



SEWARD PENINSULA SUBSISTENCE
REGIONAL ADVISORY COUNCIL

*October 14-15, 2015
Nome, Alaska*



What's Inside

Page

1	Agenda
4	Roster
5	Winter 2015 Meeting Minutes
16	Rural Determination Briefing for Federal Subsistence Board
21	Alaska National Wildlife Refuge System Proposed Rule on Hunting
27	Wildlife Proposal WP16-43
45	Wildlife Proposal WP16-44
54	Wildlife Proposal WP16-45
67	Wildlife Proposal WP16-46
74	Wildlife Proposal WP16-47
82	Wildlife Proposal WP16-33
89	Wildlife Proposal WP16-34
111	Wildlife Proposal WP16-35
129	Wildlife Proposal WP16-37
193	Wildlife Proposal WP16-49/52
208	Fisheries Resource Monitoring Program Briefing
252	Annual Report Briefing
254	FY2014 Annual Report Reply

Continued on next page...

On the cover...

A bull moose wades through a pond in autumn.



USFWS

What's Inside

- 261 Office of Subsistence Management - Fall 2015 Report
- 264 All-Council Meeting Overview
- 269 2016 Meeting Calendars
- 271 Council Charter

SEWARD PENINSULA SUBSISTENCE REGIONAL ADVISORY COUNCIL

October 14-15, 2015
9:00 a.m. daily
Old St. Joe’s Hall
Nome, Alaska

TELECONFERENCE: call the toll free number: 1-866-820-9854, then when prompted enter the passcode: 4801802

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

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

AGENDA

*Asterisk identifies action item.

1. Roll Call and Establish Quorum (<i>Secretary</i>).....	4
2. Call to Order (<i>Chair</i>)	
3. Welcome and Introductions (<i>Chair</i>)	
4. Review and Adopt Agenda* (<i>Chair</i>)	1
5. Review and Approve Previous Meeting Minutes* (<i>Chair</i>)	5
6. Length of Service Awards	
7. Reports	
Council Member Reports	
Chair’s Report	
8. Public and Tribal Comment on Non-Agenda Items (available each morning)	
9. Old Business (<i>Chair</i>)	
a. Rural Determination Process Update (<i>OSM</i>)	16
b. Refuges Proposed Rule on Hunting*	21
10. New Business (<i>Chair</i>)	
a. Wildlife Proposals* (<i>OSM</i>)	

Regional Proposals

(1) WP16-43: Change hunt area description and closure for caribou (Units 18,22A).....27
(2) WP16-44: Change hunt area description, harvest limit and season for brown bear (Units 22C, 22D).....45
(3) WP16-45: Change hunt area description for caribou (Unit 22E).....54
(4) WP16-46: Rescind closure for moose (Unit 22E).....67
(5) WP16-47: Create antlerless moose season (Unit 22E).....74

Crossover Proposals

(6) WP16-33: Change customary and traditional use determination for caribou and moose (Unit 18)82
(7) WP16-34: Hunting closure for all big game to non-Federal users (Unit 18)..... 89
(8) WP16-35: Change in methods and means for black and brown bear (Unit 18)..... 111
(9) WP16-37: Change in harvest limit and season for caribou (Units 21D, 22, 23, 24, 25, 26A, 26B) 129
(10) WP16-49/52: Change harvest limits, change the bull and cow seasons for caribou (Unit 23) 193
b. 2016 Fisheries Resource Monitoring Program* (*OSM Fisheries/Anthropology*)208
c. Identify Issues for FY2015 Annual Report* (*Council Coordinator*).....252

11. Agency Reports

(Time limit of 15 minutes unless approved in advance)

Tribal Governments
Native Organizations
NPS
BLM
ADF&G
OSM261

13. Future Meeting Dates*

Winter 2016 All-Council Meeting Update (*Meeting Committee*).....264
Fall 2016 date and location.....269

14. Closing Comments

15. Adjourn (*Chair*)

To teleconference into the meeting, call the toll free number: 1-866-820-9854, then when prompted enter the passcode: 4801802

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 Karen Deatherage, 907-786-3564, karen_deatherage@fws.gov or 800-877-8339 (TTY), by close of business on Friday, October 2, 2015.

DRAFT

REGION 7

Seward Peninsula Subsistence Regional Advisory Council

Seat	Year Apptd <i>Term Expires</i>	Member Name and Community
1	2014 2015	Theodore Katcheak Stebbins
2	1995 2016	Peter Buck White Mountain
3	2010 2016	Louis H. Green, Jr. Nome Chair
4	2010 2016	Tom L. Gray Nome
5	2014 2017	Joseph A. Garnie Teller
6	2014 2017	Amos F. Oxereok Wales
7	2008 2017	Fred D. Eningowuk Shishmaref
8	1994 2015	Elmer K. Seetot, Jr. Brevig Mission
9	2012 2015	Charles F. Saccheus Elim
10	2010 2015	Timothy E. Smith Nome Vice Chair

SEWARD PENINSULA SUBSISTENCE REGIONAL ADVISORY COUNCIL
Old St. Joe's Hall, Nome
February 18-19, 2015

Meeting Minutes

Roll call, quorum established with six members present (Theodore Katcheak, Amos Oxereok, Tim Smith, Fred Eningowuk, Peter Buck and Charles Saccheus). Louis Green later joined telephonically.

Welcome and Introductions

Agency present:

Ken Adkisson, NPS

Clarence Summers, NPS

Chris McKee, OSM

Jeff Brooks, OSM

Letty Hughes, ADF&G

Jeannette Koelsch, NPS

Keith Kahklen, BIA

Drew Crawford, ADF&G (telephonic)

Carmen Daggett, ADF&G (telephonic)

Agenda

Move election of officers to later

Move discussion on Refuges proposed rule to new business

Add Council proposals after call for hunting and trapping proposals

Add discussion on State Proposal 202 to end of new business, with Jim Dau presentation immediately prior

Add presentation by Pat Valkenburg on Intensive Management to end of day, plus at 6:00 p.m.

Add discussion on ACRs regarding Norton Sound crab to ADF&G report

Meeting agenda approved as amended

Minute approval

Page 6, Scott Lockwood report on reindeer, discussion about whether reindeer are subsistence foods

Page 9, top on issue of extending federal jurisdiction to Fish River and over Pollock bycatch
Minutes approved

Council Member Reports

Theodore Katcheak – there have been hunters coming up from the lower Yukon River area to near Unalakleet to hunt caribou, but are actually hunting reindeer.

