 1 – Mar. 31.* ***Season may be announced***
*Unit 9C, that portion within the Alagnak River drainage— **up to** 2 caribou by State registration permit*	*Aug. 1 – Mar. 15.* ***Season may be announced***
*Unit 9C, that portion draining into the Naknek River from the north, and Graveyard Creek and Coffee Creek— **up to** 2 caribou by State registration permit.*	*Aug. 1 – Mar. 15.* ***Season may be announced***

Unit 17−Caribou

*Unit 17A-all drainages west of Right Hand Point— **up to** 2 caribou by State registration permit*	*Aug. 1 – Mar. 31.* ***Season may be announced***
*Units 17B and 17C-that portion of 17C east of the Wood River and Wood River Lakes— **up to** 2 caribou by State registration permit*	*Aug. 1 – Mar. 31.* ***Season may be announced***

Unit 18−Caribou

*Unit 18-that portion to the east and south of the Kuskokwim River— **up to** 2 caribou by State registration permit*	*Aug. 1 – Mar. 15.* ***Season may be announced***
*Unit 18, remainder— **up to** 2 caribou by State registration permit*	*Aug. 1 – Mar. 15.*

	Season may be announced
Unit 19−Caribou	
*Units 19A and 19B (excluding rural Alaska residents of Lime Village)— **up to** 2 caribou by State registration permit*	*Aug. 1 – Mar. 15.* ***Season may be announced***

Existing State Regulation

Note: No seasons are open to nonresidents within the range of the MCH.

Unit 9—Caribou		
Residents: Units 9A and 9C, that portion within the Alagnak River drainage —one caribou by permit	*RC503*	*Season not announced*
Residents: Unit 9B— two caribou by permit	*RC503*	*Season not announced*
Residents: Unit 9C, that portion north of the north bank of the Naknek River and south of the Alagnak River drainage— two caribou by permit	*RC503*	*Season not announced*
Unit 17—Caribou		
Residents: Units 17A remainder, 17B and 17C east of the east banks of the Wood River, Lake Aleknagik, Agulowak River, Lake Nerka and the Agulukpak River— one caribou by permit	*RC503*	*Season not announced*
Unit 18—Caribou		
Residents: One caribou by permit	*RC503*	*Season not announced*
Unit 19—Caribou		
Residents: Units 19A and 19B— one caribou by permit	*RC503*	*Season not announced*

Extent of Federal Public Lands

Collectively, Units 9A, 9B, 9C, 17A, 17B, 17C, 18, 19A, and 19B are comprised of 48% Federal public lands and consist of 32% U.S. Fish and Wildlife Service (USFWS) managed lands, 11% National Park Service (NPS) managed lands, and 5% Bureau of Land Management (BLM) managed lands (**Figure 1**). Land status by Unit is as follows.

Unit 9A is comprised of 40% Federal public lands and consists of 39% NPS managed lands and less than 1% each USFWS and BLM managed lands.

Unit 9B is comprised of 34% Federal public lands and consists of 26% NPS managed lands and 8% BLM managed lands

Unit 9C is comprised of 86% Federal public lands and consists of 78% NPS managed lands, 4% BLM managed lands and 4% USFWS managed lands.

Unit 17A is comprised of 87% Federal public lands and consists of 87% USFWS managed lands and less than 1% BLM managed lands.

Unit 17B is comprised of 8% Federal public lands and consists of 6% NPS managed lands, 1% BLM managed lands, and 1% USFWS managed lands.

Unit 17C is comprised of 25% Federal public lands and consists of 15% USFWS managed lands and 10% BLM managed lands.

Unit 18 is comprised of 67% Federal public lands and consists of 64% USFWS managed lands and 3% BLM managed lands.

Unit 19A is comprised of 23% Federal public lands and consists of 21% BLM managed lands and 2% USFWS managed lands.

Unit 19B is comprised of 13% Federal public lands and consists of 11% NPS managed lands, 2% BLM managed lands and less than 1% USFWS managed lands.

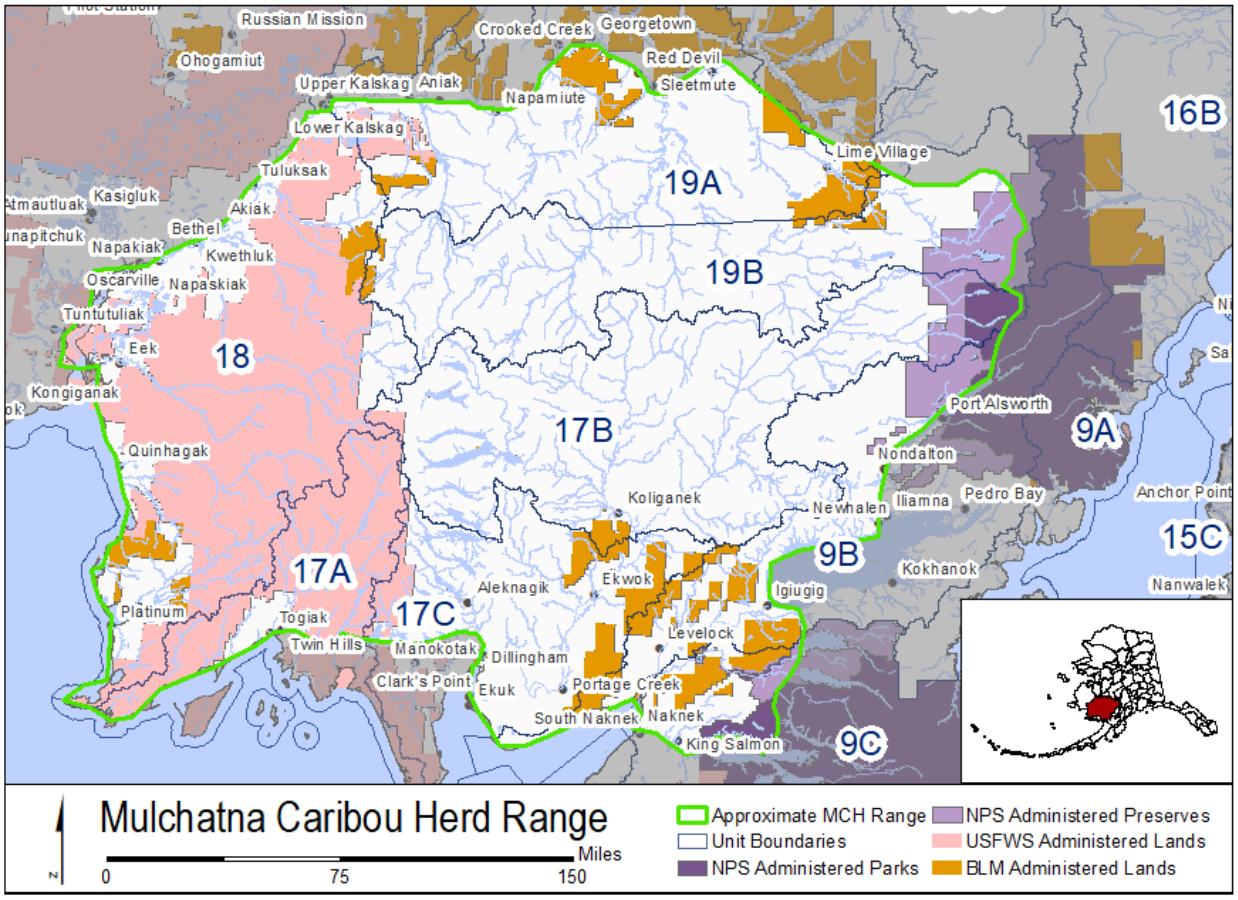

Figure 1. The Mulchatna Caribou Herd range covers ~60,000 square miles, primarily within Units 9B, 9C, 17A, 17B, 17C, 18, 19A and 19B.

Customary and Traditional Use Determinations

Residents of Units 9B, 9C and 17 have a customary and traditional use determination for caribou in Units 9A and Unit 9B.

Residents of Units 9B, 9C, 17, and Egegik have a customary and traditional use determination for caribou in Unit 9C.

Residents of Units 9B, 17, Eek, Goodnews Bay, Lime Village, Napakiak, Platinum, Quinhagak, Stony River, and Tuntutuliak have a customary and traditional use determination for caribou in Unit 17A, that portion west of the Izavieknik River, Upper Togiak Lake, Togiak Lake, and the main course of the Togiak River.

Residents of Units 9B, 17, Akiak, Akiachak, Lime Village, Stony River, and Tuluksak have a customary and traditional use determination for caribou in Unit 17A, that portion north of Togiak Lake that includes Izavieknik River drainages.

Residents of Units 9B, 17, Kwethluk, Lime Village, and Stony River have a customary and traditional use determination for caribou in Units 17A and 17B, those portions north and west of a line beginning from

the Unit 18 boundary at the northwestern end of Nenevok Lake, to the southern point of upper Togiak Lake, and northeast to the northern point of Nuyakuk Lake, northeast to the point where the Unit 17 boundary intersects the Shotgun Hills.

Residents of Units 9B, 17, Akiachak, Akiak, Bethel, Eek, Goodnews Bay, Lime Village, Napakiak, Platinum, Quinhagak, Stony River, Tuluksak, and Tuntutuliak have a customary and traditional use determination for caribou in Unit 17B, that portion of Togiak National Wildlife Refuge within Unit 17B.

Residents of Units 9B, 9C, 9E, 17, Lime Village, and Stony River have a customary and traditional use determination for caribou in Unit 17 remainder.

Residents of Unit 18, Lower Kalskag, Manokotak, Stebbins, St. Michael, Togiak, Twin Hills, and Upper Kalskag have a customary and traditional use determination for caribou in Unit 18.

Residents of Unit 19A and 19B, Unit 18 within the Kuskokwim River drainage upstream from, and including, the Johnson River, and residents of St. Mary's, Marshall, Pilot Station, and Russian Mission have a customary and traditional use determination for caribou in Units 19A and 19B.

Regulatory History

As a result of the dramatic population increase the MCH experienced during the 1990s, harvest regulations were liberalized throughout the range of the herd. By 1997, both State and Federal seasons in portions of Units 9, 17, and 19 extended from fall through spring, with liberal harvest limits and few restrictions. The subsequent population decline, beginning in 2004, resulted in the implementation of more restrictive regulations. Following is a summary of State and Federal regulatory changes since 2006.

At its spring 2006 meeting, the Alaska Board of Game (BOG) implemented more restrictive regulations for both resident and non-resident hunters. For resident hunters, they established an Aug. 1 – Mar. 15 season throughout the range of the herd. Previously, resident seasons ended on March 31 or April 15. The BOG also reduced the harvest limit throughout much of the range to three caribou, with only one caribou allowed Aug. 1 – Sep. 30. Nonresident seasons, which previously extended fall through spring, were reduced to Aug. 1 – Sep. 30.

The BOG further restricted harvest from the MCH in 2007. At that time, they reduced the resident harvest limit to two caribou with the restriction that no more than one bull could be taken and not more than one caribou could be taken Aug. 1 – Jan. 31. In addition, same day airborne harvest was eliminated for Units 9B, 17B, and 17C. The non-resident seasons were reduced to Sep. 1 – 15 at this time.

The Federal Subsistence Board (Board) considered Proposal WP07-23 in 2007, which requested Federal regulations for caribou in Units 9B and 17 be modified to reflect the recent changes in State regulation. Following the recommendation of several Subsistence Regional Advisory Councils (Councils), the Board adopted this proposal with modification to also include Units 18, 19A and 19B. However, this proposal was submitted prior to the BOG's 2007 regulatory changes and the Board's modification did not

accommodate the more recent changes in State regulation. Consequently, Federal regulations were aligned with the State's 2006 regulations rather than the 2007 regulations.

Following continued decline of the MCH, the BOG adopted Proposal 57 in 2009, which eliminated the nonresident caribou season throughout the range of the MCH.

The Board considered three proposals in 2010, all of which proposed further restrictions to harvest of the MCH. Proposal WP10-51 requested that Federal caribou seasons in Units 9A, 9B, 17B, a portion of 17C, 18, 19A, and 19B be changed to Aug. 1–Mar. 31. The Board adopted this proposal with modification to end the seasons on March 15, as recommended by several Councils. Proposal WP10-53 requested that the harvest limit for caribou be set at two caribou throughout the range of the MCH, with the restriction that no more than one bull may be taken and no more than one caribou may be taken Aug. 1 – Jan. 31. The Board adopted this proposal. Proposal WP10-60 requested that the harvest limit for caribou in Unit 18 be reduced from three caribou to two caribou. This proposal was adopted by the Board with modification to include the restriction that no more than one bull may be taken and no more than one caribou may be taken Aug. 1 – Jan. 31, consistent with action taken on WP10-53. The result of the Board's actions in 2010 was that State and Federal regulations for caribou within the range of the MCH were largely aligned.

The BOG initiated intensive management for predator reduction within the range of the MCH in 2011. At their spring 2011 meeting, they established a predation management area in Units 9B, 17B, and 17C. At their spring 2012 meeting, they added Units 19A and 19C to the predation management area.

In 2012, the Board considered Proposal WP12-42, which requested that, in Unit 18, the harvest limit be reduced from two caribou to one caribou and the season be reduced from Aug. 1 – Mar. 15 to Aug. 1 – Sep. 3 and Dec. 20 – last day of February. The Board adopted the proposal with modification, which resulted in the establishment of two separate hunt areas in Unit 18. For the portion of Unit 18 east and south of the Kuskokwim River, the season was reduced as proposed, while the harvest limit remained at two caribou, with the restriction that not more than one caribou may be taken Aug. 1 – Sep. 30 or Dec. 20 – Jan. 31. For the remainder of Unit 18, there were no changes to regulations.

Shortly after the Board's decision on WP12-42, it received two Special Action Requests to make similar changes for the remainder of the 2011/12 regulatory year. WSA11-10 requested that the caribou season in Unit 18 be shortened by 2 weeks, to end on February 29, rather than March 15. WSA11-11 requested that Federal public lands in the portion of Unit 18 south and east of the Kuskokwim River be closed to the harvest of caribou by all users beginning March 1. The Board rejected both requests on the grounds that it would be detrimental to subsistence users and that there was insufficient evidence that the situation required immediate action.

In February 2013, the BOG adopted Proposal 45A, which required use of a registration permit (RC503) in Units 9A, 9B, portions of 9C, 17, 18, 19A, and 19B. Previously, MCH harvest was allowed with just a harvest ticket. These changes were aimed at improving harvest management and assessment of the MCH's response to the ongoing intensive management program.

The Board considered two Special Action Requests in 2013. The first, Temporary Special Action WSA13-02, requested alignment of Federal permit requirements and season dates with the recently modified State regulations. As a result of the Board's approval of this request, Federally qualified subsistence users hunting under Federal regulations were required to obtain a State registration permit in Units 9A, 9B, 9C, 17A, 17B, 17C, 18, 19A, and 19B. The Board's action also shortened the to-be-announced season in Units 17A remainder and 17C remainder from Aug. 1–Mar. 31 to Aug. 1–Mar. 15. These changes were in effect for the remainder of the 2013/14 regulatory year. The second request, Temporary Special Action WSA13-03, requested the closure of Federal public lands in Units 9A, 9B, 9C, 17A, 17B, 17C, 18, 19A, and 19B to the harvest of caribou, except by Federally qualified subsistence users. The Board rejected WSA13-03 on the grounds that the MCH population was within State management objectives, and composition metrics were showing improvement.

In 2014, the Board adopted Proposal WP14-22 with modification, which resulted in the requirement of a State registration permit for Federally qualified subsistence users hunting under Federal regulations in Units 9A, 9B, 9C, 17A, 17B, 17C, 18, 19A, and 19B. It also resulted in a shortening of the to-be-announced season in Units 17A remainder and 17C remainder, from Aug. 1 – Mar. 31 to Aug. 1 – Mar. 15. Finally, it delegated authority to the Togiak National Wildlife Refuge Manager to take specific in-season management actions in portions of Units 17A and 17C. This included the authority to open and close seasons, establish harvest limits and restrictions, and identify hunt areas. These changes were meant to align Federal and State regulations across the range of the MCH, while providing improved harvest reporting.

In February 2015, the BOG adopted Proposal 47 with an amendment to accommodate the request made in Proposal 48. As a result of this action, caribou seasons in Units 9B and 17 were changed from Aug. 1 – Mar. 15 to Aug. 1 – Mar 31. This change was made to accommodate hunters who reported that travel conditions often prohibited caribou hunting after the last day of March.

In March 2016, BOG adopted Proposal 134, which resulted in liberalization of the harvest restrictions for caribou harvested within the range of the MCH. Specifically, the harvest limit remained at two caribou, but the restrictions that no more than one bull may be taken and no more than one caribou may be taken from Aug. 1 – Jan. 31 were eliminated. By 2016, the bull:cow ratio had reached the management threshold and conservation of bulls had become less critical compared to 2007, when the restrictions were implemented. Fewer restrictions also resulted in a less complicated regulatory structure and were not expected to result in unsustainable levels of harvest.

The same spring, the Board considered Proposal WP16-29/30, which requested that caribou seasons in Unit 9B and portions of Unit 17 be extended from Aug. 1 – Mar. 15 to Aug. 1 – Mar. 31. This proposal was intended to provide additional subsistence opportunity and to align Federal and State regulations for caribou hunting within the range of the MCH. The Board adopted this proposal with modification to move in-season management language from unit-specific regulations to a delegation of authority letter. However, this proposal was submitted prior to the BOG's 2016 regulatory changes and the Board's modification did not accommodate the recent changes to State regulation. Consequently, Federal regulations were aligned with the State's 2016/17 regulations rather than the 2017/18 regulations.

In February 2018, the BOG adopted Proposal 127. As a result, the portion of Unit 9C north of the Naknek River and south of the Alagnak River drainage became part of the MCH RC503 permit area, rather than part of the Northern Alaska Peninsula Caribou Herd (NAPCH) TC505 permit area. The BOG's action also established an Aug. 1 – Mar. 31 resident season in the hunt area north of the Naknek River. This action brought State harvest regulations into line with the current distribution of the MCH and NAPCH caribou herds.

In April 2018, the Board considered Proposal WP18-21, which responded to the 2016 and 2018 changes made in State regulation. Specifically, WP18-21 requested that the harvest limit for the MCH be changed to two caribou with no additional restrictions in portions of Units 9, 17 and 19, and that the caribou season in Unit 9C north of the Naknek River be changed from a may-be-announced season to an Aug. 1 – Mar. 15 season with a harvest limit of two caribou. The Board adopted WP18-21 with modification to create a new hunt area, removing the portion of Unit 9C that drains into the Naknek River from the north and Graveyard Creek and Coffee Creek from Unit 9C remainder. This action brought Federal harvest regulations into line with the current distribution of the MCH and NAPCH caribou herds and also aligned the harvest limit throughout the range of the MCH. However, the Board's action did not address the Federal public lands closure within the new hunt area. Originally implemented for the conservation of the NAPCH, this closure is now the only Federal public lands closure within the range of the MCH.

The Board also considered Proposal WP18-31 in April 2018, which requested that the MCH season in Unit 18 be shortened from Aug. 1 – Mar. 15 to Aug. 1 – Feb. 28, due to an observed scarcity of caribou. The Board rejected this proposal on the grounds that it would have a negligible effect on harvest or on the conservation status of the population, given that the State season would continue to be open until March 15. The Board noted that the regulatory complexity this change would introduce was unnecessary in the absence of a conservation benefit.

In August 2019, the Alaska Department of Fish and Game (ADF&G) issued emergency order 04-16-19, which decreased the harvest limit of the RC503 caribou registration permit hunt from two caribou to one caribou for the 2019/20 regulatory year. The RC503 permit targets the MCH in Units 9A, 9B, 9C, 17A, 17B, 17C, 18, 19A, and 19B (range of the MCH). ADF&G issued this emergency order to conserve the MCH due to recent survey data indicating the MCH population is 13,500 caribou, which is well below the minimum State objective of 30,000 caribou.

In November 2019, the Board approved Special Action Request WSA19-07 with modification to decrease the harvest limit for Mulchatna caribou from two to one caribou across the range of the MCH for the 2019/20 regulatory year. The modification included closing Units 18, 19A and 19B to caribou hunting except by Federally qualified subsistence users, with a harvest limit of one bull caribou and delegating authority to the Togiak NWR Manager to open and close seasons throughout the range of the herd and to set sex restrictions in Units 9A, 9B, 9C, 17A, 17B and 17C for the 2019/20 regulatory year. The Board approved the request due to serious conservation concerns for the MCH and support from the affected Regional Advisory Councils and local users.

The Togiak NWR Manager exercised his delegated authority to close caribou hunting on Federal public lands across the range of the MCH on December 31, 2019 for the remainder of the season. As of December 16, 2019, 79 caribou had been reported harvested, with an additional seven caribou known to be harvested but not reported. Agency staff determined no harvestable surplus existed that would allow for herd growth and closed the season to promote herd recovery.

In January 2020, ADF&G issued emergency order 04-02-20, which closed the RC503 caribou registration permit hunt on January 31, 2020. ADF&G issued this emergency order because of MCH population declines. Both ADF&G and USFWS staff conducted extensive outreach efforts to notify communities of the caribou hunting closure (BBRAC 2020, WIRAC 2020).

In April 2020, the Board considered Wildlife Closure Review WCR20-04/06, which reviewed caribou hunting closures in Units 9C and 9E. The Board voted to modify the closure, rescinding the closure in the portion of Unit 9C that drains into the Naknek River from the north, and Graveyard Creek and Coffee Creek (Unit 9C Naknek), while maintaining the closures in the other hunt areas in concurrence with the Bristol Bay Council's recommendation. The closure in Unit 9C Naknek to caribou hunting except by residents of Unit 9C and Egegik had been the only closure in regulation within the range of the MCH. The closure was a vestige of the Board's action on Proposal WP18-21, which shifted the regulatory emphasis within Unit 9C Naknek from the NAPCH to the MCH, to reflect current distribution patterns of these two herds. However, during its deliberation of Proposal WP18-21, the Board did not address the Federal public lands closure, which had been originally implemented for the conservation of the NAPCH.

In July 2020, the Board approved Special Action Request WSA20-04 with modification to delegate authority to the Togiak NWR manager to open/close seasons, announce harvest limits, and set sex restrictions across the range of the MCH for the 2020-2022 regulatory cycle (similar to this proposal). The Board approved the request because of conservation concerns for the MCH due to substantial population declines, because delegating authority to an in-season manager provided the management flexibility needed to respond quickly to changing conditions, and because of support from the affected Regional Advisory Councils and local users.

In July 2020, ADF&G issued emergency order 04-04-20, announcing a bulls-only hunt across the range of the MCH (RC503) in Units 9A, 9B, 9C, 17A, 17B, 17C, 18, 19A, and 19B from Aug. 1-Sept. 20, 2020. The rest of the 2020/21 season remained closed. Later that month, the Togiak NWR Manager exercised his delegated authority to announce an identical Federal hunt for 2020/21. The Togiak NWR manager and ADF&G determined that a limited bulls-only hunt would provide some harvest opportunity without compromising herd recovery, but that additional harvest, especially of cows, needed to be avoided to allow for herd growth.

Current Events

The BOG received several proposals concerning the MCH during the Central and Southwest Region call for proposals in 2020. They will consider proposed changes in Units 9 and 17 in January of 2022 (re-scheduled meeting from January 2021 due to the COVID-19 pandemic). Proposed changes for Unit 18

and 19 will be addressed at Western Arctic/Western Region and Interior and Eastern Arctic Region meetings, respectively.

Proposal 19, submitted by Togiak NWR requests establishing new population and harvest objectives for the MCH, following completion of a habitat assessment to determine carrying capacity. Proposal 20, submitted by ADF&G, requests establishing a Tier II subsistence hunting season and harvest limit for the MCH due to low population estimates and harvestable surpluses. Proposal 20 would also close the season during rut to mitigate disruptions to breeding and standardize the season across the range of the MCH to reduce hunter confusion and encourage reporting. Proposal 21, submitted by ADF&G, requests establishing a second predation control area for MCH on Federal lands in Units 17 and 18 to reduce wolf predation and promote herd recovery.

Biological Background

The MCH has experienced dramatic changes in population size and distribution in the past 40 years. In the early 1980s, the population was estimated to include approximately 20,000 caribou. Its winter range included the north and west side of Iliamna Lake north of the Kvichak River. By the mid-1990s, the herd had grown to its peak size of approximately 200,000 caribou and absorbed the smaller Kilbuck caribou herd. The MCH increasingly begun wintering in southern Unit 18 and southwestern Unit 19B. Population growth during this time was attributed to mild winters, movement into previously unexploited range, and relatively low predation and harvest rates.

Currently, the MCH range covers ~60,000 square miles, primarily within Units 9B, 9C, 17A, 17B, 17C, 18, 19A and 19B (**Figure 1**). The herd does not move seasonally as a single distinct group. Rather, caribou move from calving areas east of the Tikchik Mountains to either the eastern or western portion of their range for the rut and wintering. In the 2000s, movements of radio-collared caribou indicated that individual caribou had little fidelity to specific calving or wintering areas. Since 2008, however, radio-collared cows that winter in the eastern portion of their range calve in the Tundra Lake or Bonanza Hills areas (western Units 19A, 19B, 17B) while those that winter in the western portion of their range calve in the Kemuk Mountain/Koliganek area (southern Unit 17B, northern Unit 17C) (Barten 2015). ADF&G is hoping to radio-collar additional caribou and conduct more surveys to determine if the MCH is still one herd or if it has separated into two distinct herds (BBRAC 2020). Additionally, the potential for caribou in Katmai National Preserve to be a non-migratory population that is not part of the MCH was voiced during Tribal consultation for WSA19-07 and the Bristol Bay Council's winter 2020 meeting. The NPS expressed their intention to study these caribou in the near future (BBRAC 2020).

Photocensuses conducted during summer post-calving aggregations are used to estimate abundance (Barten 2015). These estimates show that in 2013, the MCH was estimated to be 18,016 caribou, the lowest estimate in over 30 years, and well below the State's population objective of 30,000 – 80,000 caribou (**Table 1)**. Estimates over the next three years indicated that the population had grown, nearing the lower bound of this population objective from 2014-2016. However, the most recent estimates, obtained in July 2019 and 2020, shows that the population is less than half of the State's minimum population objective, at 13,448 caribou (ADF&G 2019c, 2020). The western segment of the MCH has declined appreciably since 2012, while the eastern segment's population increased between 2012 and 2015 and then declined back to 2012 levels in 2019 (**Figure 2**; ADF&G 2019e, Rinaldi 2020, pers.

comm.). Therefore, the population increases from 2014-2016 were due to increases in the eastern segment's population, while the 2019 decline are due to declines in both segments.

ADF&G and Togiak NWR plan to reevaluate the population objective range to determine if any adjustments are warranted (BBRAC 2020). In March 2020, ADF&G conducted two flights over the western segment of the herd and one flight over the eastern segment to monitor its status. ADF&G reported observing <2,500 caribou in the western segment, which was less than expected (YKDRAC 2020).

Estimates of composition are made during October aerial surveys. Given that the eastern and western population segments of the MCH have different seasonal ranges and are therefore subject to differing nutrition, predation, and other factors, composition ratios are summarized both collectively and individually by population segment. This allows for comparison between the eastern and western segments. As a whole, the MCH experienced a steady increase in bull:cow ratios between 2010 and 2016 (**Table 1**). In 2016, the ratio was 39 bulls:100 cows, which is the highest estimate since the late 1990s. The most recent estimate, in 2018, showed the bull:cow ratio was 32 bulls:100 cows, which is below the State's minimum bull:cow objective of 35 bulls:100 cows. Bull:cow ratios for the western segment have typically been higher than those for the eastern segment, though the difference has diminished in recent years (**Figure 3**). In 2017, this relationship was reversed. At that time, the eastern population segment had 33 bulls:100 cows while the western population segment had 31 bulls:100 cows (Barten 2017).

Calf:cow ratios have been variable for the MCH, ranging from 16 calves:100 cows in 2007 to 30 calves:100 cows in 2011 and 2014 (**Table 1**). In 2018, the most recent estimate, there were 34 calves:100 cows, which is above the State' minimum objective of 30 calves:100 cows and an improvement from 2017 (ADF&G 2019d). The calf:cow ratio has varied significantly between population segments. Between 2007 and 2013, the western population segment had consistently higher calf:cow ratios than the eastern segment. However, that relationship has been reversed since 2014 (**Figure 4**). In 2017, the eastern segment had 28 calves:100 cows while the western segment had 18 calves:100 cows (Barten 2017). Current calf:cow ratios are within the range of variability typical of herds occupying interior and southwest Alaska.

Habitat was not thought to be limiting the MCH based on nutritional indicators, including high pregnancy rates and calf weights (Barten 2015, ADF&G 2019d). However, now ADF&G and Togiak NWR are considering decreased range quality as a potential cause for the decline and are working together to design and implement a habitat assessment study (BBRAC 2020, WIRAC 2020, Moos 2021). Predation may be contributing to the population decline. ADF&G initiated a wolf predation control program near MCH calving grounds in southwestern Unit 17 in 2012 and expanded the control area in 2017 to include almost all of Unit 17B and portions of Units 9B and 19B (ADF&G 2019d, YKDRAC 2020). However, while wolf densities on the calving grounds are low, brown bear predation of calves on the calving grounds may be contributing to the population decline (WIRAC 2020). Heavy harvest pressure, icing events, deep snows and changing movement patterns may also have contributed to the population decline (YKDRAC 2020). In January 2021, ADF&G announced increased prevalence of *Brucella*, the bacteria responsible for brucellosis disease, in Mulchatna caribou (ADF&G 2021a).

Table 1. Mulchatna Caribou Herd composition counts and population estimates, 1975 – 2020 (Barten 2017, ADF&G 2019c, 2019d, 2020, Reiley 2021, pers. Comm. and Rinaldi 2020, pers. Comm.).

Year	Bulls: 100 cows	Calves: 100 cows	% of Total bulls			Composition sample size	Population Estimate
			Small bulls	Medium bulls	Large bulls		
1975	55	35	-	-	-	1,846	14,000
1978	50	65	-	-	-	758	7,500
1980	31	57	-	-	-	2,250	-
1981	53	45	-	-	-	1,235	20,600
1986	56	37	-	-	-	2,172	-
1987	68	60	-	-	-	1,858	52,500
1988	66	54	-	-	-	536	-
1993	42	44	-	-	-	5,907	150,000[a]
1996	42	34	49	29	22	1,727	200,000[a]
1998	41	34	28	43	29	3,086	-
1999	30	14	60	26	14	4,731	175,000[b]
2000	38	24	47	33	20	3,894	-
2001	25	20	32	50	18	5,728	-
2002	26	28	57	30	13	5,734	147,000[b]
2003	17	26	36	45	19	7,821	-
2004	21	20	64	29	7	4,608	85,000[b]
2005	14	18	55	33	12	5,211	-
2006	15	26	57	34	9	2,971	45,000[b]
2007	23	16	53	36	11	3,943	-
2008	19	23	47	36	17	3,728	30,000[b]
2009	19	31	40	44	16	4,595	-
2010	17	20	30	44	26	4,592	-
2011	22	19	32	41	27	5,282	-
2012	23	30	38	38	24	4,853	22,930[c]
2013	27	19	39	36	25	3,222	18,016[c]
2014	35	30	44	31	25	4,793	27,225[c]
2015	35	29	35	43	22	5,414	28,662[c]
2016	39	22	43	29	28	5,195	28,775[c]
2017	32	23	44	28	28	5,160	-
2018	32	34	-	-	-	-	-
2019	42	25	62	20	18	3,496	13,448[c]
2020	34	36	59	20	20	5,357	13,500

[a]Estimate derived from photo-counts, corrected estimates, subjective estimate of number of caribou in areas not surveyed, and interpolation between years when aerial photo surveys were not conducted.

[b]Estimate of minimum population size based on July photo census.

[c]Estimate based on Rivest et al. (1998) caribou abundance estimator.

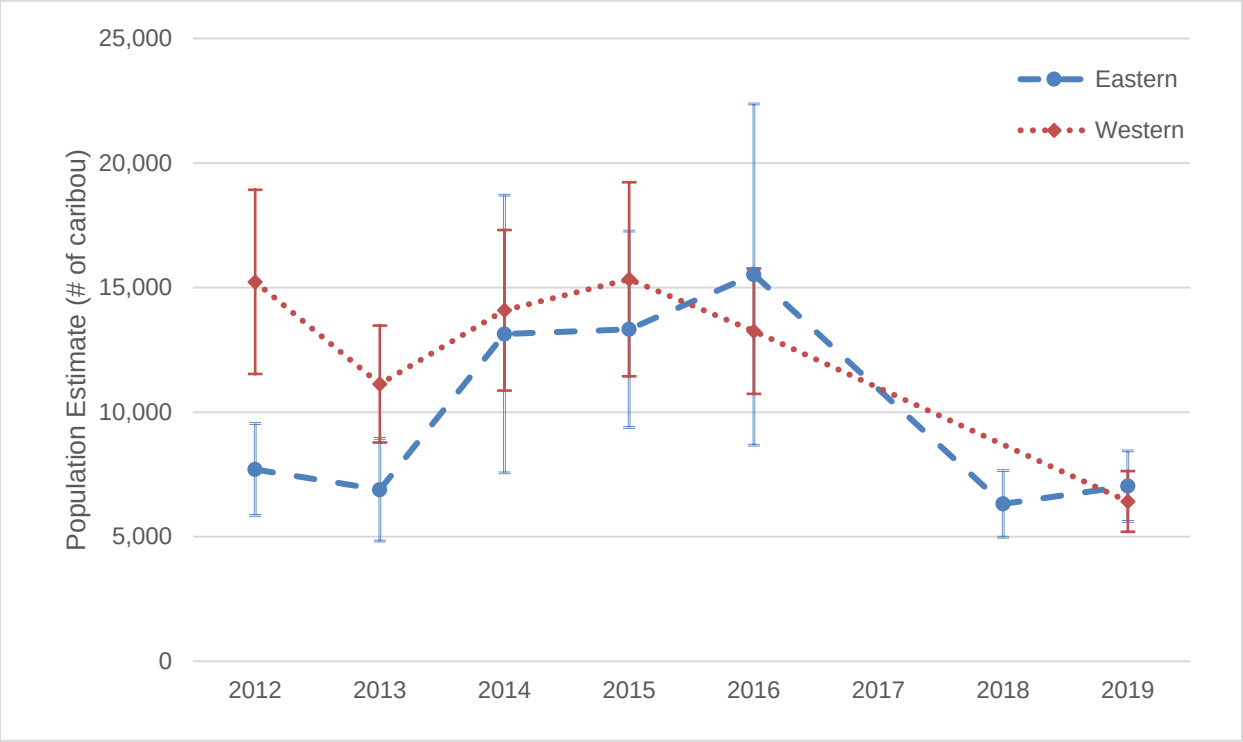

Figure 2. Population estimates of the eastern and western segments of the Mulchatna caribou herd with 95% confidence intervals (Rinaldi 2020, pers. comm.).

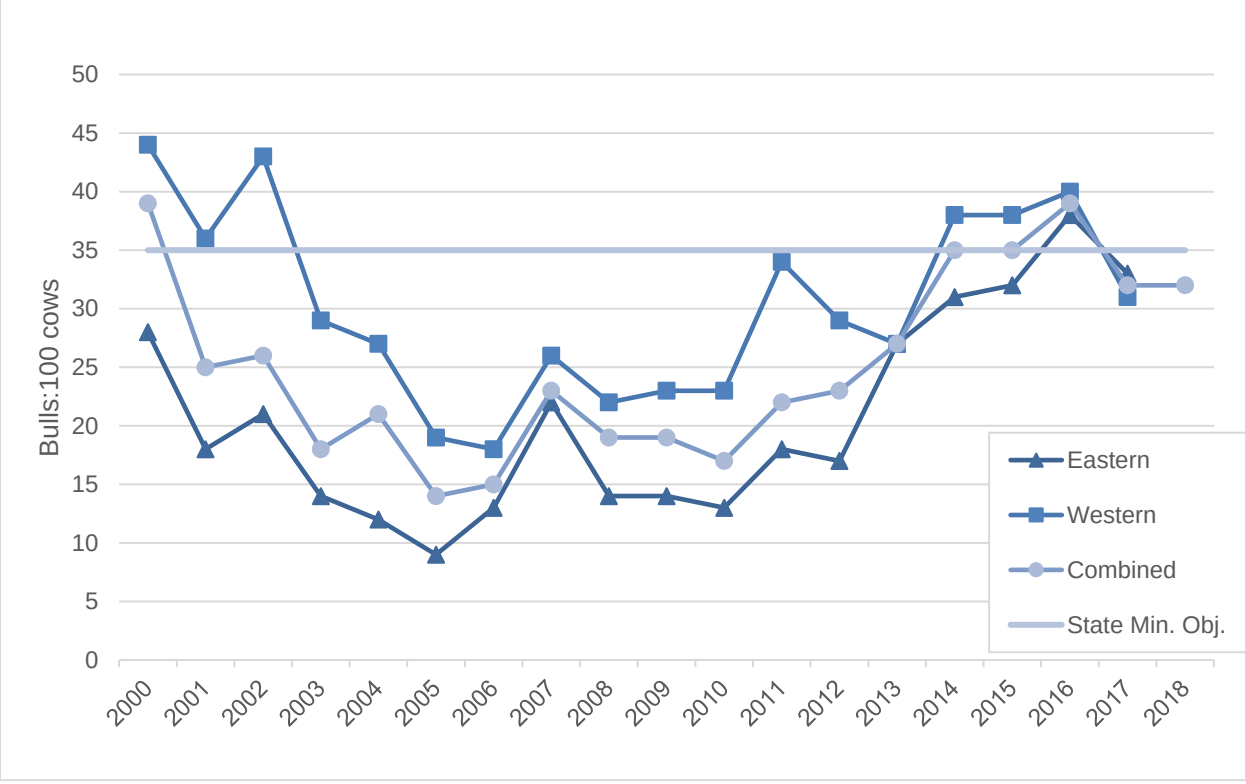

Figure 3. Mulchatna Caribou Herd fall bull:cow ratios, 2000 – 2018. The solid line represents the State's minimum management objective of 35 bulls:100 cows (Barten 2017, ADF&G 2019d).

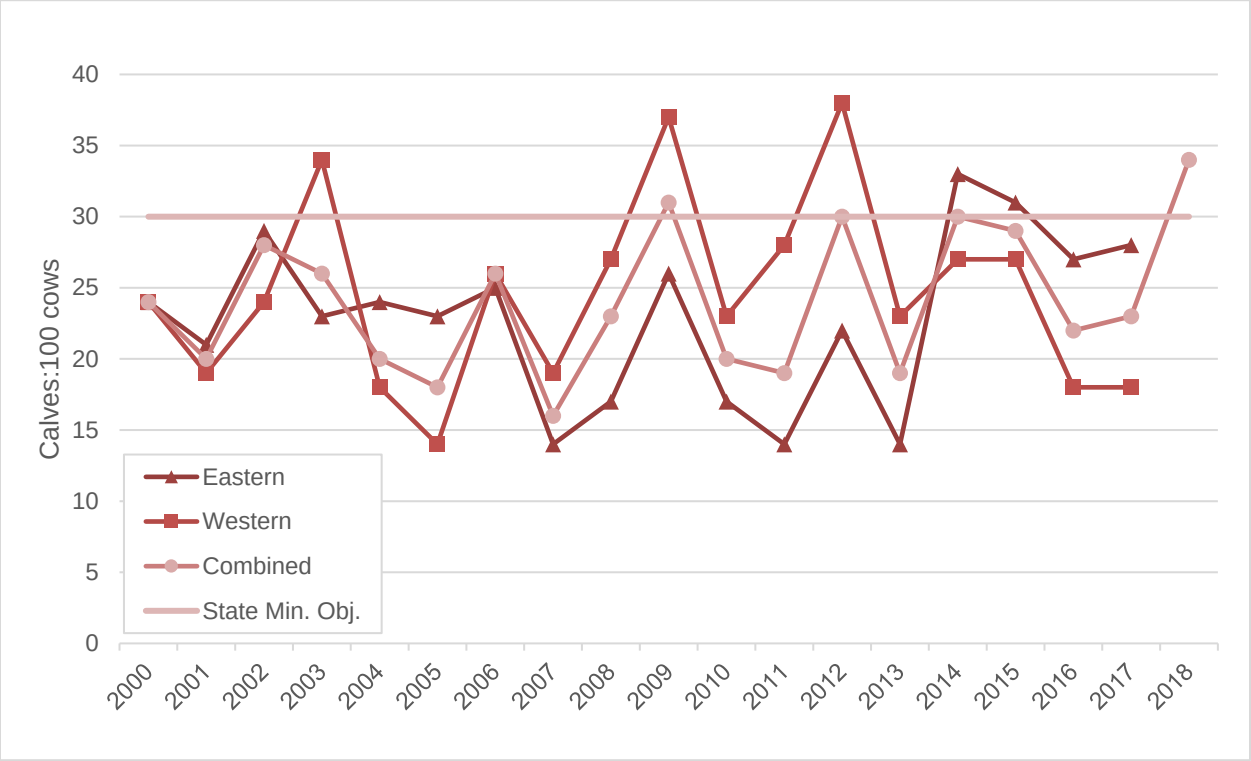

Figure 4. Mulchatna Caribou Herd fall calf:cow ratios, 2000 – 2018. The solid line represents the State's minimum management objective of 30 calves:100 cows (Barten 2017, ADF&G 2019d).

Cultural Knowledge and Traditional Practices

At least five Alaska Native groups, Alutiiq, Central-Yup'ik, and the Athapaskan subgroups known as the Deg Xinag, Kolchan/Upper Kuskokwim, and Dena'ina, have historically inhabited and hunted in sections of Units 9, 17, and 19. Relationships between these groups varied from intermarriage, trading, and feuding (Snow 1981). All of these groups have a history of hunting caribou in this area and some participated in herding upon the introduction of reindeer in the 1890s (Willis 2006).

Historically, people in Western and Southwestern Alaska hunted caribou in the spring and fall with the occasional summer harvest. Historical accounts suggest that caribou was an important subsistence resource for food and the creation of winter clothing. Caribou were traditionally caught through the use of snares, surrounds, guide fences, bow and arrow, stalking, spears, and the Dena'ina utilized dogs (Clark 1981; Hosley 1981; Snow 1981; Townsend 1981; VanStone 1981). Vanstone mentioned that Central-Yup'ik groups used caribou hides in the creation of winter clothing and Hosley (1981) noted that the Kolchan made a paste out of caribou brains to tan hides for clothing purposes.

Russian fur traders travelled up the Alaskan coast and came into contact with the Alutiiq Koniag after 1760. It was not long after this initial contact that trading posts were established in the area that currently consists of Unit 9 (Clark 1981). As the Russians moved further north along the Alaska coast the fur trade expanded into what is now Units 17 and 19 (Snow 1981; Vanstone 1981). The arrival of the

Russians was followed by the creation of missions, boarding schools, canneries, and the arrival of both Russian and European trappers and prospectors (Hosley 1981; Snow 1981; Townsend 1981).

The most recent comprehensive subsistence surveys conducted by ADF&G have been used to provide examples for each unit in this proposal. ADF&G conducted a survey on the community of Naknek in Unit 9 during 2007, Manokotak in Unit 17 during 2008, and Nikolai in Unit 19 during 2011 (Holen et al. 2011; Holen et al. 2012; Ikuta et al. 2014). Within these communities, large mammal harvest is high and ranged between 12.1% on the low end and 52% on the high end (Holen et al. 2011; Ikuta et al. 2014). The per capita caribou harvest from Naknek, Manokotak, and Nikolai ranged from a low of 2 lbs/person in Nikolai to 21 lbs/person in Naknek (Holen et al. 2011; Ikuta et al. 2014). Even in those communities that reported no harvest for their study year, caribou was widely used, shared, and received. For example, in Manokotak for the 2008 study year, about 50% of the community households used caribou, 44% reported receiving caribou, and about 7% of the households reported sharing caribou with others (Holen et al. 2012).

Harvest History

Reported harvest of the MCH has decreased significantly since the early 2000s, when the herd was very large (**Figure 5**). Total reported harvest declined from 3,949 caribou in 2000 to 238 caribou in 2018. Harvest among all user groups declined during this period, but the decline was especially pronounced among nonlocal residents and nonresidents. Reduction of the State harvest limit in 2006 and elimination of the nonresident season in 2009 were influential in this decline (ADF&G 2017, 2019a).

Currently, harvest is dominated by local users, defined here as those with a customary and traditional use determination for caribou anywhere within the MCH range. Since 2009, the year the nonresident season was eliminated, 84% of reported harvest, or 263 caribou annually, can be attributed to local residents. The remainder, 49 caribou annually, were taken by nonlocal residents of Alaska (ADF&G 2017, 2019a). However, reported harvest may underestimate actual harvest. Though the magnitude of unreported harvest is unknown (Barten 2015, ADF&G 2019d), household survey data obtained by the ADF&G Subsistence Division provides some insights (**Table 2**). These surveys represent only a sampling of communities and years, so they cannot be used to quantify total annual harvest. In addition, they estimate an annual range of harvest for each community and are intended to demonstrate community harvest patterns and resource use, rather than precise numbers. However, they indicate that communities within the MCH range harvest more caribou than harvest reports suggest (**Table 2**, **Figure 5**). ADF&G suspects actual harvest is substantially higher than reported harvest in some years (ADF&G 2019d).

Acknowledging that reported harvest is not an accurate assessment of total harvest, it may provide insights into temporal and geographic harvest patterns. Among local users for the 2009 – 2018 time period, 81% of reported harvest occurred between December and March. March was the busiest month for harvest, accounting for 40% of the reported harvest by local users since 2009. These patterns are broadly similar to longer term averages (ADF&G 2017, 2019a).

Harvest is not evenly distributed across the range of the MCH. More caribou are harvested from the western segment of the population than from the eastern (BBRAC 2020). Since 2009, among local users,

54% of reported harvest has occurred in Unit 18, and 17% has occurred in Unit 17C. Less than 10% of reported harvest by local users is attributable to any other single unit. Converse trends exist for non-local users. Harvest in Unit 17B accounts for 53% (26 caribou annually), while Unit 18 accounts for 20% (10 caribou annually) of the reported harvest among this user group since 2009. Fewer than five caribou, on average, are reported harvested each year by nonlocal users in any other single unit.

During the 2019/20 season, 2,112 RC503 permits were issued, 1,776 permits were returned, and 446 permit holders hunted. From the returned permits, 127 caribou (84 bulls, 42 cows, 1 unknown) were reported harvested (ADF&G 2021b). Information and observations from law enforcement personnel indicated that actual harvest well exceeded reported harvest (Moos 2020, pers. comm.).

During the 2020/21 season, 28 were harvested. There were 20 harvested by local residents and 8 by nonlocal residents (Reiley 2021, pers. Comm.).

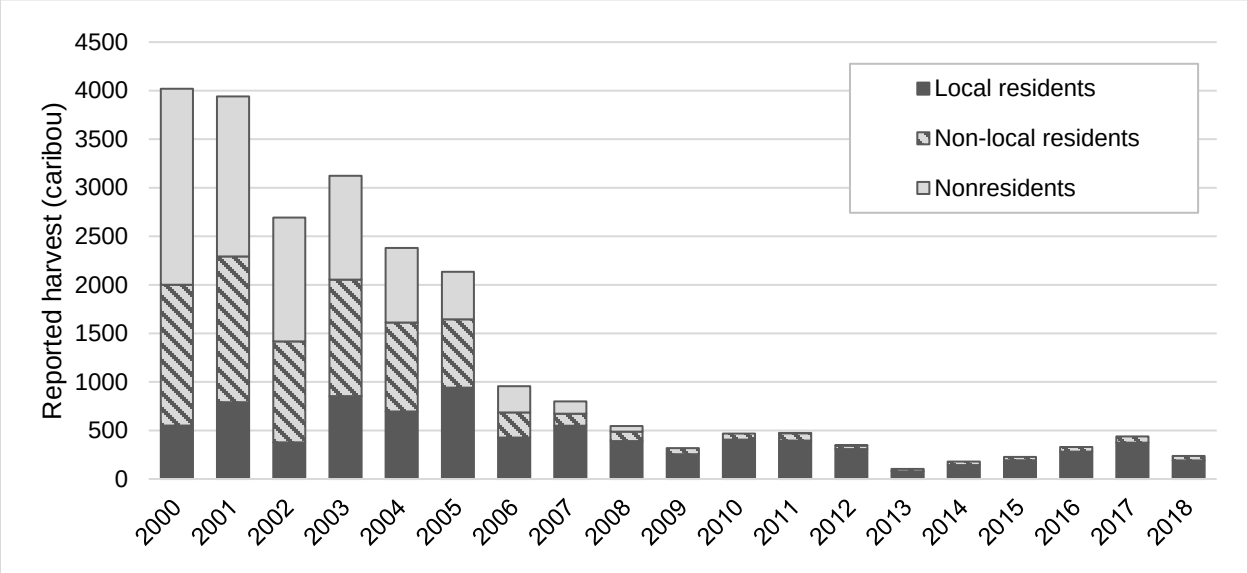

Figure 5. Reported harvest from the Mulchatna Caribou Herd by all users, 2000 – 2018. Nonresident seasons were eliminated in 2009 (ADF&G 2017, 2019a).

Table 2. Use of caribou by communities across the range of the Mulchatna Caribou Herd, 2000 – 2013, based on household surveys (ADF&G 2019b).

Unit	Community	Year	Households using caribou	Households harvesting caribou	Harvest	
					Number of caribou	95% CI
9B	Igiugig	2001	100%	91%	23	0%
		2005	100%	58%	24	22%
	Iliamna	2001	76%	43%	40	34%
		2004	77%	8%	3	62%
	Kokhanok	2001	94%	25%	20	84%
		2005	80%	26%	21	32%
	Levelock	2001	100%	53%	28	37%
		2005	100%	64%	27	33%

Unit	Community	Year	Households using caribou	Households harvesting caribou	Harvest	
					Number of caribou	95% CI
	Newhalen	2001	94%	65%	71	14%
		2004	88%	44%	49	9%
	Nondalton	2001	94%	27%	23	30%
		2004	53%	13%	18	9%
	Pedro Bay	2001	21%	0%	0	0%
		2004	28%	6%	1	0%
	Port Alsworth	2001	90%	10%	4	82%
		2004	86%	9%	6	21%
9C	King Salmon	2007	33%	12%	16	11%
	Naknek	2007	49%	21%	74	12%
	South Naknek	2007	62%	5%	2	6%
17A	Togiak	2001			106	27%
	Twin Hills	2001			8	31%
17B	Koliganek	2001	91%	57%	93	41%
		2005	89%	61%	91	28%
17C	Aleknagik	2001	89%	47%	48	23%
		2008	13%	0%	0	0%
	Clarks Point	2001	86%	57%	28	0%
		2008	36%	9%	2	216%
	Dillingham	2001	14%	6%	344	30%
		2010	36%	5%	63	52%
	Ekwok	2001	97%	31%	28	23%
	Manokotak	2001	88%	42%	68	17%
		2008	49%	8%	20	5%
	New Stuyahok	2001	98%	66%	260	13%
		2005	92%	59%	178	20%
	Portage Creek	2001	71%	29%	10	0%
18	Akiak	2010	78%	37%	55	21%
	Bethel	2011	55%	16%	446	20%
		2012	55%	13%	374	27%
	Eek	2013	61%	27%	47	28%
	Kwethluk	2010	87%	39%	111	21%
	Marshall	2010	7%	2%	6	136%
	Mountain Village	2010	6%	0%	0	
	Napakiak	2011	75%	32%	45	27%
	Napaskiak	2011	86%	41%	60	24%
	Oscarville	2010	92%	50%	10	28%
	Pilot Station	2013	6%	1%	3	102%
	Quinhagak	2013	65%	29%	125	21%
	Russian Mission	2011	11%	4%	5	96%
	Scammon Bay	2013	20%	4%	10	64%

Unit	Community	Year	Households using caribou	Households harvesting caribou	Harvest	
					Number of caribou	95% CI
	Tuluksak	2010	68%	22%	29	26%
	Tuntutuliak	2013	19%	8%	12	54%
19A	Red Devil	2005	0%	0%	0	0%
		2009	36%	18%	1	244%
	Sleetmute	2003	24%	10%	8	41%
		2004	18%	0%	0	0%
		2005	16%	0%	0	0%
		2009	3%	3%	2	75%
	Stony River	2003	53%	29%	14	22%
		2004	60%	20%	6	439%
		2005	33%	0%	0	0%
		2009	42%	8%	2	423%
	Upper Kalskag	2003	53%	35%	42	49%
		2004	30%	6%	4	24%
		2005	26%	15%	16	98%
		2009	15%	2%	1	605%

Effects of the Proposal

If this request is approved, the Federal in-season manager would be delegated authority to open and close seasons, announce harvest limits and set sex restrictions across the range of the MCH. While this change may decrease harvest opportunity for Federally qualified subsistence users in the short-term, it may also help conserve the MCH to ensure future harvest opportunities.

Given the recent, substantial decline in the MCH population, conservation measures are warranted. Low calf:cow ratios in the western segment of the MCH population in 2016 and 2017, where most of the harvest occurs, further contribute to conservation concerns (**Figure 4**). Furthermore, bull:cow ratios, which have been depressed since 2001, are hovering around the State's minimum objective of 35 bulls:100 cows (**Table 1**).

However, the effects of harvest on the population decline are unclear. In 2017 and 2018, reported harvest (440 and 238 caribou, respectively) only accounted for 3.3% and 1.8% of the estimated MCH population (13,500 caribou), respectively, which are very conservative harvest rates. Additionally, the magnitude of unreported harvest is unknown, with unknown effects on the MCH population. Therefore, the conservation benefits of adopting WP22-41 are uncertain.

Delegating authority to an in-season manager provides management flexibility, which is critical in responding to changing herd conditions in a timely manner. For example, an in-season manager could maximize harvest opportunity in the event of herd recovery, close all hunts in the event of further population declines to aid herd recovery, or (as was the case in 2020) balance harvest opportunity with herd recovery.

OSM PRELIMINARY CONCLUSION

Support Wildlife Proposal WP22-41

Justification

Conservation concerns exist for the MCH due to a substantial decline in abundance coupled with poor composition metrics. While the impact of harvest on the MCH is unclear, measures to conserve the herd and aid recovery are warranted. Delegating authority to an in-season manager provides the flexibility needed to make timely decisions and respond to changing conditions (e.g. MCH population decline or recovery).

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Appendix 1

Refuge Manager
Togiak National Wildlife Refuge
P.O. Box 270 MS 569
Dillingham, Alaska 99576

Dear Refuge Manager:

This letter delegates specific regulatory authority from the Federal Subsistence Board (Board) to the manager of the Togiak National Wildlife Refuge to issue emergency or temporary special actions if necessary to ensure the conservation of a healthy wildlife population, to continue subsistence uses of wildlife, for reasons of public safety, or to assure the continued viability of a wildlife population. This delegation only applies to the Federal public lands subject to Alaska National Interest Lands Conservation Act (ANILCA) Title VIII jurisdiction within Units 9A, 9B, 9C (that portion within the Alagnak River drainage), 9C (that portion draining into the Naknek River from the north, and Graveyard Creek and Coffee Creek), 17A (all drainages west of Right Hand Point), 17A remainder, 17B, 17C (that portion of 17C east of the Wood River and Wood River Lakes), 17C remainder, 18 (that portion to the east and south of the Kuskokwim River), 18 remainder, 19A and 19B (excluding rural Alaska residents of Lime Village) for the management of caribou on these lands.

It is the intent of the Board that actions related to management of caribou by Federal officials be coordinated, prior to implementation, with the Alaska Department of Fish and Game (ADF&G), representatives of the Office of Subsistence Management (OSM), the Bureau of Land Management (BLM) Anchorage Field Office manager, the Nushagak Peninsula Caribou Planning Committee, the Yukon Delta National Wildlife Refuge manager, the Superintendent of Katmai National Park and Preserve, the Superintendent of Lake Clark National Park and Preserve, and the Chair of affected Council(s) to the extent possible. The Office of Subsistence Management will be used by managers to facilitate communication of actions and to ensure proposed actions are technically and administratively aligned with legal mandates and policies. Federal managers are expected to work with managers from the State and other Federal agencies, the Council Chair or alternate, local tribes, and Alaska Native Corporations to minimize disruption to subsistence resource users and existing agency programs, consistent with the need for special action.

DELEGATION OF AUTHORITY

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

2. <u>Authority:</u> This delegation of authority is established pursuant to 36 CFR 242.10(d)(6) and

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

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

- To open and close seasons, announce harvest limits and set sex restrictions for caribou on Federal public lands in Units 9A, 9B, 9C (that portion within the Alagnak River drainage), 9C (that portion draining into the Naknek River from the north, and Graveyard Creek and Coffee Creek), 17A (all drainages west of Right Hand Point), 17B and 17C (that portion of 17C east of the Wood River and Wood River Lakes), 18 (that portion to the east and south of the Kuskokwim River), 18 remainder, 19A and 19B (excluding rural Alaska residents of Lime Village).

This delegation also permits you to close and reopen Federal public lands to nonsubsistence hunting, but does not permit you to specify methods and means, permit requirements, or harvest and possession limits for State-managed hunts.

This delegation may be exercised only when it is necessary to conserve caribou populations, to continue subsistence uses, for reasons of public safety, or to assure the continued viability of the populations. All other proposed changes to codified regulations, such as customary and traditional use determinations or adjustments to methods and means of take, shall be directed to the Board.

The Federal public lands subject to this delegated authority are those within Units 9A, 9B, 9C (that portion within the Alagnak River drainage), 9C (that portion draining into the Naknek River from the north, and Graveyard Creek and Coffee Creek), 17A (all drainages west of Right Hand Point), 17A remainder, 17B, 17C (that portion of 17C east of the Wood River and Wood River Lakes), 17C remainder, 18 (that portion to the east and south of the Kuskokwim River), 18 remainder, 19A and 19B (excluding rural Alaska residents of Lime Village).

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

5. Guidelines for Delegation: You will become familiar with the management history of the wildlife species relevant to this delegation in the region, with current State and Federal regulations and management plans, and be up-to-date on population and harvest status information. You will provide subsistence users in the region a local point of contact about Federal subsistence issues and regulations and facilitate a local liaison with State managers and other user groups.

You will review special action requests or situations that may require a special action and all supporting information to determine (1) consistency with 50 CFR 100.19 and 36 CFR 242.19,

(2) if the request/situation falls within the scope of authority, (3) if significant conservation problems or subsistence harvest concerns are indicated, and (4) what the consequences of taking an action or no action may be on potentially affected Federally qualified subsistence users and non-Federally qualified users. Requests not within your delegated authority will be forwarded to the Board for consideration. You will maintain a record of all special action requests and rationale for your decision. A copy of this record will be provided to the Administrative Records Specialist in OSM no later than sixty days after development of the document.

For management decisions on special actions, consultation is not always possible, but to the extent practicable, two-way communication will take place before decisions are implemented. You will also establish meaningful and timely opportunities for government-to-government consultation related to pre-season and post-season management actions as established in the Board's Government-to-Government Tribal Consultation Policy (Federal Subsistence Board Government-to-Government Tribal Consultation Policy 2012 and Federal Subsistence Board Policy on Consultation with Alaska Native Claim Settlement Act Corporations 2015).

You will immediately notify the Board through the Assistant Regional Director for OSM, and coordinate with the Chair(s) or alternate of the affected Council(s), local ADF&G managers, and other affected Federal conservation unit managers concerning emergency and temporary special actions being considered. You will ensure that you have communicated with OSM to ensure the special action is aligned with ANILCA Title VIII, Federal Subsistence regulations and policy, and that the perspectives of the Chair(s) or alternate of the affected Council(s), OSM, and affected State and Federal managers have been fully considered in the review of the proposed special action.

If the timing of a regularly scheduled meeting of the affected Council(s) permits without incurring undue delay, you will seek Council recommendations on the proposed temporary special action(s). If the affected Council(s) provided a recommendation, and your action differs from that recommendation, you will provide an explanation in writing in accordance with 50 CFR 100.10(e)(1) and 36 CFR 242.10(e)(1).

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

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

conservation purposes. The Board may determine that a special action request may best be handled by the Board, subsequently rescinding the delegated regulatory authority for the specific action only.

6. <u>Support Services:</u> Administrative support for regulatory actions will be provided by the Office of Subsistence Management.

Sincerely,

Anthony Christianson
Chair

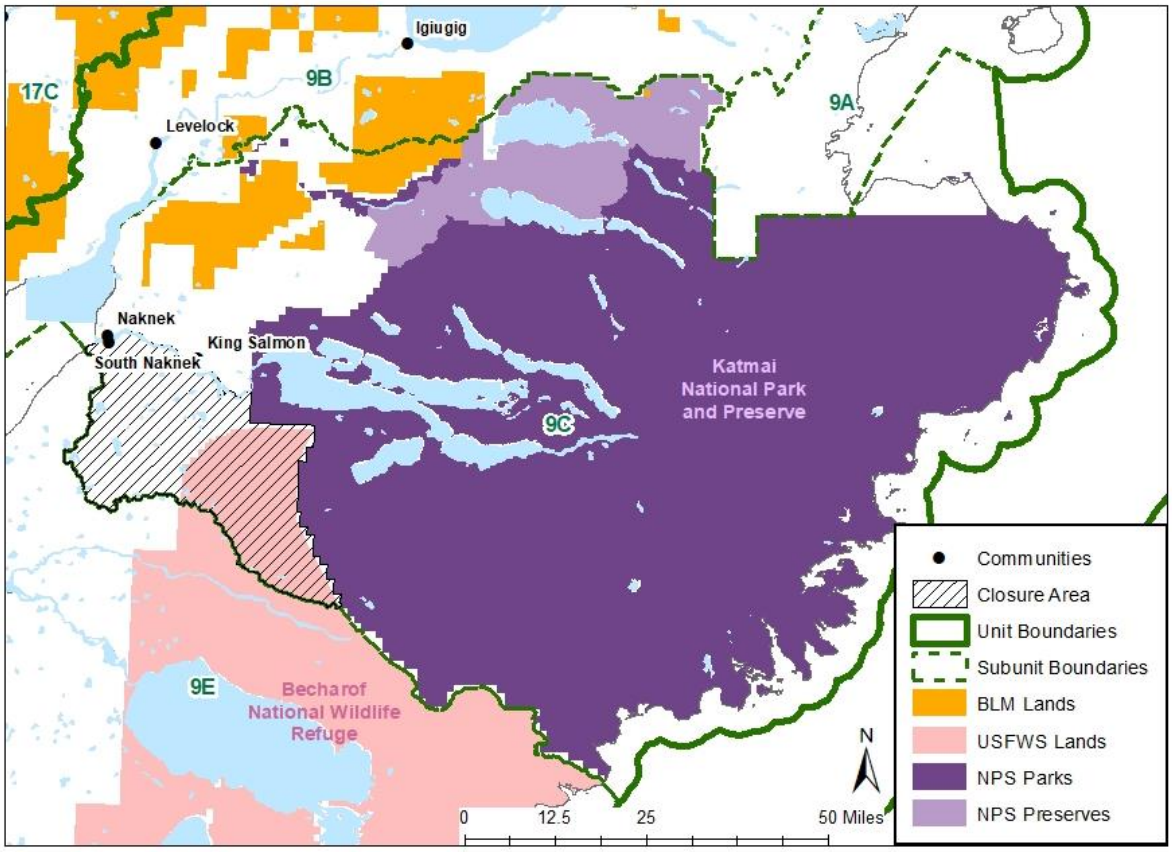
Enclosures

cc: Federal Subsistence Board
Assistant Regional Director, Office of Subsistence Management
Deputy Assistant Regional Director, Office of Subsistence Management
Subsistence Policy Coordinator, Office of Subsistence Management
Wildlife Division Supervisor, Office of Subsistence Management
Subsistence Council Coordinators, Office of Subsistence Management
Chair, Bristol Bay Subsistence Regional Advisory Council
Chair, Western Interior Alaska Subsistence Regional Advisory Council
Chair, Yukon-Kuskokwim Delta Subsistence Regional Advisory Council
Yukon Delta National Wildlife Refuge Manager
Katmai National Preserve Superintendent
Lake Clark National Preserve Superintendent
Bureau of Land Management, Anchorage Field Office Manager
Deputy Commissioner, Alaska Department of Fish and Game
Special Projects Coordinator, Alaska Department of Fish and Game
Interagency Staff Committee
Administrative Record

WCR22–05 Executive Summary	
Closure Location and Species	Unit 9C (South of Naknek River drainage)—Moose
Current Regulation	**Unit 9C–Moose** *Unit 9C, that portion draining into the Naknek River from the south—1 bull by State registration permit.* *Aug. 20-Sep. 20.* *Dec. 1-31* *Public lands are closed during December for the hunting of moose, except by federally qualified subsistence users hunting under these regulations*
OSM Preliminary Conclusion	**Maintain status quo**
Bristol Bay Subsistence Regional Advisory Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	None

FEDERAL WILDLIFE CLOSURE REVIEW
WCR22-05

Closure Location: Unit 9C (South of Naknek River drainage) (**Map 1**)—Moose



Map 1. Unit 9C, the portion draining into the Naknek River from the south.

Current Federal Regulation

Unit 9C−Moose

Unit 9C, that portion draining into the Naknek River from the south—1 bull by State registration permit.	*Aug. 20-Sep. 20.*
Public lands are closed during December for the hunting of moose, except by federally qualified subsistence users hunting under these regulations	*Dec. 1-31*

Closure Dates: December 1-31

Current State Regulation

Unit 9C−Moose

Unit 9C, that portion draining into the Naknek River	*Residents: One bull by permit available online at http://hunt.alaska.gov or in person in King Salmon beginning Aug. 18* *OR*	*RM272*	*Sept. 1-20*
	Residents: One antlered bull by permit available online at http://hunt.alaska.gov or in person in King Salmon beginning Nov. 17.	*RM272*	*Dec. 1-31*
	Nonresidents: One bull with 50-inch antlers or antlers with 3 or more brow tines on at least one side by permit available online at http://hunt.alaska.gov or in person in King Salmon beginning Aug. 18.	*RM282*	*Sept. 5-15*

Regulatory Year Initiated: 1992

Extent of Federal Public Lands

Unit 9C is comprised of 85% Federal public lands and consists of 78% National Park Service (NPS) managed lands, 4% Bureau of Land Management (BLM) managed lands, and 4% U.S. Fish and Wildlife Service (USFWS) managed lands.

Unit 9C, that portion draining into the Naknek River from the south is comprised of 43% Federal public lands and consists of 43% USFWS managed lands.

Customary and Traditional Use Determination

Residents of Units 9A, 9B, 9C, and 9E have a customary and traditional use determination for moose in Unit 9C.

Regulatory History

As early as 1990, the Alaska Department of Fish and Game (ADF&G) had issued Emergency Orders closing the December antlerless moose harvest in all or parts of the Naknek River drainage in Unit 9C. These antlerless hunts were originally intended to prevent the moose population from outgrowing available habitat (OSM 1992). In 1992, in response to evidence that the moose population was relatively stable, several proposals were submitted to restrict or eliminate antlerless moose harvest in the Naknek River drainage. Proposal P92-45, submitted by ADF&G, proposed that the harvest limit be changed from 1 moose to 1 bull moose in the entire drainage. Proposal P92-47, submitted by the Bureau of Land Management, also proposed restricting harvest to one bull, but only in the portion of

Unit 9C that drains into the Naknek River from the north. Proposal P92-46, submitted by the Alaska Peninsula/Becharof National Wildlife Refuge (NWR), proposed a harvest limit of one bull for the Sept. 1 – 15 season, and the establishment of an antlerless moose quota of five for the Dec. 1 – 31 season. The Federal Subsistence Board (Board) rejected proposals P92-46 and P92-47, but adopted P92-45 with modification to incorporate some of the elements of the former two proposals. As a result of the Board's action, the Naknek drainage was divided into two hunt areas. For the area draining into the Naknek River from the north, harvest was restricted to one bull for both the Sept. 1 – 15 and the Dec. 1 – 31 seasons. Harvest during the December season required the use of a Federal registration permit. In the area draining into the Naknek River from the south, harvest was limited to one bull for the Sept. 1 – 15 season. For the Dec. 1 – 31 season, a quota of five antlerless moose was established, by Federal registration permit only. Additionally, Federal public lands in this hunt area were closed to moose harvest during December except by Federally qualified users (OSM 2016a).

In 1993, Proposal P93-39 was submitted by the Office of Subsistence Management to clarify the regulations resulting from the Board's action on P92-45. Ambiguous regulatory language had resulted in confusion about whether or not the antlered bull season would remain open once the antlerless quota was reached (OSM 1993). The Board adopted P93-39, clarifying that the antlered bull season would remain open even if the antlerless moose quota was reached (OSM 2016a).

In 1995, the Bristol Bay Native Association submitted Proposal P95-30. It requested that the fall moose season in the portion of 9C draining into the Naknek River from the south be extended from Sept. 1 – 15 to Aug. 20 – Sept. 15, and that a Federal registration permit be required for the August portion of the fall season. It also requested that the harvest limit be changed from one antlered bull to one bull for both the fall and winter seasons and that the allowance for the harvest of five antlerless moose be eliminated. Finally, it requested that the closure of Federal public lands during the December season be rescinded (OSM 1995). The Board adopted P95-30 with modification as recommended by the Bristol Bay Subsistence Regional Advisory Council (Council), which extended the fall season as proposed, and required the use of a Federal registration permit during August. This action did not result in changes to harvest limits or restrictions, nor did it address the closure (OSM 2016a).

However, harvest restrictions were addressed in 1998, when the Board considered Proposal P98-50. This proposal was submitted by the Alaska Peninsula/Becharof NWR and requested that the harvest limit of one antlered bull be changed to one bull in Units 9A, 9B, 9C in the Naknek River drainage, and 9E. This request addressed hunts that were more restrictive under Federal regulation than under State regulation (OSM 1998). With the Board's adoption of P98-50 (OSM 2016a), Federal and State harvest limits and restrictions for moose in Unit 9 were aligned.

In 2006, Proposal WP06-24, submitted by ADF&G, requested elimination of the December antlerless hunt in Unit 9C, citing a declining population and insufficient calf recruitment (OSM 2006). The Board adopted WP06-24 with modification as recommended by the Council, which resulted in elimination of antlerless harvest but required a Federal registration permit for the entirety of the fall and winter seasons (OSM 2016a).

In 2008, Proposals WP08-30 and WP08-31, addressing moose in Units 9B and 9C, were submitted by the Council. Proposal WP08-30 requested a shorter moose season in Unit 9B while WP08-31 requested a closure of Federal public lands to non-Federally qualified users in Units 9B and 9C (OSM 2008). The Council's support of WP08-30 was contingent upon adoption of WP08-31. After extensive discussion and input from the State of Alaska and the Council Chair, the proposals were deferred by the Board so a working group could be formed to identify other management options that would address conflicts in Unit 9 subunits (FSB 2008).

Based on the direction given by the Board, the Office of Subsistence Management provided funding for, and worked in cooperation with, ADF&G to initiate a Unit 9 Moose Working Group (Working Group). The Working Group was established to better understand the conflicts in the region and to develop management strategies and recommendations. Subsequently, the Council submitted a number of proposals (WP10-47, -48, -49, -50, -52) to address user conflicts. In May 2010, the Board considered those proposals, as well as proposals WP10-45 (deferred WP08-30) and WP10-46 (deferred WP08-31). The Board deferred all of these proposals, consistent with the recommendations of the Council, until the Working Group could finish its work (FSB 2010).

The Working Group discussed a number of management strategies and came to consensus on three recommendations (ADF&G 2010):

- Submit proposals to the Alaska Board of Game and the Federal Subsistence Board to create a registration permit for all moose hunts in Unit 9.
- Conduct educational outreach directed at local moose hunters.
- Offer educational trapping seminars in the Unit 9 villages.

To address the need for more data and better exchange of information between local residents and ADF&G, the Working Group proposed creating a registration permit hunt for moose throughout Unit 9. The requirements of this hunt would increase information available to wildlife managers about the moose hunt through hunter reports. In addition, such a hunt would increase exchange of information between biologists and moose hunters during the permit distribution process. This hunt would also allow managers to redistribute hunting pressure to help eliminate user conflict.

In March 2011, the Alaska Board of Game (BOG) adopted Proposal 14, which was submitted by the Working Group. The proposal requested the establishment of registration permit hunts for moose in Unit 9. At this meeting, the BOG also adopted Proposal 17, which extended the moose season five days in Units 9C and 9E (Alaska Board of Game 2011). In Unit 9C, this changed the end date from Sept. 15 to Sept. 20. Based on the actions of the BOG, the Council supported aligning, to the maximum extent possible, Federal regulations for moose hunting in Unit 9 with the changes made in State regulation (BBSRAC 2011).

In 2012, the Board addressed deferred Proposals WP10-45, -46, -47, -48, -50 and -52. WP10-45 requested a change to the moose season dates in a portion of Unit 9. Proposals WP10-46, WP10-49 and WP10-50 requested that portions of Unit 9 be closed to the taking of moose by non-Federally qualified

subsistence users. Proposals WP10-47, WP10-48 and WP10-52 requested that non-Federally qualified subsistence users hunting moose in portions of Unit 9 be restricted from harvesting moose within a two mile wide corridor on either side of waterways within Federal public lands. All of the proposals were originally deferred by the Board during its May 2010 meeting, pending the outcome of the Unit 9 Moose Working Group process (OSM 2012). In 2012, the Board rejected Proposals WP10-46, -47, -48, -49, -50 and -52 and adopted Proposal WP10-45 with modification to require a State registration permit to harvest moose during the fall season in Unit 9 and to add an additional 5 days to the fall seasons in Units 9C and 9E (FSB 2012). In Unit 9C, this changed the season end date from Sept. 15 to Sept. 20, consistent with State regulation.

The Council reviewed this closure during their winter 2016 meeting, voting to maintain status quo. Subsistence users had continued to express concerns over low moose densities and limited moose harvest in Unit 9C. As the status of the moose population was uncertain due to lack of biological data and surveys, a conservative approach was recommended by OSM and supported by the Council.

In 2015, the Alaska Peninsula/Becharof NWR submitted Emergency Special Action Request WSA15-01, requesting that a Federal permit be required for the fall 2015 season on Federal public lands within the Refuge. This request was submitted due to concern that the existing requirement for a State permit, with a later season opening date (Sept. 1 vs. Aug. 20), would result in confusion. Since there was already a Federal registration permit required for the December moose season in the affected portion of Unit 9C, the fall season dates could simply be added to that permit (OSM 2015). The Board approved WSA15-01 in March 2015 (OSM 2016a).

In 2016, this issue was revisited with the submission of Proposal WP16-22 by the Alaska Peninsula Becharof NWR. WP16-22 requested that a Federal registration permit be required to hunt moose in the portion of Unit 9C draining into the Naknek River from the south for the same reason given in WSA15-01. It also requested that a State registration permit be required for reporting purposes (OSM 2016b). The State agreed to print the Federal season dates on the State registration permit, and as a result, the Board adopted WP16-22 with modification to require a State permit for both the fall and winter seasons (OSM 2016a).

The Board also considered Proposal WP16-24 in 2016. This proposal was submitted by Richard Wilson of Naknek and requested that Federal lands in Unit 9B and 9C be closed to moose harvest except by Federally qualified subsistence users. This proposal was based on the belief that limiting harvest to local residents would be an appropriately conservative management approach, given the lack of current population estimates (OSM 2016c). The Board rejected this proposal, consistent with the recommendation of the Council. The Council stated the proposal did not meet the requirements necessary for a closure, but agreed that updated biological information for this moose population is needed (OSM 2016a).

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

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

Closure last reviewed: 2016 – WCR15-05

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

Section 815(3) of ANILCA states:

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

In 1992, Proposal P92-45 was adopted with modification, addressing concerns about the conservation status of the Unit 9 moose population. A primary issue was whether this population could withstand the continued harvest of cow moose. In order to protect the herd and provide a priority for subsistence users, a bull-only harvest was initiated and Federal public lands draining into the Naknek River from the south were closed to moose harvest except by Federally qualified subsistence users (OSM 1992).

Council Recommendation for Original Closure:

Although local residents desired an antlerless moose season, the Council questioned whether this population could sustain a cow harvest. In order to protect the herd and to provide a priority to Federally qualified subsistence users, the Council believed that a bull-only harvest should be allowed and that Federal public lands draining into the Naknek River from the south should be closed to non-Federally qualified subsistence users. The Council believed that this would result in a greater number of bulls available for subsistence users and a larger cow base for herd expansion in the future.

State Recommendation for Original Closure:

The State recommended that the Naknek River drainage be closed to the taking of antlerless moose during the State's December season. Their recommendation was based on their concern for the population of moose north of the Naknek River in the King Salmon Creek drainage. The original recommendation from the State to close the antlerless season was presented in P92-46, but was addressed by the Board via its action on P92-45.

Biological Background

Since the early 20th century, moose on the Alaska Peninsula gradually expanded their range southwestward. This expansion was accompanied by a dramatic population increase until the 1960s, when the population peaked and then began to decline. Biologists believe that range damage from over-browsing led to the decline (Butler 2010). Even after a series of hunting restrictions and improvements in range conditions, the moose population in some subunits declined as much as 60% from its peak in the 1960s. During the 1990s and early 2000s, the Unit 9 moose population was likely

stable to declining (Crowley 2017). Brown bear predation on neonatal moose was thought to be the primary limiting factor of moose in Unit 9 (Butler 2010). Suitable habitat for moose in Unit 9 is relatively limited, consisting of boreal forest along river and stream corridors as well as subalpine slopes during snow-free months (Crowley 2017).

The current State population objectives for moose in Unit 9 (Crowley 2017) are to:

1. Maintain existing densities in areas with moderate (0.5–1.5 moose/ mi^2): Units 9A-9D or high (1.5–2.5 moose/ mi^2) densities: Unit 9E only
2. Increase low-density populations (where habitat conditions are not limiting) to 0.5 moose/ mi^2: Units 9A-9D
3. Maintain sex ratios of at least 25 bulls:100 cows in medium-to-high density populations (Unit 9E) and at least 40 bulls:100 cows in low-density areas (Units 9A-9D).

Assessment of moose population status and trends in Unit 9 is difficult for several reasons, including low moose density, and snow and weather conditions that are frequently inadequate for surveys. As a result, population estimates are not available for Unit 9C between 2000 and 2014 (Crowley 2017, Smith 2021, pers. comm.). Since 1991, the Alaska Peninsula and Becharof National Wildlife Refuge (Refuge) has conducted aerial surveys of moose in trend count areas (TCAs) within and adjacent to the portion of Unit 9C draining into the Naknek River from the south (closure area). The Big Creek Corridor TCA (68 mi^2) represents the main hunting area for the closure area, while the Park Border TCA (132 mi^2) is located within Katmai National Park, which is closed to hunting. Prior to 2018, the Refuge surveyed a single, larger TCA that covered the Big Creek Corridor and most of the Park Border TCA, and is now called the historic Big Creek TCA (379 mi^2). The Refuge adjusted the survey areas in the presented data to facilitate comparison across years (Smith 2021, pers. comm.). Data limitations include an air-sick observer and no snow cover during the 2019 survey of the Park Border TCA and very poor survey conditions in 2018. These factors could have biased the data toward relatively more bulls and lower overall abundance compared to 2020 when survey conditions were excellent.

Between 1991 and 2020, estimated moose densities within the Refuge-surveyed TCAs averaged 0.34 moose/mi^2, ranging from 0.07-0.68 moose/mi^2. These densities correspond to an average 129 moose, ranging from 28-259 moose. In recent years (2015-2020), moose densities averaged 0.35 moose/mi^2, ranging from 0.27-0.41 moose/mi^2 (**Figure 1**). Since 2018 when the TCA areas changed, the moose density with the Big Creek Corridor TCA averaged 0.54 moose/mi^2, ranging from 0.37-0.67 moose/mi^2. The lowest estimate occurred in 2020 when survey conditions were ideal, indicating this moose population likely declined between 2019 and 2020. Possible causes of the decline include high winter mortality and increased harvest (Smith 2021, pers. comm.).

The Refuge also estimates bull:cow and calf:cow ratios from their aerial surveys of the TCAs. Between 1991 and 2020, bull:cow ratios averaged 46 bulls:100 cows, ranging from 23-82 bulls:100 cows. In recent years (2015-2020), bull:cow ratios have been relatively high, averaging 64 bulls:100 cows, which is well above State management objectives (Smith 2021, pers. comm.). The higher bull:cow ratios in the Park Border TCA compared to the Big Creek Corridor TCA may be due to the prohibition of hunting in the Park Border TCA (**Figure 2**).

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 2012). Between 1991 and 2020, calf:cow ratios averaged 35 calves:100 cows, ranging from 12-92 calves:100 cows. In recent years (2015-2020), calf:cow ratios averaged 30 calves:100 cows, ranging from 24-40 calves:100 cows. These data suggest that the moose population within the closure area is stable. However, between 2018 and 2020, calf:cow ratios fluctuated greatly in the Big Creek Corridor TCA, ranging from 19-64 calves:100 cows (**Figure 3**) (Smith 2021, pers. comm).

Twinning rates provide an index of nutritional status and can indicate whether or not a moose population is limited by forage availability. In 2014 and 2015, twinning rates in Unit 9C were high at approximately 65%, indicating cows were not nutritionally stressed (Crowley 2017). Bear predation of calves appear to be a major source of mortality in the Unit 9C moose population, although wolves are also present within the unit and responsible for some of the moose mortality. Given high twinning rates, the moose population in Unit 9C seems to be limited by predation, which is consistent with a low level dynamic equilibrium (Crowley 2017).