Amox Oxereok – Boats coming in from Nome and Teller for the spring hunts. Walrus hunt was good, got lots of seals. Whaling has been tough, no whales in recent years. Lot of nets being pulled in with a lot of fish. Salmonberries were really delicious this year, went really well with

Cool Whip. Moose have been showing up before the season starts, and disappear when the season starts. Several musk ox came into town, one attacked a dog another was going after a child. Good to see the reindeer in town, feeding nearby.

Charles Saccheus – Weather has not been too good. Warm weather last fall and still continuing. The commercial fishing season was super, Elim fishermen got a lot of chum, pink and silver salmon, which was good for the income of the Elim people. Beluga hunting good last Spring, this fall we started to use whale nets at Elim. Poor season with blue and salmonberries. The moose season was good. The caribou were late, in October, but some people when they went out hunting caribou they came back with reindeer. The caribou population is declining. Warm weather has made travel dangerous due to the ice. He wished everyone a successful subsistence season this summer. He thanked people for attending the meeting.

Peter Buck – Last summer was a very poor berry season. The weather has been warm most of the year, but there is some snow. We harvested our quota of moose, mostly in the fall and January. The caribou have been coming in slowly. Musk ox quota has been met in White Mountain area. There was a cold snap of -30 or -40 for only a couple of days, so it was hard to do subsistence crabbing.

Fred Eningowuk – Last year was a poor spring hunt on oogruk, the ice went out very early, very poor ice conditions. The ice has been leaving earlier and earlier, forcing some boats to go all the way up to Kotzebue Sound. There are thousands of caribou up there, coming farther west every year. Seems like half of the WACH up there right now. Problem with bears breaking into cabins. Very poor season for blackberries last year. Little snow for subsistence hunting right now.

Louis Green – I see discussions about predator control on social media. People in Nome talk about doing their share to kill bear and that if you are taking a moose you should be taking a bear as well. I think we're at the point in the discussion of intensive management is probably where we're at realistically. Even when the opportunities to take bear are taken we're not having enough of an impact on the numbers. The sows are healthy and are having large litters. Things are good for the carnivore. It's important for the region to consider intensive management. We have a decline in moose. In the past the Seward Peninsula may have allowed a take of 400 moose, now it's 67. That's not enough to take care of people and subsistence suffers. Caribou are a healthy subsistence food, but the health of the population is declining, down to only 230,000. Problem with musk oxen being aggressive and attacking dogs. But we have to figure out how to live with them because they are one of our only sources of meat left. We need to get a handle on the status of the reindeer herds. They should be part of the discussion because they are an important food source. We continue to struggle with salmon runs. We have seven rivers, but the state does a combined total of all of those rivers to determine the status of the population. But some rivers are harder to get to than others. Opportunity for subsistence is getting more and more to be for people who have money in their pocket. Somehow we have to turn this stuff around. We need to very seriously consider intensive management here on the Seward Peninsula. Congratulations to the new members of the Council.

Public Comment on Non-Agenda Items

Dan Koonuk - Wondering if subsistence users are being protected compared to the commercial users. Is there a way that we can help get the king salmon population back to its prior status? Is there a way that ADF&G can deal with the bears that have been coming into town? Bears have been breaking into my fish rack. The musk ox, coming into the town and threatening people and pets. I don't have a solution, but can we use torches to drive the musk ox out of town like cave men did before? Theodore Katcheak responded to his suggestion that ADF&G transport out nuisance bears, that given past examples he questioned whether it would be helpful. Tim Smith noted that Dan has been actively involved in Facebook discussions on subsistence. Louis Green asked Dan if he thought we had an abundance of salmon in the Nome area. Dan noted that the king salmon population is down, but other species are doing well.

Recess for lunch at 12:15 p.m.

Back on record at 1:34 p.m.

Council member reports (continued)

Tim Smith – Reported on his and Louis' attendance at the Federal Subsistence Board meeting in January. Spoke to the Board on the issue of Intensive Management. That is what the public wants in order to allow for us to get more harvest. We will also be hearing from the NPFMC later on in the meeting, and that is important to address. Harry Brower spoke at the FSB meeting about ecosystem management. And that is something we need more of. We have all of these different agencies managing their own areas, and we don't have any comprehensive ecosystem management as a result. If we want to have a diverse variety of resources, we have to have some form of ecosystem management. Because of ANILCA, we have this dual management system. For years, the State has been uncooperative because it was assumed that the Federal system would go away. It's not going away until the Alaska Constitution is amended. The State isn't doing intensive management out here because they don't have the resources.

Theodore Katcheak amended his report. There are a lot of moose in our area, so people were able to go out and moose hunt. People go in teams to conserve gas. Berries were abundant, vegetation looked healthy. Plenty of chums, coho, whitefish, blackfish. King salmon tapering off, would see that happen when they start to catch a lot of Jack kings. Plenty of local birds, migratory birds. Able to catch Beluga and seals, plentiful in our area, very healthy. Plenty of beavers, warm climate has contributed to their increase. Facing hard times due to low snow and rain, causing snow machines to break down. The ocean is freezing later (December to early January). Thanked each agency for coming to the meeting, and Council members for coming to share about important subsistence issues.

Old Business

Customary and Traditional Use Determination

Jeff Brooks, OSM, provided a briefing on what the Southeast RAC is considering for a proposal on changes to the C&T process. He noted that this was not an action item, and that no specific recommendation is requested at this time. He started with the background on the Southeast

Alaska RAC's request to have a briefing on some proposed language they are considering. He provided an overview of the review process, including a handout that is in the supplemental materials. The floor was opened to questions. Tim Smith noted that it is unclear what the Southeast RAC is trying to accomplish. Jeff noted that the second page of appendix A, which is the original Southeast RAC letter, summarized the issue, which is to allocate resources between rural residents during times of abundance, which unnecessarily restricts subsistence users. It was also noted that the eight factors were adopted from State regulations. There was a discussion as to whether a specific recommendation was needed at this time. Amos asked for an overview of the Seward Peninsula portion of the briefing, starting page 13.

National Park Service Subsistence Collections and Uses of Shed or Discarded Animal Parts
Ken Adkisson, NPS, provided an update on the horns collections and use issue. He covered the nationwide NPS regulations on the use of collected products, and unfortunately those applied to Alaska. So, the goal was to get NPS regulations in Alaska to apply to current practices. This Council submitted comments in the past on the issue. There was an environmental assessment and a finding of no significant impact (FONSI). He provided an overview of the proposed language found on page 14 in the meeting book. Theodore Katcheak commented on an incident where Yukon residents were gathering reindeer antlers on a refuge near his community, noting that nothing was done about it, there was no enforcement. Ken noted that finding a pile of antlers would suggest human activity which could be a cultural or archeological site. Ken then noted that the superintendent would have flexibility within each unit to implement the regulations. The purpose of the regulation is to accommodate traditional uses. Fred Eningowuk noted that he did not see mastodon ivory on the list of products that can be utilized, which is something they use for carvings. Ken noted that it is a paleontological specimen, not a wild renewable resource, so it is not covered under the proposed regulation and remain prohibited on park service lands. It does not mean you can't collect them elsewhere, it's just prohibited on park lands. Fred noted that they collect what they need from corporation lands. There was discussion on what corporations could do to protect these resources on their lands. Fred added that the intent of the regulation is to allow for the creation of handicrafts, not for commercial resale of the raw product. There was also a discussion as to why the proposed regulations do not cover marine mammal parts, which it was noted are not in the NPS regulation. Charles asked about when animals dropped antlers on private land, and Ken noted it would not be covered by the proposed regulations; it would be up to the land owner.

New Business

Wildlife Closure Reviews, presented by Chris McKee, OSM.

McKee provided first an overview of the wildlife closure review policy, which begins on page 16 of the meeting book.

McKee presented the analysis on WCR14-11 (winter season) and WCR14-12 (fall season) for Unit 22B moose west of the Darby Mountains. The written briefing was provided as part of the supplemental materials. The recommendation from OSM is to maintain the closure due to the low moose population. Council members inquired as to the date of the last survey, which was in

2013. Amos Oxereok moved to maintain the status quo on these closures. The motion failed for lack of a second.

WCR14-13 analysis presented by Chris McKee. Amos moved to maintain closure, seconded by Peter Buck. Brief discussion as to how it is frustrating that it is not known why populations are declining, so you cannot make decisions on what to do about it. Motion carried unanimously.

WCR14-14 analysis presented by Chris McKee. Amos moved to maintain the status quo, which was seconded by Fred Eningowuk. Motion carried unanimously.

WCR14-16 analysis presented by Chris McKee. He noted that the Council had previously discussed rescinding the closure and submitting a proposal to reestablish a season, but no action was taken on that. McKee provided an update on the population status and recent harvest levels. There was a discussion as to why there was an increase in non-resident hunting in 22E. Amos moved to eliminate the closure, as recommended by OSM. Seconded by Fred.

Meeting recessed at 3:30 p.m.

Meeting called back to order at 3:47 p.m.

Intensive Management

Tim Smith provided an overview on the need for ecosystem management and highlighted the area to study the impacts of predators on prey in the Seward Peninsula. He then gave an overview of the history of federal predator policy on the Seward Peninsula, from the period of 1840s-1950s. He then provided information on undocumented and illegal predator control activities that mostly ended in the 1980s. He then highlighted recent developments in various predator and prey populations, as well as issues related to cost of living and changes in culture related to influence of cash economy. He then presented his hypothesis that he would like to see tested by a proposed study of predator-prey relations on the Seward Peninsula.

Pat Valkenberg provided a PowerPoint presentation on Intensive Management. It provided an overview of the Alaska Constitution principles underlying wildlife management, the details of the 1994 Intensive Management law, and the relation of predators to the Intensive Management process. He then provided a broad overview of efforts to study the relationship between predators and prey, from collared studies to calf mortality studies and selected relocation and removal efforts. Valkenberg then highlighted specific information about predation on various prey populations. He provided information on bear and wolf predation on moose, deer, caribou, and musk oxen. He concluded by highlighting the current state of the political issues related to predator control.

Meeting recessed at 5:05 p.m.

Meeting called back on the record at 9:11 a.m. on February 19.

Tribal and Public Comments on Non-Agenda Items

No comments.

Rural Determination

Jeff Brooks, OSM, provided a briefing to the Council on the proposed Secretarial rule on rural determination. After the presentation, Theodore Katcheak moved to support the proposed changes. The motion was seconded by Peter Buck. During discussion, Tim Smith noted he was very pleased by the proposed changes. He discussed the Saxman issue, being aggregated with Ketchikan. He noted there is no pending danger in the Seward Peninsula for that happening, but we have to keep in mind the other communities in other regions who might be affected. It is going to be harder to determine an area is non-rural compared to before. Question was called. Motion carried unanimously.

Call for Federal Hunting and Trapping Proposals

Chris McKee, OSM, provided an overview of the call for Federal hunting and trapping proposals, providing information on how to submit a proposal and the deadline.

Theodore Katcheak noted he wanted to submit a proposal to close a portion of Unit 22A for caribou. People are allowed to hunt caribou, but caribou have not come south of Unalakleet for 15-20 years according to ADF&G data. Instead, people are hunting privately-owned reindeer under caribou regulations. So the goal would be to close the southern part of Unit 22A below the Unalakleet River and the upper part of the Andrefsky River (all drainages) in Unit 18, to be opened only by emergency order (or in-season manager) if caribou are shown to come south into that area. Fred Eningowuk moved to submit a proposal, seconded by Amos Oxereok. On discussion, it was noted that this would not harm subsistence opportunity because people are taking reindeer, not caribou, and inseason manager could open if there were caribou present. Data and traditional knowledge suggest there are no caribou.

Fred Eningowuk would like to extend the boundary for caribou hunting from Sanaguich River further west to Tin Creek; the full drainage up to the west headwaters at Ear Mountain. This would provide for more opportunistic hunting of caribou and be beneficial to subsistence users. A reindeer herder (Clifford) was consulted on the issue and noted he would not have a problem with this extension. Theodore Katcheak moved to submit the proposal, Peter Buck seconded. Amos noted it would allow people from Wales to take caribou closer to their community. Motion carried.