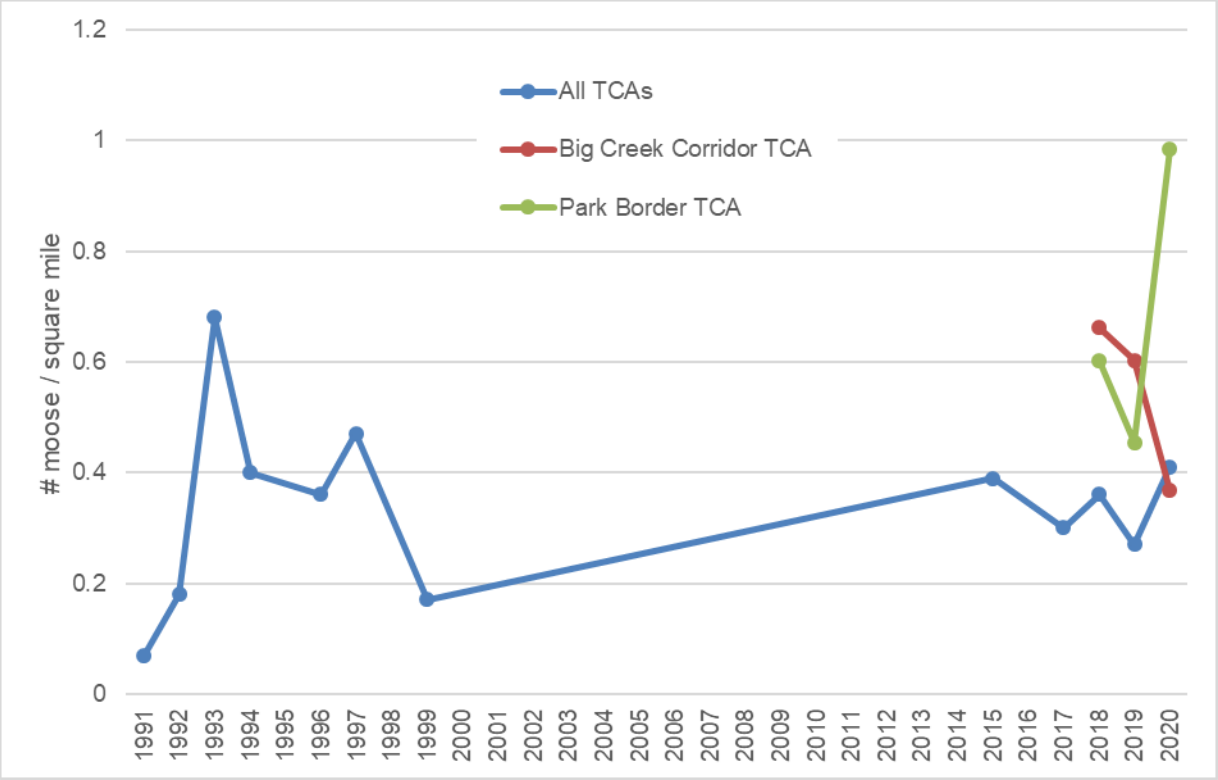


Figure 1. Moose Density Estimates. The "All TCAs" data set includes the historic Big Creek TCA from 1991-2017 and combines data from the Big Creek Corridor and Park Border TCAs from 2018-2020, accounting for differences in survey area sizes (Smith 2021, pers. comm).

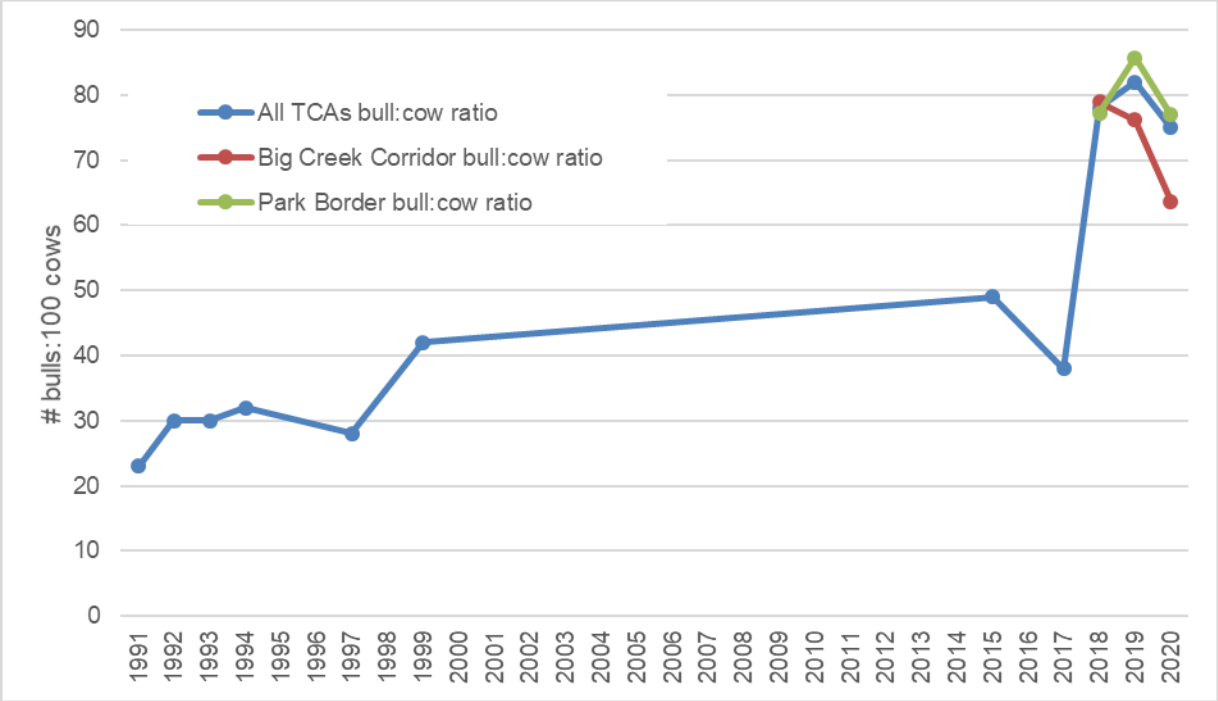


Figure 2. Bull:cow ratios. The "All TCAs" data set includes the historic Big Creek TCA from 1991-2017 and combines data from the Big Creek Corridor and Park Border TCAs from 2018-2020, accounting for differences in survey area sizes (Smith 2021, pers. comm).

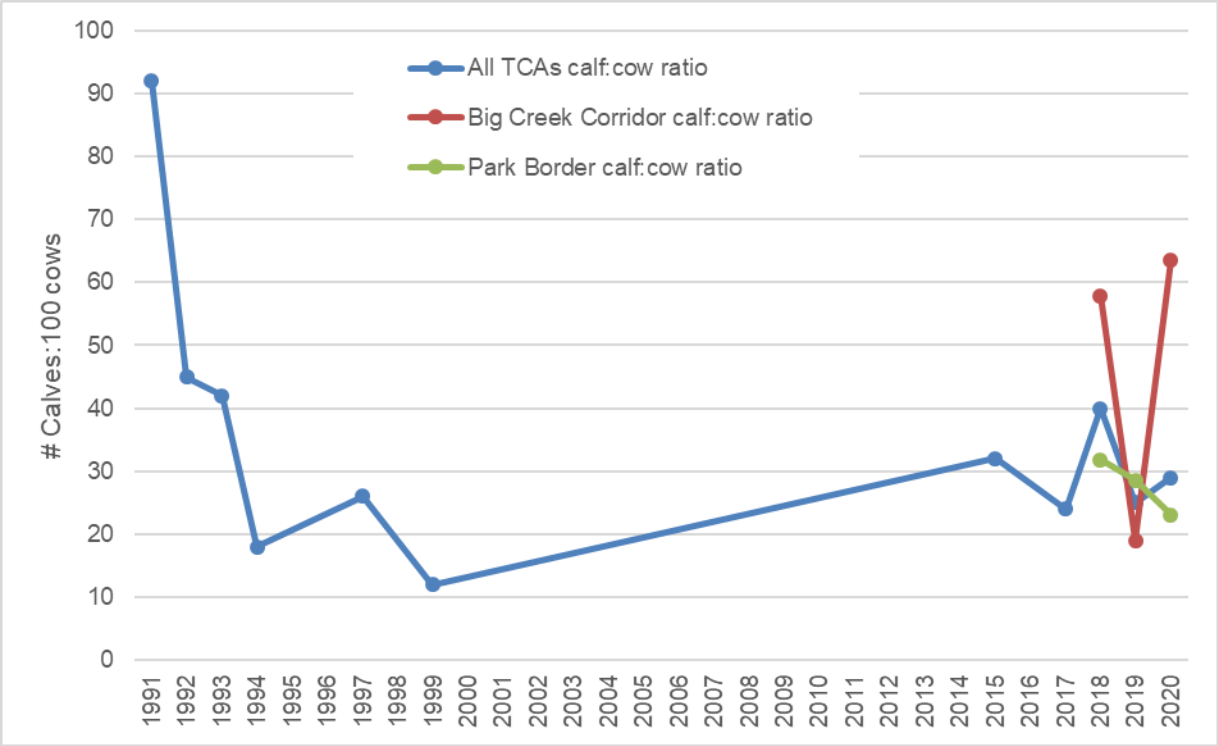


Figure 3. Calf:cow ratios. The "All TCAs" data set includes the historic Big Creek TCA from 1991-2017 and combines data from the Big Creek Corridor and Park Border TCAs from 2018-2020, accounting for differences in survey area sizes (Smith 2021, pers. comm).

Harvest History

Alaska resident moose harvest in Units 9B and 9C occurs by registration permit RM272. This permit has been used under State regulations since 2011, under Federal regulations for the fall moose season since 2012, and under Federal regulations for both the fall and winter moose seasons since 2016. Between 2012 and 2015, a Federal registration permit was used for the winter season. Non-resident moose harvest in Units 9B and 9C occurs by registration permit RM282. While reported moose harvest can be parsed out by subunit, it is not possible to distribute it by hunt area. Therefore, the number of moose reported harvested only within the closure area is not available, although reported moose harvest within all of Unit 9C provides some insights.

Between 2000 and 2019, total reported moose harvest in Unit 9C averaged 29 moose, ranging from 16-43 moose reported per year (**Figure 4**). Over the same time period, harvest by local users, defined as those with a customary and traditional use determination, accounted for 58% of the Unit 9C reported moose harvest on average, ranging from 36%-84% per year. The total number of hunters averaged 112 hunters, ranging from 62-139 hunters per year. Overall success rates averaged 26% during this time period, ranging from 15%-52%. The highest success rate occurred in 2019, which corresponded with the lowest number of hunters (ADF&G 2016, 2021; OSM 2016a, 2021).

The majority of moose harvest in Unit 9 occurs during the fall. Between 2010 and 2015, 80-90% of the Unit 9 moose harvest occurred in September. Harvest by local hunters depends, in part, on winter snowmachine access and weather conditions (Crowley 2017). While data is limited, the Federal winter hunt within the closure area has not appeared to be heavily utilized. In 2014 and 2015, when a Federal registration permit was required within the closure area for the winter hunt only, only one moose was reported harvested in 2014 and two moose in 2015. In 2014, only one user attempted harvest, while in 2015, seventeen users attempted harvest. According to the Federal permits database, no users attempted harvest in 2012 and 2013 (OSM 2021). Over the same time period (2012-2015), an average of four bull moose were harvested in Unit 9C during December under State regulations (ADF&G 2021).

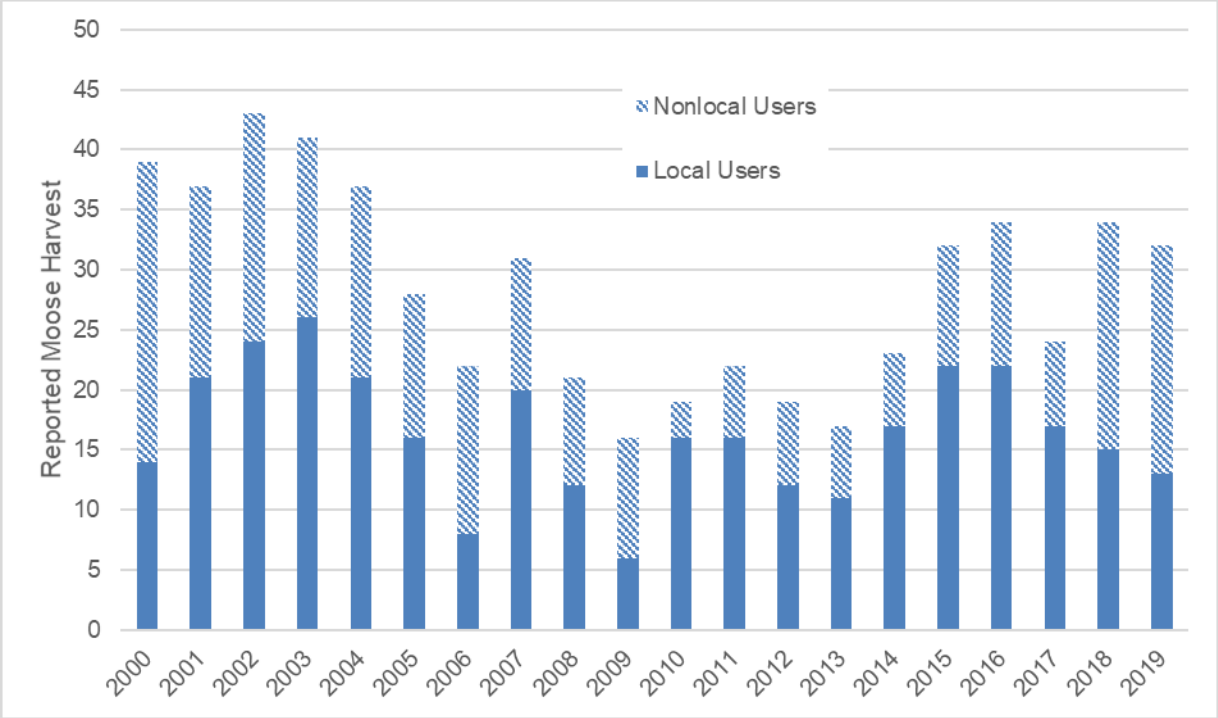


Figure 4. Unit 9C moose reported harvest by local and nonlocal users, 2000 – 2019. Local users are defined as those with a customary and traditional use determination (ADF&G 2016, 2021; OSM 2016a, 2021).

Effects

If this closure is rescinded, non-Federally qualified users would be able to harvest moose on Federal public lands within that portion of Unit 9C draining into the Naknek River from the south during December. This would reduce the Federal subsistence priority. It may also result in increased moose harvest, although increases are expected to be small since most harvest occurs during the fall. However, between 2012 and 2015, more moose harvest occurred in December under State regulations than under Federal regulations by local users. The moose density within the closure area is below State management objectives for moderate density moose populations (0.5 moose/mi^2). While bull:cow ratios are high, calf:cow ratios indicate a stable population.

OSM PRELIMINARY CONCLUSION:

x maintain status quo
_ modify or eliminate the closure

Justification

Moose densities within the closure area are very low, and the population trend is uncertain. A conservative approach is to maintain the closure until moose densities increase and the population exhibits an increasing trend.

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WCR22–07 Executive Summary	
Closure Location and Species	Unit 17 (Nushagak Peninsula) - Caribou
Current Regulation	**Unit 17–Caribou** *Units 17A and 17C, that portion of 17A and 17C consisting of the Nushagak Peninsula south of the Igushik River, Tuklung River and Tuklung Hills, west to Tvativak Bay—up to 5 caribou by Federal registration permit.* *Aug. 1-Mar. 31* *Public lands are closed to the taking of caribou except by federally qualified users unless the population estimate exceeds 900 caribou.*
OSM Preliminary Conclusion	**Maintain status quo**
Bristol Bay Subsistence Regional Advisory Council Recommendation	
Western Interior Alaska Subsistence Regional Advisory Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	None

FEDERAL WILDLIFE CLOSURE REVIEW
WCR22-07

Closure Location: Unit 17 (Nushagak Peninsula) - Caribou

Current Federal Regulation

Unit 17−Caribou

Units 17A and 17C, that portion of 17A and 17C consisting of the Nushagak Peninsula south of the Igushik River, Tuklung River and Tuklung Hills, west to Tvativak Bay—up to 5 caribou by Federal registration permit.	*Aug. 1-Mar. 31*
Public lands are closed to the taking of caribou except by federally qualified users unless the population estimate exceeds 900 caribou.	

Closure Dates: Year-round

Current State Regulation

Unit 17— Caribou

Residents: Unit 17A, all drainages that terminate east of Right Hand Point— two caribou by permit available online at http://hunt.alaska.gov and in person in Anchorage, Bethel, Dillingham, Fairbanks, Homer, King Salmon, Palmer, Soldotna, and at local license vendors beginning July 14	*RC501*	*may be announced*
Nonresidents:		*No open season*
Residents: Unit 17C remainder— two caribou by permit available online at http://hunt.alaska.gov and in person in Anchorage, Bethel, Dillingham, Fairbanks, Homer, King Salmon, Palmer, Soldotna, and at local license vendors beginning July 14	*RC501*	*may be announced*
Nonresidents:		*No open season*

Regulatory Year Initiated: 1994

Extent of Federal Public Lands

The Nushagak Peninsula is comprised of 85% Federal public lands and consists of 85% U.S. Fish and Wildlife Service (USFWS) managed lands.

Customary and Traditional Use Determination

Residents of Units 9B, 9C, 9E, 17, Lime Village, and Stony River have a customary and traditional use determination for caribou in Unit 17 remainder.

Regulatory History

Caribou were reintroduced to the Nushagak Peninsula in 1988, with the intention of providing a subsistence resource to area residents (USFWS et. al. 1994). In 1994, the Federal Subsistence Board (Board) adopted Proposal P94-42, which established a Jan. 1 – Mar. 31 harvest season for the Nushagak Peninsula Caribou Herd (NPCH) in portions of Units 17A and 17C, and instituted a closure to all users except residents of Togiak, Dillingham, Manokotak, Twin Hills, Aleknagik, Clark's Point, and Ekuk (FSB 1994). The newly established season began on January 1, 1995 with a harvest limit of 1 caribou.

In 1995, The Board's approval of Temporary Special Action S95-06 extended the season from Jan. 1 – Mar. 31 to Dec. 1 – Mar. 31 for the 1995/96 regulatory year. In 1996, the Board adopted Proposal P96-34, which changed the caribou season from Jan. 1 – Mar. 31 to Dec. 1 – Mar. 31 and also established an Aug. 1 –30 fall season (FSB 1996). In 1997, the Board adopted Proposal P97-47, which increased the harvest limit from 1 caribou to 2 caribou on the Nushagak Peninsula, as there was a harvestable surplus of caribou and the previous year's harvest had been well below the management objective (FSB 1997). In 1998, the Board approved Special Action S97-10, which extended the fall season from Aug. 1 –30 to Aug. 1 – Sep. 30. This extension became regulation when the Board adopted Proposal P99-39 in 1999 (FSB 1999).

In 2001, the Board adopted Proposal WP01-18, authorizing the use of a designated hunter permit (FSB 2001). In 2002, the Board approved Temporary Special Action WSA02-13, which reduced the harvest limit from 2 caribou to 1 caribou for the NPCH hunt, and delegated authority to the Togiak NWR manager to close the season when harvest objectives were met. This action was intended to prevent overharvest of the declining NPCH. In 2003, Board action on WP03-22 changed the harvest limit from *2* caribou to "up to 2 caribou" and delegated authority to the Togiak NWR manager to set harvest objectives and limits, determine the number of permits to be issued, and to close the season. The new regulation also required that hunters report their harvest within 24 hours after returning from the field (FSB 2003). These changes provided management flexibility and reduced the need for special actions and follow-up proposals.

Emergency Special Action WSA15-02, submitted by the Village of Manokotak in April 2015, requested that the season be extended to May 31, due to poor winter travel conditions and subsequent low caribou harvest. The Board rejected this request because immobilization drugs used during a recent capture and collaring project could have posed a human health risk prior to May 10, and because any season extension beyond May 10 would have overlapped with the calving season (OSM 2016a).

The Nushagak Peninsula Caribou Planning Committee submitted four special action requests for the 2015/16 regulatory year. Temporary Special Action WSA15-14 requested increasing the harvest limit to 3 caribou through March 31, 2016. Temporary Special Action WSA15-15 requested opening

Federal public lands to caribou harvest by all residents of Alaska through March 31, 2016. Emergency Special Action WSA15-16 requested extending the winter season from Dec. 1 – Mar. 31 to Dec. 1 – Apr. 15. Temporary Special Action WSA15-17 requested that subsistence harvest of Nushagak caribou be exempted from the prohibition on same-day airborne harvest Jan. 1 – Apr. 15. These requests sought to increase harvest and slow population growth of the NPCH. All four requests were approved by the Board, with a modification of WSA15-14 that retained the 3 caribou limit through April 15, 2015 (OSM 2016a).

In early 2016, the Alaska Department of Fish and Game (ADF&G) announced a State season by Emergency Order (EO 04-03-16), targeting caribou migrating off the Nushagak Peninsula in portions of Units 17A and 17C. This season opened on March 4, 2016. Approval of WSA15-15 provided an opportunity for ADF&G to expand the hunt to include Federal public lands on the Nushagak Peninsula, which occurred on March 17. The State season was open through March 31, 2016, had a limit of 2 caribou of either sex, and required the use of a State registration permit (RC501).

After the Federal and State seasons closed in spring 2016, the Manokotak Village Council submitted Emergency Special Action Request WSA15-18, requesting that the Federal caribou season on the Nushagak Peninsula be extended through the end of May, or until females begin calving. The request was approved with the modification to: 1) reopen the season through May 10, a date that provided reasonable assurance that the season would not overlap with calving, and 2) raise the harvest limit to 3 caribou, consistent with recent action on WSA15-14 and WSA15-16. As a result, the season was reopened May 3 – May 10, 2016.

Several proposals related to Nushagak caribou were submitted for consideration for the 2016 – 2018 regulatory years. Proposal WP16-25/26, submitted by the Togiak Fish and Game Advisory Committee (Togiak AC) and the Nushagak AC, requested increasing the harvest limit from 2 caribou to 3 caribou and modifying the existing split season to a single Aug. 1 – Mar. 31 season. Proposal WP16-31/32, also submitted by the Togiak AC and the Nushagak AC, requested that same day airborne harvest of Nushagak Peninsula caribou be allowed during the winter season, Jan. 1 – Mar. 31. The Board adopted WP16-25 with modification, raising the harvest limit to "up to 5 caribou" and creating a single season, as proposed. It also adopted WP16-31. The Board took no action on WP16-26 and WP16-32, based on action taken on WP16-25 and WP16-31 (FSB 2016).

In spring 2016, Togiak NWR and ADF&G submitted Temporary Special Action Request WSA16-02, which requested that the closure be lifted for the 2016/17 regulatory year, as long as the population did not fall below 900 animals, the upper population objective. Members of the public and Tribal representatives acknowledged the need for population reduction but offered limited support due to concerns about maintaining subsistence priority, particularly during the winter season, concerns about the limitations imposed by current customary and traditional use determinations, and concerns that the 900 caribou threshold for opening Federal public lands might persist beyond regulatory year 2016/17 and become a permanent management parameter. The Board acknowledged these concerns and encouraged revision of the Nushagak Peninsula Caribou Management Plan to accommodate a wider range of situations, but approved WSA16-02 with modification to delegate authority to the manager of

Togiak NWR to reinstate the closure if the population falls below 900 animals, given the biological necessity for population reduction.

In fall 2016, ADF&G announced a State season in portions of Units 17A and 17C by Emergency Order (EO 04-50-16). The season was limited to Alaska residents, required a registration permit (RC501), and had a harvest limit of 2 caribou. Although the season was open Aug. 1, 2016 – Mar. 31, 2017 on State lands, harvest of caribou within the Federal hunt area on the Nushagak Peninsula was allowed only through September 30, 2016. This effectively limited opportunity for winter harvest within the core range of the herd to Federally qualified subsistence users.

Review of the 1994 closure was most recently addressed in Closure Review WCR15-07, which the Bristol Bay Subsistence Regional Advisory Council (Council) took up at its February 2017 meeting. The Council voted to rescind the closure, due to concerns about long-term sustainability of the herd (BBSRAC 2017) and consistent with the Board's Closure Policy (Appendix A), which specifies that closures "should be removed as soon as practicable when conditions that originally justified the closure have changed to such an extent that the closure is no longer necessary."

As a result, the Council submitted Proposal WP18-22, which requested eliminating the Federal caribou closure on the Nushagak Peninsula. In April 2018, the Board adopted Proposal WP18-22 with modification to close caribou hunting on the Nushagak Peninsula except by Federally qualified subsistence users unless the population estimate exceeds 900 caribou. The Board stated this modification addressed the Council's concerns over both over-grazing and overharvest, as well as provides management flexibility and certainty, reducing the need for additional special action requests (FSB 2018).

In July 2020, under authority delegated by the Board, the Togiak NWR manager announced a daily harvest limit of one bull caribou, an annual quota of five bulls, and that five Federal permits total would be issued for the NPCH hunt. Additionally, the 2020 season opened August 1 and closed on September 20. The limited quota and season were to promote herd growth because the summer 2020 population estimate of the NPCH was only 226 caribou, which is near the lower end of the population objective. The State NPCH hunt (RC501) was closed for the 2020/21 regulatory year.

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

Closure last reviewed: 2018 – WP18-22

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…

Caribou were reintroduced to the Nushagak Peninsula in February 1988 after an absence of over 100 years. The reintroduction was a cooperative effort between the U.S. Fish and Wildlife Service, ADF&G, and the villages of Togiak, Manokotak, Dillingham, and Choggiung Limited, with the goal of reestablishing a caribou population large enough to sustain a reasonable harvest, while still allowing the herd to grow.

A subsistence hunt was established in 1994, and Federal public lands were closed to the harvest of Nushagak caribou by all users, except by residents of Togiak, Dillingham, Twin Hills, Manokotak, Aleknagik, Clark's Point, and Ekuk. Community studies conducted in four of the seven villages slated to participate in the Nushagak caribou harvest indicated that caribou were an integral component of the seasonal round of wild resource harvest activities.

Council Recommendation for Original Closure:

The Bristol Bay Subsistence Regional Advisory Council supported the establishment of the hunt as well as the closure to non-Federally qualified users by stating that "[Togiak National Wildlife Refuge] will be able to monitor the hunt fairly closely with the Traditional Councils administering the permits; there's a real ownership with the people in this herd and in the management. The State will keep it closed on the State side so they can honor the original agreement" (FSB 1994).

State Recommendation for Original Closure:

The State supported Proposal 42 in 1994, stating that they had been part of the Nushagak Peninsula Caribou Management Planning Committee and agreed with its recommendation (FSB 1994).

Biological Background

The NPCH was established in 1988 when 146 caribou were reintroduced to the Nushagak Peninsula where caribou had been an important subsistence resource for area residents (NPCH Management Plan 1994). The herd is cooperatively managed by the Nushagak Peninsula Caribou Planning Committee (Committee), which consists of Federal, State, Tribal, and local representatives. In 2020, the Committee revised the population objective from 400-900 caribou, optimum 750 caribou to the objective stated below due to concerns about overgrazing (Aderman 2020b, pers. comm.).

Management objectives for the NPCH agreed upon by the Committee include (Aderman 2020a):

- Population: 200-600 caribou, optimum 400 caribou
- Bull:cow ratio: 35-45 bulls:100 cows (if ratio is < 25 bulls:100 cows, manage for viability; if ratio is > 55 bulls: 100 cows, manage for increased bull harvest).
- Harvest objective: 10-30 caribou

Within the first 10 years following reintroduction, the NPCH grew from 146 animals in 1988 to over 1,200 caribou by 1997. Subsequently, calf recruitment and adult female survival decreased and the population fell below 500 caribou by 2006. By 2015, the population had increased to an estimated size

of over 1,400 caribou and remained above population objectives through 2019. However, the population declined to a minimum count of 209 caribou in 2020, which is the lowest count since 1989, the year following reintroduction (Aderman 2020a, pers. comm.) (**Table 1**).

The causes of the decline between 1999 and 2007 are not clearly understood and are almost certainly multi-factored (Aderman and Lowe 2012). The most likely explanation for the decline is that the exceptionally high growth through 1998 produced large annual cohorts of females that survived until a relative old age, at which time they declined in productivity. This high proportion of unproductive females, combined with high harvest years in 2001 and 2002, changed the population trajectory from an increasing trend to a decreasing trend, which persisted until the replacement of old, unproductive females with younger, more productive females. Changing nutritional conditions (both short-term, such as those associated with drought or winter icing, as well as longer-term changes, such as lower overall carrying capacity due to continuous grazing on the Nushagak Peninsula since 1988) underlaid and exacerbated this decline. Predation on the population has not been shown to be a significant factor. A study of wolf predation from 2007–2011 found that wolf predation was not a primary driver of Nushagak Peninsula caribou population dynamics (Walsh and Woolington 2008). Brown bears are common on the Nushagak Peninsula and likely have learned to exploit the caribou population, but their impact on the NPCH is not known (Aderman and Lowe 2012).

Between 2007 and 2015, the population increased due to improved fall calf recruitment and adult female survival (Aderman 2015). Since 2015, the population has decreased due to increased caribou harvest (Aderman 2017, pers. comm.; 2020b). Specifically, the substantial population decline in 2020 is attributed to hunting related mortality (reported and unreported harvest, wounding loss) as 799 caribou have reported harvested over the last four seasons. Predation by bears and wolves accounted for an unknown amount of mortality (NPCPC 2020).

Since reintroduction in 1988, bull:cow ratios have ranged from 12-71 bulls:100 cows, averaging 44 bulls:100 cows. The 2020 surveys estimated 33 bulls:100 cows, which is just below management objectives. Over the same time period, calf:cow ratios have ranged from 10-72 calves:100 cows, averaging 44 calves:100 cows. 2020 surveys estimated 49 calves:100 cows (**Table 1**) (Aderman 2020b, pers. comm.).

The Committee is concerned over the potential for the NPCH to overgraze its habitat. Between 2002 and 2017, lichen cover on the Nushagak Peninsula declined from 48% to 30% (NPCPC 2020). Assuming the current rate of change continues, lichen cover is projected to be zero by 2026 (Aderman 2020a). If overgrazing occurs, the Committee believes Nushagak Peninsula caribou would likely leave the peninsula before starving to death. However, it is unknown whether the emigration would be temporary, seasonal or long term (NPCPC 2020). Current management efforts are aimed at preventing overgrazing, while recovering the population and providing for subsistence harvest opportunity.

Table 1. Sex and age composition, minimum counts and population estimates for the NPCH, 1988-2017 (Aderman 2015, Aderman 2020b, pers. comm.).

Year	Bulls: 100 Cows	Calves: 100 Cows	Minimum Count[1]	Population Estimate[2]
1988	12	10	146	---
1989	---	---	202	---
1990	---	---	268	---
1991	---	---	383	---
1992	60	72	561	---
1993	---	---	734	---
1994	71	65	1,007	---
1995	---	---	1,156	---
1996	---	---	1,112	---
1997	64	62	1,255	---
1998	57	63	1,237	---
1999	48	53	972	---
2000	52	38	1,024	---
2001	46	35	930	---
2002	43	36	678	---
2003	47	44	757	---
2004	43	34	588	---
2005	38	32	594	---
2006	31	36	477	---
2007	49	40	462	---
2008	44	60	579	683 ± 108
2009	37	35	679	861 ± 160
2010	42	45	706	758 ± 83
2011	29	39	859	847 ± 64
2012	52	50	902	925 ± 63
2013	32	40	926	1,033 ± 135
2014	44	53	1,014	1,056 ± 103
2015	65	46	1,313	1,424 ± 172
2016	51	40	1,230	1,294 ± 68
2017	30	42	786	968 ± 218
2018	25	34	709	787 ± 114
2019	33	26	710	822 ± 164
2020	33	49	209	226 ± 47

[1]Reported minimum counts were obtained pre-calving (January – March) in 1988 – 1994, 1997, 2000 and post-calving (June – July) in all other years.

[2]Population estimates are based on Rivest et al. (1998) caribou abundance estimator.

Cultural Knowledge and Traditional Practices

Comprehensive subsistence surveys conducted by ADF&G, Division of Subsistence, document the importance of caribou for the residents of Bristol Bay (Coley-Kenner et al. 2003; Evans et al. 2013;

Fall et al. 1986; Holen et al. 2012; Holen et al. 2005; Kreig et al. 2009; Schinchnes and Chythlook 1988; Seitz 1996). For most communities, caribou contribute a significant portion of the total community harvest of wild resources; reports document a range from no harvest in Aleknagik in 2008 (an uncommon occurrence) to a high of 23% of the community harvest in Levelock for 2005 (Holen et al. 2012; Kreig et al. 2009). In all communities over each study year (1974 – 2010), results demonstrate that while a small number of households actually harvested caribou, most households used caribou meat. This was particularly true in Kokhanok where caribou contributed only 3% to the total community harvest in 2005 but was used by 80% of the households (Kreig et al. 2009). In 2008, Aleknagik hunters did not report any harvest of caribou but approximately 13% of the households used caribou shared with them by households outside the community (Holen et al. 2012). Such a use pattern is common in rural Alaska, indicating the importance of the resource and that sharing is significant and extensive throughout the area.

An example of typical caribou harvest and use patterns can be seen in a Manokotak study from 1988. In 1986, Manokotak was surveyed for the 1985 harvest year (Schinchnes and Chythlook 1988), with 54 of 59 households (91%) surveyed for the study. Eighty-nine percent of respondents reported using caribou while 31% reported actually harvesting caribou. The average harvest was 112 pounds of caribou per household or 22 pounds of caribou per person. The majority of the caribou hunting took place after freeze-up via snowmachine or airplane. Upon a successful hunt, the meat was divided among participants, and again distributed upon return. During the study year, caribou was broadly shared within the community of Manokotak with 65% of households reporting the receipt of caribou from others.

Annual harvest and use of caribou fluctuates in the Bristol Bay Region from year to year and study to study for a variety of reasons (migration patterns, access, the availability of alternative resources), but comparison studies over time demonstrate a continued reliance on this important resource.

Harvest History

In 2011, the Nushagak Peninsula Caribou Management Plan's harvest strategy was revised to make it more responsive to a dynamic caribou population. The strategy established an annual harvest goal based on population size and trend, and allows harvest when the population exceeds 200 caribou and is stable or increasing. It calls for a liberal harvest when the population is 800 caribou or greater, and recommends harvesting all animals over a minimum count of 750 caribou (Aderman 2015). In 2020, the Committee set a harvest objective of 10-30 caribou and agreed upon a harvest quota of five bulls for the 2020/21 season (Aderman 2020a, 2020b, pers. comm.).

Hunting effort is influenced by travel conditions, availability of and opportunity to harvest other resources, including Mulchatna caribou and moose, as well as economic factors (Aderman and Lowe 2012). Historically, most of the reported harvest has occurred in February and March (**Table 2**), due to improved hunter access to the herd via snowmachine (Aderman and Lowe 2012). Between 1994/95 and 2019/20, 14% and 63% of the NPCH harvest occurred in February and March, respectively. Total reported harvest has sometimes been lower than expected, given the NPCH size. In particular, winter harvest has been low in several recent years due to poor travel conditions resulting from low snowfall

and warm temperatures.

Between 1994/95 and 2019/20, reported Nushagak caribou harvest ranged from 0-378 caribou per year (**Table 2**). The highest harvests occurred in 2016/17 and 2019/20 (Aderman 2020b, pers. comm.). These years of high harvest likely contributed to the recent population decline.

Local subsistence hunters from Aleknagik, Dillingham, Manokotak, Togiak, Twin Hill's and Clark's Point account for the vast majority of caribou harvested under Federal and State regulations, and most Nushagak caribou are harvested under Federal regulations. Between 2015/16 and 2019/20, nine percent of the total reported harvest occurred under State regulations (Aderman 2020a). In 2020/21, the RC501 State hunt did not occur due to conservation concerns.

Table 2. Reported harvest of the NPCH, by month, for regulatory years 1994/1995 – 2016/2017 (Aderman 2015; OSM 2015; Aderman 2017, pers. comm., 2020b pers. comm.; ADF&G 2017).

	Month									
Year	**Aug.**	**Sep.**	**Oct.**	**Dec.**	**Jan.**	**Feb.**	**Mar.**	**Apr.**	**Unknown**	**Total**
1994/1995	NS[a]	NS	NS	NS	3	1	25	NS	6	35
1995/1996	NS	NS	NS	3	0	5	43	NS	1	52
1996/1997	5	NS	NS	0	0	2	13	NS	0	20
1997/1998	5	NS	NS	0	2	25	35	NS	0	67
1998/1999	0	2	NS	0	0	0	50	NS	3	55
1999/2000	0	0	NS	0	2	7	54	NS	0	63
2000/2001	0	6	NS	0	0	22	98	NS	0	126
2001/2002	0	3	NS	0	0	9	115	NS	0	127
2002/2003	3	0	NS	0	0	0	0	NS	0	3
2003/2004	2	3	NS	0	0	0	29	NS	0	34
2004/2005	1	0	NS	0	0	0	8	NS	0	9
2005/2006	1	1	NS	0	0	0	9	NS	0	11
2006/2007	NS	NS	NS	NS	NS	0	NS	NS	0	0
2007/2008	NS	NS	NS	NS	NS	0	0	NS	0	0
2008/2009	NS	NS	NS	NS	NS	5	2	NS	1	8
2009/2010	NS	NS	NS	NS	NS	3	14	NS	1	18
2010/2011	NS	NS	NS	NS	NS	18	27	NS	0	45
2011/2012	0	2	NS	NS	NS	20	64	NS	0	86
2012/2013	6	3	NS	0	5	6	89	NS	0	109
2013/2014	3	1	NS	0	0	0	98	NS	0	102
2014/2015	8	7	NS	0	0	1	0	NS	0	16
2015/2016[b]	28	14	NS	0	0	0	15	7	0	64
2016/2017[c]	29	15	1	2	38	113	180	0	0	378
2017/2018[d]	8	3	0	1	2	19	67	NS	0	100
2018/2019[e]	6	3	2	0	0	1	2	NS	0	14
2019/2020[f]	11	3	0	0	9	69	215	NS	0	307

[a] NS = No season

[b] Includes 10 caribou harvested under State regulation

[c] Includes 28 caribou harvested under State regulation
[d] Includes 5 caribou harvested under State regulation
[e] Includes 2 caribou harvested under State regulation
[f] Includes 12 caribou harvested under State regulation and 7 harvested illegally

Effects

The existing closure strikes an effective management compromise, particularly due to the annual variability in the NPCH population and harvest. If the closure were lifted, Federally qualified subsistence users would lose their subsistence priority and would be less able to meet their subsistence needs because of competition with and harvest by non-Federally qualified users. If the closure was made more stringent, the NPCH would be more likely to exceed carrying capacity by overgrazing its habitat.

OSM PRELIMINARY CONCLUSION:

x maintain status quo
_ modify or eliminate the closure

Justification

The current closure balances concerns of overharvest with those of overgrazing. Closing the hunt to non-Federally qualified users when the NPCH population estimate is below 900 caribou provides a subsistence priority, while opening the hunt to all users when the NPCH exceeds 900 caribou helps keep the herd within carrying capacity of its habitat and prevents unnecessary restrictions on non-subsistence users.

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WP22–01 Executive Summary	
General Description	Proposal WP22-01 requests clarification of who is and who is not a participant in a community harvest system and how that affects community and individual harvest limits. *Submitted by: the Office of Subsistence Management*
Proposed Regulation	***§_____.25 Subsistence taking of fish, wildlife, and shellfish: general regulations*** *(c) Harvest limits* . . . ***(5) Fish, wildlife, or shellfish taken by a participant in a community harvest system counts toward the community harvest limit or quota for that species as well as individual harvest limits, Federal or State, for each participant in that community harvest system, however, the take does not count toward individual harvest limits, Federal or State, of any non-participant. Fish, wildlife, or shellfish taken by someone who is not a participant in a community harvest system does not count toward any community harvest limit or quota.*** ***(i) For the purposes of this provision, all residents of the community are deemed participants in the community harvest unless the Board-approved framework requires registration as a prerequisite to harvesting or receiving any fish, wildlife, or shellfish pursuant to that community harvest, in which case only those who register are deemed participants in that community harvest.*** ***§_____.26 Subsistence taking of wildlife*** *(e) Possession and transportation of wildlife.* . . . ~~*(2) An animal taken under Federal or State regulations by any member of a community with an established community harvest limit for that species counts toward the community harvest limit for that species. Except for wildlife taken pursuant to §____.10(d)(5)(iii) or as otherwise provided for by this part, an animal taken as part of a community harvest limit counts toward every community member's*~~

WP22–01 Executive Summary	
	~~*harvest limit for that species taken under Federal or State of Alaska regulations.*~~
OSM Preliminary Conclusion	**Support**
Southeast Alaska Subsistence Regional Advisory Council Recommendation	
Southcentral Alaska Subsistence Regional Advisory Council Recommendation	
Kodiak/Aleutians Subsistence Regional Advisory Council Recommendation	
Bristol Bay Subsistence Regional Advisory Council Recommendation	
Yukon-Kuskokwim Delta Subsistence Regional Advisory Council Recommendation	
Western Interior Alaska Subsistence Regional Advisory Council Recommendation	
Seward Peninsula Subsistence Regional Advisory Council Recommendation	
Northwest Arctic Subsistence Regional Advisory Council Recommendation	

WP22–01 Executive Summary	
Eastern Interior Alaska Subsistence Regional Advisory Council Recommendation	
North Slope Subsistence Regional Advisory Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	**None**

DRAFT STAFF ANALYSIS
WP22-01

ISSUES

Wildlife Proposal WP22-01, submitted by the Office of Subsistence Management (OSM), requests clarification of who is and who is not a participant in a community harvest system and how that affects community and individual harvest limits.