Fred Eningowuk wanted to submit a proposal to open the moose cow season in Unit 22E. Current antlered bull season would remain. Amended reg would allow for the taking of one moose, either an antlered bull or a cow moose (except no cow accompanied by calf), from July to 15 to December 31, then from January 1 to Mar. 15 would only be one antlered bull. Moved by Amos and seconded by Fred. Motion carried unanimously.

Tim Smith discussed submitting a proposal to liberalize the bear hunting season in Unit 22D southwest, as defined under State regulations. Aug. 1 to July 31, 2 bears. Amos moved to submit

that proposal and seconded by Peter. There are enough bears to support this level of hunting, so there is no conservation concern. Motion carried unanimously.

Amos moved to modify the brown bear season in Unit 22C, to change the season so that it is August 1 to May 25. Seconded by Theodore Katcheak. Having a lot of troubles with bears in 22C. Concern that increasing hunt of bears here could take away from bear control in other areas where moose are impacted. But, since there is currently no Federal land in Unit 22C, adopting the regulation cannot cause any harm. Motion carried unanimously.

Amos moved to submit a proposal to rescind the closure for non Federally qualified users for moose in Unit 22E. Motion seconded by Theodore. Motion carried unanimously.

Refuges Proposed Rule on Hunting

Heather Tonneson, Refuges program for Region 7 USFWS, presented an overview telephonically of the proposed rule regarding hunting of predators on refuge lands. The written briefing was provided in the meeting supplemental materials. Following the presentation, Tim asked as to the legal definition of natural biological diversity. Heather noted there was no single definition, but there are various definitions that, when combined, guide management decisions on managing for natural biological diversity. Peter commented on the importance of engaging local people and Tribes in management decisions. Amos noted that the only part of the region that would be impacted would be the southwest part of Unit 22A, which is in the Yukon Delta National Wildlife Refuge.

Tim noted that he did not see the need for it, and is not aware of anyone who would want to be restricted in, for example, taking brown bears by bait. Theodore noted that he had not heard anything from people in Stebbins or St. Michaels on this issue.

Council Coordinator please make sure to keep Council informed on activities of the WACH Working Group.

Western Arctic Caribou Herd Discussions

Q&A with Jim Dau, ADF&G

Tim asked a question as to reasoning for the closure on the taking of calves. Jim Dau provided a biological explanation for the closure. Louis asked if there is any data as to what is happening to the WACH. Jim noted that there is a large amount of data in the presentation that was provided in the supplemental materials. Theodore asked for the latest estimate on the herd size, which is about 235,000 caribou based on a 2013 survey. Tim asked about historic harvest on the Seward Peninsula, which Jim is noted on slide 22 of the presentation. Tim noted that harvest levels are so low on the SP, it would not provide much benefit for conservation in the region and would be detrimental to subsistence users. Jim Dau noted that while not much harvest is happening in Unit 22, most of the harvest is in Unit 23, where hunters take 10,000 caribou annually. He also noted that harvest levels have not dropped, but people are having to work harder to get their caribou.

Louis provided some comments that he wants included in a letter to BOG on Proposal 202.

Carmen Daggett, ADF&G, provided information on the Northern Norton Sound local AC, which supported Proposal 202 unanimously as written.

Jim Dau provided the highlights on the main provisions of Proposal 202:

- Prohibit harvest of calves
- Close non-resident cow season
- Reduce non-resident bull bag limit
- Close same-day airborne caribou hunt in Unit 22
- Shorten non-resident season from August 1 to Sept. 30

Louis asked where the same-day airborne provision came from, residents or non-residents. He also questioned whether it was detrimental to the herd.

The Council discussed on the record elements of a letter to send to the BOG on Proposal 202.

Notice of Funding Availability – FRMP

Stewart Cogswell, OSM, provided an overview of the FRMP and the funding availability, along with information on how to submit a proposal and the deadline. Peter Buck noted that we need to have more research on the Fish River, that there may be a need to exercise extraterritorial jurisdiction. Fred asked if there was a cap on how much funding is available for each proposal. Both Stewart and Jeff addressed the issue. Jeff discussed that the review process determines what is a reasonable budget based on the proposal. There was also discussion on how to submit a proposal. Peter talked about fish studies done by the Native Village of White Mountain.

Annual Report

Carl Johnson, OSM, provided an overview of the draft annual report. Peter moved, Fred seconded, to approve as written. Passed unanimously.

Charter Revisions

Carl Johnson, OSM, provided an overview of the proposed changes to the charter based on the approved recommendations to the Council member appointment process. Amos moved, seconded by Louis to approve charter revisions. Motion carried unanimously.

Letter to FSB regarding Intensive Management

More than 90% of subsistence hunters and fishermen feel there are too many predators in the region. Something needs to be done about that. There needs to be some research into the predator-prey relations in the region. We cannot simply extrapolate data from other areas. There may be another cause of ungulate declines, but, we need to have data to eliminate the causes. Only then can we take appropriate management decisions. We need to ask the Federal Subsistence Board to see if funding can be allocated to fund this research, either directly or encouraging other land managers to provide the funding. Louis moved to draft the letter, seconded by Amos. Question called, motion carried unanimously.

Agency Reports

BLM

Tom Sparks provided an overview on proposed revisions to the Bering Sea-Western Interior Land Use Management Plan, and the public process involved. Theodore asked a question about BLM district boundaries. He also discussed a new permitted weir to look at the king salmon run on the Iglutalik River. He also discussed other monitoring programs and initiatives, including lichen monitoring, exploratory drilling on Federal claims, guiding permits, Terra broad band right-of-way authorization, and various environmental remediation and waste removal efforts. Theodore asked a question about the Terra broad band. Pete inquired about the commercial guiding permit, and Tom provided additional information about the guide's planned activities, the land ownership, and outreach regarding the permit. There was additional discussion regarding potential ATV use impacts.

Bruce Seppi provided information about musk ox permits that were issued, and harvest on those permits. He also discussed how they will be assisting ADF&G on a moose survey in Unit 22E in the Unalakleet drainage. Theodore asked a clarifying question about that survey.