Discussion

The proponent requests specific language clarifying who is and who is not a participant in a community harvest system and how this relates to individual and community harvest limits. While developing the framework for a community harvest system in summer 2020, Ahtna Intertribal Resource Commission (AITRC) representatives and Federal agency staff realized that current Federal regulations stipulate that any animals harvested under a community harvest limit count toward the harvest limits of every community member whether or not they choose to participate in the community harvest system. This provision is perceived as unfair to community members who are not interested in participating in a community harvest system because their individual harvest limits are met involuntarily by participants in the community harvest system.

This proposal would affect community and individual harvest limits as well as define who is and who is not a participant in a community harvest system for wildlife, fish, and shellfish, statewide. In addition to clarifying who is and who is not a participant in a community harvest system, the intent of this proposal is to allow community members who opt out of a community harvest system to retain their individual harvest limits.

Note: While the proposal as submitted listed the proposed regulations under §100.25(c)(2), the proponent clarified their intention was to create a separate section for these regulations as §100.25(c)(5).

Existing Federal Regulation

> **36 CFR 242.25 and 50 CFR 100.25 Subsistence taking of fish, wildlife, and shellfish: general regulations**
>
> *(c) Harvest limits*
>
> **§_____.26 Subsistence taking of wildlife**
>
> *(e) Possession and transportation of wildlife.*
>
> . . .
>
> *(2) An animal taken under Federal or State regulations by any member of a community with an established community harvest limit for that species counts towards the community harvest*

limit for that species. Except for wildlife taken pursuant to §____.10(d)(5)(iii)[1] or as otherwise provided for by this part, an animal taken as part of a community harvest limit counts toward every community member's harvest limit for that species taken under Federal or State of Alaska regulations.

Proposed Federal Regulation

§_____.25 Subsistence taking of fish, wildlife, and shellfish: general regulations

(c) Harvest limits

. . .

(5) Fish, wildlife, or shellfish taken by a participant in a community harvest system counts toward the community harvest limit or quota for that species as well as individual harvest limits, Federal or State, for each participant in that community harvest system, however, the take does not count toward individual harvest limits, Federal or State, of any non-participant. Fish, wildlife, or shellfish taken by someone who is not a participant in a community harvest system does not count toward any community harvest limit or quota.

(i) For the purposes of this provision, all residents of the community are deemed participants in the community harvest unless the Board-approved framework requires registration as a prerequisite to harvesting or receiving any fish, wildlife, or shellfish pursuant to that community harvest, in which case only those who register are deemed participants in that community harvest.

§_____.26 Subsistence taking of wildlife

(e) Possession and transportation of wildlife.

. . .

~~*(2) An animal taken under Federal or State regulations by any member of a community with an established community harvest limit for that species counts toward the community harvest limit for that species. Except for wildlife taken pursuant to §____.10(d)(5)(iii) or as otherwise provided for by this part, an animal taken as part of a community harvest limit counts toward every community member's harvest limit for that species taken under Federal or State of Alaska regulations.*~~

State of Alaska Regulations

State general regulations describing its community harvest program are in **Appendix 1**.

[1] *§____.10(d)(5)(iii) The fish and wildlife is taken by individuals or community representatives permitted a one-time or annual harvest for special purposes including ceremonies and potlatches;*

Federal Public Lands

Federal public lands comprise approximately 54% of Alaska statewide and consist of 36% U.S. Fish and Wildlife Service managed lands, 28% Bureau of Land Management managed lands, 25% National Park Service managed lands, and 11% U.S. Forest Service managed lands.

Customary and Traditional Use Determination

This is a statewide proposal for wildlife, fish, and shellfish.

Regulatory History

In 1991, after extensive public comment on the Federal Subsistence Management Program's first Temporary Rule, the Federal Subsistence Board (Board) committed to addressing community harvest limits and alternative permitting processes (56 Fed. Reg. 123, 29311 [June 26, 1991]).

In 1992, responding to approximately 40 proposals requesting community harvest systems and numerous public comments requesting alternative permitting systems, the Board supported the concept of adjusting seasons and harvest limits based on customs and traditions of a community (57 Fed. Reg. 103, 22531–2 [May 28, 1992]). The Board said specific conditions for the use of a particular harvest reporting system may be applied on a case-by-case basis and further development and refinement of guidelines for alternative permitting systems would occur as the Federal Subsistence Management Program evolved (57 Fed. Reg. 104, 22948 [May 29, 1992]. These regulations at ____.6 were modified to state that intent more clearly:

> §_____.6 Licenses, permits, harvest tickets, tags, and reports[2]
>
> *(f) The Board may implement harvest reporting systems or permit systems where:*
>
> *(1) The fish and wildlife is taken by an individual who is required to obtain and possess pertinent State harvest permits, tickets, or tags, or Federal permits, harvest tickets, or tags;*
>
> *(2) A qualified subsistence user may designate another qualified subsistence user to take fish and wildlife on his or her behalf;*
>
> *(3) The fish and wildlife is taken by individuals or community representatives permitted a one-time or annual harvest for special purposes including ceremonies and potlatches;*
>
> *(4) The fish and wildlife is taken by representatives of a community permitted to do so in a manner consistent with the community's customary and traditional practices.*

In 1993, the Board adopted Proposal P93-12, which clarified that community harvest limits and individual harvest limits may not be accumulated, community harvest systems will be adopted on a

[2] Subsequently moved to *§___.10(d)(5) Federal Subsistence Board—Power and Duties*.

case-by-case basis and defined under unit-specific regulations, and wildlife taken by a designated hunter for another person, counts toward the individual harvest limit of the person for whom the wildlife is taken. These new regulations specified that for wildlife, after taking your individual harvest limit, you may not continue to harvest in areas outside of your community harvest area (58 Fed. Reg. 103, 31255 [June 1, 1993]). These new regulations were the following:

> §____.25 Subsistence taking of wildlife[3]
>
> *(c) Possession and transportation of wildlife*
>
> *(1) Except as specified in §___.25(c)(3)(ii)* [below] *or (c)(4)* [trapping regulations], *or as otherwise provided, no person may take a species of wildlife in any Unit, or portion of a Unit, if that person's total statewide take of that species has already been obtained under Federal and State regulations in other Units, or portions of other Units.*
>
> *(2) An animal taken under Federal or State regulations by any member of a community with an established community harvest limit for that species counts toward the community harvest for that species. Except for wildlife taken pursuant to §____.6(f)(3)* [above], *an animal taken by an individual as part of a community harvest limit counts toward that individual's bag limit for that species taken under Federal or State regulations for areas outside of the community harvest area.*
>
> *(3) Individual bag limits (i) bag limits authorized by §____.25 and in State regulations may not be accumulated; (ii) Wildlife taken by a designated hunter for another person pursuant to §____6(f)(2)* [above], *counts toward the individual bag limit of the person for whom the wildlife is taken.*

In 1993, "community harvest systems" were adopted by the Board simply by adding the use of designated hunters to unit-specific regulations for Unit 25 West moose and Unit 26A sheep (58 FR 103, 31252–3 [June 1, 1993]). In this way, designated harvesters and resource quotas became a common method for allocating harvests communally.

In 1996, administrative clarification was made at §____.25(c)(2) to better represent the Board's intent (61 Fed. Reg. 147, 39711 [July 30, 1996]). Before this clarification was made, a member of a community with a community harvest limit who had not taken an individual harvest limit could take an individual harvest limit after the community had met its harvest limit. The effect of the clarification was that members of community in a community harvest system can harvest only as part of the community harvest system:

[3] Subsequently moved to *§____.26 Taking of wildlife*.

§____.25 Subsistence taking of wildlife

(c) Possession and transportation of wildlife

. . .

(2) An animal taken under Federal or State regulations by any member of a community with an established community harvest limit for that species counts toward the community harvest for that species. Except for wildlife taken pursuant to §____.6(f)(3) [above]*, an animal taken ~~by an individual~~ as part of a community harvest limit counts toward ~~that individual's bag limit~~* ***every community member's harvest limit*** *for that species taken under Federal or State regulations ~~for areas outside of the community harvest area~~.*

Later, the language "or as otherwise provided for by this part" was added to the provision. The effect was to allow an exceptions to the provision if the exception was placed in regulation:

(2) An animal taken under Federal or State regulations by any member of a community with an established community harvest limit for that species counts towards the community harvest limit for that species. Except for wildlife taken pursuant to §____.10(d)(5)(iii) ***or as otherwise provided for by this part****, an animal taken as part of a community harvest limit counts toward every community member's harvest limit for that species taken under Federal or State of Alaska regulations.*

In April 2020, the Board adopted deferred Proposal WP18-19 with modification, which added a community harvest system for moose in Unit 11 and caribou and moose in Unit 13 to unit-specific regulations. The modification was to name individual communities within the Ahtna traditional use territory authorized to harvest moose in Units 11 and caribou and moose in Unit 13 as part of a community harvest system, subject to a framework established by the Board under unit-specific regulations (see Existing Federal Regulation section in Proposal WP22-36 analysis).

In July 2020, the Board approved Wildlife Special Action Request WSA20-02 with modification to: (1) name individual communities authorized to participate in the community harvest system on Federal public lands in Units 11, 12, and 13, specifically, the eight Ahtna traditional communities of Cantwell, Chistochina, Chitina, Copper Center, Gakona, Gulkana, Mentasta Lake, and Tazlina; (2) define the geographic boundaries of eligible communities as the most recent Census Designated Places established by the U.S. Census Bureau; (3) extend these actions through the end of the wildlife regulatory cycle (June 30, 2022); (4) specify that harvest reporting will take the form of reports collected from hunters by AITRC and be submitted directly to the land managers and OSM, rather than through Federal registration permits, joint State/Federal registration permits, or State harvest tickets; and (5) set the harvest quota for the species and units authorized in the community harvest system as the sum of individual harvest limits for those opting to participate in the system (OSM 2020).

In January 2021, the Board approved Wildlife Special Action WSA20-07 temporarily adding the following language to unit-specific regulations for moose and caribou in Units 11, 12, and 13:

"Animals taken by those opting to participate in this community harvest system do not count toward the harvest limits of any individuals who do not opt to participate in this community harvest system." At this meeting, the Board also approved a community harvest system framework that describes additional details about implementation of the system (see analysis of Proposal WP22-36 Appendix 1) (OSM 2021).

Currently, the following community harvest systems are codified in Federal regulations: Lime Village for Unit 19 caribou and moose; Nikolai for Unit 19 sheep; the community of Wales for Unit 22 muskoxen; Anaktuvuk Pass for Units 24 and 26 sheep; Unit 25 black bear with a State community harvest permit; Ninilchik for Kasilof River and Kenai River community gillnets for salmon; and Cantwell, Chistochina, Chitina, Copper Center, Gakona, Gulkana, Mentasta Lake, and Tazlina for moose in Unit 11 and caribou and moose in Unit 13.

Current Events Involving the Species

Proposal WP22-36, submitted by AITRC, requests the Board adopt existing temporary regulations for regarding the community harvest system for moose and caribou in Unit 11, 12, and 13.

Cultural Knowledge and Traditional Practices

Community harvest and designated harvester provisions provide recognition of the customary and traditional practices of sharing and redistribution of harvests. A host of research supports a need for these alternative permitting systems in Federal subsistence regulations to harmonize fundamental harvesting characteristics of rural Alaskan communities with the Federal Subsistence Management Program. Family-based production is the foundation of the mixed subsistence-cash economy found in rural Alaskan communities (cf. Wolfe 1981, 1987; Wolfe and Walker 1987; Wolfe et al. 1984). Family-based production is when two or more individual households linked by kinship distribute the responsibility to harvest, process, and store wild resources based on factors such as skills and abilities, availability of able workers, sufficient income to purchase harvesting and processing technology, and other factors. Units of family-based production typically contain at least one "super-household" that produces surpluses of wild foods (Wolfe 1987). On a statewide basis, about 30% of households in a community are super-households that produce about 70% or more of the community's wild food harvest (Sahlins 1972; Andrews 1988; Magdanz, Utermohle, and Wolfe 2002; Sumida 1989; Sumida and Andersen 1990). Conversely, 20% to 30% of households in units of family-based production did not produce enough food to feed members of that household (Sahlins 1972). Inequalities in individual and household production levels are equalized via processes of distribution (sharing and feasting) and exchange (trade and barter).

Recent studies on disparities in household food production demonstrate that super-households participate heavily in food-sharing. Wolfe et al. (2007) looked at household food production in 67 rural Alaska communities representing Aleut, Athabascan, Inupiat, Tlingit-Haida, and Yup'ik cultural groups. The majority of these communities were comprised of mostly Alaska Native households with at least one Native head of household, although communities in Southeast Alaska were ethnically mixed. The researchers found that there were household variables commonly associated with levels of

food production throughout these communities. Household variables including higher levels of income, participation in commercial fishing, and households with three or more adult males over 15 years of age were associated with higher levels of food production. Households in which there was a single or elder head of household were associated with lower levels of food production. Most remarkably, the study also demonstrated that high-producing households gave the most food to others and giving to other households may be a primary motivation for over-production. Wolfe et al. (2007) further recommended that policy and management regulations account for food production and sharing practices within Alaskan mixed subsistence-cash communities. They wrote:

> The findings about the concentration of subsistence harvests also have social policy implications for the management of hunts and fisheries. Annual and daily bag limits that require that individuals or households harvest at equal levels, as is common for sport fishing and sport hunting, operate from different principles from those operating in subsistence systems. In the subsistence system, individuals and households commonly are not equivalent producers. Instead, a relatively small segment of high-producers harvest most of the fish or game. The average harvests among community households may be in line with bag and harvest limits required for conservation reasons, but the actual production is concentrated in a small number of households. Flexible regulations that allow for this type of concentrated harvest would be most compatible with the actual patterns of subsistence production (Wolfe et al. 2007:29).

Community harvest and designated harvester systems in use in the Federal Subsistence Management Program are intended to provide some flexibility in harvest regulations to make legal the activities of super-households in rural communities. Supporting the distribution of wild foods in villages allows people to continue their subsistence way of life.

Effects of the Proposal

If this proposal is adopted, then Federal regulations will recognize that the Board, when approving the framework for a community harvest system, may allow community members to choose whether they want to participate in the community harvest system or retain their individual harvest limits. The Federal regulations will specify that fish, wildlife, or shellfish harvested under a community harvest system will not count against the individual harvest limits of non-participants. Similarly, fish, wildlife, or shellfish harvested by non-participants will not count against the harvest limit set for the community harvest system. Effects to nonsubsistence uses, wildlife, fish, and shellfish, statewide, are not anticipated.

If this proposal is not adopted, then Federal regulations will continue to stipulate that any harvest within a community harvest system also counts toward the individual harvest limit of every community member regardless of whether they participate in the community harvest system. Additionally, the Board's authority to approve community harvest frameworks, and to allow community members to opt in or opt out of a community harvest, will not be clearly stated. Effects to nonsubsistence uses, wildlife, fish, and shellfish, statewide, are not anticipated.

OSM PRELIMINARY CONCLUSION

Support Proposal WP22-01.

Justification

Subsistence users and others will find these regulations less confusing and easier to use. In this way, the proposed regulatory changes provide more equitable harvest options and opportunities for subsistence users. They also prevent unintentional and unnecessary restrictions from being placed on any community members who choose not to participate in a community harvest system, and clarifies a current oversight in Federal regulation.

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APPENDIX 1

STATE OF ALASKA COMMUNITY HARVEST PROGRAM

5 AAC 92.074. Community subsistence harvest hunt areas

(a) The commissioner or the commissioner's designee may, under this section and 5 AAC 92.052, issue community-based subsistence harvest permits and harvest reports for big game species where the Board of Game (board) has established a community harvest hunt area under (b) of this section and 5 AAC 92.074.

(b) The board will consider proposals to establish community harvest hunt areas during regularly scheduled meetings to consider seasons and bag limits for affected species in a hunt area. Information considered by the board in evaluating the proposed action will include

(1) a geographic description of the hunt area;

(2) the sustainable harvest and current subsistence regulations and findings for the big game population to be harvested;

(3) a custom of community-based harvest and sharing of the wildlife resources harvested in the hunt area by any group; and

(4) other characteristics of harvest practices in the hunt area, including characteristics of the customary and traditional pattern of use found under 5 AAC 99.010(b).

(c) If the board has established a community harvest hunt area for a big game population, residents of the community or members of a group may elect to participate in a community harvest permit hunt in accordance with the following conditions:

(1) a person representing a group of 25 or more residents or members may apply to the department for a community harvest permit by identifying the community harvest hunt area and the species to be hunted, and by requesting that the department distribute community harvest reports to the individuals who subscribe to the community harvest permit; the community or group representative must

(A) provide to the department the names of residents or members subscribing to the community harvest permit and the residents' or members' hunting license numbers, permanent hunting identification card numbers, or customer service identification numbers, or for those residents or members under 18 years of age, the resident or member's birth date;

(B) ensure delivery to the department of validated harvest reports from hunters following the take of individual game animals, records of harvest information for

individual animals taken, and collected biological samples or other information as required by the department for management;

(C) provide the department with harvest information, including federal subsistence harvest information, within a specified period of time when requested, and a final report of all game taken under the community harvest permit within 15 days of the close of the hunting season or as directed in the permit; and

(D) make efforts to ensure that the applicable customary and traditional use pattern described by the board and included by the department as a permit condition, if any, is observed by subscribers including meat sharing; the applicable board finding and conditions will be identified on the permit; this provision does not authorize the community or group administrator to deny subscription to any community resident or group member;

(E) from July 1, 2014 until June 30, 2018, in the community harvest hunt area described in 5 AAC 92.074(d) , permits for the harvest of bull moose that do not meet the antler restrictions for other resident hunts in the area will be limited to one permit for every three households in the community or group. Beginning July 1, 2018, in the community harvest hunt area described in 5 AAC 92.074(d) , permits for the harvest of bull moose that do not meet the antler restrictions for other resident hunts in the area will be distributed to participants using the scoring criteria described in 5 AAC 92.070.

(2) a resident of the community or member of the group who elects to subscribe to a community harvest permit

(A) may not hold a harvest ticket or other state hunt permit for the same species where the bag limit is the same or for fewer animals during the same regulatory year; however, a person may hold harvest tickets or permits for same-species hunts in areas with a larger bag limit following the close of the season for the community harvest permit, except that in Unit 13, prior to July 1, 2018, only one caribou may be retained per household, and on or after July 1, 2018, up to two caribou may be retained per household;

(B) may not subscribe to more than one community harvest permit for a species during a regulatory year;

(C) must have in possession when hunting and taking game a community harvest report issued by the hunt administrator for each animal taken;

(D) must validate a community harvest report immediately upon taking an animal; and

(E) must report harvest and surrender validated harvest reports within five days, or sooner as directed by the department, of taking an animal and transporting it to the place of final processing for preparation for human use and provide information and biological samples required under terms of the permit;

(F) must, if the community harvest hunt area is under a Tier II permit requirement for the species to be hunted, have received a Tier II permit for that area, species, and regulatory year.

(G) participants in the community harvest hunt area described in 5 AAC 92.074(d)must commit to participation for two consecutive years. This does not apply to participants that applied in 2016 for the 2018 regulatory year.

(3) in addition to the requirements of (1) of this subsection, the community or group representative must submit a complete written report, on a form provided by the department, for the community or group participating in the community harvest hunt area described in 5 AAC 92.074(d), that describes efforts by the community or group to observe the customary and traditional use pattern described by board findings for the game populations hunted under the conditions of this community harvest permit; in completing the report, the representative must make efforts to collect a complete report from each household that is a member of the community or group that describes efforts by the household to observe the customary and traditional use pattern using the eight elements described in this paragraph; a copy of all household reports collected by the community or group representative shall be submitted to the department as a part of the representative's written report; complete reports must include information about efforts to observe the customary and traditional use pattern of the game population, as follows:

(A) Element 1: participation in a long-term, consistent pattern of noncommercial taking, use, and reliance on the game population: the number of years of taking and use of the game population; and involvement of multiple generations in the taking and use of the game population; and use of areas other than the community subsistence hunt area for harvest activities;

(B) Element 2: participation in the pattern of taking or use of the game population that follows a seasonal use pattern of harvest effort in the hunt area: the months and seasons in which noncommercial harvest activities occur in the hunt area;

(C) Element 3: participation in a pattern of taking or use of wild resources in the hunt area that includes methods and means of harvest characterized by efficiency and economy of effort and cost: costs associated with harvests; and methods used to reduce costs and improve efficiency of harvest; and number of species harvested during hunting activities;

(D) Element 4: participation in a pattern of taking or use of wild resources that occurs in the hunt area due to close ties to the area: number of years of taking and use of the game population; and involvement of multiple generations in the taking and use of the game population; and variety of harvesting activities that take place in the hunt area; and evidence of other areas used for harvest activities;

(E) Element 5: use of means of processing and preserving wild resources from the hunt area that have been traditionally used by past generations: complete listing of the parts of the harvested game that are used; and preservation methods of that game; and types of foods and other products produced from that harvest;

(F) Element 6: participation in a pattern of taking or use of wild resources from the hunt area that includes the handing down of knowledge of hunting skills, values, and lore about the hunt area from generation to generation: involvement of multiple generations in the taking and use of the game population; and evidence of instruction and training;

(G) Element 7: participation in a pattern of taking of wild resources from the hunt area in which the harvest is shared throughout the community: amount of harvest of the game population that is shared; and evidence of a communal sharing event; and support of those in need through sharing of the harvest of the game population; and

(H) Element 8: participation in a pattern that includes taking, use, and reliance on a wide variety of wild resources from the hunt area: the variety of resource harvest activities engaged in within the hunt area; and evidence of other areas used for harvest activities.

(d) Seasons for community harvest permits will be the same as those established for other subsistence harvests for that species in the geographic area included in a community harvest hunt area, unless separate community harvest hunt seasons are established. The total bag limit for a community harvest permit will be equal to the sum of the individual participants' bag limits, established for other subsistence harvests for that species in the hunt area or otherwise by the board. Seasons and bag limits may vary within a hunt area according to established

subsistence regulations for different game management units or other geographic delineations in a hunt area.

(e) Establishment of a community harvest hunt area will not constrain nonsubscribing residents of the community or members of the group from participating in subsistence harvest activities for a species in that hunt area using individual harvest tickets or other state permits authorized by regulation, nor will it require any resident of the community or member of the group eligible to hunt under existing subsistence regulations to subscribe to a community harvest permit.

(f) The department may disapprove an application for a community subsistence harvest permit from a community or group that has previously failed to comply with requirements in (c)(1) and (3) of this section. The failure to report by the community or group representative under (c)(1) and (3) of this section may result in denial of a community subsistence harvest permit during the following regulatory year. The department must allow a representative the opportunity to request a hearing if the representative fails to submit a complete report as required under (c)(1) and (3) of this section. A community or group aggrieved by a decision under this subsection will be granted a hearing before the commissioner or the commissioner's designee, if the community or group representative makes a request for a hearing in writing to the commissioner within 60 days after the conclusion of the hunt for which the person failed to provide a report. The commissioner may determine that the penalty provided under this subsection will not be applied if the community or group representative provides the information required on the report and if the commissioner determines that

(1) the failure to provide the report was the result of unavoidable circumstance; or

(2) extreme hardship would result to the community or group.

(g) A person may not give or receive a fee for the taking of game or receipt of meat under a community subsistence harvest permit.

(h) Nothing in this section authorizes the department to delegate to a community or group representative determination of the lawful criteria for selecting who may hunt, for establishing any special restrictions for the hunt and for the handling of game, and for establishing the terms and conditions for a meaningful communal sharing of game taken under a community harvest permit.

(i) In this section,

(1) "fee" means a payment, wage, gift, or other remuneration for services provided while engaged in hunting under a community harvest permit; and does not include reimbursement for actual expenses incurred during the hunting activity within the scope of the community harvest permit, or a non-cash exchange of subsistence-harvested resources.

(2) a "community" or "group" is a mutual support network of people who routinely (at least several times each year) provide each other with physical, emotional, and nutritional assistance in a multi-generational and inter/intra familial manner to assure the long-term welfare of individuals, the group, and natural resources they depend on; for purposes of this regulation, a "community" or "group" shares a common interest in, and participation in uses of, an identified area and the wildlife populations in that area, that is consistent with the customary and traditional use pattern of that wildlife population and area as defined by the board.

WP22–02 Executive Summary	
General Description	Proposal WP22-02 requests to remove language from designated hunting regulations prohibiting the use of a designated hunter permit by a member of community operating under a community harvest system. *Submitted by the Office of Subsistence Management.*
Proposed Regulation	See page 139
OSM Preliminary Conclusion	**Support**
Southeast Alaska Subsistence Regional Advisory Council Recommendation	
Southcentral Alaska Subsistence Regional Advisory Council Recommendation	
Kodiak/Aleutians Subsistence Regional Advisory Council Recommendation	
Bristol Bay Subsistence Regional Advisory Council Recommendation	
Yukon-Kuskokwim Delta Subsistence Regional Advisory Council Recommendation	
Western Interior Alaska Subsistence Regional Advisory Council Recommendation	
Seward Peninsula Subsistence Regional Advisory Council Recommendation	

WP22–02 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	**None**

DRAFT STAFF ANALYSIS
WP22-02

ISSUES

Wildlife Proposal WP22-02, submitted by the Office of Subsistence Management (OSM), requests to remove language from designated hunting regulations prohibiting the use of a designated hunter permit by a member of community operating under a community harvest system.

DISCUSSION

While developing the framework for a community harvest system in summer 2020, Ahtna Intertribal Resource Commission (AITRC) representatives realized that residents of communities in a community harvest system cannot designate another person to harvest on their behalf, pursuant to Federal designated hunter regulations. AITRC and Federal agency staff perceived this provision as unfair to community members who choose not to participate in a community harvest system because their options for acquiring their individual harvest limits are curtailed involuntarily.

The proponent clarified that the intent of this proposal is to allow members of a community with a community harvest system to designate a hunter to harvest on their behalf to fulfill either their individual harvest limit or to count toward the community harvest limit depending on whether or not they choose to participate in the community harvest system.

Existing Federal Regulation

36 CFR 242 and 50 CFR 100.25(e) Hunting by designated harvest permit

If you are a Federally qualified subsistence user (recipient), you may designate another Federally qualified subsistence user to take deer, moose, and caribou, and in Units 1-5, goats, on your behalf unless you are a member of a community operating under a community harvest system or unless unit-specific regulations in §____.26 preclude or modify the use of the designated hunter system or allow the harvest of additional species by a designated hunter. The designated hunter must obtain a designated hunter permit and must return a completed harvest report. The designated hunter may hunt for any number of recipients but may have no more than two harvest limits in his/her possession at any one time except for goats, where designated hunters may have no more than one harvest limit in possession at any one time, and unless otherwise specified in unit-specific regulations in §____.26.

§_____.26(n)(6)(ii) Unit 6 specific regulations

(D) A federally qualified subsistence user (recipient) who is either blind, 65 years of age or older, at least 70 percent disabled, or temporarily disabled may designate another federally qualified subsistence user to take any moose, deer, black bear, and beaver on his or her behalf in Unit 6, and goat in Unit 6D, unless the recipient is a member of a community operating

under a community harvest system. The designated hunter must obtain a designated hunter permit and must return a completed harvest report. The designated hunter may hunt for any number of recipients, but may have no more than one harvest limit in his or her possession at any one time.

§_____.26(n)(9)(iii) Unit 9 specific regulations

(E) For Units 9C and 9E only, a federally qualified subsistence user (recipient) of Units 9C and 9E may designate another federally qualified subsistence user of Units 9C and 9E to take bull caribou on his or her behalf unless the recipient is a member of a community operating under a community harvest system. The designated hunter must obtain a designated hunter permit and must return a completed harvest report and turn over all meat to the recipient. There is no restriction on the number of possession limits the designated hunter may have in his/her possession at any one time.

(F) For Unit 9D, a federally qualified subsistence user (recipient) may designate another federally qualified subsistence user to take caribou on his or her behalf unless the recipient is a member of a community operating under a community harvest system. The designated hunter must obtain a designated hunter permit and must return a completed harvest report. The designated hunter may hunt for any number of recipients but may have no more than four harvest limits in his/her possession at any one time.

§_____.26(n)(10) Unit 10 specific regulations

(iii) In Unit 10—Unimak Island only, a federally qualified subsistence user (recipient) may designate another federally qualified subsistence user to take caribou on his or her behalf unless the recipient is a member of a community operating under a community harvest system. The designated hunter must obtain a designated hunter permit and must return a completed harvest report. The designated hunter may hunt for any number of recipients but may have no more than four harvest limits in his/her possession at any one time.

§_____.26(n)(22)(iii) Unit 22 specific regulations

(E) A federally qualified subsistence user (recipient) may designate another federally qualified subsistence user to take musk oxen on his or her behalf unless the recipient is a member of a community operating under a community harvest system. The designated hunter must get a designated hunter permit and must return a completed harvest report. The designated hunter may hunt for any number of recipients in the course of a season, but have no more than two harvest limits in his/her possession at any one time, except in Unit 22E where a resident of Wales or Shishmaref acting as a designated hunter may hunt for any number of recipients, but have no more than four harvest limits in his/her possession at any one time.

§_____.26(n)(23)(iv) Unit 23 specific regulations

(D) For the Baird and DeLong Mountain sheep hunts—A federally qualified subsistence user (recipient) may designate another federally qualified subsistence user to take sheep on his or her behalf unless the recipient is a member of a community operating under a community harvest system. The designated hunter must obtain a designated hunter permit and must return a completed harvest report. The designated hunter may hunt for only one recipient in the course of a season and may have both his and the recipients' harvest limits in his/her possession at the same time.

(F) A federally qualified subsistence user (recipient) may designate another federally qualified subsistence user to take musk oxen on his or her behalf unless the recipient is a member of a community operating under a community harvest system. The designated hunter must get a designated hunter permit and must return a completed harvest report. The designated hunter may hunt for any number of recipients, but have no more than two harvest limits in his/her possession at any one time.

§_____.26(n)(26)(iv) Unit 26 specific regulations

(C) In Kaktovik, a federally qualified subsistence user (recipient) may designate another federally qualified subsistence user to take sheep or musk ox on his or her behalf unless the recipient is a member of a community operating under a community harvest system. The designated hunter must obtain a designated hunter permit and must return a completed harvest report. The designated hunter may hunt for any number of recipients but may have no more than two harvest limits in his/her possession at any one time.

(D) For the DeLong Mountain sheep hunts—A federally qualified subsistence user (recipient) may designate another federally qualified subsistence user to take sheep on his or her behalf unless the recipient is a member of a community operating under a community harvest system. The designated hunter must obtain a designated hunter permit and must return a completed harvest report. The designated hunter may hunt for only one recipient in the course of a season and may have both his and the recipient's harvest limits in his/her possession at the same time.

Proposed Federal Regulation

§_____.25(e) Hunting by designated harvest permit

If you are a Federally qualified subsistence user (recipient), you may designate another Federally qualified subsistence user to take deer, moose, and caribou, and in Units 1-5, goats, on your behalf ~~unless you are a member of a community operating under a community harvest system or~~ unless unit-specific regulations in §100.26 preclude or modify the use of the designated hunter system or allow the harvest of additional species by a designated hunter. The designated hunter must obtain a designated hunter permit and must return a completed harvest report. The designated hunter may hunt for any number of recipients but may have no

more than two harvest limits in his/her possession at any one time except for goats, where designated hunters may have no more than one harvest limit in possession at any one time, and unless otherwise specified in unit-specific regulations in §100.26.

§_____.26(n)(6)(ii) Unit 6 specific regulations

(D) A federally qualified subsistence user (recipient) who is either blind, 65 years of age or older, at least 70 percent disabled, or temporarily disabled may designate another federally qualified subsistence user to take any moose, deer, black bear, and beaver on his or her behalf in Unit 6, and goat in Unit 6D, ~~unless the recipient is a member of a community operating under a community harvest system~~. The designated hunter must obtain a designated hunter permit and must return a completed harvest report. The designated hunter may hunt for any number of recipients, but may have no more than one harvest limit in his or her possession at any one time.

§_____.26(n)(9)(iii) Unit 9 specific regulations

(E) For Units 9C and 9E only, a federally qualified subsistence user (recipient) of Units 9C and 9E may designate another federally qualified subsistence user of Units 9C and 9E to take bull caribou on his or her behalf ~~unless the recipient is a member of a community operating under a community harvest system~~. The designated hunter must obtain a designated hunter permit and must return a completed harvest report and turn over all meat to the recipient. There is no restriction on the number of possession limits the designated hunter may have in his/her possession at any one time.

(F) For Unit 9D, a federally qualified subsistence user (recipient) may designate another federally qualified subsistence user to take caribou on his or her behalf ~~unless the recipient is a member of a community operating under a community harvest system~~. The designated hunter must obtain a designated hunter permit and must return a completed harvest report. The designated hunter may hunt for any number of recipients but may have no more than four harvest limits in his/her possession at any one time.

§_____.26(n)(10) Unit 10 specific regulations

(iii) In Unit 10—Unimak Island only, a federally qualified subsistence user (recipient) may designate another federally qualified subsistence user to take caribou on his or her behalf ~~unless the recipient is a member of a community operating under a community harvest system~~. The designated hunter must obtain a designated hunter permit and must return a completed harvest report. The designated hunter may hunt for any number of recipients but may have no more than four harvest limits in his/her possession at any one time.

§_____.26(n)(22)(iii) Unit 22 specific regulations

(E) A federally qualified subsistence user (recipient) may designate another federally qualified subsistence user to take musk oxen on his or her behalf ~~unless the recipient is a member of a community operating under a community harvest system~~. The designated hunter must get a designated hunter permit and must return a completed harvest report. The designated hunter may hunt for any number of recipients in the course of a season, but have no more than two harvest limits in his/her possession at any one time, except in Unit 22E where a resident of Wales or Shishmaref acting as a designated hunter may hunt for any number of recipients, but have no more than four harvest limits in his/her possession at any one time.

§_____.26(n)(23)(iv) Unit 23 specific regulations

(D) For the Baird and DeLong Mountain sheep hunts—A federally qualified subsistence user (recipient) may designate another federally qualified subsistence user to take sheep on his or her behalf ~~unless the recipient is a member of a community operating under a community harvest system~~. The designated hunter must obtain a designated hunter permit and must return a completed harvest report. The designated hunter may hunt for only one recipient in the course of a season and may have both his and the recipients' harvest limits in his/her possession at the same time.

(F) A federally qualified subsistence user (recipient) may designate another federally qualified subsistence user to take musk oxen on his or her behalf ~~unless the recipient is a member of a community operating under a community harvest system~~. The designated hunter must get a designated hunter permit and must return a completed harvest report. The designated hunter may hunt for any number of recipients, but have no more than two harvest limits in his/her possession at any one time.

§_____.26(n)(26)(iv) Unit 26 specific regulations

(C) In Kaktovik, a federally qualified subsistence user (recipient) may designate another federally qualified subsistence user to take sheep or musk ox on his or her behalf ~~unless the recipient is a member of a community operating under a community harvest system~~. The designated hunter must obtain a designated hunter permit and must return a completed harvest report. The designated hunter may hunt for any number of recipients but may have no more than two harvest limits in his/her possession at any one time.

(D) For the DeLong Mountain sheep hunts—A federally qualified subsistence user (recipient) may designate another federally qualified subsistence user to take sheep on his or her behalf ~~unless the recipient is a member of a community operating under a community harvest system~~. The designated hunter must obtain a designated hunter permit and must return a completed harvest report. The designated hunter may hunt for only one recipient in the course of a season and may have both his and the recipient's harvest limits in his/her possession at the same time.

Existing State Regulation

The State of Alaska provides for the transfer of harvest limits from one person to another through its proxy hunting program (5 AAC 92.011; see **Appendix 1**). **Table 1** is a side-by-side comparison of the State's proxy system to the Federal designated hunter system.

Table 1. State of Alaska Proxy System compared to Federal Designated Hunter System.

State of Alaska Proxy System	Federal Subsistence Management Program Designated Hunter System
Applies where there is an open State harvest season.	Applies to Federal public lands when there is an open Federal harvest season.
Applies to caribou, deer, and moose.	Applies to caribou, deer, moose, and in Units 1–5, goats, as well as other species identified in unit-specific regulations.
Available to a hunter who is blind, physically or developmentally disabled (requires physician's affidavit), or 65 years of age or older	Available to Federally qualified subsistence users.
Either the recipient or the hunter may apply for the authorization.	Recipient obtains a permit or harvest ticket and designates another Federally qualified subsistence user to harvest on his/her behalf. Designated hunter obtains a Federal designated hunter permit.
No person may be a proxy for more than one recipient at a time.	A person may hunt for any number of recipients, but may have no more than two harvest limits in his/her possession at any one time.
Antler destruction is required.	No antler destruction is required.

Federal Public Lands

Federal public lands comprise approximately 54% of Alaska statewide and consist of 36% U.S. Fish and Wildlife Service managed lands, 28% Bureau of Land Management managed lands, 25% National Park Service managed lands, and 11% U.S. Forest Service managed lands.

Customary and Traditional Use Determination

This is a statewide proposal regarding wildlife.

Regulatory History

In 1991, after extensive public comment on the Federal Subsistence Management Program's first Temporary Rule, the Federal Subsistence Board committed to addressing community harvest limits and alternative permitting processes (56 Fed. Reg. 123, 29411 [June 26, 1991]).

In 1992, responding to approximately 40 proposals requesting community harvest systems and numerous public comments requesting alternative permitting systems, the Board supported the concept of adjusting seasons and harvest limits based on customs and traditions of a community (57 Fed. Reg. 103, 22531–2 [May 28, 1992]). The Board said specific conditions for the use of a particular harvest reporting system may be applied on a case-by-case basis and further development and refinement of guidelines for alternative permitting systems would occur as the Federal Subsistence Management Program evolved (57 Fed. Reg. 104, 22948 [May 29, 1992]. These regulations at ____.6 were modified to state that intent more clearly:

> §_____.6 Licenses, permits, harvest tickets, tags, and reports[1]
>
> *(f) The Board may implement harvest reporting systems or permit systems where:*
>
> *(1) The fish and wildlife is taken by an individual who is required to obtain and possess pertinent State harvest permits, tickets, or tags, or Federal permits, harvest tickets, or tags;*
>
> *(2) A qualified subsistence user may designate another qualified subsistence user to take fish and wildlife on his or her behalf;*
>
> *(3) The fish and wildlife is taken by individuals or community representatives permitted a one-time or annual harvest for special purposes including ceremonies and potlatches;*
>
> *(4) The fish and wildlife is taken by representatives of a community permitted to do so in a manner consistent with the community's customary and traditional practices.*

In 1993, the Board adopted Proposal P93-12, which clarified that community harvest limits and individual harvest limits may not be accumulated, community harvest systems will be adopted on a case-by-case basis and defined under unit-specific regulations, and wildlife taken by a designated hunter for another person, counts toward the individual harvest limit of the person for whom the wildlife is taken. These new regulations specified that for wildlife, after taking your individual harvest limit, you may not continue to harvest in areas outside of your community harvest area (58 Fed. Reg. 103, 31255 [June 1, 1993]). These new regulations were the following:

> §____.25 Subsistence taking of wildlife[2]
>
> *(c) Possession and transportation of wildlife*
>
> *(1) Except as specified in §___.25(c)(3)(ii)* [below] *or (c)(4)* [trapping regulations], *or as otherwise provided, no person may take a species of wildlife in any Unit, or portion of a Unit, if that person's total statewide take of that species has already been obtained under Federal and State regulations in other Units, or portions of other Units.*

[1] Subsequently moved to *§___.10(d) Federal Subsistence Board—Power and Duties*.
[2] Subsequently moved to *§____.26 Taking of wildlife*.

(2) An animal taken under Federal or State regulations by any member of a community with an established community harvest limit for that species counts toward the community harvest for that species. Except for wildlife taken pursuant to §____.6(f)(3) [above], *an animal taken by an individual as part of a community harvest limit counts toward that individual's bag limit for that species taken under Federal or State regulations for areas outside of the community harvest area.*

(3) Individual bag limits (i) bag limits authorized by §____.25 and in State regulations may not be accumulated; (ii) Wildlife taken by a designated hunter for another person pursuant to §____6(f)(2) [above], *counts toward the individual bag limit of the person for whom the wildlife is taken.*

In 1993, community harvest strategies were adopted by the Board simply by adding the use of designated hunters into unit-specific regulations for Unit 25 West moose and Unit 26C sheep (58 Fed. Reg. 103, 31252–3 [June 1, 1993]). In this way, designated harvesters and resource quotas became a common method for allocating harvests communally.