NPS

Ken Adkisson, NPS, provided three supplemental handouts. The first one addressed weather and climate and related monitoring activities. He noted they report on those activities periodically. He then referenced the Arctic Inventory Monitoring Network newsletter, which includes activities in the Bering Land Bridge Preserve, from shorebirds to shoreline debris cleanup. The final handout related to some of the wildlife research and projects that NPS is engaged in. He referenced cooperation with ADF&G on the WACH. He also discussed sheep monitoring in Unit 23 and Unit 26A and moose and musk ox surveys. He discussed the hire of a new biologist in the Western Arctic Parklands. He also mentioned a Dolly Varden overwintering project on the Noatak River.

ADF&G

Tony Barne, area biologist for Unit 22, provided a supplemental handout to the Council. He then covered some highlights from that written report. He then discussed various issues with the area moose populations and impacts of antlerless moose hunts. He specifically expressed concerns about the Unit 22E antlerless moose hunt that the Council voted earlier to submit as a Federal regulatory proposal.

Letty Hughes provided additional overviews of data included in the supplemental handout, specifically harvest information under State and Federal harvest permits. She also discussed the Unalakleet moose survey, and noted she hoped the results of that survey would be available at the next meeting. Ted asked a question about brown bear harvest in Unit 22A. Tim then had questions about the harvest of brown bear in Unit 22B.

Carmen Daggett provided information on two agenda change requests (ACRs) on crab for Norton Sound, and the deadline for submitting proposals. Proposal 269 would adjust the GHGs for summer and winter seasons for Norton Sound king crab. Norton Sound AC supported it unanimously. She read portions of that AC's meeting minutes that addressed the proposal. The

Council opted to not provide any comments on that proposal. She then discussed Proposal 270. She noted that the Northern Norton Sound AC supported the proposal with an amendment to restrict the number of pots. The Council elected to not make any comments on that proposal. Carmen then provided an update on the change in the BOG cycle from a two-year to a three-year cycle. She noted the deadline for submitting proposals for the next cycle.

The Council briefly discussed whether to submit a proposal to the BOF to determine the ANS for king salmon on the Unalakleet River. Louis moved to submit a proposal, seconded by Amos. The motion carried unanimously.

OSM

Chris McKee provided the OSM report, which included a staffing update on recent hires. He also provided an update to the Council regarding the FSB approving the ANCSA Corporation consultation policy and Tribal Consultation Implementation Guidelines.

Future Meeting Dates

The Council confirmed its fall meeting dates and location. The Council was provided an overview on the planning for the All-Council meeting on March 7-11, 2016 in Anchorage.

Election of Officers

Fred moved to elect the current slate of officers for another term. The motion was seconded by Mr. Buck. Motion carried unanimously.

Closing Comments

Charles thanked agency staff for attending.

Amos asked that in the future that agency reports be presented prior to discussion on proposals. He noted it was interesting to attend as his first meeting, that it was interesting to see the process. He noted it was a productive meeting.

Theodore said he was happy to be here, and wished everyone a good spring and summer.

Tim noted he talked a lot during this meeting and has said pretty much everything he wanted to say. He said it was unfortunate that not everyone could make it.

Louis thanked the staff for the meeting. He thanked Amos for his contribution and noted it was good to have the new members on board. He thanked everyone for continuing to have him as Chair.

The Council adjourned at 4:24 p.m.

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

March 9, 2015

/s/ Carl Johnson
Carl Johnson, DFO
USFWS Office of Subsistence

/s/ Tim Smith
Tim Smith, Vice-Chair
Seward Peninsula Subsistence Regional Advisory Council

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

DRAFT



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

Federal Subsistence Board News Release



Forest Service

For Immediate Release:
July 29, 2015

Contact: Deborah Coble
(907) 786-3880 or (800) 478-1456
deborah_coble@fws.gov

Federal Subsistence Board work session summary

During its work session held on Tuesday, July 28, 2015 the Federal Subsistence Board (Board) discussed deferred Request for Reconsideration RFR14-01. The motion to accept the State's request for reconsideration failed unanimously with a vote of 0-8. The Red Sheep and Cane Creek drainages will remain closed to non-Federally qualified subsistence users during the Aug 10-Sept. 20 sheep season in the Arctic Village Sheep Management Area of Unit 25. No further public comments were received regarding the issue at this work session.

The Rural Determination Process briefing was divided into three phases. Phase I addressed the Board's recommendation on the current secretarial proposed rule. The Board voted to recommend to the Secretaries to adopt the proposed rule as written. Phase II was determining a starting point for non-rural communities/areas. The Board voted to publish a direct final rule adopting the pre-2007 non-rural determinations. Phase III was direction on future non-rural determinations. The Board voted to direct staff to develop options to determine future non-rural determination for the Board's consideration. All three requests passed unanimously (8-0). OSM staff is expected to have a draft of options for the Board by the January 2016 meeting.

The Ninilchik Traditional Council submitted requests concerning the Kenai River gillnet fishery to the Board. The Board voted 7-1 to direct USFWS to continue working with NTC on an operational plan for the fishery. The request to rescind USFWS in-season manager's delegation of authority failed unanimously in a 0-8 vote. The request to reverse the emergency special action that closed the subsistence fishery for Chinook Salmon on the Kenai River failed in a 4-4 vote. NTC's final request to remove or amend current regulatory language on the Kenai River gillnet fishery was deferred and may be addressed during the next regulatory cycle.

Also discussed today during the work session was the 10 Subsistence Regional Advisory Council's Annual Report Replies. The RAC nominations discussion will occur during a closed executive session today, July 29, 2015 and is not open to the public.

1011 East Tudor Road MS-121 • Anchorage, Alaska 99503-6199 • subsistence@fws.gov • (800) 478-1456 / (907) 786-3888
This document has been cleared for public release # 1807292015.

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

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

-###-

Options for Board Recommendation on Current Secretarial Proposed Rule

The Board has four options for consideration:

1. Adopt as written;
2. Reject,
3. Adopt with Modification; or
4. Adopt and include in the preamble, direction for OSM and the ISC to develop a policy to address future nonrural determinations.

Program staff recommend the proposed rule be adopted as written. This action would be in line with the majority of the Regional Advisory Councils recommendations and public comments. It would also provide the shortest timeline and greatest opportunity for the resolution of this issue prior to the May 2017 deadline. If the Board does not take action prior to the deadline, communities that were selected to change from rural to nonrural in the 2007 final rule will become effective.

Options for Board Action to Determine Start-point for Nonrural Communities/Areas

The Board has three options to address rural determinations following action on the proposed rule. *If no action is taken, the 2007 final rule will become effective in May 2017.*

1. Initiate a direct final rule to adopt the pre-2007 rural determinations;
2. Initiate normal rulemaking to adopt an earlier rural determination;
3. Initiate rulemaking that would not address a start point and address each community individually.

Program staff recommend the Board initiate a direct final rule that would adopt the pre-2007 rural determinations. This action would resolve any current issues with communities/areas that were changed to nonrural in the 2007 final rule. If significant negative response from the public occurred, the direct final rule could be withdrawn and normal rulemaking could be undertaken. This option provides the shortest timeline and greatest opportunity for the resolution of this issue prior to the May 2017 deadline.

Options for Board to Direct Future Nonrural Determinations

To address future nonrural determinations, the Board has two options. The Board may direct staff to develop a draft nonrural determinations policy on how future determinations will be made; or, the Board may initiate rulemaking to address future determinations.

Program staff recommend the Board direct a policy to be drafted to address future nonrural determinations. This action will allow the greatest flexibility for Board action and the inclusion of regional variations. This option addresses concerns raised by some of the Councils (what the process of future nonrural determinations will be). Additionally it would require less time and the policy could be revised without formal rulemaking. Potential policy components could address nonrural characteristics with weighting potential that would accommodate regional variation and criteria for initiating a review of a community or area. The rural subcommittee, whose membership consists of program staff and ISC members, would develop the policy with input from the Councils, tribes, and public over the next 18 months with a goal of adoption by the Board in early 2017.

Rural Determination Recommendation Phases July 28, 2015

Phase I

Options for Board Recommendation on Current Secretarial Proposed Rule

Board Option		Pro	Con	Timeline	Notes
1. Adopt as written	<ul style="list-style-type: none"> - Shortest timeline - Majority of comments support 	<ul style="list-style-type: none"> - Lacks guidance on future actions 	<ul style="list-style-type: none"> - Publish mid-August 2015 (timeline is based on how long it would take staff to process the final rule; the response time from the Secretaries will be critical in any timeline) 	<ul style="list-style-type: none"> - This option provides the greatest opportunity for the Board to resolve this issue well prior of the May 2017 deadline 	
					<ul style="list-style-type: none"> - Would address some of the public comments - Likely will meet proposed timeline for rule completion
2. Adopt with directive to develop/maintain policy					
3. Adopt with substantial modification (a) RAC deference (b) List nonrural criteria		<ul style="list-style-type: none"> - Would address some of the public/RAC comments 	<ul style="list-style-type: none"> - Goes against Secretaries' intent to simplify the process - Would likely require additional public comment period - May require additional proposed rule, which could affect ability to meet May 2017 deadline 	<ul style="list-style-type: none"> - Publish November 2016 	
4. Reject				<ul style="list-style-type: none"> - 2007 final rule becomes effective on May 7, 2017 - Does not follow Secretarial directive to address rural issue - Does not address the majority of public comments received 	<ul style="list-style-type: none"> - No action to be taken

Rural Determination Recommendation Phases July 28, 2015

Phase II
Options for Board Action to Determine Start-point for Nonrural Communities/Areas

Board Option	Pro	Con	Timeline	Notes
1. Direct final rule adopting the nonrural communities pre-2007 final rule	- Shortest timeline - Provides foundation for nonrural	Possible public disapproval due to lack of current public input	Publish September 2015	Communities that were ruled as nonrural in 2007 final rule would become rural
2. Initiate new formal rulemaking to revert to pre-2007 rural determinations	- Would have RAC and public comment periods	Process could take up to a year to complete	Publish July 2016	
3. Initiate new formal rulemaking with no "start point" and address each nonrural community on a case by case basis.		- Process could take 2+ years to complete - 2007 final rule becomes effective on May 7, 2017	Publish July 2017 or later	Communities selected in 2007 final rule to change status from rural to nonrural become nonrural

Phase III
Options for Board to Direct Future Nonrural Determinations

Board Option	Pro	Con	Timeline	Notes
1. Direct staff to draft policy on nonrural determinations	- Allows greatest flexibility for Board actions and the inclusion of regional variations - Requires less time than formal rulemaking		Would depend on Board's direction for public, RAC and Tribal input	
2. Direct staff to initiate formal rulemaking to address future nonrural determination		Any future revisions would require formal rulemaking	Approximately 1 year	

U.S. Fish & Wildlife Service

July 2015

Alaska Refuges

Possible Statewide Regulatory Changes



Lisa Hopp/USFWS

Kodiak brown bear sow with cub.

National Wildlife Refuges (refuges) in Alaska are mandated to conserve species and habitats in their natural diversity and ensure that the biological integrity, diversity, and environmental health of the National Wildlife Refuge System are maintained for the continuing benefit of present and future generations of Americans. The U.S. Fish and Wildlife Service (USFWS) is proposing changes to the regulations governing Alaska refuges (under 50 CFR 36) to ensure that we are managing those refuges in accordance with our mandates and to increase consistency with other Federal laws, regulations, and policies. In addition, we aim to more effectively engage the public by updating our Public Participation and Closure Procedures to broaden notification and outreach methods, ensure consultation with Tribes and the State, provide for increased transparency in our decision-making, and to allow for additional opportunities for the public to provide input.

We recognize the importance of the fish, wildlife and other natural resources in the lives and cultures of Alaska Native peoples and in the lives of all Alaskans. These proposed regulatory changes would not change Federal subsistence regulations (36 CFR 242 and 50 CFR 100) or restrict taking of fish or wildlife under Federal subsistence regulations. The Alaska National Interest Lands Conservation Act (ANILCA) provides a priority to rural Alaskans for the nonwasteful taking of fish and wildlife for subsistence uses on refuges in Alaska. Under ANILCA all refuges in Alaska (except the Kenai Refuge) also have a purpose to provide the opportunity for continued subsistence use by rural residents, as long as this use is not in conflict with refuge purposes to conserve fish and wildlife populations and habitats in their natural diversity or fulfill international treaty obligations of the United States.