Unit 25(D)(West)—. . .1 antlered moose by a Federal registration permit. Alternate permits allowing for designated hunters are available to qualified applicants who reside in Beaver, Birch Creek, or Stevens Village. Moose hunting on public land in this portion of Unit 25(D)(West) is closed at all times except for residents of Beaver, Birch Creek and Stevens Village during seasons identified above. The moose season will be closed when 30 antlered moose have been harvested in the entirety of Unit 25D West (58 Fed. Reg. 103, 31287 [June 1, 1993]).

Unit 26(C)—3 sheep per year; the Aug. 10–Sept 20 season is restricted to 1 ram with 7/8 cur1 horn or larger. A State registration permit is required for the Oct. 1–Apr. 30 season, except for residents of the City of Kaktovik. Kaktovik residents may harvest sheep in accordance with a Federal community harvest strategy for Unit 26(C) which provides for the take of up to two bag limits of 3 sheep by designated hunter. Procedures for Federal permit issuance and community reporting will be mutually developed by Kaktovik and Federal representatives prior to the season opening. Open season: Aug. 10–Sept. 30 and Oct. 1–Apr. 30 (58 Fed. Reg. 103, 31289 [June 1, 1993]).

In 1994, the Board rejected four proposals concerning the use of designated hunters to harvest wildlife for others and redirected staff to work with Regional Advisory Councils and develop regulations for the 1995/96 regulatory year that address designated harvesters on a state-wide basis (59 Fed. Reg. 29033, June 3, 1994).

In October 1994, a Designated Hunter Task Force published its report describing four options for alternative permitting systems (OSM 1994).

In 1996, administrative clarification was made at §____.25(c)(2) to better represent the Board's intent (61 Fed. Reg. 147, 39711 [July 30, 1996]). Before this clarification was made, a member of a community with a community harvest limit who had not taken an individual harvest limit could take an individual harvest limit after the community had met its harvest limit. The effect of the clarification was that members of community in a community harvest system can harvest only as part of the community harvest system:

> §____.25 Subsistence taking of wildlife
>
> *(c) Possession and transportation of wildlife*
>
> . . .
>
> *(2) An animal taken under Federal or State regulations by any member of a community with an established community harvest limit for that species counts toward the community harvest for that species. Except for wildlife taken pursuant to §____.6(f)(3)* [above], *an animal taken ~~by an individual~~ as part of a community harvest limit counts toward ~~that individual's bag limit~~* ***every community member's harvest limit*** *for that species taken under Federal or State regulations ~~for areas outside of the community harvest area~~.*

Later, the language "or as otherwise provided for by this part" was added to the provision. The effect was to allow an exception to the provision if the exception was placed in regulation:

> *(2) An animal taken under Federal or State regulations by any member of a community with an established community harvest limit for that species counts towards the community harvest limit for that species. Except for wildlife taken pursuant to §____.10(d)(5)(iii)* ***or as otherwise provided for by this part****, an animal taken as part of a community harvest limit counts toward every community member's harvest limit for that species taken under Federal or State of Alaska regulations.*

In 2001, administrative clarifications were added to regulations at §____.25(e) *Hunting by designated harvest permit*. New provisions stipulated that a designated hunter recipient may not be a member of a community operating under a community harvest system, reflecting §____.25(c)(2), above (66 Fed. Reg. 122, 33758 [June 25, 2001]). These new provisions were the following:

> §____.25 Subsistence taking of fish, wildlife, and shellfish: general regulations[3]
>
> *(e) Hunting by designated harvest permit*
>
> *(1) As allowed by §____.26* [Subsistence taking of wildlife], *if you are a Federally-qualified subsistence user, you (beneficiary) may designate another Federally-qualified*

[3] §____.25 was formerly *Subsistence taking of wildlife* that was moved to §____.26 to make room for these *general regulations*.

subsistence user to take wildlife on your behalf ***unless you are a member of a community operating under a community harvest system.***

(2) The designated hunter must obtain a designated hunter permit and must return a completed harvest report.

(3) You may not designate more than one person to take or attempt to take fish on your behalf at one time.

(4) The designated hunter may hunt for any number of recipients but may have no more than two harvest limits in his/her possession at any one time, unless otherwise specified in §____.26.

After 1994, the Board recommenced adopting designated harvester provisions in unit-specific regulations through 2002.

Prior to 2003, the Board adopted designated hunter regulations for 21 unit-specific hunts. In 2003, the Board established the statewide designated hunter system, based on Regional Advisory Council recommendations, providing opportunities for subsistence users to receive deer, caribou, and moose from designated hunters, subject to unit-specific regulations to include other species and special provisions (68 Fed. Reg. 38466 [June 27, 2003]). Where Councils agreed with these general statewide provisions, then unit-specific regulations were rescinded unless they included other species or special provisions.

In April 2020, the Board adopted deferred Proposal WP18-19 with modification to establish a community harvest system moose in Units 11 and caribou and moose in Unit 13 that will be administered by the Ahtna Intertribal Resource Commission (AITRC). The modification was to name individual communities within the Ahtna traditional use territory authorized to harvest caribou and moose in Unit 13 and moose in Unit 11 as part of a community harvest system, subject to a framework established by the Board under unit specific regulations. While developing the framework for the community harvest system over the summer of 2020, AITRC representatives and Federal agency staff realized that current Federal regulations prevent the use of designated hunters by any community member whether or not they choose to participate in the community harvest system (OSM 2020). In January 2021, the Board approved the community harvest system framework that describes additional details about implementation of the system (OSM 2021a).

Harvest History

The Designated Hunter Permit database is maintained at the Office of Subsistence Management. **Table 2** describes the use of the designated hunter system since 2002 when the permit system was implemented. Designated hunters have reported harvesting caribou, deer, moose, sheep, goats, and muskoxen. Most of the reported harvest by designated hunters is for deer (84%, or 4,717, ,), and most of those are taken from Southeast Alaska (Units 1–5). Designated hunter harvests of caribou account for 12% (658 caribou), and moose 4% (212 moose).

Table 2. Use of Federal designated hunter system based on completed harvest reports 2002-2020 cumulative, by species and management unit (OSM 2021b).

Management Unit	Number of Animals Harvested by Designated Hunters 2002-2020
Caribou	
9	4
12	109
13	477
17	8
18	6
20	31
Unknown	23
Total	658
Dall Sheep	
23	3
Deer	
1	57
2	146
3	1,178
4	22
6	0
8	10
2	727
4	1,836
5	11
6	3
8	672
Unknown	55
Total	4,717
Moose	
1	9
3	9
5	34
6	36
11	7
12	1
13	67
15	18
18	3
19	12
21	2
24	5
25	1
26	2
Unknown	6
Total	212

Continued on next page.

Management Unit	Number of Animals Harvested by Designated Hunters 2002-2020
Continued from previous page.	
Management Unit	**Number of Animals Harvested by Designated Hunters 2002-2020**
Mountain Goats	
1	1
4	5
Total	6
Muskoxen	
22	3

Cultural Knowledge and Traditional Practices

See the Cultural Knowledge and Traditional Practices section in the Proposal WP22-01 analysis.

Effects of the Proposal

If this proposal is adopted, then Federal designated hunter regulations will no longer preclude members of communities with a community harvest system from designating another person to take wildlife on their behalf to fulfill either their individual harvest limit or count toward the community harvest limit, pursuant to Federal designated hunter regulations. Effects to nonsubsistence uses or wildlife are not anticipated.

If this proposal is not adopted, then Federal designated hunting regulations will continue to preclude residents of communities in a community harvest system from designating another person to take wildlife on their behalf, even though some residents may choose not to participate in the community harvest system. Effects to nonsubsistence uses or wildlife are not anticipated.

OSM PRELIMINARY CONCLUSION

Support Proposal WP22-02.

Justification

The intent of the proposed regulation change is to allow members of a community with a community harvest system to designate another person to harvest on their behalf to meet either their individual harvest limit or count toward the community harvest limit, pursuant to Federal designated harvester regulations. Therefore, the statements in general and unit-specific regulations addressed by this proposal, WP22-02, will no longer be relevant and should be removed. Additionally, these regulatory changes will provide more equitable harvest options and opportunities for subsistence users.

LITERATURE CITED

OSM. 1994. Report of the designated hunter task force. Office of Subsistence Management, USFWS. Anchorage, AK. 34 pages.

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OSM. 2021a. Federal Subsistence Board News Release, February 3, 2021: Federal Subsistence Board approves changes to subsistence fishing regulations. https://www.doi.gov/subsistence/news/general/federal-subsistence-board-approves-changes-subsistence-fishing-0. Retrieved July 14, 2021. Office of Subsistence Management, USFWS, Anchorage, AK.

OSM 2021b. Federal permit system. Electronic database. Office of Subsistence Management, USFWS, Anchorage, AK.

APPENDIX 1

STATE PROXY HUNTING REGULATIONS

5 AAC 92.011. Taking of game by proxy

(a) A resident hunter (the proxy) holding a valid resident hunting license may take specified game for another resident (the beneficiary) who is blind, physically or developmentally disabled, or 65 years of age or older, as authorized by AS 16.05.405and this section.

(b) Both the beneficiary and the proxy must possess copies of a completed proxy authorization form issued by the department. The completed authorization must include

(1) names, addresses, hunting license numbers, and signatures of the proxy and the beneficiary;

(2) number of the required harvest ticket report or permit harvest report;

(3) effective dates of the authorization; and

(4) signature of the issuing agent.

(c) A proxy authorization may not be used to take a species of game for a beneficiary for more than the length of the permit hunt season listed on the proxy authorization or for the maximum length of the species general season listed on the proxy authorization.

(d) A person may not be a proxy

(1) for more than one beneficiary at a time;

(2) more than once per season per species in Unit 13;

(3) for Tier II Caribou in Unit 13, unless the proxy is a Tier II permittee;

(4) for more than one person per regulatory year for moose in Units 20(A) and 20(B).

(e) Repealed 7/26/97.

(f) A proxy who takes game for a beneficiary shall, as soon as practicable, but not later than 30 days after taking game, personally deliver all parts of the game removed from the field to the beneficiary.

(g) Except for reporting requirements required by (h) of this section, a proxy who hunts or kills game for a beneficiary is subject to all the conditions and requirements that would apply to the beneficiary if the beneficiary personally hunted or killed the game.

(h) Reporting requirements for proxy and beneficiary are as follows:

(1) if the proxy takes the bag limit for the beneficiary, the proxy shall provide the beneficiary with all the information necessary for the beneficiary to complete and return the harvest ticket report or permit harvest report, as required by regulation, to the department within the time periods specified for such reports; the beneficiary is responsible for the timely return of the harvest ticket and permit harvest reports;

(2) if the proxy is unsuccessful or does not take the bag limit for the beneficiary, the proxy shall provide the beneficiary with any information necessary for the beneficiary to complete and return the harvest ticket report or permit harvest report, as required by regulation, to the department within the time periods specified for such reports; the beneficiary is responsible for the timely return of the harvest ticket and permit harvest reports;

(3) the department may require the proxy to complete a proxy hunter report issued with the authorization form and mail it to the department within 15 days after the effective period of the authorization.

(i) A person may not give or receive remuneration in order to obtain, grant, or influence the granting of a proxy authorization.

(j) A proxy participating in a proxy hunt must remove at least one antler from the skull plate or cut the skull plate in half, on an antlered animal, for both the proxy's animal and the beneficiary's animal before leaving the kill site, unless the department has established a requirement that complete antlers and skull plates must be submitted to the department.

(k) Proxy hunting under this section is only allowed for

(1) caribou;

(2) deer;

(3) moose in Tier II hunts, any-bull hunts, and antlerless moose hunts; and

(4) emperor geese.

(l) Notwithstanding (k) of this section, proxy hunting is prohibited in the following hunts where the board has determined that the use of the proxy would allow circumvention of harvest restrictions specified by the board, or where the board has otherwise directed:

(1) Unit 20(E) moose registration hunts and Units 20(B), 20(D), 20(E), 20(F), and 25(C) Fortymile and White Mountains caribou registration hunts;

(2) Units 21(B), 21(C), 21(D), and 24 moose hunts if either the proxy or the beneficiary holds a drawing permit for Units 21(B), 21(C), 21(D), or 24 moose hunts;

(3) Units 9(A) and 9(B), unit 9(C), that portion within the Alagnak River drainage, and units 17(B), 17(C), 18, 19(A), and 19(B) caribou hunts from August 1 through October 31;

(4) Unit 5(A) deer hunts from October 15 through October 31;

(5) Unit 20(D), within the Delta Junction Management Area, the moose drawing hunt for qualified disabled veterans.

WP22-37 Executive Summary	
General Description	Proposal WP22-37 requests that the Federal Subsistence Board recognize the customary and traditional use of ptarmigan in Unit 9D by residents of Cold Bay, King Cove, Sand Point, Belkofski, Sanak, Pauloff Harbor, Unga, and Nelson Lagoon. *Submitted by: Della Trumble.*
Proposed Regulation	**Customary and Traditional Use Determination--Ptarmigan** *Unit 9D* ~~*All rural residents*~~ ***Residents of Cold Bay, King Cove, Sand Point, Belkofski, Sanak, Pauloff Harbor, Unga, and Nelson Lagoon.***
OSM Preliminary Conclusion	**Support** Proposal WP22-37 **with modification** to recognize the customary and traditional use of ptarmigan by residents of Unit 9D. The modified regulation should read: **Customary and Traditional Use Determination— Ptarmigan** *Unit 9D* ~~*All rural residents*~~ ***Residents Unit 9D***
Kodiak/Aleutians Subsistence Regional Advisory Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	None

DRAFT STAFF ANALYSIS
WP22-37

ISSUES

Wildlife Proposal WP22-37, submitted by Della Trumble of King Cove, requests a change to the customary and traditional use determination for ptarmigan in Unit 9D from all rural residents to residents of Cold Bay, King Cove, Sand Point, Belkofski, Sanak, Pauloff Harbor, Unga, and Nelson Lagoon.

DISCUSSION

In the proposal the proponent shares:

> The Ptarmigan population has been declining in Unit 9D. Federal and State biologists currently do not have population estimates. The status of the ptarmigan population are currently based on hunter reports and observations. Ptarmigan are an important resource for the residents of Unit 9D. Establishing a regional Customary and Traditional Use Determination for ptarmigan will allow managers to restrict harvest when the ptarmigan population has reached a level of conservation concern. Restrictions could close the season for nonresidents and allow for subsistence harvest by residents that have a Customary and Traditional Use Determination for ptarmigan.

Through proposal WP22-37, the proponent requests the evaluation of the uses of ptarmigan by rural residents of Cold Bay, King Cove, Sand Point, Belkofski, Sanak, Pauloff Harbor, Unga, and Nelson Lagoon. There has not been any Federal determinations made for customary and traditional uses of ptarmigan in Unit 9D.

Existing Federal Regulation

Customary and Traditional Use Determination—Ptarmigan

Unit 9D	*All rural residents.*

Proposed Federal Regulation

Customary and Traditional Use Determination— Ptarmigan

Unit 9D	~~*All rural residents.*~~ ***Residents of Cold Bay, King Cove, Sand Point, Belkofski, Sanak, Pauloff Harbor, Unga, and Nelson Lagoon.***

Extent of Federal Public Lands

Unit 9D is comprised of approximately 45% of Federal public lands and consists of just under 100% U.S.

Fish and Wildlife Service managed lands with a small portion of Bureau of Land Management managed lands (see **Unit Map**).

Regulatory History

In 1990, the Federal Subsistence Board (Board) assumed subsistence management responsibilities on Federal public lands and adopted existing State customary and traditional use determinations. The State did not recognize customary and traditional uses of ptarmigan in Unit 9D, and no proposals to change customary and traditional uses of ptarmigan in Unit 9D have been submitted since the inception of the program. Therefore, all rural residents are eligible to hunt ptarmigan during Federal seasons (57 FR 22961; May 29, 1992).

In February of 2018 the BOG adopted Proposal 134 to shorten the season for ptarmigan and reduce the daily harvest and possession limits in Unit 9. This proposal was adopted due to observed declines in ptarmigan populations in Unit 9 since 2014, and ongoing public concern pertaining to the decline in the region. A year later, the Board passed proposal WP20-31 that likewise reduced the bag limit and season of ptarmigan, matching those of BOG. The current season for ptarmigan in Unit 9 is August 10-the last day of February; the bag limit is 10 ptarmigan a day and 20 in possession.

Background: Harvest History

There is limited information on harvest history of ptarmigan in Unit 9D. Data on harvesting ptarmigan comes from a bird-health study in which harvesters voluntarily send the Alaska Department of Fish and Game (ADF&G) wings, tails, and heads of all species of grouse and ptarmigan (Merizon and Carroll 2021, 2019, 2017). In regulatory year 2014/15, 27 total wings from willow and rock ptarmigan wings were collected from users in Unit 9 (Merizon and Carroll 2017). Eleven wings were collected in Unit 9 during regulatory year 2017/17 (Merizon and Carroll 2019), and less were collected in 2018/19 (Merizon and Carroll 2021). No inferences on ptarmigan harvesting or production can be made from the data (Merizon and Carroll 2019, 2020, 2021).

Community Characteristics

The proposal seeks to change the customary and traditional use determination for ptarmigan in Unit 9D from all rural residents to residents of Cold Bay, King Cove, Sand Point, Belkofski, Sanak, Pauloff Harbor, Unga, and Nelson Lagoon. All communities, current and historic, are located within Unit 9D. Belkofski, Sanak, Pauloff Harbor, and Unga are no longer occupied historic settlements and will not be further considered in the analysis. The communities of Cold Bay, King Cove, Nelson Lagoon, and Sand Point are currently occupied year-round by residents.

<u>Unit 9D Area History</u>

The archeological record indicates that there have been human populations in the western end of the Alaska Peninsula for at least 9,000 (Reedy, in print 2021). Two Alaska indigenous groups, Unangan and

Alutiiq, are known to have historically inhabited and hunted in Unit 9D. Euro western explorers, missionaries, and entrepreneurs started residing in the region by the 1700s. Russian traders and explorers travelled to the Aleutian Islands and up the Alaska coast in the mid-eighteenth century (McCartney 1984; Clark 1984). Russia claimed sovereignty over Alaska for 126-years, providing opportunities for Russian and other European explorers to settle and search for commercial resources including sea-otter pelts (McCartney 1984, Partnow 2001, Morseth 2003). Intermarriages between indigenous people, Russians, and others of European heritage took place as both Russian and Europeans settled into indigenous territories (Partnow 2001). The influx of immigrants from Europe and the United States to the Alaska Peninsula increased after Russia sold Alaska to the United States in 1867 (Morseth 2003).

Cold Bay

Cold Bay is situated on the farthest western extent of the Alaskan Peninsula, approximately 634 miles southwest of Anchorage. It is the site of the former World War II air base of Fort Randall and the current headquarters of the Izembek National Wildlife Refuge. In 2020, the US Census estimated the Cold Bay population to be 76, down 22 persons from the last census in 2010. Despite its small population size, it has one of the largest runways in the state and serves as regional a transportation hub.

King Cove

King Cove is located across the bay from the community of Cold Bay and travel between the two is limited to boat or plane. King Cove was founded to support commercial fishing and canning operations. Early settlers to the community included Unangan, Scandinavian, and others of European heritage. The community is still one of the largest in the region, with a population of 900 residents (US Census 2020). The economy remains dependent on commercial fisheries and seafood processors.

Nelson Lagoon

Nelson Lagoon is the smallest community in Unit 9D and the only one located on the north side of the Alaska Peninsula. Nelson Lagoon was a seasonal fish camp, and then the location of a salmon saltery between 1906 and 1923. Nelson Lagoon became a permanent community with the opening of a school in 1965. The area supports a commercial fishery with most operations based out of the seasonally occupied Port Moller, which is across the lagoon. In 2020, the U.S. Census estimated the Nelson Lagoon population to be 32, down 18 persons from the last census in 2010.

Sand Point

Sand Point is the eastern most community within Unit 9D on the south side of the Alaska Peninsula. The community has a similar history to King Cove and Nelson Lagoon. Founded in 1898 by Scandinavian fishers as a base for commercial cod fishing and trade, Sand Point was settled by local Unangan people and others of European heritage. Sand Point continues to be a thriving commercial fishing community. In 2020, the US Census estimated the Sand Point population to be 880, down 96 persons from the 2010

census.

Eight Factors for Determining Customary and Traditional Use

A community or area's customary and traditional use is generally exemplified through the eight factors: (1) a long-term, consistent pattern of use, excluding interruptions beyond the control of the community or area; (2) a pattern of use recurring in specific seasons for many years; (3) a pattern of use consisting of methods and means of harvest which are characterized by efficiency and economy of effort and cost, conditioned by local characteristics; (4) the consistent harvest and use of fish or wildlife as related to past methods and means of taking: near, or reasonably accessible from the community or area; (5) a means of handling, preparing, preserving, and storing fish or wildlife which has been traditionally used by past generations, including consideration of alteration of past practices due to recent technological advances, where appropriate; (6) a pattern of use that includes handing down knowledge of fishing and hunting skills, values, and lore from generation to generation; (7) a pattern of use in which the harvest is shared or distributed within a definable community of persons; and (8) a pattern of use that relates to reliance upon a wide diversity of fish and wildlife resources of the area and provides substantial cultural, economic, social, and nutritional elements to the community or area.

The Board makes customary and traditional use determinations based on a holistic application of these eight factors (50 CFR 100.16(b) and 36 CFR 242.16(b)). The Board uses the eight factors to consider the pool of users who exhibits customary and traditional use. It is not necessary for to exhibit all eight factors to be recognized for customary and traditional use. In addition, the Board takes into consideration the reports and recommendations of any appropriate Regional Advisory Council regarding customary and traditional use of subsistence resources (50 CFR 100.16(b) and 36 CFR 242.16(b)). The Board does not use customary and traditional use determinations for resource management or restricting harvest. If a conservation concern exists for a particular population, the Board addresses that concern through proposals for imposition of harvest limits or season restrictions.

If a proposal is received requesting a customary and traditional use determination where none has been made previously for the resource, as is the case for ptarmigan in Unit 9D, the analyst evaluates use by rural residents who may, within reason, harvest the resource within the geographic boundaries defined by the proponent in the request. Records on harvesting data is limited (see Harvesting History section above). Community mapping suggests that residents harvest ptarmigan locally (Reedy 2021). This analysis therefore evaluates use of ptarmigan in Unit 9D by residents of permanent communities within that subunit: Cold Bay, King Cove, Sand Point, and Nelson Lagoon.

In 2010, the Secretary of the Interior asked the Board to review, with Regional Advisory Council input, the customary and traditional use determination process and present recommendations for regulatory changes. At its fall 2013 meeting, the Southcentral Alaska Subsistence Regional Advisory Council made a recommendation to "change the way such determinations are made by making area-wide customary and traditional use determinations for all species," and supported other Regional Advisory Councils when choosing a process that works best in their regions (SCSRAC 2013:107–110). In June 2016, the Board clarified that the eight-factor analysis applied when considering customary and traditional use

determinations is intended to protect subsistence use rather than limit it. The Board stated that the goal of the customary and traditional use determination analysis process is to recognize customary and traditional uses in the most inclusive manner possible

Cold Bay

The Board has recognized Cold Bay's customary and traditional uses of brown bear in Units 9D and 10 (Unimak Island) and caribou, moose, and wolf in Unit 9D.

Many residents of Cold Bay harvest wild food resources. In a 2016 ADF&G (2021a) comprehensive subsistence harvesting study, 23 out of an estimated 32 households were surveyed in Cold Bay, covering 45 out of an estimated 63 residents. All households surveyed reported that they used subsistence resources. An average of 232 lbs. of wild resources were harvested per person surveyed. Approximately 72% (168 lbs. per person) of the harvest was fish, most of which was salmon (64% of the total harvest). Large land mammals made up 13% of the harvest at 30 lbs. per person. Birds and eggs made up about 7% of the harvest at 17 lbs. per person. In addition to household consumption, most households also participate in resource sharing and other forms of redistribution. Twenty-two households (96% of the survey sample) reported receiving resources shared by others, and 20 households (87%) reported sharing resources with others.

Birds and eggs play a role in residents' customs and practices, including resource redistribution. For all birds and eggs, including those of ptarmigan, 15 of the 23 households surveyed (65% of the sample) reported using birds and eggs, and 10 households (43% of the sample) reported attempted harvest of birds and eggs (ADF&G 2021a). For resource sharing and redistribution, 11 households (48% of the sample) reported receiving birds and eggs from others, and 6 households (26% of the sample) reported sharing their harvest of birds and eggs.

One of the birds harvested by residents of Cold Bay is ptarmigan. Of those households surveyed, 6 households (26% of the sample) reported using ptarmigan, 7 households (30% of the sample) reported attempting to harvest ptarmigan, 4 households (17% of the sample) reported receiving ptarmigan, and 3 households (13% of the sample) reported sharing their harvest of ptarmigan with others (ADF&G 2021a). Those surveyed reported to have harvested a total of 20.79 lbs., which is an average of 0.90 lbs. per household and 0.46 lbs. per capita. It is estimated that the total harvest of ptarmigan for the community is 28.92 lbs. The amount of ptarmigan harvested accounts for less than 1% of the total amount of resources harvested.

Residents of Cold Bay harvest ptarmigan locally. The harvesting locations of 6 households were mapped in Reedy's 2021 subsistence survey. The exact locations of ptarmigan harvesting were not disclosed. Regardless, the maps demonstrate that Cold Bay residents harvest birds and eggs locally, within 30 miles of the community (Reedy 2021: 94).

King Cove

The Board recognized King Cove's customary and traditional uses of brown bear, caribou, moose, and

wolf in Unit 9D.

Like Cold Bay, most residents of King Cove also harvest wild foods. In 2016, ADF&G (2021b) surveyed 91 out of an estimated 172 occupied residences in King Cove, accounting for 279 of the estimated 527 residents, using for a report on harvesting and use of subsistence resources. Of those 91 households, 88 households (96.7% of the sample) reported that they used and harvested wild resources. Additionally,81 households (89% of the sample) reported receiving resources shared by others, and approximately 74% of the surveyed households reported sharing resources with others. The per person harvest for the study year was 297 lbs. 77% of the harvest was fish (228 lbs per person), with salmon alone being 65% of the total reported harvest (191 lbs. per person). Large land mammals made up 6% of the harvest (17 lbs. per person).

For all birds and eggs, including those of ptarmigan, 55 households (60% of the sample) reported using birds and eggs. 40 households (44% of the sample) reported attempted harvest of birds and eggs, 35 households (38% of sample) reported that they harvested them (ADF&G 2021b). Survey participants reported harvesting 4,790 total eggs and birds, and it is estimated that the whole community harvested 9,053 of them. The amount of eggs and birds harvested accounts for 3% of the total amount of resources that participants reported harvesting, which is an average of 7 lbs. per person. In terms of resources sharing, 30 households (33% of the sample) reported receiving birds and eggs from others, and 17 households (19% of samples) reported giving them.

Residents harvested and shared ptarmigan. Ptarmigan was used by 21 of the households surveyed (23% of the sample, ADF&G 2021b). 18 households (20% of sample) reported attempting to harvest ptarmigan. Surveyed households reported a total of 194 ptarmigan, and it is estimated that all community members harvested a total of 367 ptarmigan. By total mass, surveyed participants harvested an average of 0.5 lbs. of ptarmigan per person, which is less 0.2% of the total amount of resources harvest. Six of the households surveyed (7% of the sample) reported that they received ptarmigan from others, and two households (2% of the sample) reported giving them.

Much like the residents of Cold Bay, residents of King Cove harvest ptarmigan locally. Forty-four households reported their harvesting locations on the recent subsistence survey conducted by Reedy (2021: 94). All locations were within 30 miles of the community. Likewise, Reedy (2021:70) reported that "ptarmigan were hard to find and many people believed them to be overhunted. Many households said they did not go hunting because the population is depressed."

Nelson Lagoon

The Board has recognized Nelson Lagoon's customary and traditional uses of brown bear, caribou, moose, and wolf in Unit 9D.

Wild resources have been important to residents of Nelson Lagoon residents. In a 2009 comprehensive household subsistence survey, Reedy-Maschner and Maschner (2012) interviewed 22 out of an estimated 24 occupied households. Survey participants reported harvesting a total of 13,613 lbs of food, which averages 261 lbs. per person. It is estimated that the whole community harvests 14,851 lbs of wild foods.

The composition of the reported community harvest was 10,694 lbs. of salmon (72% of total harvest), 1,460 lbs. of plants (10% of total harvest), 954 lbs. of land mammals (6% of total harvest), 882 lbs. of non-salmon fish (6% of total harvest), 680 lbs. of birds and eggs (5% of total harvest), and 181 lbs. of shellfish (1% of total harvest). Resource sharing, or redistribution, has been important to Nelson Lagoon residents. Based on the interviews with participants in 2009, it is estimated that 2,889 pounds (or 18% of all wild food consumed) were received from others (Reedy-Maschner and Maschner, 2012). In a 1987 ADF&G (2021b) comprehensive household subsistence survey, all 13 households surveyed out of an estimated 18 total households claimed they both gave wild resources to others and received.

Ptarmigan has been an important resource in Nelson Lagoon than in the other three communities. The 1987 ADF&G (2021c) subsistence household survey reports that 12 of the 13 surveyed household claimed they used ptarmigan. This was the same number of people who reported using any birds and eggs. Despite its small size, ptarmigan has been one of the most harvested resources by residents: ptarmigan was the ninth ranked species harvested by total weight in 1987, and the 10th ranked species in 2009 (Reedy-Maschner and Maschner, 2012). In 1987, 11 households reported that they attempted to harvest ptarmigan (85% of the sample), and all harvesters were successful. Participants reported harvesting a total of 378 ptarmigan, which was an average of 4 lbs per person and the most harvested of all birds. It is estimated that the whole community, consisting of an estimated 18 occupied households, harvested a total of 523 ptarmigan (ADF&G 2021c). The 2009 estimate for total community total harvest was 165 lbs., with an average of 3 lbs. per person. (Reedy-Maschner and Maschner, 2012). Redistribution of ptarmigan also demonstrates its importance to Nelson Lagoon residents. In 1987, 6 households (46% of the sample) claimed that they gave ptarmigan to others and the same amount reported that they received it (ADF&G 2021c).

Sand Point

The Board has recognized Sand Point's customary and traditional uses of brown bear, caribou, moose, and wolf in Unit 9D.

Wild resources are also important to households in Sand Point. One-hundred-and-one households out of an estimated 248 occupied residences participated in ADF&G's 2016 comprehensive household survey, covering 269 out of the 509 estimated residents (ADF&G 2021c). Ninety-seven of those participating households (96% of the households) used and harvested wild resources; 95 households (94% of the sample) reported receiving resources shared by others; and 78 households (77% of the sample) reported sharing resources with others. Households reported harvesting a total of 86,488 lbs. of wild food, or an average of 324 lbs. per person. It is estimated that the whole community harvested 164,996 lbs. of wild resources in total. Of the total harvest reported, 78% was fish (251 lbs. per person), most of which was salmon (68% of the total reported harvest, which is an average of 221 lbs. per person). Large land mammals made up 14% of the total reported harvest at an average of 46 lbs. per person.

For birds and eggs, 45 households (44% of the sample) reported using ptarmigan; 36 households (36% of the sample) said they attempted to harvest birds and eggs; 3 households (3% of the sample) claimed they received birds and eggs from others; and 2 households (2 % of the sample) reported giving them to others.

When asked about the harvest of birds in general, residents of Sand Point said they used to harvest birds more frequently, but now it is a "whole lotta work" to hunt and pluck them and that the "best gift is an already plucked bird" (Reedy 2021: 43).

Ptarmigan were used by 10 participating households (9% of the sample). Eleven households (11% of the sample) reported attempting to harvest ptarmigan; 2 reported receiving ptarmigan; and 1 reported sharing their harvest of ptarmigan with others (ADF&G 2021b). The total reported harvest of ptarmigan was 52.36 lbs., which is an average of 0.2 lbs. per person. It is estimated that the total harvest of ptarmigan by all Sand Point residents was 99 lbs. In terms of resource sharing, 11 households (11% of the sample) said that they gave ptarmigan to others and 8 households (8% of the sample) claimed they received them. In a 2020 survey, residents said there were hardly any ptarmigan in the years preceding the survey and no harvest and use locations were noted on the maps provided (Reedy 2001). Residents harvested the majority of ptarmigan on Popof Island (where Sand Point is located) and on nearby Unga Island (Reedy 2021). Residents traveled further to harvest terrestrial mammals and saltwater fish than birds and eggs (Reedy 2021).

Effects of the Proposal

If this proposal is adopted, only the residents of Cold Bay, King Cove, Nelson Lagoon, and Sand Point would have customary and traditional use for ptarmigan in Unit 9D. Currently all rural residents may harvest ptarmigan in Unit 9D. Recognizing the customary and traditional use of ptarmigan by the communities of Unit 9D will restrict Federal harvest opportunities for other rural residents. However, most hunters prefer to pursue opportunities for the harvest of resources close to home, so this is not seen as a hardship.

OSM PRELIMINARY CONCLUSION

Support Proposal WP22-37 **with modification** to recognize the customary and traditional use of ptarmigan by residents of Unit 9D.

The modified regulation should read:

Customary and Traditional Use Determination— Ptarmigan

Unit 9D	~~*All rural residents.*~~ ***Residents of Unit 9D***

Justification

The Board has already recognized the customary and traditional uses for terrestrial animals and fishes in Unit 9D by the communities of Cold Bay, King Cove, Nelson Lagoon, and Sand Point. Based on these previous determinations, the communities of Unit 9D have already established a recognized pattern of harvest and use of wild resources in their area consistent with the eight factors. In addition, each

community has demonstrated use of ptarmigan as well as demonstrated patterns of harvesting resources close to home. Finally, recognizing customary and traditional use for all residents of Unit 9D, rather than just those with permanent settlements in this analysis, will account for changes in settlement patterns within the unit.

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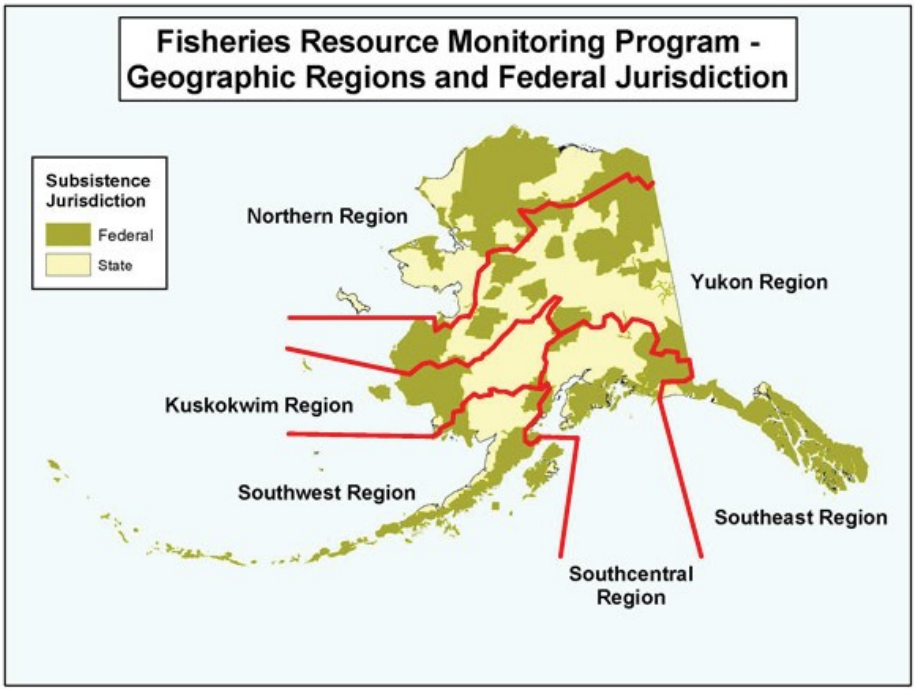
FISHERIES RESOURCE MONITORING PROGRAM

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 2022 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 2022 Fisheries Resources Monitoring Plan. The draft plan is distributed for public review and comment through Subsistence Regional Advisory Council meetings, beginning in September 2021. The Federal Subsistence Board will review the draft plan and will accept written and oral comments at its January 2022 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 $127 million has been allocated for the Monitoring Program to fund a total of 494 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

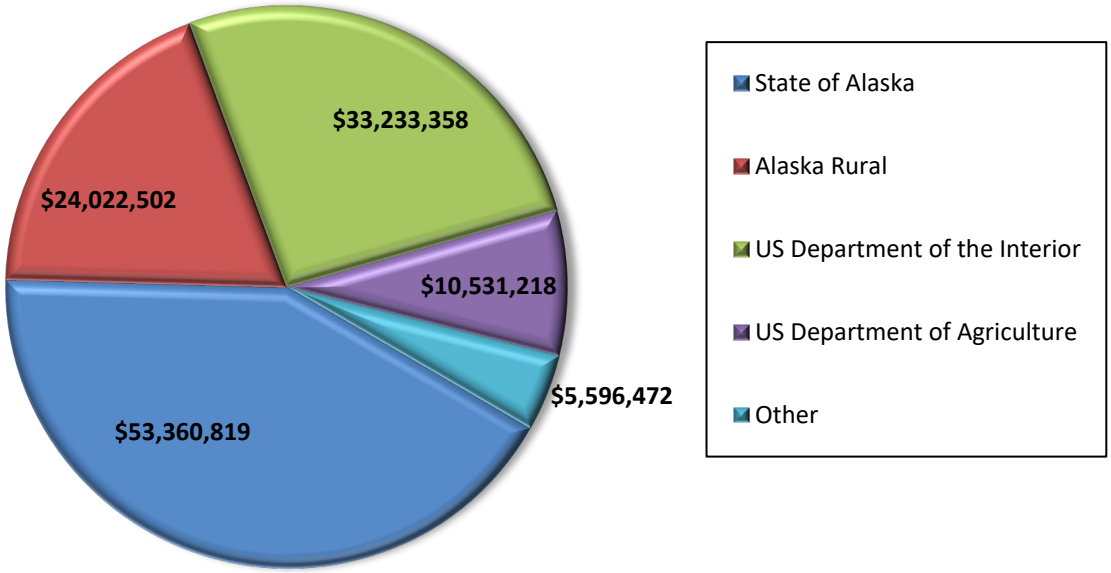


Figure 2. Number of Monitoring Program Projects Funded, by Organization Type, since 2000

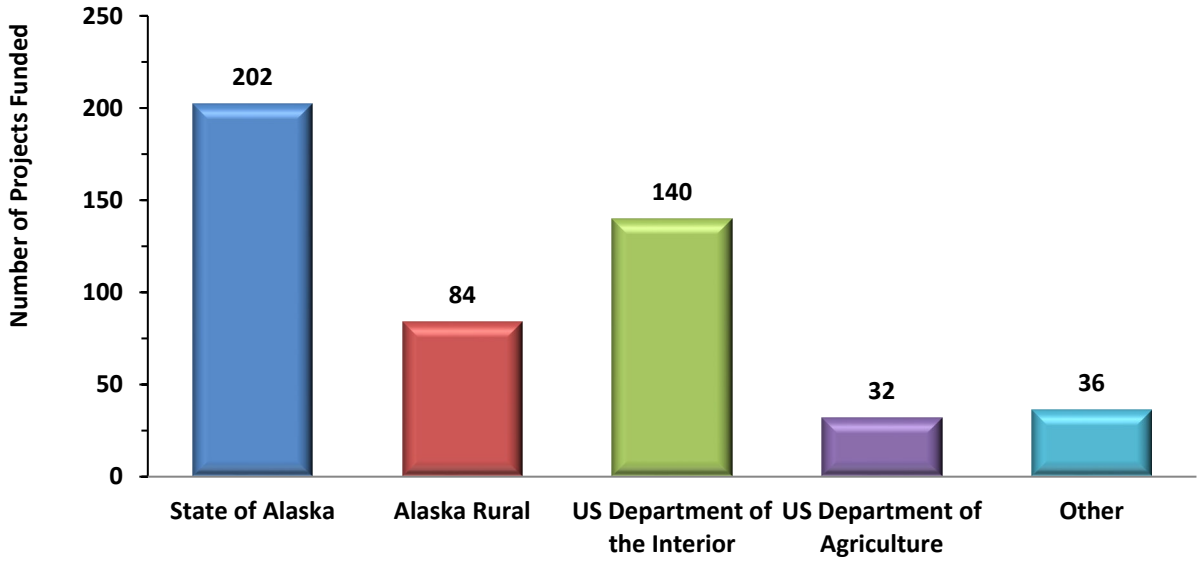
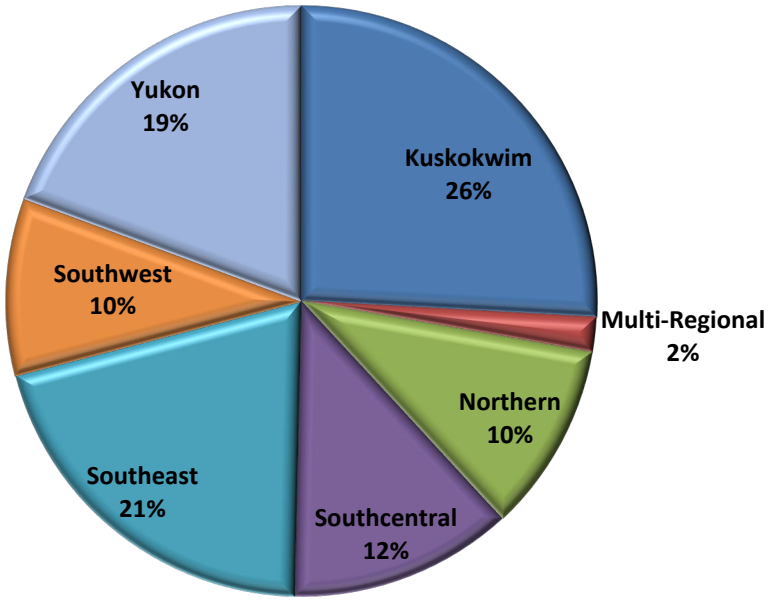


Table 1. Regional allocation guideline for Fisheries Resource Monitoring Program Funds.

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. Percentage 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 such as 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

The Monitoring Program prioritizes high quality projects that address critical subsistence and conservation concerns. 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, technically sound, administratively competent, promoting partnerships and capacity building, and are cost effective. Projects are first evaluated by a panel called the Technical Review Committee. This committee is a standing interagency committee of senior technical experts. The Technical Review Committee reviews, evaluates, and makes recommendations about proposed projects that are 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 2022 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. They 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 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.

2022 FISHERIES RESOURCE MONITORING PLAN

For 2022, a total of 42 investigation plans were received and all are considered eligible for funding. For 2022, the Department of the Interior, through the U.S. Fish and Wildlife Service, will provide an anticipated $1.5 million in funding for new projects. The U.S. Department of Agriculture, through the U.S. Forest Service, will provide an anticipated $750,000 in funding.

FISHERIES RESOURCE MONITORING PROGRAM
SOUTHWEST ALASKA REGION OVERVIEW

Since the inception of the Fisheries Resource Monitoring Program (Monitoring Program) in 2000, a total of 60 projects have been undertaken in the Southwest Alaska Region costing $11.9 million (**Figure 1**). Of these, the State of Alaska received funds to conduct 27 projects, the Department of the Interior had 27 projects funded, other organizations had 3 projects funded, and an Alaska rural organization had one project funded (**Figure 2**). See **Appendix 1** for more information on Southwest Alaska Region projects completed since 2000.

Figure 1. Monitoring Program Funds Distributed, by Organization Type, in the Southwest Region since 2000

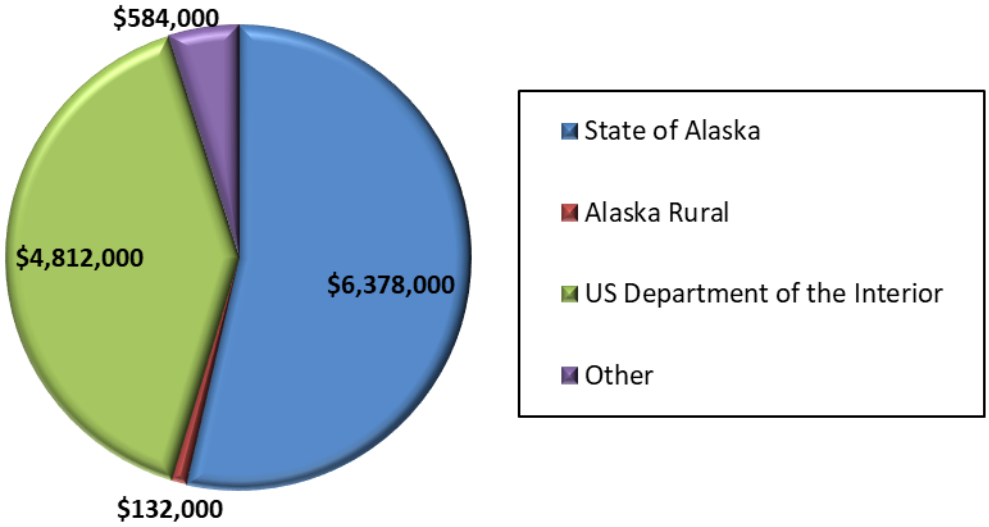
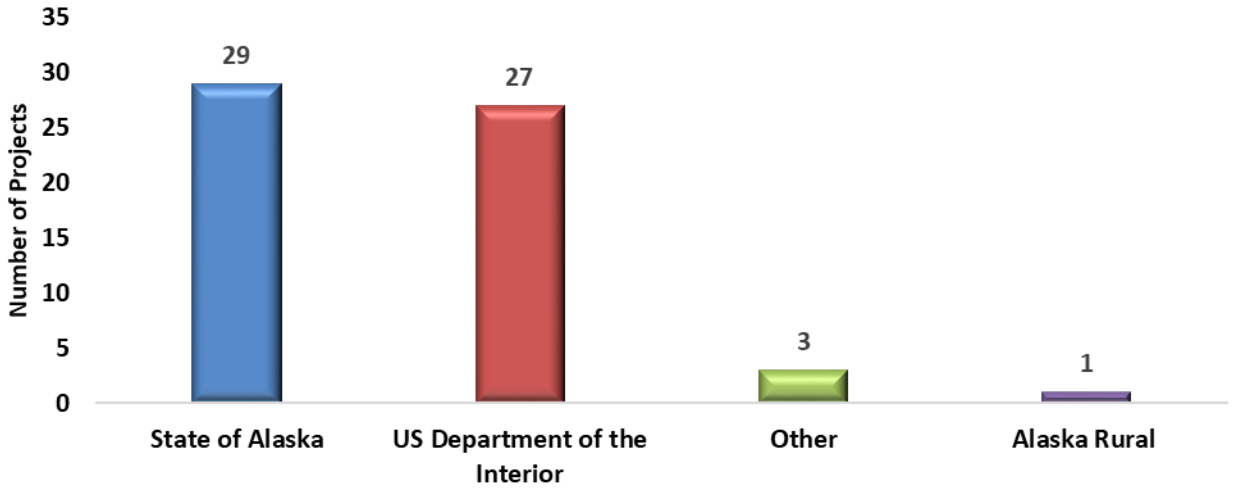


Figure 2. Number of Monitoring Program Projects Funded, by Organization Type, in the Southwest Region since 2000



PRIORITY INFORMATION NEEDS

The 2022 Notice of Funding Opportunity for the Southwest Alaska Region identified the following five priority information needs:

- (Bristol Bay) Reliable estimates of escapement, quality of escapement, and environmental impacts addressing decline of Chinook and Sockeye salmon for the Chignik River area and associated impacts to subsistence harvest opportunities.

- (Bristol Bay) Reliable estimates of Chinook Salmon escapement and evaluation of quality of escapement measures in Alagnak River, Big Creek, Meshik River, Naknek River, and Togiak River, including elements of potential egg deposition, sex and size composition of spawners, and spawning habitat quality and utilization for determining the reproductive potential of spawning stocks.

- (Southwest) Examine how recent changes in the Gulf of Alaska environment affect Sockeye Salmon within their range and habitats, noting particular concern for the Chignik drainages, using scale analyses of fresh water and saltwater growth patterns over multiple years to research changes in growth and survival of salmon in the Kodiak/Aleutians drainages (Buskin, and McClees drainages) and/or in the Bristol Bay/Alaska Peninsula drainages (Chignik, Nushagak, Naknek, and Togiak drainages).

- (Southwest) Reliable estimates of subsistence harvest and uses. Of particular interest are harvest trends in the communities of (Bristol Bay) Manokotak, Nondalton, (Kodiak) Chignik, Ouzinkie, the settlement Aleneva on Afognak Island, Port Lions, (Aleutians/AK Pen), Adak, Akutan, Atka, False Pass, Nelson Lagoon, Nikolski, St. Paul, and St. George.

- (Kodiak/Aleutians) Abundance and assessment of critical subsistence salmon stocks in priority areas such as the Buskin River.

AVAILABLE FUNDS

Federal Subsistence Board guidelines direct initial distribution of funds among regions. Regional budget guidelines provide an initial target for planning. For 2022, the U.S. Department of the Interior and U.S. Department of Agriculture, through the U.S. Fish and Wildlife Service and the U.S. Forest Service, will provide an anticipated $2.25 million in funding statewide for new projects.

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 funding plan for each region and across the entire state.

For the 2022 Monitoring Program, seven proposals were submitted for the Southwest 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 2022 Monitoring Program for the Southwest Alaska Region is in **Appendix 2**.

Table 1. Projects submitted for the Southwest Alaska Region, 2022 Monitoring Program, including total funds requested and average annual funding requests.

Project Number	Title	Total Project Request	Average Annual Request
22-400	Buskin River Weir	$490,530	$122,632
22-401	Chignik River Chinook Escapement	$601,223	$150,305
22-402	Lake Clark Sockeye Sonar	$108,845	$108,845
22-451	Subsistence Harvest Aleutian AK Peninsula	$184,905	$46,226
22-452	False Pass/Nelson Lagoon	$279,913	$93,304
22-453	Manokotak Subsistence Salmon Harvest	$208,382	$52,096
22-454	Ouzinkie/Port Lions Subsistence Harvest	$323,870	$107,957
Total		**$2,197,668**	**$1,580,408**

TECHNICAL REVIEW COMMITTEE JUSTIFICATIONS FOR PROPOSAL SCORES

Project Number: 22-400
Project Title: Buskin River Sockeye Salmon Stock Assessment and Monitoring

TRC Justification: This project addresses two of the Priority Information Needs listed in the 2022 Notice of Funding Opportunity for the Southwest Alaska Region and is a continuation of work funded through the Monitoring Program since 2000. The project would continue to provide estimates of Sockeye Salmon spawning escapement into the Buskin River through operation of a weir for four years, and obtain information on residency and traditional fishing sites from subsistence fishery participants. The project has decided to remove the second Lake Catherine/Louise weir that used to be funded under the Monitoring Program. The Sockeye Salmon run to Buskin River supports what is usually the largest subsistence fishery in terms of both harvest and permits issued in the Kodiak Management Area. The ADF&G Kodiak office has a proven record of successfully conducting and completing these past projects. Data collected at this weir since 2000 has been used by the State to assess and modify spawning escapement goals and improve run forecasts. This has allowed State and Federal managers to better manage subsistence harvests and avoid unnecessary restrictions. Past investigators have made strong

efforts to improve capacity building, with impressive results from the high school student intern program. At present, this project has resulted in 23 of 30 former interns returning to work for the Department. While the requested funding for the proposed work appears reasonable to accomplish project objectives, this project, given its long history and being located near the ADF&G Kodiak office and on a road system, should be more efficient and cost effective as time goes by. Adding an underwater video recording system to count fish might greatly reduce costs for future years. Additionally the project could be enhanced by engaging with local tribes to help administer and implement the weir project. The budget does not show the 150-hour contribution from the Kodiak Area Native Association.

Project Number: 22-401
Project Title: Chignik River Subsistence Harvest Surveys and Escapement Indexing

TRC Justification: This is an ambitious project to conduct both a stock, status and trends component using a weir and motion-detection camera equipment to enumerate salmon in the Chignik River, and compare these results to previous years that deployed a different technique using extrapolation. Additionally, the projects third objective addresses a harvest monitoring component by conducting subsistence harvest surveys for the Monitoring Program. Combined, these two approaches directly address two of the Priority Information Needs listed in the 2022 Notice of Funding Opportunity for the Southwest Alaska Region. If successful, this project would advance the techniques deployed to estimate the escapement of salmon in the Chignik River, which has been on a steady decline since 2018 and is beginning to prompt sincere attention towards monitoring, especially during years of low abundance. This proposal also seeks to keep the weir in operation later into the season and capture more of the late-run Sockeye Salmon, which directly addresses the need for ADF&G to manage for subsistence opportunity by ensuring an in-river run goal is met each year for subsistence purposes. In recent years, the weir has been removed in mid- to late-August, making it difficult to determine if the in-river run goals have been achieved.

Project Number: 22-402
Project Title: Improving Lake Clark Sockeye Salmon Escapement Monitoring in a Changing Climate

TRC Justification: This project does not directly address any of the Priority Information Needs listed in the 2022 Notice of Funding Opportunity for the Southwest Alaska Region. Adding a second sonar to this project would allow for a more complete escapement estimate, however with no species apportionment techniques being used and the assumption of no species overlap leaves uncertainty with the estimates. Additionally proper site selection for a sonar is necessary for proper ensonification and the proposal does not indicate a proper site for the sonar has been investigated and no details were given to ensure fish would not be double counted on the second sonar.

Project Number: 22-451

Project Title: Networks of Net Work: Subsistence Harvest Trends of Aleutian and Alaska Peninsula Communities on Federal Lands and Waters

TRC Justification: This four year project directly addresses a Monitoring Program information need by estimating the subsistence harvest and use of wild resources in the Aleutian and Alaska Peninsula communities of Adak, Akutan, Atka, False Pass, Nelson Lagoon, and Nikolski. All six communities were surveyed by Dr. Reedy for the 2010 and 2012 study years, but this proposed project would contribute harvest information consistent with the Community Subsistence Information System, publicly accessible database that summarizes and exports all results from comprehensive subsistence surveys conducted by the Alaska Department of Fish and Game Division of Subsistence. The principal investigator does not represent a rural organization and no co-investigator or agency partnerships are identified. The investigator will work with local organizations to hire and train local research assistants and survey respondents will be remunerated at $50 per household survey. No work on the proposed study would begin until formal tribal and community approvals are secured.

While the principal investigator has a proven track record of conducting and completing Monitoring Program projects (12-450 & 16-452) and successfully applying ethnographic methodology, the technical and scientific merit of this project is questionable. The goals and objectives are poorly structured and the cost benefit of the project is hard to estimate when all documents provided present a *different* budget total. The Investigation Plan and Budget Narrative claim a project total of $214,815; the Summary Section of the Budget Table claims a project total of $184,905; and the Budget Detail presents proposed total costs across each study year that when added together equals $265,050.

Project Number: 22-452
Project Title: False Pass and Nelson Lagoon Subsistence Harvest Monitoring and Traditional Ecological Knowledge (TEK) Investigation

TRC Justification: This three year project will estimate the subsistence harvest and use of wild resources in False Pass and Nelson Lagoon, evaluate the subsistence salmon permit system, and document local observations of environmental change in order to assess impacts on salmon populations and subsistence activities. The project directly addresses two Monitoring Program priority information needs for 2021 and Federal nexus is provided through the Izembek, Alaska Peninsula, and Alaska Maritime National Wildlife Refuges. The project research design employs proven ethnographic methodologies that are commonly utilized by the Division of Subsistence for most harvest estimate research. For this project investigators will conduct map biographies, participant observation, key respondent interviews, and systematic household surveys. The research design begins with participant observation and mapping biographies which allows the researchers to establish relationships with community members and develop insight into local practice while aiding in the refinement of the survey instrument and key respondent interview questions. Community consultation is integrated throughout most stages of the project design. The average annual cost of the project is reasonable considering the rural location of the communities and the work proposed over a three year period as opposed to four years. Extending the project timeline to allow for a longer timeframe to collect, reduce, and report data is suggested.

The Alaska Department of Fish and Game Division of Subsistence is the principal investigator and no other partnerships are proposed, however letters of support were submitted by the False Pass Tribal Council, Nelson Lagoon Tribal Council, Alaska Department of Fish and Game Division of Commercial

Fisheries, U.S. Fish and Wildlife Service Anchorage Fish and Wildlife Conservation Office, U.S. Fish and Wildlife Service Izembek National Wildlife Refuge, and The Aleutian Pribilof Islands Association.

Project Number: 22-453
Project Title: Subsistence Harvests and Uses of Salmon and Other Wild Resources in Manokotak, Alaska

TRC Justification: This four year project proposes to update harvest estimates and increase understanding of subsistence harvest and use patterns, especially of salmon, by residents of Manokotak within the context of environmental change. The project directly addresses two Monitoring Program Priority Information Needs for 2021 and Federal nexus is provided through the Togiak National Wildlife Refuge. The project research design employs proven ethnographic methodologies that are commonly utilized by the Division of Subsistence for most harvest estimate research. For this project investigators will administer a comprehensive household survey for the calendar year of 2022, map harvest and use areas using Collector for ArcGIS on an iPad, and conduct key respondent interviews. Because key respondent interviews will be conducted at different stages and for different purposes throughout the project, more than the 10 interviews identified are recommended. The cost of the project is more than reasonable for the work proposed across all project years.

This project represents an ongoing partnership between the Alaska Department of Fish and Game and the Bristol Bay Native Association who have successfully completed numerous Monitoring Program projects together over the last 15 years. Both organizations have the capacity to conduct research, meet deadlines, and project deliverables. Significantly, project investigators have already consulted with the Manokotak Village Council on the project design and received letters of support from the Manokotak Nunaniq School, the Manokotak Village Council, and the Togiak National Wildlife Refuge. Project investigators will work closely with the Manokotak Nunaniq School to integrate school age youth into the project and local research assistants will be hired.

Project Number: 22-454
Project Title: Reliable estimates of subsistence harvests and uses in Ouzinkie and Port Lions

TRC Justification: The proposed three-year project would consist of subsistence surveys, subsistence use mapping, and key informant interviews on salmon use in the communities of Port Lions and Ouzinkie. This data has not been collected since 2003 and is vital for Federal subsistence management in the region. Funding for this project would complement ongoing subsistence surveys in other rural communities in the Kodiak Archipelago. This project directly addresses the 2022 Kodiak/Aleutians Priority Information Need. The proposal's objectives are clear, measurable, and achievable. Kodiak National Wildlife Refuge provides Federal nexus. Letters of support were submitted by Ouzinkie Corporation and Ouzinkie and Port Lions tribal councils, as well as Kodiak National Wildlife Refuge.

APPENDIX 1
PROJECTS FUNDED IN THE SOUTHWEST ALASKA REGION SINCE 2000

Project Number	Project Title	Investigators
	Bristol Bay Salmon Projects	
00-010	Togiak River Salmon Weir	USFWS
00-031	Alagnak River Sockeye Salmon Escapement	AFD&G, NPS, BBNA
00-033	Alagnak River Angler Effort Index	ADF&G, NPS, BBNA
00-042	Lake Clark Sockeye Salmon Assessment	USGS
01-047	Togiak River Subsistence Harvest Monitoring	BBNA, ADF&G, USFWS
01-075	Nondalton Sockeye Salmon and Freshwater Fish TEK	NPS, NTC, USGS
01-095	Lake Clark Sockeye Salmon Escapement	USGS, NTC
01-109	Traditional Ecological Knowledge of Alaska Peninsula/Becharof NWR	ADF&G, BBNA
01-173	Alagnak River Harvest Salmon Escapement Estimation	ADF&G
01-204	Ugashik Lakes Coho Salmon Escapement Estimation	USFWS
03-046	Fisheries Biotechnician Training Program	NPS
04-411	Lake Clark Sockeye Salmon Run Timing	USFWS, BBNA
04-454	Bristol Bay Sharing, Bartering, and Traded of Subsistence Resources	ADF&G, BBNA
05-402	Lake Clark Sockeye Salmon Escapement	NPS, USGS
08-402	Togiak River Chinook Salmon Radio Telemetry	USFWS, BBNA, ADF&G
08-405	Lake Clark Sockeye Salmon Assessment	NPS, USS&E, BBNA
10-402	Togiak River Chinook Salmon Adult Assessment	USFWS, BBNA, ADF&G
16-451	Bristol Bay Subsistence Salmon Networks	ADF&G, BBNA, OSU
16-453	Togiak River Chinook Salmon Subsistence Harvest Assessment	ADF&G, BBNA
	Chignik Salmon Projects	
02-098	Kametalook River Coho Salmon Escapement & Carrying Capacity	USFWS, BBNA
02-099	Clark River Estimation of Sockeye and Coho Salmon Escapement	USFWS, BBNA
03-043	Perryville Coho Salmon Escapement	USFWS
05-405	Perryville-Chignik Coho and Sockeye Salmon Aerial Surveys	USFWS
07-404	Perryville-Clark River Coho and Sockeye Salmon Aerial Surveys	USFWS
	Bristol Bay-Chignik Freshwater Species Projects	
00-011	Togiak River Dolly Varden Genetic Baseline Development	USFWS
00-012	Bristol Bay Traditional Knowledge of Fish	ADF&G
02-034	Kvichak River Resident Species Subsistence Fisheries	ADF&G, BBNA
04-401	Ungalikthlik and Negukthlik Rivers Rainbow Trout Assessment	USFWS
04-415	Tazimina Rainbow Trout Assessment	ADF&G
05-403	Lake Clark Whitefish Assessment	ADF&G
07-408	Togiak River Rainbow Smelt Assessment	USFWS, BBNA

Project Number	Project Title	Investigators
07-452	Kvichak Watershed Subsistence Fishing Ethnography	ADF&G, BBNA, NPS
12-452	Whitefish Trends in Lake Clark and Iliamna Lake	ADF&G, BBNA, NPS, NTC
	Kodiak-Aleutians Projects	
00-032	Buskin River Sockeye Salmon Stock Assessment	ADF&G
01-059	McLees Lake Sockeye Salmon Escapement	USFWS
01-206	Mortenson Creek Sockeye and Coho Salmon Escapement	USFWS
02-032	Lower Alaska Peninsula/Aleutians Subsistence Fish Harvest Assessment	ADF&G, APIA, ISU
03-047	Afognak Lake Sockeye Smolt Enumerations Feasibility	ADF&G
04-402	Mortenson Creek Sockeye and Coho Escapement	USFWS
04-403	McLees Lake Sockeye Salmon Escapement	USFWS
04-412	Afognak Lake Sockeye Salmon Stock Assessment	ADF&G
04-414	Buskin River Sockeye Salmon Stock Assessment	ADF&G
04-457	Kodiak Subsistence Fisheries Harvest and TEK	ADF&G, KANA
07-401	Afognak Lake Sockeye Salmon Smolt Assessment	ADF&G
07-402	Buskin River Sockeye Salmon Weir	ADF&G
07-405	McLees Lake Sockeye Salmon Weir	USFWS, ADF&G, QT
10-401	Afognak Lake Sockeye Salmon Smolt and Adult Assessment	ADF&G
10-403	Buskin River Sockeye Salmon Adult Assessment	ADF&G
10-404	Buskin River Sockeye Salmon Smolt Assessment Feasibility	ADF&G
10-406	McLees Lake Sockeye Salmon Weir	USFWS, ADF&G, QT
12-450	Aleutian Islands Salmon and Other Subsistence Harvests	ISU
12-453	Kodiak Salmon Fishery Changing Patterns	ADF&G
14-401	Buskin River Sockeye Salmon Stock Assessment	ADF&G
14-402	Afognak Lake Sockeye Salmon Stock Assessment	ADF&G
16-452	Western Gulf of Alaska Salmon and Other Harvests	ISU
18-400	Buskin River Sockeye Salmon Stock Assessment and Monitoring	ADF&G
18-450	Unalaska Fish Harvest Practices	ADF&G
18-451	Subsistence Harvest Trends of Salmon and Nonsalmon Fish in 4 Southern Kodiak Island Communities	ADF&G
20-400	McLees Lake Sockeye Salmon Escapement	ADF&G/QT
20-450	Kodiak Road System Subsistence Salmon and Nonsalmon	ADF&G

Abbreviations used for investigators are: **ADF&G** = Alaska Department of Fish and Game, **APIA** = Aleutian-Pribilof Islands Association, **BBNA** = Bristol Bay Native Association, **ISU** = Idaho State University, **KANA** = Kodiak Area Native Association, **NPS** = National Park Service, **NTC** = Nondalton Tribal Council, **OSU** = Oregon State University, **QT** = Qawalangin Tribe, **USFWS** = U.S. Fish and Wildlife Service, **USGS** = U.S. Geological Survey, **USS&E** = U.S. Science and Education, and **UW** = University of Washington.

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:	22-400
Title:	Buskin River Sockeye Salmon Stock Assessment and Monitoring
Geographic Region:	Southwest
Data Type:	Stock Status and Trends
Principal Investigator:	Mark Witteveen, Alaska Department of Fish and Game Kelly Krueger, Alaska Department of Fish and Game

Project Cost:	**2022:** $64,261	**2023:** $129,903	**2024:** $118,935	**2025:** $177,431
Total Cost:	$490,530			

Issue Addressed: This proposal seeks funding to operate a fish enumeration weir on the Buskin River in Kodiak, Alaska. The Buskin River supports a federal subsistence fishery occurring within the Alaska Maritime National Wildlife Refuge which annually harvests relatively large numbers of sockeye salmon during May, June, and July. Salmon from the Buskin River drainage have been identified by the Federal Subsistence Board as a resource important for customary and traditional use by the residents of Kodiak. Annual operation of a salmon escapement weir at the Buskin Lake outlet will ensure that maximum harvest opportunities for federal subsistence users are sustained.

Objectives:

1. Census the sockeye salmon escapement into Buskin Lake from approximately May 15 to July 31.
2. Estimate the age composition of the sockeye salmon run to Buskin Lake such that the estimates are within 7.5 percentage points of the true value 95% of the time.
3. Measure sockeye salmon scales for freshwater and saltwater growth phases.
4. Update the Buskin River brood table and reevaluate the sockeye salmon BEG.
5. Provide education and career development opportunity for Alaska Natives and federally qualified subsistence users.

Methods: Sockeye salmon escapement will be enumerated annually through a weir at the outlet of Buskin Lake from May 15 through July 31. Fishery management actions taken inseason affecting subsistence, sport, and commercial fisheries will be based on comparison of cumulative weir counts to historical time of entry in order to project run strength and total escapement. Additionally, sockeye salmon will be sampled for age, sex and length (ASL), providing estimates of return by age for the Buskin River Watershed. Analyses of the return and age data collected since 1993 have allowed development of a brood table with estimates of total return having a relative precision of about 10%. Continued collection of age data at this level of sampling will allow for continuation of the brood table and future re-evaluation of the BEG. Scales will be measured as a surrogate for fish growth during

different life phases and measurements will be correlated with climate indices and improved forecasting resolution will be explored.

Partnerships/Capacity Building: During each year of the project ADF&G will continue a high school student internship program established in 2003 to provide education and career development opportunity for federally qualified subsistence users. Student interns recruited locally for the project will gain knowledge important to their academic and career development by learning the principles involved in fisheries management and research and obtaining hands-on experience in fisheries data collection methods and techniques. The ADF&G and Kodiak National Wildlife Refuge office of the U.S. Fish and Wildlife Service (USFWS) have established a cooperative agreement to utilize the Buskin River weir as an educational tool for the service's 'Summer Science and Salmon Camp' program, which provides a science-based venue for local youths to learn the importance of salmon for subsistence and other uses comprising an integral part of the Kodiak lifestyle.

Project Number:	22-401
Title:	Chignik River Subsistence Harvest Surveys and Escapement Indexing
Geographic Region:	Southwest
Data Types:	Stock Status and Trends, Harvest Monitoring and Traditional Ecological Knowledge
Principal Investigator:	Reid Johnson, Alaska Department of Fish and Game (ADFG)
Co-investigator:	Frank Harris, US Fish and Wildlife Service (USFW) George Anderson, Chignik Intertribal Coalition (CIC).
Project Cost:	**2022:** $153,671 **2023:** $148,080 **2024:** $149,446 **2025:** $150,026
Total Cost:	$601,223

Issue Addressed: This project focuses on two of the identified priority information needs for the Southwest Region of the 2022 Fisheries Resource Monitoring Plan Priority Information Needs:

1) Reliable estimates of escapement, quality of escapement, and environmental impacts addressing Chinook and sockeye salmon stock declines in the Chignik River area and associated impacts to subsistence harvest opportunities.
2) Reliable estimates of subsistence harvest and uses. Of particular interest are harvest trends in the Bristol Bay communities of Manokotak and Nondalton, the Chignik area, and the Kodiak area communities of Ouzinkie, the settlement Aleneva on Afognak Island, and Port Lions, and the Aleutians and Alaska Peninsula area communities of Adak, Akutan, Atka, False Pass, Nelson Lagoon, Nikolski, St. Paul, and St. George.

Recent returns of both sockeye and Chinook salmon to Chignik River have been below established escapement goals. Salmon escaping into the Chignik River water shed are enumerated at the Chignik River weir, operated by ADF&G. Ten-minute expanded counts are used to index escaping salmon; a 10-minute count is conducted every hour and multiplied by six to obtain an hourly escapement index. This method has been shown to be reliable for sockeye salmon indexing when compared to a complete census, as sockeye salmon pass in large numbers, and individual observation events (a single fish passing) number in the hundreds of thousands per year. Chinook salmon observation events are much rarer, with yearly individual observation events per year usually numbering in the hundreds. Expanded counts for Chinook salmon may lack both precision and accuracy.

Subsistence harvest estimates are lacking in the Chignik Area. Surveys conducted by ADF&G in 2012 indicate that 61 Chinook salmon were harvested for subsistence, however state subsistence permits only

indicate that 37 Chinook salmon were harvested. Federally qualified subsistence users (FQSU) are issued on average three federal subsistence permits a year, and the reported harvested per year on federal subsistence permits varies from between zero to five. Subsistence fish harvest is likely going underreported due to lack of knowledge of reporting requirements, lack of access to subsistence permits, or both.

ADF&G is mandated to manage for subsistence opportunity by ensuring an in-river run goal (IRRG) is met each year for subsistence purposes. The IRRG mandates that 10,000 sockeye salmon must escape past the weir specifically for subsistence purposes in both August and September (20,000 sockeye salmon). In recent years, the weir has been removed in mid- to late-August, making it difficult to determine if the IRRG has been met in August and September.

Objectives:

The overall goal of this project is to obtain better escapement indices for Chinook salmon, escapement metrics (age, sex, and length information) for Chinook and sockeye salmon into late August, and subsistence harvest information from FQSU fishing in federal waters of the Chignik area. The specific objectives are:

1. Enumerate all Chinook salmon that pass through the Chignik River weir during the central 80% of the Chinook salmon run using video cameras and FishTick™ software. These counts will be compared to the traditional method of enumerating salmon (10-minute expansion).
2. Extend operation of the Chignik River weir, counting Chinook, sockeye, pink, coho, and chum salmon from August 1 to the latest date possible to obtain the most accurate estimate of escapement and provide the maximum number of observations. Exact removal date will be determined by tidal height. Extending the weir operations will also allow ADF&G staff to continue collecting metrics from both Chignik River Chinook and sockeye salmon.
3. Collect in-season federal subsistence harvest data from FQSU in the Chignik area from mid-June - November using a Chignik area local hire.

Methods: Objective 1: From approximately June 20 through approximately August 15 all Chinook salmon that pass through the Chignik River weir will be recorded 24-hours a day using an underwater video camera and lights. Computer software (FishTick™) will examine the video recordings and provide a complete census of Chinook salmon passage. This complete computer-generated census will be compared to both the standard 10-minute expanded counts, and a complete video census conducted by an ADF&G employee using linear regression.

Objective 2: The operation of the Chignik River weir will be extended as late as possible into August to provide the most information possible about the end of the sockeye salmon run at Chignik River, as well as other species. Indexing of escaping salmon will continue through this time, as will weekly sampling; a minimum of 240 sockeye salmon will be sampled weekly, and Chinook salmon will be sampled opportunistically. Age, sex, and length information will be collected from sampled fish. Age, sex, and length information will be collected in accordance with published ADF&G operational plans for escapement sampling.

Objective 3: To obtain reliable estimates of subsistence salmon harvested in federally managed waters, the USFWS and the CIC will partner to hire and train a seasonal fisheries technician. This technician will be trained to issue federal subsistence permits to qualified subsistence users, and will conduct weekly surveys from May through November, interviewing FQSU about subsistence harvest effort.

Partnership and Capacity Building: ADF&G, the CIC, and USFWS are committed to the project to develop a robust partnership with goals to provide real time data to federal and state in-season managers.

This project promotes partnership and capacity building in two ways:

1. Direct employment and training opportunities for rural Alaskans working on fisheries monitoring and assessment projects.
2. Providing valuable in-season Federal subsistence harvest data from willing participants.

The USFWS will work with the Chignik Coalition and ADF&G to develop a harvest monitoring sampling plan that will meet the needs of all parties involved. The Chignik Coalition will be a valuable partner for defining how sampling can be completed without disrupting local harvest patterns and use.

The Chignik Coalition will play a key role in this project. Without their partnership and experience in the area it would be difficult for the USFWS to be able to collect the harvest information in a timely manner. The employee hired by the Chignik Coalition will have local connections with the village, which will help allowed weekly collection of FQSU harvest information; a USFWS technician would have more difficulty gathering subsistence harvest information. The coalition will gain experience in managing employees in these types of projects and will be better suited to compete for funding of similar projects in the future.

Project Number:	22-402			
Title:	Improving Lake Clark Sockeye Salmon Escapement Monitoring in a Changing Climate			
Geographic Region:	Southwest			
Data Types:	Stock Status and Trends			
Principal Investigator:	Dan Young, Lake Clark National Park and Preserve (NPS)			
Co-investigator:	Krista Bartz, National Park Service (NPS)			
Project Cost:	**2022:** $108,845	**2023:** $0	**2024:** $0	**2025:** $0
Total Cost:	$108,845			

Issue Addressed: This project proposes to improve monitoring of the Newhalen/Lake Clark Sockeye Salmon escapement by expanding sonar coverage. The Lake Clark drainage is located within the federally managed Lake Clark National Park and Preserve (LACL), and Sockeye Salmon are the most important subsistence resource for federally qualified subsistence users in the area. Escapement monitoring on the Newhalen River was previously funded by the Office of Subsistence Management from 2000 to 2011 and is currently funded by the National Park Service. Obtaining reliable estimates of spawning escapement over time is the number one priority identified by the Subsistence Fisheries Resource Monitoring Program for Bristol Bay and specifically identified for Lake Clark stocks in most years. Expanding sonar coverage will provide a more reliable estimate of the Newhalen/Lake Clark escapement, especially during years with poor water clarity (e.g., 2009 and 2019 when counts were stopped because of poor visibility). Further, this project will provide equipment that will be used by LACL in the future to monitor this important subsistence resource. Project deliverables will include presentations to LACL Subsistence Resource Commission and Bristol Bay Regional Advisory Council, a progress, annual, and final report, providing data on daily and annual Lake Clark escapements, return time, comparison between methodologies, and Sockeye Salmon age and size composition. This information will be used to evaluate current stock status and trends and assess whether escapement is adequate to meet subsistence needs.

Objectives:

1. Estimate Lake Clark Sockeye Salmon escapement
2. Compare escapement estimates from tower and sonar counts and assess relationships with environmental co-variates
3. Determine age, sex, and length of the Lake Clark Sockeye Salmon escapement

Methods: Sockeye salmon will be counted as they ascend the Newhalen River. Standard ADF&G counting tower and sonar protocols will be used to enumerate fish. Age and size data will be collected from sockeye salmon in collaboration with the subsistence community of Nondalton.

Partnerships and Capacity Building: The LACL Natural Resources Program has an established history of partnerships and capacity building. Please review FIS files from past projects for the history of communications and collaborations. Our program is dedicated to improving management of subsistence fisheries by providing data on status and trends of sockeye salmon to subsistence users and managers in the region. Our capacity building efforts have focused on education and job opportunities related to sockeye salmon and dissemination of acquired information to all stakeholders. Since 2004, we have intermittently partnered with Bristol Bay Native Association to assist with the hiring, recruitment, and training of local residents on our projects.

Project Number:	22-451			
Title:	Networks of Net Work: Subsistence Harvest Trends of Small-Scale Aleutian and Alaska Peninsula Communities			
Geographic Region:	Southwest			
Data Types:	Harvest Monitoring/Traditional Ecological Knowledge/Harvest Trends			
Principal Investigator:	Dr. Katherine Reedy, Department of Anthropology, Idaho State University			
Project Cost:	**2022:** $47,943	**2023:** $65,935	**2024:** $52,653	**2025:** $48,284
Total Cost:	$214,815			

Issue Addressed: This proposal addresses the *Priority Information Needs* identified in the Southwest Alaska section of the 2022 Notice of Funding Opportunity for reliable estimates of subsistence harvests, uses, and harvest trends in the Aleutian and Alaska Peninsula communities of Adak, Akutan, Atka, False Pass, Nelson Lagoon, and Nikolski. This project will address the harvest of all wild resources in these communities, provide reliable estimates of subsistence harvests and uses, examine trends in species use using data from previous surveys, characterize sharing networks of resources, access issues, sport activities, community needs, economic trends, and climatic and other environmentally associated factors. This is a relatively under-documented region of Alaska but a critical area where residents regularly engage with resource management conflicts, federal fishery fleets, climatic events, management changes, and other natural resource issues for which current data can assist local and managerial decision-making processes.

This project focuses on the smaller communities (<50 households each) that are vulnerable to a number of forces out of direct local control. These villages' populations have been in flux or steady decline. Young families might lose incentive to remain in the communities without viable schools (due to the state enrollment requirement), healthy access to wild foods, and a supportive economy. Households have reported diverse subsistence strategies but increasing difficulty accessing certain foods because of climate change, quality of the foods, costs, equipment failures, health, work schedules, among many factors. Current subsistence harvest data is needed because of the changing nature of the environment and communities themselves.

Objectives: The overarching goals of this project are to document subsistence harvest estimates and track trend data for each community to capture change through time. Other goals are to understand social networks of food harvesting and sharing, and how these data can be useful to communities and management. Environmental changes, socioeconomic issues, and other factors influencing access to subsistence will also be investigated. The objectives are:

1. Gather harvest estimates, methods, context, and locations of all subsistence species in the study communities for calendar year 2022 or a recent 12-month period.
2. Explore sharing and distribution patterns of species and products between individuals, households, and communities. Use social networks of wild food exchange to model sustainability and resilience of households and communities. Provide Federal subsistence managers with a description and analysis of this social map of harvesting and demonstrate how models can support subsistence allocations and management.
3. Determine, using all available qualitative and quantitative data, trends in harvesting, access, and uses over time.
4. Discover and investigate local subsistence related priorities set forth by communities, for example, a proposed new caribou management plan for Adak Island.
5. Contextualize subsistence fisheries in the broader regional economy, emphasizing the portion on Federal lands and waters.
6. Discover community subsistence concerns, observed changes in species abundances and locations, and observed environmental/climatic changes. Significant changes in the Bering Sea and Aleutian Islands in fisheries, climate, salinity, primary productivity, temperature, sea ice distribution, invasive species, among many, require fresh quantitative and qualitative data on the role of these changes to subsistence users.
7. Project environmental scenarios and demographic conditions to forecast potential strength and weaknesses of human communities. The production of these data is of strategic importance for local people when positioning themselves for future harvest access.

Methods: The project will secure permissions from each of the six study communities, meet with community leadership to discuss and modify priorities and objectives as needed, conduct household level comprehensive surveys and interviews in each community (estimated at 158 total households) that document subsistence harvesting, sharing, household economics, and environmental observations. It will also map spatial harvest and use data. Sharing networks of wild foods and labor will be documented and examined for strengths and vulnerabilities to offer a richer understanding of subsistence dynamics. These data will be compared to subsistence data from previous studies in the region to examine trends. Interviews will also document observed and experienced trends, community subsistence concerns.

Partnerships/Capacity Building: The PI and assistants will work through the tribal councils and city authorities in each community to refine objectives and methods. The PI has a long-term, positive relationship with these municipal and tribal organizations and community members. The project will contract with local research assistants and leadership to gather and interpret data where appropriate, review the survey instrument and methods, and review of reports and publications resulting from the research. We will enlist local organizational support through the tribal councils to increase survey and interview response rates. Training local assistants will support their hire for future studies and to apply for these types of grants themselves. Informed consent forms for each survey/interview will also be read over with the study participants so that the goals of the study and the rights of the research subject are clear. We will provide information about the study at every step, including initial meetings with the tribal councils and city governments, formal presentations to the public, and personally to each interviewee/survey respondent. Tribal councils and local representatives will assist in identifying the appropriate times and conditions for conducting the surveys.

Project Number:	22-452
Title:	False Pass and Nelson Lagoon Subsistence Harvest Monitoring and Traditional Ecological Knowledge (TEK) Investigation
Geographic Region:	Southwest
Data Types:	Harvest Monitoring and Traditional Ecological Knowledge
Principal Investigator:	Lisa Hutchinson-Scarbrough, Division of Subsistence, Alaska Department of Fish and Game
Co-investigator:	Bronwyn Jones, Division of Subsistence, Alaska Department of Fish and Game

Project Cost:	**2022:**	$0	**2023:**	$48,097	**2024:**	$107,202	**2025:** $124,614
Total Cost:	$279,913						

Issue: This project responds to two information needs identified in the 2022 Fisheries Resource Monitoring Program call for proposals prepared by the Office of Subsistence Management and the two Southwest Alaska Regional Advisory Councils by: 1) providing "reliable estimates of subsistence harvest and uses" for the lower Alaska Peninsula and Eastern Aleutian Island communities of False Pass and Nelson Lagoon; and 2) documenting the "impacts of climate change on salmon and the environment." This study will fill a much-needed data gap in the available dataset for the harvest and use of salmon and nonsalmon fishes, within the context of total subsistence resources harvested, for the communities of False Pass and Nelson Lagoon. In addition, the study will document traditional and contemporary subsistence harvest and use areas, document traditional ecological knowledge (TEK) observations related to the effects of environmental change on salmon populations and subsistence activities, and evaluate the accuracy of the subsistence salmon permit system. The data from this study will be useful for regulatory bodies such as the Alaska Board of Fisheries (BOF) and the Federal Subsistence Board (FSB) in their assessments of whether subsistence needs are being met and to inform federal and state managers and regulatory bodies on subsistence regulations, especially in light of documented coastal erosion that affects fishing practices (Kluberton 2016).