The changes we are considering would:

- Codify existing Federal mandates for conserving the natural diversity, biological integrity, and environmental health on refuges in Alaska in relation to predator harvest.

Predator control is not allowed on refuges in Alaska unless it is determined to be necessary to meet refuge purposes, federal laws, or policy and is consistent with our mandates to manage for natural and biological diversity and environmental health. The need for predator control must be based on sound science in response to a significant conservation concern. Demands for more wildlife to harvest cannot be the sole or primary basis for predator control on refuge in Alaska.

- Prohibit the following particularly efficient methods and means for non-subsistence (Federal) take of predators on refuges in Alaska due to the potential for cumulative effects to predator populations and the environment that are inconsistent with our mandates to conserve the natural and biological diversity, biological integrity, and environmental health on refuges in Alaska:
 - take of bear cubs or sows with cubs (exception allowed for resident hunters to take black bear cubs or sows with cubs under customary and traditional use activities at a den site October 15 – April 30 in specific game management units in accordance with State law)
 - take of brown bears over bait;
 - take of bears using traps or snares;
 - take of wolves and coyotes during the spring and summer denning season (May 1– August 9); and
 - take of bears from an aircraft or on the same day as air travel has occurred (take of wolves or wolverines from an aircraft or on the same day as air travel is already prohibited under current refuge regulations).
- Update the Public Participation and Closure Procedures. The following table summarizes the current regulations for the Public Participation and Closure Procedures and updates we are considering.

Public Participation and Closure Procedures

Current	Proposed Updates
Authority	
Refuge Manager may close an area or restrict an activity on an emergency, temporary, or permanent basis.	No updates
Criteria (50 CFR 36.42(b))	
Criteria includes: public health and safety, resource protection, protection of cultural or scientific values, subsistence uses, endangered or threatened species conservation, and other management considerations necessary to ensure that the activity or area is being managed in a manner compatible with refuge purposes.	Add conservation of natural and biological diversity, biological integrity, and environmental health to the current list of criteria.
Emergency closures or restrictions (50 CFR 36.42(c))	
Emergency closure may not exceed 30 days. Closure effective upon notice as prescribed in 50 CFR 36.42 (f) (see below for details). Closures related to the taking of fish and wildlife shall be accompanied by notice with a subsequent hearing.	Increase the period from 30 to 60 days, with extensions beyond 60 days being subject to nonemergency closure procedures (i.e. temporary or permanent). Closure effective upon notice as prescribed in 50 CFR 36.42 (f) (see below for details).
Temporary closures or restrictions (50 CFR 36.42(d))	
May extend only for as long as necessary to achieve the purpose of the closure or restriction, not to exceed or be extended beyond 12 months. Closure effective upon notice as prescribed in 50 CFR 36.42 (f) (see below for details). Closures related to the taking of fish and wildlife effective upon notice and hearing in the vicinity of the area(s) affected by such closures or restriction, and other locations as appropriate	Temporary closures or restrictions related to the taking of fish and wildlife may still only extend for so long as necessary to achieve the purpose of the closure or restriction. These closures or restrictions must be re-evaluated as necessary, at a minimum of every 3 years, to determine whether the circumstances necessitating the closure still exist and warrant its continuation. A formal finding will be made in writing that explains the reasoning for the decision. When a closure is no longer needed, action to remove it will be initiated as soon as practicable. The USFWS will maintain a list of refuge closures and publish this list annually for public review and input. Closure will be subject to notice procedures as prescribed in 50 CFR 36.42 (f) (see below for details). For closures related to the taking of fish and wildlife, consultation with the State and affected Tribes and Native Corporations, as well as the opportunity for public comment and a public hearing in the vicinity of the area(s) affected will be required.
Permanent closures or restrictions (50 CFR 36.42(e))	
No time limit. Closure effective after notice and public hearings in the affected vicinity and other locations as appropriate, and after publication in the Federal Register.	No time limit. For closures related to the taking of fish and wildlife, consultation with the State and affected Tribes and Native Corporations, as well as the opportunity for public comment and a public hearing in the vicinity of the area(s) affected will be required. Closures would continue to be published in the Federal Register.
Notice (50 CFR 36.42(f))	
Notice is to be provided through newspapers, signs, and radio.	Add the use of the Internet or other available methods, in addition to continuing to use the more traditional methods of newspapers, signs, and radio.

For more information, please visit:
http://www.fws.gov/alaska/nwr/ak_nwr_pr.htm



Questions and Answers on Regulatory Changes Being Proposed by the U.S. Fish & Wildlife Service for National Wildlife Refuges in Alaska

1. What are the proposed regulatory changes?

National Wildlife Refuges (refuges) in Alaska are mandated to conserve species and habitats in their natural diversity and ensure that the biological integrity, diversity, and environmental health of the National Wildlife Refuge System (Refuge System) are maintained for the continuing benefit of present and future generations of Americans. The U.S. Fish and Wildlife Service (USFWS) is proposing changes to the regulations governing Alaska refuges (under 50 CFR 36) to ensure that we are managing those refuges in accordance with our mandates and to increase consistency with other Federal laws, regulations, and policies. In addition, we aim to more effectively engage the public by updating our Public Participation and Closure Procedures to broaden notification and outreach methods, ensure consultation with Tribes and the State of Alaska (State), provide for increased transparency in our decision-making, and allow for additional opportunities for the public to provide input.

The changes we are proposing would:

- Codify existing Federal mandates for conserving the natural diversity, biological integrity, and environmental health on refuges in Alaska in relation to predator harvest. Predator control is defined as the intention to reduce the populations of predators for the benefit of prey species. Predator control is not allowed on refuges in Alaska, unless it is determined necessary to meet refuge purposes, Federal laws, or policy and is consistent with our mandates to manage for natural and biological diversity, biological integrity, and environmental health. The need for predator control must be based on sound science in response to a significant conservation concern. Demands for more wildlife for human harvest cannot be the sole or primary basis for predator control on refuges in Alaska.
- Prohibit the following particularly efficient methods and means for non-subsistence take of predators on refuges in Alaska due to the potential impacts to predator populations and the environment that are inconsistent with our mandates to conserve the natural and biological diversity, biological integrity, and environmental health on refuges in Alaska:
 - take of bear cubs or sows with cubs (*exception allowed for resident hunters to take black bear cubs or sows with cubs under customary and traditional use activities at a den site October 15 – April 30 in specific game management units in accordance with State regulations*);
 - take of brown bears over bait;
 - take of bears using traps or snares;
 - take of wolves or coyotes from May 1 – August 9; and
 - take of bears from an aircraft or on the same day as air travel has occurred (*same day airborne take of wolves or wolverines is already prohibited under current refuge regulations*).
- Update the Public Participation and Closure Procedures to make them more consistent with other Federal regulations and more effectively engage the public.