Access to all five species of Pacific salmon found in Alaska is essential for the residents of False Pass and Nelson Lagoon; however, the two most utilized species are coho salmon *Oncorhynchus kisutch* and sockeye salmon *O. nerka*. Harvest and use of subsistence salmon by residents of False Pass and Nelson Lagoon occurs within the boundaries of the Alaska Maritime National Wildlife Refuge, the Izembek National Wildlife Refuge, and the Alaska Peninsula National Wildlife Refuge. In the past, these communities relied on a wide variety of resources for subsistence, with an emphasis on large quantities of caribou and salmon, but access to caribou populations has decreased over the past several decades with declined abundance and hunting restrictions, which has contributed to an increased harvest and reliance on salmon in False Pass and Nelson Lagoon over the last three decades (Reedy-Maschner and Maschner 2012). However, any changes in salmon harvest estimates resulting from changes in overall resource availability have not been documented. The most recent Alaska Department of Fish & Game (ADF&G) comprehensive subsistence surveys occurred over 30 years ago: for Nelson Lagoon the last survey occurred in 1987, and the most recent survey was in 1988 for False Pass.

Annual salmon harvest data are a fundamental input for sustainable management and evaluating if subsistence needs are being met, and for illustrating how subsistence harvests change over time. ADF&G has collected salmon harvest data through permits for the Alaska Peninsula Management Area (Area M)

annually since 1985. In 2000, a collaborative working group with representatives of ADF&G, the United States Fish and Wildlife Service (USFWS), and the Alaska Inter-Tribal Council evaluated the current harvest monitoring programs for salmon statewide. This collaborative investigation found the subsistence permit system alone in the Alaska Peninsula area has not provided information sufficient for effective management (Fall and Shanks 2000). More recent studies conducted by the Division of Subsistence in Alaska Peninsula community of Port Heiden and communities in the Chignik Management Area compared household survey data to permit data and found permit data significantly underestimated subsistence harvests (Fall et al. 2020; Hutchinson-Scarbrough et al. 2016; Jones and Cunningham 2020). Without accurate harvest estimates, the FSB and the BOF lack the data they need to determine if reasonable opportunities for subsistence are being provided for residents to meet their needs as defined by amount reasonably necessary for subsistence (ANS) findings.

State of Alaska fisheries managers for the Alaska Peninsula Management Area identify data gaps and an inability to accurately assess subsistence salmon harvests estimates in False Pass and Nelson Lagoon due to low participation rates by residents.[1] Earlier subsistence studies documented that salmon are harvested using subsistence gear, obtained for home use from commercial harvests, and harvested by rod and reel in smaller quantities (Fall et al. 1996; Reedy-Maschner and Maschner 2012). Commercial salmon permit holders fishing in the Alaska Peninsula Area and Aleutian Islands are allowed to remove salmon from legally harvested commercial harvests for personal use, generally referred to as "home-pack" (5 AAC 39.010 (a)(b)). With some exceptions, the BOF does not recognize removal from commercial harvest or harvest by rod and reel as subsistence harvest methods in the Alaska Peninsula and Aleutian Island regions (5 AAC 01.420); however, rod and reel is recognized by the FSB for federally qualified residents in federal jurisdictions of the Alaska Peninsula management area.[2] The existing subsistence permit system does not require reporting of salmon obtained through commercial catches, or methods of harvest, including rod and reel.

This project will utilize face-to-face household surveys, in-depth mapping biographies, and key respondent interviews to investigate how changes in community demographics, the local environment, regulations, and resource availability have altered subsistence practices over the past several decades. This proposed project will: 1) update subsistence salmon and other wild resources harvest and use estimates in False Pass and Nelson Lagoon for the calendar year 2023; 2) evaluate the current subsistence salmon permit system and make recommendations for a revised harvest monitoring program based on study findings; and 3) document TEK observations related to the effects of environmental change on salmon populations and subsistence pursuits by False Pass and Nelson Lagoon residents.

Conducting a comprehensive study of all wild resources will provide important contextual information about how salmon harvest and use fits into an overall picture of subsistence practices in False Pass and

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1. Elizabeth Fox and Robert Murphy, ADF&G Area Management Biologists, Alaska Peninsula and Aleutian Islands, Personal Communication, February 25, 2021.

2. U.S. Fish and Wildlife Service, Office of Subsistence Management. Federal Subsistence Management Regulations for the Harvest of Fish and Shellfish on Federal Public Lands and Waters in Alaska: Effective 1 April 2019–31March 2021. Anchorage: Federal Subsistence Board, Office of Subsistence Management, 2019. https://www.doi.gov/sites/doi.gov/files/uploads/2019-21_fisheries_regs_book_web.pdf.

Nelson Lagoon. Specifically, salmon data will include information about harvest and use of all species harvested for home use by date, harvest location, and gear type, including subsistence nets, removal from commercial harvests, harvest by rod and reel, or other methods. These data will contribute toward a fuller understanding of subsistence harvesting than is currently available through the permit system alone: it will improve managers' understanding of subsistence salmon harvests and provide the necessary data to assess the accuracy of the current permit system. Although managers are concerned about low reporting, there has never been an investigation into how the subsistence salmon permit program is working in the communities of False Pass or Nelson Lagoon. It will also address data gaps critical to informing federal and state regulatory processes—most importantly, an assessment of ANS and reasonable opportunity to access and harvest salmon. The documentation of TEK will aid in contextualizing harvest estimates and collate the observations of changes linked to climate on local salmon populations and subsistence activities. For example, much of the shoreline within the three National Wildlife Refuges in the study area is exhibiting signs of coastal erosion. Coastal erosion and other climate related phenomena may be altering subsistence activities and causing area residents to adapt subsistence harvest practices. The results of this study will increase federal and state fisheries managers' understanding of community-based subsistence fisheries, especially considering the rapidly changing environmental conditions occurring in the region.

Objectives: The goal of the project is to better understand contemporary harvest trends of salmon and other wild resources in the context of environmental, socioeconomic, and regulatory changes. To accomplish this, the project has three objectives.

1. Estimate subsistence salmon and other wild resources harvest amounts and locations by False Pass and Nelson Lagoon residents for study year 2023.
2. Evaluate the subsistence salmon permit system and make recommendations for improvement based on study findings.
3. Document traditional ecological knowledge (TEK) observations related to the effects of environmental change on salmon populations and subsistence activities by False Pass and Nelson Lagoon residents.

Methods: This study will take place in two communities, False Pass and Nelson Lagoon, and will integrate four social science data gathering methods to estimate the harvest and use of salmon and other wild resources used for subsistence by community residents, evaluate the salmon permit system, and document TEK related to observed effects of environmental change. These methods are: 1) Map Biographies, 2) Participant Observation, 3) Key Respondent Interviews (KRIs), and 4) Comprehensive Household Harvest Surveys. The data gathering methods for this project were designed to be integrated so that data collected using one method informs the development and implementation of other methods. The household harvest surveys will serve as the basis for accomplishing Objective 1. Map biographies, KRIs and participant observation will also provide supplemental quantitative and qualitative material to accomplish Objective 1. Objective 2 will be achieved using data from the household harvest surveys to compare with the subsistence salmon permits. Data from all four methods will be used to address Objective 3; however, the KRIs will serve as the primary data source for this objective.

Partnerships/Capacity Building: This project was developed in consultation with the False Pass Tribal Council, the Nelson Lagoon Tribal Council, The Aleutian Pribilof Islands Association, ADF&G Division of Commercial Fisheries, and USFWS refuge managers for the Alaska Maritime NWR and Alaska Peninsula NWR. During the planning and implementation phase of the project, researchers will remain in

contact with local tribal councils to obtain assistance with survey development, interview protocols, and logistics. Approximately three LRAs in each community will be trained and hired to help coordinate local logistical support and participation in project activities. LRAs will be compensated for their time and will be trained in survey administration and mapping as well as more broadly in the objectives and methods of the project. This project seeks to facilitate information sharing between community residents and management agencies. Through the surveys and interviews, community members will have the opportunity to share their knowledge of wild resources used for subsistence and their experiences accessing these resources. Information regarding the logistics of obtaining and using a subsistence salmon permit will be directly addressed by this project. In return, researchers will disseminate this information in a technical report and make recommendations to resource managers for revisions to the harvest monitoring program based on these study findings. The data and resulting technical report from this project will be available to the public and can be used by individuals, communities, and local and regional advisory committees and councils to advocate for subsistence practices before the Federal Subsistence Board and the Alaska boards of Fisheries and Game.

Project Number:	22-453			
Title:	Subsistence Harvests and Uses of Salmon and Other Wild Resources in Manokotak			
Geographic Region:	Southwest			
Data Types:	Harvest Monitoring and Traditional Ecological Knowledge			
Principal Investigator:	Bronwyn Jones, Division of Subsistence, Alaska Department of Fish and Game.			
Co-investigator:	Cody Larson, Department of Natural Resources, Bristol Bay Native Association			
Project Cost:	**2022:** $8,195	**2023:** $109,156	**2024:** $62,189	**2025:** $28,841
Total Cost:	$208,382			

Issue Addressed: This project responds to two information needs identified in the 2022 Fisheries Resource Monitoring Program call for proposals by providing "reliable estimates of subsistence harvest and uses" for the community of Manokotak, and by documenting the "impacts of climate change on salmon and the environment." This collaborative research project will collect subsistence harvest data for salmon and other important wild resources by residents of Manokotak, document traditional ecological knowledge (TEK) regarding local salmon populations and environmental changes, and partner with the Manokotak Nunaniq School to facilitate a community-based, participatory research effort by including students in research efforts and incorporating subsistence activities and knowledge into the classroom.

The five species of salmon found in Alaska are utilized for subsistence purposes in Manokotak, but the most targeted are sockeye, Chinook, and coho salmon. Both salmon spawning and rearing habitats, as well as subsistence harvest and use of salmon by the community of Manokotak occurs within the Federal Conservation System boundaries of the Togiak National Wildlife Refuge. The wild salmon migrating to this area support one of the largest subsistence fisheries with a Federal nexus and jurisdiction in Bristol Bay. The salmon returning to the Igushik River are essential to the vitality of the community.

Salmon remain a fundamental subsistence resource for the community of Manokotak and management of the subsistence salmon fishery relies on sound, current data. A Division of Subsistence survey from 1985 documented that Manokotak residents harvested 41,847 lb of salmon, or 136 lb per capita. In 1999, a Division of Subsistence survey documented that Manokotak residents harvested 46,353 lb of salmon, or 117 lb per capita. In 2008, the Division of Subsistence conducted another comprehensive survey and found that residents of Manokotak harvested an estimated 51,214 lb of salmon, or 135 lb per capita. That project found that many residents continued to preserve large quantities of salmon through traditional methods and that salmon were the most used and harvested category of wild resources. However, that study occurred 14 years ago; there is a need for updated subsistence harvest estimates because of rapidly changing environmental and sociocultural phenomenon occurring in the region. In the summer of 2019, tens of thousands of salmon were found dead in the Igushik River because of unusually high water temperatures. The 2019 salmon die off coincided with early melting snowpack and record-breaking temperatures in the Manokotak area. This visual manifestation of climate effects on the local salmon population created concerns among Manokotak residents. In addition to concerns about the changing environment, community members expressed the desire to provide more opportunities for Manokotak's youth to learn about and engage in subsistence activities and traditional food processing. Andrewski Toyukak, the President of the Manokotak Village Council, suggested student involvement in subsistence research would help create an opportunity for cultural transmission of TEK and subsistence knowledge.

This study seeks to document contemporary salmon harvest and use patterns in addition to gathering data that will provide a broader understanding of subsistence in Manokotak. This will be accomplished through administration of a comprehensive household harvest survey for calendar year 2022 and conducting key respondent interviews to contextualize those harvest data. Involving Manokotak youth in the subsistence research efforts will provide opportunities for youth to better understand how research informs management and regulation. This project is designed to obtain several different types of information about the effect of climate change on salmon populations, the local environment, and subsistence activities, while also providing more reliable estimates of the harvest and use of salmon and other wild resources by Manokotak residents. The documentation of TEK will produce detailed and specific place-based observations providing contextual explanations for subsistence harvest estimates and observed changes in salmon populations by area residents. This research will increase our understanding of salmon harvest patterns in the Togiak National Wildlife Refuge and assist federal, tribal, and state resource managers to ensure adequate subsistence opportunities are available. Additionally, this research will be available to regulatory boards, residents of Manokotak, and other Alaskans who are engaged in the regulatory process.

Objectives: The overarching goal of this research is to provide improved harvest estimates and increase understanding of subsistence harvest and use patterns, especially of salmon, by residents of Manokotak within the context of environmental change. This project has the following objectives:

1. Document the perceived effects of climate change on salmon populations, the local environment, and subsistence activities utilizing traditional ecological knowledge (TEK) and local ecological observations.
2. Document reliable estimates of the harvest and use of salmon and other wild resources used for subsistence by Manokotak residents during the 2022 calendar year.

3. Facilitate a community-based participatory research effort to produce a student-authored manuscript about Manokotak's past and present subsistence practices through a partnership with the Manokotak Nunaniq School.

Methods: This study will take place in the community of Manokotak and will integrate three social science data gathering methods to document TEK related to observed effects of climate change on salmon populations, the local environment, and subsistence activities and to estimate the harvest and use of salmon and other wild resources used for subsistence by Manokotak residents. These methods are: 1) Key Respondent Interviews (KRIs), 2) Comprehensive Household Harvest Surveys, and 3) Harvest and Use Area Mapping. Objective 1 will be accomplished by utilizing KRIs to gather qualitative data and will also use data from the comprehensive household harvest surveys. The household harvest surveys and harvest mapping will serve as the basis for accomplishing Objective 2. KRIs will also provide supplemental qualitative material to accomplish Objective 2. Objective 3 will be achieved alongside Manokotak students while conducting KRIs on a topic related to cultural and traditional subsistence practices and production.

Partnerships/Capacity Building: This project was developed and will be carried out collaboratively by ADF&G Division of Subsistence and BBNA. One of the main objectives of this project is to facilitate information sharing by involving the most inclusive group possible of Manokotak residents in this study. Therefore, an aspect of this project will involve high school student research and will be carried out through a partnership between project staff and the staff from the Manokotak School. As stated in the letter of support from the school, teachers will collaborate with project staff, local subsistence stakeholders, and community elders to develop workshops, help facilitate cultural and traditional subsistence practices, and help with the production of student projects as part of the school's Experience Week (E-week). In addition, this project seeks to provide a meaningful professional development opportunity through a BBNA internship by hiring a college student from the University of Alaska Fairbanks Bristol Bay Campus to assist with field research for this project. Finally, Local Research Assistants (LRAs) will be hired in Manokotak to help with KRI logistics and administration of the comprehensive household harvest surveys and to help coordinate local logistical support and participation. Researchers will work closely with selected LRAs to provide technical training. Duties for the LRA include: 1) assist with creation of community household list for survey sample, 2) assist with post-season harvest surveys, 3) arrange key respondents for TEK interviews, and 4) Assist with community review meetings.

Project Number:	22-454
Title:	Reliable estimates of subsistence harvests and uses in Ouzinkie and Port Lions
Geographic Region:	Southwest
Data Types:	Harvest Monitoring/Traditional Ecological Knowledge
Principal Investigator:	Jacqueline Keating, Alaska Department of Fish and Game, Division of Subsistence
Co-investigator:	Kevin Van Hatten, Kodiak National Wildlife Refuge

Project Cost:	**2022:** $145,621	**2023:** $138,086	**2024:** $40,164	**2025:** $0
Total Cost:	$323,870			

Issue Addressed: This project responds directly to an information need identified in the "Priority Information Needs" document prepared by the Office of Subsistence Management and the Kodiak/Aleutians Subsistence Regional Advisory Council by providing updated "reliable estimates of subsistence harvest and uses" in the northern Kodiak area communities of Ouzinkie and Port Lions. Residents of Ouzinkie and Port Lions rely on a variety of subsistence resources, especially salmon runs from the Afognak River on Afognak Island. This fishery operates primarily in nearshore marine waters within the Alaska Maritime National Wildlife Refuge but falls under the jurisdiction of the Kodiak National Wildlife Refuge. This project will produce reliable estimates of subsistence harvests and uses of salmon and other resources through comprehensive household harvest surveys, resource mapping, and key respondent interviews.

Reliable estimates of subsistence harvest and uses of salmon and other resources in Ouzinkie and Port Lions address several critical linked issues with multiple applications for managers and other stakeholders. First, numerous members of the Kodiak/Aleutians Subsistence Regional Advisory Council expressed the importance of collecting updated harvest data for Ouzinkie and Port Lions at the September 2020 council meeting. The Division of Subsistence last conducted comprehensive harvest surveys in Ouzinkie and Port Lions in 2003, making them the most outdated Kodiak area communities to be surveyed (Kodiak road-connected communities were the most outdated, but will be surveyed in 2022 for the 2021 harvest year). Comprehensive household harvest surveys produce the only dataset that estimates a community's annual use of subsistence resources; they also provide valuable insight into harvest and use participation rates, sharing of wild resources, food security levels, and the demographic and socioeconomic factors that influence patterns observed in harvest and use data. Updated subsistence data are timely in light of recent declines in salmon harvest estimates. The total reported subsistence salmon harvest in the Kodiak Management Area for 2018 (17,459 salmon) and 2019 (12,688 salmon) fell well below the prior 5-year and 10-year averages (22,988 and 26,844 salmon, respectively) based on returned state subsistence permits. The Sun'aq Tribe of Kodiak's recent study on tribal seafood consumption, described in more detail below, concluded that Kodiak Tribes consume seafood at rate 10 times greater the rate of the U.S. population, and that salmon was the seafood consumed most frequently and in the greatest quantities (Lance et al. 2019). In combination, the documented importance of salmon consumption for Kodiak Tribes and the significant drop in reported harvests underline the need for updated and reliable harvest estimates with important contextual information to help explain the recent decline. Finally, comprehensive surveys include updating spatial data of subsistence use areas. These data provide information that is critical for responding to the increase in aquaculture and development proposals that could affect vital subsistence use areas. This study will provide reliable harvest and use estimates while documenting local knowledge and the environmental and social factors that influence subsistence harvests of salmon and other resources.

Objectives: The goal of this project is to complete updated salmon and other subsistence resource harvest estimates for the entire Kodiak Management Area. Reliable estimates are needed to inform management decisions of this complex fishery, and to address reasons for the recent decline in reported subsistence salmon harvests. This will be accomplished through the following objectives: (1) Produce reliable estimates of salmon and other resources harvested and used for subsistence in Port Lions and Ouzinkie;

(2) Create comprehensive spatial maps of subsistence harvest areas used by residents of Port Lions and Ouzinkie; and (3) Document local observations of subsistence harvesting practices and potential changes in subsistence resource populations, harvesting trends and areas used.

Methods: This research project will integrate three social science data gathering methods to address the study objectives: comprehensive household harvest surveys (Objective 1), harvest and use area mapping (Objective 2), and key respondent interviews (Objective 3).
Objective 1: Researchers and local research assistants will work in teams to conduct in person surveys in Ouzinkie and Port Lions using a full census sample. Surveys will collect information about each household's participation in subsistence and commercial fishing activities, the harvest and use of fish and other wild resources, sharing of resources, basic demographic and economic information, and food security. All information will be voluntary and anonymous.

Objective 2: Researchers will document geographic data concerning areas used for search and harvest activities for each resource category for the study year using Collector for ArcGIS on an iPad. There is no individual identifying information attached to the final maps; individual data points are combined to display general harvest areas, so that specific harvest locations are not revealed.

Objective 3: Researchers will document local observations of changes in subsistence resource populations, harvesting trends, and areas used through up to 10 semi-structured, open-ended interviews. Interviews will be guided by a formal interview protocol developed in collaboration with tribal governments and the Kodiak National Wildlife Refuge. Recorded interviews will be transcribed and uploaded to QSR International's NVivo 12 Pro for qualitative data analysis.

This project will be guided by the research principles adopted by the Alaska Federation of Natives in its Guidelines for Research, the National Academy of Science's "Principles for Conducting Research in the Arctic," Ethical Principles for the Conduct of Research in the North (Association of Canadian Universities for Northern Studies 2003), and the Alaska confidentiality statute (AS 16.05.815). Consistent with these principles, Ouzinkie and Port Lions tribal councils will review survey forms and interview protocols, and researchers will conduct community scoping meetings to raise awareness of the project and actively involve residents. Local research assistants (LRAs) will be hired to assist with surveys and key respondent interviews. Public data review meetings will be held to share preliminary results of the project and solicit comments and feedback. A project summary will be provided to all residents, and final study findings will be publicly available online through the Community Subsistence Information System (CSIS).

Partnerships and Capacity Building: The active involvement of U.S. Fish and Wildlife Service staff and tribal members will strengthen the proposed research. ADF&G will partner with the Kodiak National Wildlife Refuge to enhance research capacity and for a deeper understanding of federal fisheries issues in the Kodiak Management Area. Refuge involvement will include participating in survey development and review; identifying federal fisheries issues of concern that should be explored in key respondent interviews; providing staff support for community meetings and survey administration in Ouzinkie and Port Lions, exploring outreach opportunities for sharing subsistence, and participating in the final report review. This project will also benefit from active partnership with the Ouzinkie Corporation, Native Village of Ouzinkie, and Native Village of Port Lions. All entities will participate in reviewing survey

drafts and key respondent interview protocols, and identifying local research assistants and key respondents. All four entities have provided letters of support for this project.

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.

United States Department of the Interior

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INFORMATION BULLETIN - August 2021

Cooperative Salmon Escapement Monitoring Projects. Contact: Pat Walsh
The Alaska Department of Fish and Game (ADF&G) has monitored Chinook, chum and sockeye salmon escapement on the Middle Fork Goodnews River since 1980. Togiak National Wildlife Refuge (Togiak Refugehas worked with ADF&G since 1992 to assist in staffing the weir until 2017, after which reduced funding prevented providing staff assistance.

On the Kanektok River, ADF&G, Native Village of Kwinhagak, Coastal Villages and Togiak Refuge have worked cooperatively to monitor salmon and Dolly Varden runs since 2001. However, this project has been cancelled since 2016 due to lack of funding.

The Togiak Refuge fisheries biologist retired in 2017 and the position has not been refilled. However, the current Togiak Refuge manager has identified re-filling this position as a high priority, as well as re-engaging in cooperative salmon monitoring projects.

Mulchatna Caribou Contact: Andy Aderman
Togiak Refuge assisted ADF&G with telemetry and law enforcement flights, satellite data acquisition, data entry and database management. A July 2021 post-calving survey estimated the Mulchatna herd at 12,850 caribou, slightly down from 13,500 estimated in 2019 and 2020, and well below the population objective of 30,000-80,000 caribou.

Togiak Refuge Manager Moos, under authority delegated by the Federal Subsistence Board, closed caribou hunting and closed Federal public lands in the RC503 hunt area for caribou hunting.

Nushagak Peninsula Caribou Contact: Andy Aderman
A photocensus of the Nushagak Peninsula Herd on July 7, 2021 found a minimum of 258 caribou in 3 groups which resulted in a total population estimate of 287 +/- 47 (258-334) caribou at the 95% confidence interval. A similar effort in 2020 found a minimum of 209 caribou in 2 groups resulting in an estimate of 226 +/- 47 (209-273) caribou.

The Nushagak Peninsula Caribou Planning Committee met via teleconference July 28, 2021 and reviewed results of previous hunts, population and lichen monitoring and the harvest strategy. Agency biologists agreed a limited harvest of caribou would not impact the growth of the herd. A majority of the Committee favored having a hunt with a total of 8 permits, with 4 permits going to Manokotak and 2 permits going to each Aleknagik and Dillingham. Refuge Manager Moos' decision was to open the Federal caribou hunt on the Nushagak Peninsula from August 1-March 15 with a harvest objective of 8 caribou. No caribou have been reported harvested in the 2021-2022 Federal permit hunt.

Moose Contact: Andy Aderman
No calving flights were conducted in 2020 due to Covid-19 restrictions. In October 2020, only 4 calves (2 singles and 1 set of twins) were observed with 25 collared cows suggesting a fall recruitment rate of 16 calves per 100 cows. In late April 2021, the same 4 calves observed in October were still alive. This was the lowest fall and spring calf recruitment rate since monitoring began in 1998.

During the 2020-2021 moose hunts in Unit 17A (RM 571, RM 573, RM 575, RM 576, and DM 570), hunters reported harvesting 163 moose (105 bulls, 57 cows, and 1 unknown). In the southern Unit 18 moose hunts, (RM 617, RM 620, and RM621), hunters reported harvesting 25 moose (24 bulls and 1 cow).

Ten female moose (9 calves and 1 young adult) were captured and collared in mid-April in the Kanektok and Goodnews River drainages.

In 2021, 19 of 23 collared cows produced a minimum of 34 calves (5 singles, 13 sets of twins, and 1 set of triplets) suggesting a production rate of 147.8 calves per 100 cows.

The relationships of wolf and brown bear predation with moose population density and growth at Togiak National Wildlife Refuge and BLM Goodnews Block, Alaska Contact: Pat Walsh
In summer 2014, Togiak Refuge, the USFWS Genetics Lab, ADF&G, and BLM initiated a study to understand the effects of wolf and brown bear predation in regulating the populations of moose. The study relies on radio telemetry and stable isotope analysis. Our approach is to relate the predation impact by wolves and bears on moose at varying levels of moose population density. This requires having population estimates of both bears and wolves. We estimate the brown bear population totals approximately 855 bears (95% confidence limits: 664 – 1,154). Using radio telemetry, we estimate the wolf population varies widely but averages 90-100 wolves consisting of approximately 12 packs averaging 7 wolves plus approximately 10% of wolves unaffiliated with packs. Using these demographic data, we will model wolf and bear predation on moose based on the diet composition of both species determined through analysis of carbon and nitrogen isotopes occurring in wolf and bear tissues. Lab analyses are complete and modelling is currently underway.

Walrus Contact: Doug Holt
The Togiak Refuge has annually monitored the number and timing of Pacific walruses at haul-outs since 1985, using ground counts (1985-2008), aerial surveys (2003-2011) and time lapse photography (2010-2019). Overall, walrus numbers observed at haul-outs on Togiak Refuge have declined, with the greatest declines at Cape Peirce and Cape Newenham. Peak counts in the most current year when every day was counted (2016) were 401 at Cape Peirce, 897 on Hagemeister Island, and 454 at Cape Newenham. Walrus using haul-outs in Bristol Bay are typically recorded from late spring to late fall but were observed at Cape Newenham every month since cameras were deployed in fall of 2014 until February 2017. Data were recovered at all sites during summer 2019 and are currently being examined. In an effort to reduce potential spread of COVID-19 in the community travel to field sites was strictly limited and sites were not visited during 2020. The most recent report was completed in August 2019 and is available to the public at https://ecos.fws.gov/ServCat/DownloadFile/168185. Monitoring stations on Cape Peirce were visited in July 2021. Refuge staff plans to visit all remaining sites in August 2021.

Seabirds Contact: Jannelle Trowbridge
The abundance and reproductive success of black-legged kittiwakes, common murres, and pelagic cormorants was monitored annually at Cape Peirce from 1990-2014 and 2016-2019. Monitoring was postponed in 2020 and continued in 2021. In the past 30 years, the long-term average number of birds counted on study plots was 1,052 kittiwakes (range = 238-1,906), 2,506 murres (range = 53-4,563), and 86

cormorants (range = 14-123). Thirty years of seabird monitoring at Cape Peirce has revealed high variation in nesting adult counts and reproductive success. Given the variation in the last 30 years, an unusual window of poor reproductive success has sustained since 2016 for all three species. Population monitoring will continue in June 2022 at Cape Peirce.

Invasive Aquatic Plant Surveys Contact: Kara Hilwig

Elodea spp. is a highly invasive and difficult to control aquatic plant implicated in the degradation and loss of fish habitat across the world. It was confirmed present in Alaska in 2009 and is now found in several waterbodies across the State. Refuge and Park staff are cooperating to complete the fourth *Elodea* survey within the Togiak Refuge, Wood-Tikchik State Park and the surrounding area. Twenty-five annual monitoring sites have been established in high use areas such as lodge docks, boat ramps, and popular float plane destinations. Thus far, no *Elodea* has been detected. Funding proposals are currently being submitted to continue this work in 2022.

Water Temperature Monitoring Contact: Doug Holt

Stream temperature monitoring has been conducted at 21 locations on 14 rivers in Togiak Refuge since August 2001. Continuous hourly water temperatures were recorded at each site. Over 2.4 million temperature records were collected, quality-graded, and digitally stored in a relational database through October 2019. The warmest month each year was July. The maximum recorded mean daily summer temperatures varied by location, with median values of 9.8–22.9°C across sites. The warmest temperatures were observed in the Kukaktlim Lake outlet and the coolest temperatures were observed in the Weary River. The most recent stream temperature monitoring report was completed in September 2018 and is available to the public at https://ecos.fws.gov/ServCat/DownloadFiles/169087. A report detailing measurements recorded through summer 2019 is currently under review and a link to that report will be provided when the report is finalized and posted. Refuge staff plans to visit every stream temperature site in August 2021.

We used moored all-season temperature arrays to record hourly temperatures throughout the water column in 2 lakes on or near the Togiak Refuge 2011-2020. The lakes differed significantly in surface area, water volume, and elevation with Ongivinuk Lake being smaller and at higher elevation than Snake Lake. We observed variation in lake ice phenology and fewer days of ice cover on Snake Lake than on Ongivinuk Lake each winter when data were available for both lakes. We observed that both lakes were dimictic, exhibiting turnover events in spring and fall. We observed water temperatures in excess of standards for fish rearing and migration habitats during summer down to 12.5 m in Snake Lake and down to 5 m in Ongivinuk Lake. The most recent lake water temperature monitoring report was completed in March 2019 and is available to the public at https://ecos.fws.gov/ServCat/DownloadFile/169088. In an effort to reduce spread of COVID-19 sites were not visited during 2020. The Snake Lake site was visited in July 2021and instruments were found in working order. The measurements were downloaded but have not been added to the overall data set. A visit to Ongivinuk Lake by Refuge staff is planned for August 2021.

Quantifying River Discharge Contact: Pat Walsh

Togiak Refuge and the USFWS Water Resources Branch have worked cooperatively since 1999 to acquire baseline hydrologic data of the flow regime (magnitude, duration, timing, frequency, and rate of change) and water quality. A network of stream discharge gages collected stream flow data from 1999-2005 at 20 locations. A subset of five of these stations continued to collect data through fall 2009, after which three of the five stations were removed. We will monitor discharge in the Togiak and Kulukak Rivers indefinitely, although due to Covid-19 travel restrictions, no field work occurred in 2020.

Recovery of overgrazed lichen on Hagemeister Island Contact: Pat Walsh
Reindeer were removed from Hagemeister Island in 1993 following overgrazing that resulted in starvation in about 1/3 of the herd and damage to reindeer habitat. Since then, Togiak Refuge biologists have monitored the recovery of lichen communities and have found that average lichen biomass increased from 450 lb/acre in 2003 to 709 lb/acre in 2015. We calculated time to recovery with three competing growth curves which estimate grazeable biomass may be reached in 34-41 years and full recovery in 71 – approximately 400 years. Lichen communities were composed of various mixtures of at least 78 lichen species, but were dominated by important reindeer forage species. While reindeer overgrazing diminished forage quantity, it did not eradicate preferred forage. Results from this study were published in 2021 in the journal *Rangifer*.

Education and Outreach Contact: Terry Fuller
Togiak Refuge has an active education and outreach program, conducting an average of 60+ classroom visits throughout 12 Bristol Bay villages annually, during a normal school year. That total was cut short for the end of the 2019-2020 calendar year due to covid-19. Classroom visits include lessons about the Migratory Bird Calendar, National Wildlife Refuge Week, careers in natural resource conservation, and numerous teacher requested classroom presentations. The Refuge works with several school districts and private schools including the Southwest Region, Lower Kuskokwim, Dillingham City school districts and the Dillingham 7th Day Adventist School. Some topics often include bird walks, wilderness survival skills, archery, salmon life cycles, aquatic resources, and bear safety. At this time, outreach is still being impacted by covid-19; we are hopeful for a return to full outreach efforts in the near future. The refuge website is also an education tool and is available at http://togiak.fws.gov.

Togiak Refuge, in partnership with ADF&G and the Southwest Region School District, also conducts hunter safety courses throughout western Bristol Bay Villages. Classes have impacted more than 100 students in Manokotak, Dillingham, Twin Hills, Togiak, Aleknagik and Quinhagak. The refuge plans to continue these courses, as requested, in 2021 and is in the planning stages to add a National Archery in School Program to its offerings in the future, pending a return to normal outreach efforts.

The Refuge education program also produces Bristol Bay Field Notes, an award-winning weekly radio program on KDLG 670 AM that covers an array of outdoor-related topics (past episodes can be found on KDLG's website. Togiak Refuge has an active and heavily followed Facebook page which disseminates information on a daily basis to a rapidly growing global audience. These outreach efforts have not been affected by covid-19 and are available for public consumption at their regular rate of production.

The Refuge normally hosts an Open House event, in celebration of National Public Lands Day and National Hunting and Fishing Day. It was not held in 2020. This event is usually attended by 100-200 people and includes a wide range of displays, hands on activities, food and beverages.

Togiak Refuge staff continues to work with the Alaska Migratory Bird Co-Management Council and the ADF&G to conduct household subsistence waterfowl surveys. Refuge staff and volunteers conducted surveys in a number of southwest Alaska communities, Aleknagik, Dillingham, Togiak, Clark's Point, Newhalen, Nondalton, Chignik Lake and Chignik Lagoon. Surveys were put on hold for this year, due to covid-19.

Also, the Refuge partners with others to conduct three environmental education camps. As with other Service sponsored education camps, those camps were cancelled for 2020 and have not happened yet in 2021, due to covid-19 related concerns. The descriptions that follow are from the 2019 camps.

Cape Peirce Marine Science and Yup'ik Culture Camp Contact: Terry Fuller
In July 2019 an enthusiastic group of seven area junior high students representing three villages (Dillingham, Togiak and Platinum) traveled to Cape Peirce for this camp. Students were able to observe seabirds, marine mammals, and learn how field work is conducted, as well as learning about the food webs and ecological relationships found at the Cape Peirce area. Students also learned about traditional Yup'ik uses of animals and plants and about Native survival skills. This camp is designed to help students gain a better understanding of the biological diversity of a marine ecosystem. It also strengthens their sense of stewardship for local natural resources. Other topics at this camp included tide pools, wilderness survival skills, archery, bear safety, Leave No Trace camping practices and careers with USFWS. Refuge Interpreter Jon Dyasuk spoke with students about traditional resource uses. A special offering for this year's camp was the chance for the students to try their hand drawing with Colorado pastel artist Penny Creasy. Traditional councils and school districts from throughout western Bristol Bay are cooperators with this camp.

Southwest Alaska Science Academy (Salmon Camp) Contact: Terry Fuller
In July 2019, Togiak Refuge helped with the 19th year of a summer camp aimed at teaching middle and high school students about fisheries science and the importance of salmon to our ecosystem. Students were selected from the Bristol Bay region. During the camp students worked in the field alongside fisheries professionals. Cooperators with the Refuge on this project included the Bristol Bay Economic Development Corporation, Bristol Bay Science and Research Institute, University of Alaska, University of Washington School of Fisheries, the Dillingham City and Southwest Region school districts, and ADF&G.

Summer Outdoor Skills and River Ecology Float Camp Contact: Terry Fuller
The 2019 Float Camp took place on the Togiak River early August. At this camp, four high school students learned about river ecosystems and how to enjoy them safely and responsibly while taking part in a float trip conducted on a refuge river. Students observed and learned about the many fish, wildlife and plant species found on the Togiak and its tributaries. Rafting skills, water safety, different angling practices (Catch and Release), Leave No Trace camping practices and bear safety were topics during the trip. Students also participated in other outdoor activities such as wilderness survival skills. This camp helps students grasp the biological diversity of riparian ecosystems and the importance of salmon as a nutrient source, while developing a deeper sense of stewardship for local natural resources. Montana Artist Mara Menahan was along as an "Artist-in-Residence" and all of the students had an opportunity to work with Mara on natural history illustration while in the field. Traditional councils and school districts in western Bristol Bay are cooperators with this camp.

Division of Refuge Law Enforcement Contact: Derek Thompson
Federal Wildlife Officers work to protect wildlife and habitat and make refuges safe places for visitors and staff. Senior Federal Wildlife Officer (SFWO) Derek Thompson is stationed in Dillingham, AK. He is the Officer responsible for patrolling Togiak Refuge and managing its law enforcement program.

2021 has been a busy year with visitation rates normalizing. Mulchatna and Nushagak Peninsula caribou are a local and regional priority. SFWO Thompson was the incident commander for the USFWS winter Mulchatna Caribou Patrols based in Dillingham and Bethel. USFWS Division of Refuge Law Enforcement teamed up with ADF&G, AWT, BLM, and FWS OLE to enforce the Mulchatna caribou closed season. SFWO Thompson also assisted with the Chinook Salmon Conservation operation on the Kuskokwim River, this operation is also a regional priority. SFWO Thompson anticipates a busy hunting season and reminds all to check the regulations before going afield.

SFWO Thompson encourages anyone with questions regarding USFWS law enforcement to contact him; and reminds all who enjoy and rely upon the resources in the Bristol Bay Region the USFWS Division of Refuge Law Enforcement is here to help protect those resources for future generations.

Staff Update
New hires to announce:

Jackie Cleveland, Refuge Information Technician. Quinahagak.

We still have a couple vacancies and hope to fill them in the near future.

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Anchorage Field Office
4700 BLM Road
Anchorage, Alaska 99507-2591

Bureau of Land Management – Anchorage Field Office
Updates to Subsistence Regional Advisory Councils
Fall 2021 Meetings

Summer 2021 saw a return to some field work operations. BLM staff worked diligently to get back into the swing of field season, while adhering to all COVID-19 protocols and mitigations. Preventing the COVID-19 spread has been a critical focus for all programs.

An overview map of the Anchorage Field Office can be found at: https://www.blm.gov/sites/blm.gov/files/documents/files/Maps_Alaska_Anchorage-Field-Office.pdf

BLM Alaska publicly available interactive maps are available at: https://blm-egis.maps.arcgis.com/apps/MinimalGallery/index.html?appid=d2da853631fe4b60ac768f19bec4e84b

Wildlife

- Contributed funds in an Interagency Agreement with the NPS to help fund the Western Arctic Caribou Herd Working Group meeting this December. The meeting is funded by BLM, National Park Service, US Fish & Wildlife Service (USFWS), and Alaska Department of Fish & Game (ADF&G). The Working Group will discuss the management of the herd and its current population status.

- Assisted ADF&G with muskox classification counts on the Seward Peninsula in April, by providing a helicopter and field staff from Nome to count muskox groups, for the 2021 Peninsula wide muskox population estimate.

- Issued subsistence permits in July for the Federal muskox hunts in GMU 22B and 22D on the Seward Peninsula.

- Issued subsistence permits in August for the Federal moose hunt in in GMU 22A to Unalakleet residents.

- Completed two breeding bird survey routes on the Unalakleet and Anvik rivers in June. These routes provide data to the US Geological Survey to determine bird population trends across North America.

- Contributed funds through an Interagency Agreement with the USFWS Togiak Wildlife Refuge to help monitor the Mulchatna Caribou Herd. Funds will be used to capture and collar

caribou in the Goodnews Bay and Carter spit area to help determine movement of animals that use that area.

Aquatics

- Collected genetic sampling in August of arctic char and water in the Kigluaik Mountains on the Seward Peninsula for environmental DNA.

- Completed initial aquatic habitat baseline data work around Aniak and Galena as part of its National Assessment, Inventory, and Monitoring Program (AIM). AIM data provides a framework to inventory and quantitatively assess the condition and trend of natural resources on public lands.

- Ongoing stream gaging flow quantification efforts on Big River and Unalakleet Wild & Scenic River

- Ongoing water quality monitoring work at Platinum and Nixon Fork Mines

- Provided juvenile salmon identification books for the Bristol Bay Fly Fishing and Guide Academy being held August.

Ecology

- Developed a terrestrial monitoring program for the Kobuk Seward Peninsula Planning Area as part of its AIM Program. In July 2021, 38 plots were established and sampled using this monitoring framework. Data on plant cover, bare ground, invasive species, sensitives species, and soil structure were collected. In addition to these national core monitoring indicators, BLM has developed new methods to collect data on lichen cover and disturbance to determine rangeland health in areas that BLM permits reindeer grazing.

- In August 2021, will visit and maintain seven exclosures on the Seward Peninsula. These small fenced-in areas protect vegetation from grazing, providing a baseline to learn about the long-term effects of grazing on lichens and plants. The exclosures were installed in 2011 and 2012 and now require a comprehensive maintenance visit. Monitoring will occur next year to assess how the vegetation within them has changed over the past 10 years.

- Issued four firewood harvest permits to residents on the Seward Peninsula.

- In August 2021, plans to install two permafrost monitoring stations along the Iditarod National Historic Trail near Nikolai. These stations will monitor the trail's impact to permafrost soil properties and to provide important data to fill a spatial gap and assist University of Alaska-Fairbanks efforts to model permafrost temperatures across Alaska. Also collaborating with local schools in Nikolai and McGrath to develop a program to educate and involve local students in the project and further their understanding of the permafrost soils around them.

- Collaborated with the United State Forest Service Forest Inventory and Analysis Program (FIA) to facilitate data collection at 50 plot locations on BLM within the FIA's Southwest Inventory Unit.

- Invasive species inventory, treatment, and monitoring data was entered into BLM's new Vegetation Management Action Portal that houses all of BLM's spatial data relating to vegetation treatments. This new database will greatly reduce redundant data entry from field users and will increase analysis and reporting capabilities.

- Anchorage Area:
  - Collected pre-treatment data in June 2021 for a collaborative University of Alaska-Anchorage research project to learn how to construct fuel breaks that are more resilient to spruce bark beetle attack and wind events. The project will establish three experimental fuel break treatment plots plus one control plot on Campbell Tract. Spruce trees in the three treatment plots will be thinned to 8-12 foot spacing. The three treatments vary in how the felled material will be processed: 1) stand thinned and trees left exactly as felled, 2) stand thinned and trees cut to 4-6 foot lengths and scattered within the treatment area, and 3) stand thinned and felled trees chipped and scattered within the treatment area. Treatments are planned for early winter of 2021.
  - Conducted invasive species control treatments on Campbell Tract in July with another planned for August 2021. White sweet clover, bird vetch, orange hawkweed, bird cherry, and yellow toadflax were spot treated within a 6-acre area that is assessed annually.
  - Continues to support the Anchorage Cooperative Invasive Species Management Area through an assistance agreement to partially fund meetings, public events, and chairperson coordination.

Recreation

- In August 2021, plan to inspect guide and outfitter camps in GMU 23.

- Issued new Special Recreation Permit (SRP) for guided bear hunts in GUA 22-06,07. July BLM conducted permit monitoring for one camp location used during 2 spring bear hunts.

- Conducted SRP monitoring in the Nulato Hills area, Kateel River, Galena, along the Golsovia & Unalakleet Rivers

Iditarod National Historic Trail

- Conducted public shelter cabin inspections along the Iditarod National Historic Trail (NHT).

- BLM partner the Iditarod Historic Trail Alliance is supporting and working with the community of White Mountain to develop a new public shelter cabin along the Iditarod Trail in the Topkok Hills west of the town.

- The Iditarod NHT program is providing technical assistance to the Iditarod Historic Trail Alliance and Nome Kennel Club for the installation of safety way-markers along the trail east of Nome.

Realty

- The Bureau of Land Management is announcing next steps in the implementation of the Alaska Native Vietnam-era Veterans Land Allotment Program and is seeking public comments to support an environmental assessment that will consider the effects of opening certain lands to selection by eligible Alaska Native Vietnam-era Veterans. The lands to be analyzed are associated with 28 million acres identified in five public land orders signed in January 2021. The 60-day public comment period ends on Sept. 21, 2021.
    - Maps and other planning documents associated with the project are available on the BLM's National NEPA Register at https://eplanning.blm.gov/eplanning-ui/project/2014748/510
    - For additional information on the environmental assessment development, contact project lead Racheal Jones at rajones@blm.gov
    - For questions on the Alaska Native Vietnam-era Veteran Allotment Program of 2019 visit https://www.blm.gov/alaska/2019AKNativeVetsLand or contact Paul Krabacher at pkrabach@blm.gov

Hazmat

- With new Hazmat staff onboard, start planning for cleanup activities at nine remote sites near Salmon Lake, Rohn, Golsovia Creek, and Jacksmith Creek. Activities will include removal of non-hazardous solid waste, non-historic structures, and oil/hazardous substances contamination

- Conducted a site visit and assessment with the US Army Corps of Engineers at the Kodiak Burma Road Military Munitions Response Program Site.

- Attended the annual Project Delivery Team meeting for the Kodiak Buskin Beach Formerly Used Defense Site

Minerals

- Conducted inspections in late June at two operations in the Nome area, assessing the cleanup of unauthorized use and occupancy and a Notice of exploration.

- Continues to work with operators in the Flat area addressing compliance issues including ongoing reclamation and monitoring.

- Conducted inspection of Platinum Mine in early August. Mining and Aquatics staff are working with claimant to move forward the Salmon River Fish Passage Enhancement Project.

United States Department of the Interior

National Park Service

Lake Clark National Park and Preserve

Admin/HQ Office

240 W 5th Ave., Anchorage AK 99501

Phone (907) 644-3626 Fax (907) 644-3810

Field Office

PO Box 227, Port Alsworth, AK 99653

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Program Updates Fall 2021

Lake Clark National Park and Preserve

Southwest Area Inventory and Monitoring Network (SWAN)

SUBSISTENCE DIVISION, LIZA RUPP (907) 644-3648

Lake Clark National Park Subsistence Resource Commission

- The Lake Clark Subsistence Resource Commission met via teleconference on March 24, 2021. The fall meeting will be via teleconference on September 29, 2021.

Subsistence Research Project: Changing Subsistence Use of Beavers in Lake Clark: Cultural and Ecological Implications

- In September, park staff will survey Priest Rock Creek to estimate the abundance of spawning sockeye salmon, monitor changes in beaver activity within the watershed, and collect water quality data. This effort will build on our work from last fall to help us better understand the complexities of the salmon-beaver relationship. In October, we will conduct aerial surveys to count active beaver dams throughout the Lake Clark basin and Johnson River drainage.

Subsistence Research Project: Transference of Subsistence Knowledge to the Younger Generation and between the Communities of Nikolai and Nondalton

- This project aims to promote the exchange of contemporary and traditional subsistence practices between Denali (Nikolai) and Lake Clark (Nondalton) communities, by documenting traditional knowledge about changing subsistence practices, the cultural connections between Nondalton and Nikolai, and the transmission of knowledge between youth and elders. Travel to Nondalton for final field work was completed in July. Travel to Nikolai scheduled for September was canceled due to COVID-19. This winter we will be completing the video and draft booklet. This may not be completely final due to the cancelled trip to Nikolai.

Subsistence Harvest Surveys of Port Alsworth and Nondalton

- Through funding provided by the National Park Service (NPS), the Alaska Department of Fish and Game (ADF&G) Division of Subsistence will be conducting a study to document the harvest and use of wild resources by resident zone communities in Lake Clark National Park and Preserve. Community kick-off meetings will be held this fall, with the actual surveys scheduled to take place in the spring of 2022.

NATURAL RESOURCES DIVISION, BUCK MANGIPANE (907) 644-3635

Coastal Bear Survey

- Two coastal bear trend counts were completed in the summer of 2021. On June 27, 2021, park staff flew a survey of the coastal salt marsh areas. The flight resulted in 292 brown bears observed, which is among the highest totals among the 34 prior surveys. A second survey was completed on July 15, 2021. It found 309 brown bears, which is the second highest survey total. While counts this year were similar between months, many years see significant differences which likely reflects variability in weather and plant senescence in the salt marsh meadows.

Soundscape Monitoring

- Soundscape monitoring resumed in LACL in 2021, with a goal of improving the spatial distribution of monitoring locations. Work began in June, with a deployment at Silver Salmon Creek. Additional deployments took place in late July and early August. These deployments include Tuxedni Glacier, Neacola River, Tlikakila River, and Mulchatna River – Summit Creek confluence. Each station will remain out to collect a minimum of 1 month of data. We are expecting to have 1 additional year of deployments in 2022 to finish our baseline inventory.

Chinitna Bay Clam Sampling

- In late May of 2021, park staff, in partnership with SWAN and ADF&G, initiated clam sampling in Chinitna Bay to estimate density, size distribution and age classes of razor and other species of clams. Over a 7-day period, the field crew worked during low tides to complete the work. A diverse group of clams, fish, and crabs were found in the plots sampled. Additional sites will be sampled over the next 2 years to better understand clam density along the LACL coast.

Newhalen River Counting Tower

- Monitoring on the Newhalen River has been ongoing since 2000 and provides information on salmon escapement, run timing, and population characteristics. This year, about 560,000 sockeye salmon returned to the Newhalen River, which was 40% greater than the 20-year average of 400,000 sockeye salmon. The 2021 Bristol Bay return was over 65 million sockeye salmon breaking the 2018 record of 63 million.

Telaquana River Weir

- This was the 12th year of this collaborative project with the state of Alaska and provides a reliable estimate of salmon escapement to one of the few lake-rearing sockeye salmon populations in the Kuskokwim River drainage. This year's return to Telaquana was approximately 123,000 sockeye salmon, which was the fifth highest escapement recorded since 2010 and about 28% higher than the 11-year average of 96,000 sockeye salmon.

Mercury in Lake Food Webs

- This summer park staff, in collaboration with the U.S. Geological Survey (USGS), collected water quality and biological samples from Lake Clark, Telaquana Lake, and Crescent Lake to better understand how mercury bioaccumulates in the food webs of lakes with differing fish communities and morphology. Collected samples will be processed this winter and additional lakes in Wrangell Saint Elias NP&P and Gates of the Arctic NP&P will be sampled in 2022.

Aquatic Plant Monitoring

- In July and September park staff investigated the presence of submerged aquatic vegetation in Sixmile Lake to address concerns by local residents of increased aquatic vegetation in areas where subsistence fishing takes place. Local subsistence users were interviewed to learn about long-term changes in aquatic vegetation in the area. Boat surveys were conducted to estimate the distribution and density of aquatic species, identify species present, map water depth, and assess water quality characteristics that affect plant growth. Additional surveys were conducted in Hardenburg Bay near Port Alsworth.

CULTURAL RESOURCES DIVISION, LIZA RUPP (907) 644-3648

Kijik National Historic Landmark Cultural Landscape Report

- In 2019 the park began a multi-year project to document the Kijik NHL cultural landscape and to develop a framework to manage the site that is informed by the perspectives and values of Dena'ina communities. We hope that the project will also clarify the roles and responsibilities of the NPS and Dena'ina communities in collaboratively managing the NHL in the future – for the benefit of all stakeholders, including non-Native resident zone communities and park visitors in addition to tribes. The project will also help to identify interpretive and educational opportunities for Dena'ina and other youth, and visitors. The park held an initial consultation meeting with park-associated tribes in February 2020. Since then researchers have focused on literature review and historic photo captioning. We hope to resume field work in 2022.

Telaquana Trail Cultural Landscape Report

- In February the park received the final manuscript for the Telaquana Trail Cultural Landscape Report. This was the culmination of a five-year collaborative project with researcher Dr. Doug Deur of Portland State University. In part, the report details the cultural significance to the Inland Dena'ina of the landscape of Telaquana Trail, as well

as describing features and resources along the route. The park is in the process of printing copies of this report for public distribution.

Quk' Taz'un Outdoor Leadership Camp

- The camp took place at Historic Kijik from August 6 -13th. We had a total of 12 students from the communities of Nondalton and Kokhanok. Despite the wind and rain the youth had a great time and learned a lot. Five elders also participated and part of their teaching included mountain squirrel (qunsha) squirrel snare making and setting and story-telling. Other activities included: moose skin tanning; Dena'ina language learning; Dena'ina history including the significance of Kijik; medicinal plants; various forms of art; survival skills and yoga.

SOUTHWEST ALASKA INVENTORY AND MONITORING NETWORK,
AMY MILLER (907) 644-3683

Water Quality Monitoring

- Lake temperature has been monitored year-round in Lake Clark since 2006, and in Kijik Lake since 2010. In 2017, temperature monitoring also began in Telaquana Lake. In 2021, the freshwater crew was based in Port Alsworth and monitoring continued at all three sites. The monitoring relies on the use of programmable data loggers attached at various depths to moored vertical temperature arrays. Data from the temperature arrays allow tracking of freeze-up and break-up dates, lake stratification, and large-scale wind events, all of which influence lake productivity. Additional water quality measurements, including pH, dissolved oxygen, specific conductivity, and turbidity, were measured hourly at the outlet of Lake Clark over the course of the summer (June-September), and at 30 points on the lake once per summer (July). In addition, temperature loggers installed at a number of stream and beach locations measured water temperatures where sockeye salmon spawn.

Surface Hydrology Monitoring

- Streamflow near the outlet Lake Clark has been estimated since 2009 by measuring water levels hourly during the ice-free portion of the year. In 2014, a second streamflow monitoring site was established near the outlet of Kijik Lake. This work continued during the 2021 field season. The data are useful for understanding patterns observed in aquatic systems because streamflow affects many processes, from nutrient loading to the timing and success of fish spawning.

Weather Stations

- All five of Lake Clark's remote automated weather stations (RAWS) have received or are scheduled for annual maintenance in 2021.

Glaciers

- Glacier Delineation; Changes in the area of Alaska's glaciers, including those in Lake Clark National Park and Preserve, are being mapped for the time period of 1984 to present using all available satellite imagery and supercomputer processing. This work is in progress, in collaboration with researchers at Oregon State University.

- Coastal Glacier Recession; A study on the impacts of tidewater glacier recession on coastal aquatic-associated ecosystems started in the fall of 2020. The study is compiling baseline data from locations with recent tidewater or near-coastal glaciers that have since receded. This project will allow us to better understand the impacts on coastal ecosystems and the species that depend on them. Work on this project is being done in collaboration with researchers at Oregon State University.

Bald Eagle Surveys

- Lake Clark supports large populations of bald eagles. Their breeding success is influenced by habitat integrity and food availability, among other factors. Bald eagle surveys conducted in LACL show that nest occupancy has been highly variable since surveys were initiated in 1992. In 2021, bald eagle surveys were flown in May and July to determine how many eagle nests are occupied by eagles, and how many chicks were observed in each nest.

Vegetation Monitoring

- Vegetation monitoring in Lake Clark provides information regarding long-term changes in species richness, cover and diversity across a range of vegetation types. Monitoring in 2021 focused on spruce woodland habitats, with revisits of sampling sites near Lachbuna, Snipe, Upper Tazimina, and Pickerel Lakes.

OSM report for fall 2021 Council meetings

Dear Madam Chair, members of the Council,

On behalf of OSM, I want to thank all Council members for your exceptional work that you do on behalf of your communities and user groups during these trying times. We value your expertise and contribution of your knowledge and experience to the regulatory process.

It has been very difficult for all of us dealing with the COVID-19 environment.

Teleconferences

As you've learned from Chairman Christianson's letter dated August 20, 2021, we are holding all 10, fall 2021 Regional Advisory Council meetings via teleconference. This decision was made with the utmost consideration and concern for the health and safety of Council members, families, rural communities, the public, and staff who are all part of Council meetings. The health and safety of everyone is our highest priority. The DOI guidelines advise that people avoid travel and refrain from meeting in person to minimize risk and help prevent the spread of COVID-19. The Regional Advisory Councils are the foundation of Alaska's Federal Subsistence Management Program. The Federal Subsistence Management Program recognizes that in-person meetings are preferable; however, until we can ensure the safety of all participants, we will follow current guidance and hold all meetings via teleconference. We thank you for being willing to participate in the lengthy teleconference and appreciate your patience as we deal with the various technical issues that arise from the poor telephonic connections, the vast distances involved, and differing communication systems throughout the state.

OSM staff changes

Since your last Council meetings in winter 2021, the following OSM staffing changes have occurred. We are very pleased to announce that Amee Howard has joined OSM as our new Deputy Assistant Regional Director. Amee previously worked in OSM as Policy Coordinator. We also are very pleased to see that a number of staff that worked at OSM for a while, grew with the program and got promoted. Katya Wessels was promoted from Council Coordinator to supervisor of the Council Coordination Division. Lisa Grediagin was promoted from Wildlife Biologist to supervisor of the Wildlife Division. Robbin La Vine was promoted from Anthropologist to Policy Coordinator. Additional good news is that three Wildlife Biologists positions at OSM were filled. Tom Plank came to us from the Bureau of Land Management (BLM) in Utah. Brian Ubelaker came to OSM from BLM in Anchorage. Kendra Holman came to OSM from the U.S. Army Corp of Engineers in Anchorage. We also had some departures at OSM through retirement and new opportunities. We bid a fond farewell to Donald Mike, Caron McKee, and Zach Stevenson. The OSM team is diligently working on building capacity and will be filling several new positions in our Anthropology, Council Coordination, Fisheries, and Regulatory divisions, along with adding additional Administrative support.

The application period is now open for two Subsistence Council Coordinator positions with OSM. These are GS-12 positions. The job announcements are posted on usajob.gov Please help us spread the word and help us find great candidate for these key positions in our Program. If you have any questions, call Katya Wessels at 907-786-3885.

Real ID for travel to Council meetings

Over the past two years we have been reminding Council members about the change in requirements for IDs at airports. Beginning May 3, 2023, every air traveler will need to present a REAL ID-compliant driver's license, or other acceptable form of identification (e.g. passport), to fly within the United States. This is applicable even when you fly on small bush carriers. Please note that all Council members will need to make sure that they have the required Real ID for travel to the fall 2023 Council meetings.

Lawsuit from the State of Alaska

As you were previously briefed, on August 10, 2020, the State of Alaska filed a lawsuit against the Federal Subsistence Board after it adopted Emergency Special Action WSA19-14. This special action allowed the village of Kake to engage in a community harvest of 2 antlered moose and 5 male Sitka black-tailed deer. Also included in the lawsuit was Temporary Special Action WSA20-03, which closed Federal public lands in Units 13A and 13B to non-Federally qualified moose and caribou hunters. As part of the lawsuit, the State asked the Court to issue two preliminary injunctions -- one to prevent the Unit 13 closure from taking effect and another vacating the Kake hunt and prohibiting the Board from allowing any additional emergency hunts related to the impacts of COVID-19. On Sept. 18, the U.S. District Court denied the State's request for a preliminary injunction on the Unit 13 closure. The Court found that, "Because the State has not demonstrated either a likelihood of success or serious questions on the merits of its claims, the court need not consider the remaining elements of the preliminary injunction analysis." Two months later, on November 18, the Court also denied the State's motion for preliminary injunction on the Kake hunt after Judge Gleason concluded that the State had not demonstrated a likelihood of success on the merits, raised serious questions on the merits of its claims, or demonstrated any likelihood of irreparable harm. While these rulings on preliminary injunction are encouraging, they did not resolve the litigation. Recent developments are that settlement negotiations between the Department of Justice, the DOI Solicitor's Office, the USDA Office of General Counsel, and the State proved unsuccessful. A Briefing was completed at the end of August of 2021, and we are now awaiting the Court's decision. Based on legal guidance, Program staff does not comment on any active litigation directed against the Federal Subsistence Board beyond what we have reported here.

I would be happy to answer any questions. Thank you Madam Chair, Council members.

Building Partnerships and Capacity for Federal Subsistence Fisheries Management and Research in the North

Partners for Fisheries Monitoring Program (PFMP)

Introduction

The Partners for Fisheries Monitoring Program was established in 2002 to increase the opportunity for Alaska Native and rural organizations to participate in Federal subsistence management. The program provides funding for fishery biologist, social scientist, or educator positions within the organization, with the intent of building and sustaining the organization's fisheries management expertise. In addition, the program supports a variety of opportunities for local, rural students to connect with subsistence management through science camps and paid internships.

The program has provided funding to mentor more than 100 college and 450 high school students, some of whom have gone on to become professionals in the field of natural resource conservation. To date with 13.3 million dollars spent, the program has supported nine Alaska Native organizations in building capacity. Organizations are funded for up to four years through a competitive grant process.

How to Get Involved

The next funding opportunity will open in 2023; it is never too early to reach out and to begin planning the components of a proposed PFMP program. The Office of Subsistence Management (OSM) is happy to answer questions and provide advice regarding its various funding programs.

OSM also partners with the Alaska Native Science and Engineering Program (ANSEP) to provide internship opportunities that expose students to careers in natural resource management. If your existing Alaska based fisheries program could benefit from a student internship, or if your program has exciting fisheries-related opportunities to challenge and educate Alaska's rural youth, please be sure to let us know!

For more information, please visit our site at https://www.doi.gov/subsistence/partners. You can also contact the program's coordinator, Karen Hyer at karen_hyer@fws.gov or 907-786-3689.

Partner Contacts

- **BBNA**: Cody Larson, clarson@bbna.com
- **YTT:** Jennifer Hanlon, jhanlon@ytttribe.org
- **NVE**: Matt Piche, matt.piche@eyak-nsn.gov
- **NVN**: Dan Gillikin, dangillikin@gmail.com
- **ONC**: Janessa Esquible, jesquible@nativecouncil.org

- **TCC:** Brian McKenna, brian.mckenna@tananachiefs.org
- **QTU:** Chandra Poe, chandra@qawalagin.com

2021 Partners Program Participant Summaries

Bristol Bay Native Association (BBNA)

The Bristol Bay Native Association (BBNA) researches and highlights the role of fish used in satisfying a way of life, through collaborative investigations with our member tribes, universities, and state and federal managers. These partnerships inform our citizens of any changes to the public's relationships with fish and emphasize the value in the co-production of traditional knowledge and contemporary sciences research.

The BBNA Partners program funding is used in supporting the conversation between our residents, communities, and the managers tasked with decision-making on essential food resources. The program reinforces public input to the region's Fish and Game Advisory Committees, NPS Subsistence Resource Commissions, and the Federal Regional Advisory Council, while relaying information gathered from the social science investigations. Recent focus has been on subsistence fishery funding from section 12005 of the Cares Act, and the Chignik Fisheries disaster relief efforts.

Over the past year, the program informed and collaborated on multiple investigations and recent publications, some of which are available online and focus on; The Naknek River Subsistence Salmon Harvest, Subsistence Salmon Sharing Networks on the Alaska Peninsula, Voices of Alaska Native Women Fishers, Sharing Food and Community Resilience, and a Subsistence Harvest Assessment and Stock Composition of Dolly Varden and Nonsalmon Fish Stocks in the Togiak National Wildlife Refuge.

BBNA's program has coordinated dozens of internships with partners like Lake Clark National Park, Togiak National Wildlife Refuge, Alaska Dept. of Fish and Game, and the University of Washington. The leaders involved in these summer experiences have guided many students into careers in natural resource management. Some of those students have now become the mentors to the next cohort of future leaders. While the 2020 summer internships were successfully held virtually, we are looking forward to getting the hands-on field experiences in 2021!

Yakutat Tlingit Tribe (YTT)

Yakutat Tlingit Tribe (YTT) is a federally recognized tribe with 820 enrolled Tribal Members located on the northern coast of the Gulf of Alaska. Developing conservation concerns about local salmon stocks have highlighted the need for building capacity for fisheries monitoring and management in the YTT Environmental Department. Through the Partners Program, YTT hired a full time Fisheries Biologist in 2020 to participate in subsistence management and instill placed-based knowledge on the Situk River. YTT's Fisheries Biologist partners with the Yakutat District River Ranger to serve as the primary contacts to the public on the Situk River (April-September).

The team's primary job is to contact Situk users to promote stewardship and cultural awareness. Being on the river during peak fishing seasons, they can communicate conservation messages to anglers streamside on topics like catch and release, don't tread on redds, salmon ecology, angler etiquette, current regulations, alternative fishing sites, and habitat degradation. The biologist provides river users with

context about history and cultural importance of salmon with the Situk being the primary source for subsistence in Yakutat. In the past, brown bears associating anglers with fish has been a safety concern for both people and bears on the Situk. However, in coordination with the USFS Wildlife Biologist and Fish and Game, the River Rangers have aggressively worked to curb the behaviors amongst fisherman that lead to this problem. The consistent presence of the partners alone will prompt stewardship and good behavior amongst the varied Situk River users.

The Partners Program has enhanced YTT's capacity by broadening the scope of resources and tools available to the Tribe such as allowing access to valuable datalike river use, stream restoration trainings, and research methods like eDNA. This partnership forges a strong foundation that strengthens and supports the YTT Environmental Department's capacity to identify and respond to conservation concerns that impact tribal interests. YTT looks forward to expanding the department and welcoming an intern under the Partners Program.

Tanana Chiefs Conference (TCC)

The Tanana Chiefs Conference (TCC) serves as a non-profit organization for the Interior region of Alaska. The TCC region covers an area of 235,000 square miles and overlaps three separate National Wildlife Refuges (NWR): Kanuti, Koyukuk-Innoko-Nowitna, and the Yukon Flats. Since its creation, the TCC has become the provider of several programs in the Interior of Alaska. Through contracts with the Bureau of Indian Affairs, TCC is responsible for the management and delivery of services such as housing, land management, tribal government assistance, education and employment services, and natural resources management.

Within TCC's organizational structure, the Wildlife and Parks (W&P) Program is responsible for serving the subsistence needs of its tribes and tribal members. The Partners Program allows the TCC W&P Program the ability to maintain a fulltime fisheries biologist on staff and has allowed TCC to develop the capacity to address the subsistence needs of TCC tribes and tribal members by conducting a variety of fisheries research programs and also by participating in federal and state fisheries management meetings.

Through the Partners Program, TCC has successfully operated the Henshaw Creek Weir salmon monitoring project in the upper Koyukuk River. TCC strives to recruit and hire local technicians and youth to assist with the project each year. The Henshaw project also hosts an annual summer science and culture camp that is jointly operated by TCC and the Kanuti NWR. Elders and youth are brought together at the camp where the Elders teach students traditional skills (like setting nets, cutting and drying fish, and Athabascan language). TCC and Kanuti staff provide lessons in western science such as weir sampling, salmon biology and ecology and fisheries management.

Outside of the Henshaw Creek Weir project, TCC has been able to lead other fisheries investigations such as updating the Yukon River Chinook and chum salmon genetic baselines, mapping salmon spawning habitat and updating the Anadromous Waters Catalog and exploring the capabilities of small unmanned aerial systems to assist with salmon research and management. Additionally, each year they host one or two Alaska Native Science and Engineering Program (ANSEP) summer bridge students and provide them with the opportunity to gain hands on knowledge and experience in fisheries management within the Yukon River drainage.

Native Village of Eyak (NVE)

The Native Village of Eyak's Department of the Environment and Natural Resources (NVE-DENR) Fisheries Program focuses on population monitoring, filling data gaps, using traditional ecological knowledge to improve data collection, and working with partners to ensure a future with healthy robust fish populations while supporting sustainable fisheries. PFMP funds are used to support a permanent fish biologist responsible for leading the fisheries program and seasonal fisheries interns who gain valuable hands-on experience.

The current PFMP is also supporting the development of a youth science and subsistence camp and outreach with other organizations and researchers throughout the region. Current research led by NVE's Partners Program biologist includes Chinook salmon inriver abundance, Copper River (2003-2021); Chinook salmon distribution and stock specific run timing, Copper River (2019-2021); Klutina River salmon enumeration sonar pilot study (2021-2024).

Furthermore, NVE is continually sharing its resources and expertise to accomplish more work through partnerships with other researchers. Current partners on side-studies include Alaska Department of Fish and Game Division of Sport Fish and Commercial Fisheries, Prince William Sound Science Center, and Ahtna Intertribal Resource Commission.

Native Village of Napaimute (NVN)

The Native Village of Napaimute (NVN) is a federally recognized tribe and has about 100 members; the village is only seasonally occupied currently. The Napaimute Partners in Fisheries Monitoring Program main goals are to; improve effectiveness of local outreach related to fisheries management, provide opportunities in natural resource education and experience for local youth, build local capacity through strategic program and workforce development, and develop a sustainable natural resource program.

Outreach related to fisheries management is achieved by participating in management discussions with various advisory groups i.e., Kuskokwim River Inter Tribal Fish Commission, Kuskokwim Salmon Management Working Group, and agencies (ADF&G, USFWS). We routinely post in-season management actions on social media and around the Villages to keep fishers informed on the latest regulations.

Our youth outreach involves two projects; the Math Science Expedition (MSE) and the George River Internship (GRI). The MSE is tailored more to be leadership development experience with some exposure to fisheries ecology and data collection. The MSE typically accommodates 25-30 students on a two week-long rafting trip down the Salmon and Aniak Rivers.

The GRI is an advanced paid Internship opportunity on the George River where Interns learn about river ecology, hydrology, sampling techniques for fish and benthic macro- invertebrates, leadership skills and career opportunities in the area of natural resource management.

The PFMP has allowed us to build the capacity to peruse funding for and help support fisheries monitoring programs (Aniak Test Fishery & Salmon River Weir) funded through the USFWS Fisheries Resource Monitoring Program, along with several environmental monitoring and fisheries assistance projects. Projects are mostly staffed by local residents and Alaska Native Science and Engineering Students (ANSEP).

Orutsararmiut Native Council (ONC)

Orutsararmiut Native Council (ONC) is the Federally recognized Tribal Government for the Native Village of Bethel, Alaska and has greatly expanded its Partners Program since 2008. ONC Partners Program strives to support ongoing fisheries in season and postseason monitoring programs; serve as a mentor for rural, Alaska Native student interns in coordination with other state, federal, and tribal entities; communicate results of the fisheries monitoring program projects to various audiences to enhance federal subsistence management awareness in rural communities; continue youth internship programs; and pursue external funds and partnerships to expand the current Partners Program. In the past, with the support of the Partners Program, ONC was able to conduct annual Science & Culture Camps, as well as science, technology, engineering, and math (STEM) middle school career exploration programs in Bethel with the help of Alaska Native Science & Engineering Program (ANSEP) and several other partner agencies.

Our Partners Program also became involved with the Aniak & Salmon River Math & Science Expedition by fisheries educational outreach with youth from the middle Kuskokwim. ONC's involvement with youth camp programs throughout the years was able to reach many students ranging from 6th to 12th grade. Despite the difficulties and cancellations that came with the COVID-19 pandemic, ONC's Partners Program work has continued in a safe manner with new procedures and creative methods to engage youth. We would like to sincerely thank the Office of Subsistence Management and other partnering entities, for without their support, our program would not have had the ability to support the youth of the Yukon-Kuskokwim Delta. The support of our partners has allowed ONC to have great success in expanding its involvement on scientific and educational outreach projects and programs.

Qawalangin Tribe of Unalaska (QTU)

The Qawalangin Tribe of Unalaska is a federally recognized sovereign nation. The Unangan people have continuously occupied their homelands along the Aleutian and Pribilof Islands for thousands of years, relying on a close relationship with the sea and lands.

As a new participant in the Partners program, the Tribe is looking forward to continuing work to ensure healthy subsistence species and food sovereignty for generations to come.

A key project in our first year as a Partners program participant was collaborating with ADFG to operate a weir at McLees Lake, monitoring this sockeye run that is an important subsistence resource for the community. In our first year, we restored structures at the site that had fallen into disrepair during a 2-year gap in funding for the weir. Our staff gained experience in weir setup and operations and scale sampling. We are looking forward to building our staff capacity and increasing our presence at the weir in coming seasons and working to ensure continuity of this important salmon monitoring site.

In addition to continuing work at the McLees weir in partnership with ADFG, in the coming years we are looking forward to establishing a strong outreach and education program to build awareness and support of subsistence resource management, so important to our coastal community.

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.

Winter 2022 Regional Advisory Council Meeting Calendar

Last updated 3/19/2021

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.

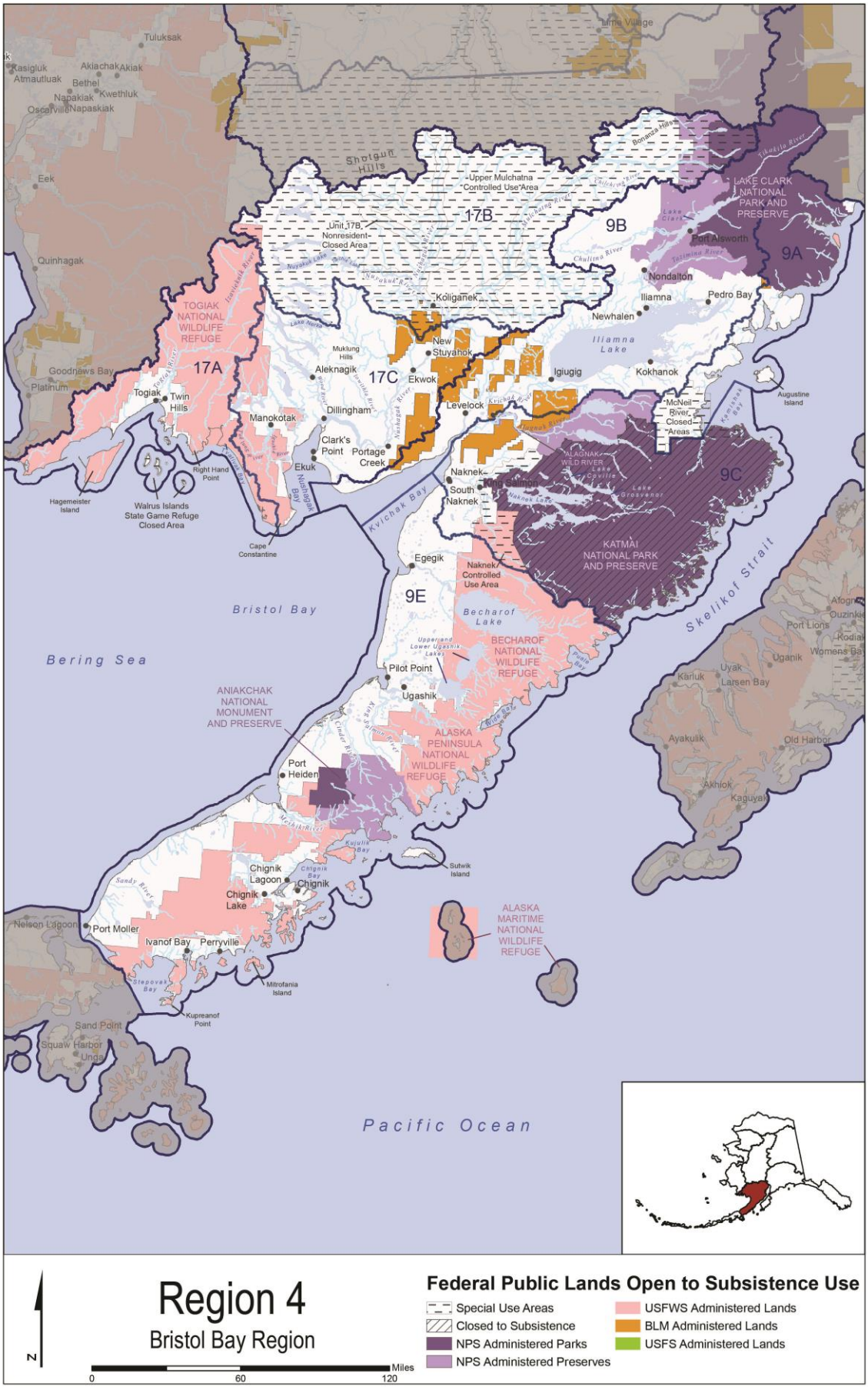
Sunday	Monday	Tuesday	Wednesday-	Thursday	Friday	Saturday
Feb. 6	*Feb. 7 Window Opens*	*Feb. 8*	*Feb. 9*	*Feb. 10*	*Feb. 11*	*Feb. 12*
		BB - Naknek		**SC - Anchorage**		
Feb. 13	*Feb. 14*	*Feb. 15*	*Feb. 16*	*Feb. 17*	*Feb. 18*	*Feb. 19*
	NWA - Kotzebue		**WI - Galena**			
Feb. 20	*Feb. 21* ***PRESIDENTS DAY HOLIDAY***	*Feb. 22*	*Feb. 23*	*Feb. 24*	*Feb. 25*	*Feb. 26*
		KA - Kodiak				
Feb. 27	*Feb. 28*	*Mar. 1*	*Mar. 2*	*Mar. 3*	*Mar. 4*	*Mar. 5*
		YKD - Bethel		**SP - Nome**		
Mar. 6	*Mar. 7*	*Mar. 8*	*Mar. 9*	*Mar. 10*	*Mar. 11*	*Mar. 12*
		EI - Fort Yukon				
		NS - TBD				
Mar. 13	*Mar. 14*	*Mar. 15*	*Mar. 16*	*Mar. 17*	*Mar. 18*	*Mar. 19*
Mar. 20	*Mar. 21*	*Mar. 22*	*Mar. 23*	*Mar. 24*	*Mar. 25* *Window Closes*	*Mar. 26*
		SEA - Sitka				

Fall 2022 Regional Advisory Council Meeting Calendar

Last updated 8/5/2021

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


Tuluksak
Akiachak
Akiak
Bethel
Kwethluk
Napakiak
Napaskiak
Oscarville
Eek
Quinhagak
Goodnews Bay
Platinum
Togiak
Twin Hills
Manokotak
Dillingham
Clark's Point
Portage Creek
Ekuk
Right Hand Point
Hagemeister Island
Walrus Islands State Game Refuge Closed Area
Cape Constantine
Nushagak Bay
Kvichak Bay
Egegik
Naknek
South Naknek
Bristol Bay
Bering Sea
Pilot Point
Ugashik
Port Heiden
Chignik Lagoon
Chignik
Chignik Lake
Nelson Lagoon
Port Moller
Ivanof Bay
Perryville
Mitrofania Island
Kupreanof Point
Sand Point
Squaw Harbor
Unga
Sutwik Island
Pacific Ocean
Shotgun Hills
Upper Mulchatna Controlled Use Area
Unit 17B Nonresident Closed Area
17B
9B
9A
9C
9E
17A
17C
LAKE CLARK NATIONAL PARK AND PRESERVE
Port Alsworth
Nondalton
Koliganek
New Stuyahok
Aleknagik
Ekwok
Levelock
Iliamna
Pedro Bay
Newhalen
Iliamna Lake
Kokhanok
Igiugig
McNeil River Closed Areas
Augustine Island
TOGIAK NATIONAL WILDLIFE REFUGE
ALAGNAK WILD RIVER
KATMAI NATIONAL PARK AND PRESERVE
Naknek Controlled Use Area
BECHAROF NATIONAL WILDLIFE REFUGE
ANIAKCHAK NATIONAL MONUMENT AND PRESERVE
ALASKA PENINSULA NATIONAL WILDLIFE REFUGE
ALASKA MARITIME NATIONAL WILDLIFE REFUGE
Skelikof Strait
Port Lions
Kodiak
Womens Bay
Afognak
Ouzinkie
Uganik
Karluk
Larsen Bay
Uyak
Ayakulik
Old Harbor
Akhiok
Kaguyak
Region 4
Bristol Bay Region
N
0
60
120
Miles
Federal Public Lands Open to Subsistence Use
Special Use Areas
Closed to Subsistence
NPS Administered Parks
NPS Administered Preserves
USFWS Administered Lands
BLM Administered Lands
USFS Administered Lands

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

Bristol Bay Subsistence Regional Advisory Council

CHARTER

1. **Committee's Official Designation.** The Council's official designation is the Bristol Bay 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, review, and evaluation of proposals for regulations, policies, management plans, and other matters relating to subsistence uses of fish and wildlife on public lands within the Region.

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

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

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

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

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

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

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

e. Appoint three members to the Lake Clark National Park and three members to the Aniakchak National Monument Subsistence Resource Commissions, 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.

All current and future Executive Orders, Secretary's Orders, and Secretarial Memos should be included for discussion and recommendations as they are released. 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 $155,000, including all direct and indirect expenses and 1.0 Federal staff years.

8. **Designated Federal Officer**. The DFO is the Subsistence Council Coordinator for the Region or such other Federal employee as may be designated by the Assistant Regional Director - Subsistence, Region 11, U.S. Fish and Wildlife Service. The DFO is a full-time

Federal employee appointed in accordance with Agency procedures. The DFO will:

(a) Approve or call all of the Council and subcommittee meetings;

(b) Prepare and approve all meeting agendas;

(c) Attend all Council and subcommittee meetings;

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

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

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

10. **Duration.** Continuing.

11. **Termination.** The Council will be inactive 2 years from the date the charter is filed, unless prior to that date, the charter is renewed in accordance with 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. Members serve at the discretion of the Secretary.

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

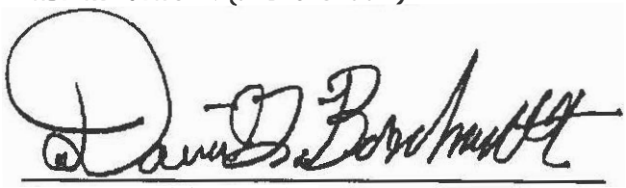
Council members will elect a Chair, Vice-Chair, and Secretary for a 1-year term.

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

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

14. **Subcommittees.** Subject to the 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 of the Council, must be handled in accordance with General Records Schedule 6.2, and other approved Agency records disposition schedule. These records must be available for public inspection and copying, subject to the Freedom of Information Act (5 U.S.C. 552).



Secretary of the Interior

DEC 1 2 2019

Date Signed

DEC 1 3 2019

Date Filed

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