Important notes:

- These proposed changes would not apply to the take of fish or wildlife under Federal subsistence regulations or to defense of life and property as defined in State of Alaska (State) regulations (see 5 AAC 92.410).
- Hunting and trapping is considered a priority use of refuges in Alaska and most State of Alaska hunting and trapping regulations, including harvest limits, would still apply.

2. Why is the U.S. Fish & Wildlife Service proposing making these changes?

We are considering these regulatory changes to ensure that the taking of fish and wildlife on National Wildlife Refuges in Alaska is managed consistent with Federal laws, regulations, and USFWS policies. The proposed regulatory changes we are considering would clarify allowable practices for the non-subsistence take of wildlife on refuges in Alaska, as well as update existing Alaska refuge regulations for closures and restrictions.

The mission of the Refuge System is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans. As such, refuges are required to work to conserve species and habitats for the long-term, benefiting not only the present, but also future generations of Americans and in Alaska, this includes the continuation of the subsistence way of life.

The USFWS is required by law to manage refuges “to ensure that . . . biological integrity, biological diversity, and environmental health are maintained” (National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997). The Alaska National Interest Lands Conservation Act (ANILCA) states that the primary purpose of the Act is “to preserve for the benefit, use, education, and inspiration of present and future generations certain lands and waters in the State of Alaska that contain nationally significant natural, scenic, historic, archeological, geological, scientific, wilderness, cultural, recreational, and wildlife values...” The first purpose for all refuges in Alaska under ANILCA is to “conserve fish and wildlife populations and habitats in their natural diversity.”

In managing for natural diversity, the USFWS conserves, protects and manages all fish and wildlife populations within a particular wildlife refuge system unit in the natural ‘mix,’ not to emphasize management activities favoring one species to the detriment of another. The USFWS assures that habitat diversity is maintained through natural means on refuges in Alaska, avoiding artificial developments and habitat manipulation programs, whenever possible. The USFWS fully recognizes and considers that rural residents utilize and are often dependent on refuge resources for subsistence purposes and manages for this use consistent with the conservation of species and habitats in their natural diversity. The terms biological integrity, diversity, and environmental health are defined in the biological integrity policy, which directs the USFWS to maintain the variety of life and its processes; biotic and abiotic compositions, structure, and functioning; and to manage populations for natural densities and levels of variation throughout the Refuge System.

The overarching goal of the USFWS’s wildlife-dependent recreation policy is to enhance opportunities and access to quality visitor experiences on refuges and to manage the refuge to conserve fish, wildlife, plants, and their habitats (605 FW 1.6). We consider hunting to be one of many priority uses of the Refuge System (when and where compatible with refuge purposes) that is a healthy, traditional outdoor pastime, deeply rooted in the American heritage (605 FW 2).

These proposed regulatory changes are aimed at ensuring that natural ecological processes and functions are maintained and wildlife populations and habitats are conserved and managed to function in their natural diversity on Alaska refuges.

3. Will the proposed regulatory changes apply to subsistence hunting and trapping on National Wildlife Refuges?

We recognize the importance of fish and wildlife and other natural resources in the lives of all Alaskans and in the lives and cultures of Alaska Native peoples. We take seriously our responsibility to provide the opportunity for continued subsistence use by rural Alaskans on refuges under ANILCA. These proposed regulatory changes will not change Federal subsistence regulations (36 CFR 242 and 50 CFR 100) or restrict taking of fish or wildlife under Federal subsistence regulations.

We recognize there may be some impacts to local communities that result from these changes. We have worked to address concerns that were raised during Tribal consultations and early public scoping in rural communities, and are open to discussing others that arise through the public comment process.

4. What authority does the U. S. Fish & Wildlife Service have to establish hunting and trapping regulations? Isn't it the State's job to manage wildlife in Alaska?

We recognize that the State has obligations to manage wildlife in Alaska according to the directives in the State constitution. The USFWS similarly must ensure that activities on refuges are consistent with Federal laws and USFWS policy and has final authority for managing plants, fish, and wildlife on refuges in Alaska. We prefer to defer to the State on regulation of hunting and trapping on refuges in Alaska; unless, in doing so, we are out of compliance with Federal laws and USFWS policy.

**5. What is the process and timeline for making these regulatory changes?
Can I participate?**

We have been consulting with Alaska Tribes and Alaska Native Claims Settlement Act (ANCSA) Corporations, as well as having discussions with the State and Federal Subsistence Regional Advisory Councils on the changes we are considering. We anticipate publishing a proposed rule (draft regulations) in the Federal Register around mid to late July of 2015, at which time a 90 day public comment period will begin. We have prepared an Environmental Assessment (EA) in accordance with the requirements of the National Environmental Policy Act (NEPA) for these proposed regulatory changes, which will be made available for comment at the same time. Public input is very important to us and in order to allow additional time for folks to provide input, we will be offering a 90 day comment period, as opposed to the traditional duration of 30 days. During the public comment period, we plan to hold meetings and hearings around the state in locations near Alaska refuges and other locations as appropriate. Comments and input we receive will inform the revision and finalization of the proposed rule. Our goal is to have a final rule published sometime in the beginning of 2016.

Local engagement is very important to us and we are committed to providing meaningful opportunities for consultation with the Tribal Governments and ANCSA Corporations in Alaska. We greatly value local knowledge in our work and are committed to strengthening our Tribal-Federal government relations by working closely with the Tribes on conservation issues in Alaska.

We would like to hear from you, whether at a community meeting or via written comment. We welcome public comment during the comment period, and will continue to offer Tribal Consultation to Federally recognized Tribes and ANCSA Corporations through the end of the comment period.

For the most current information, visit http://www.fws.gov/alaska/nwr/ak_nwr_pr.htm.

WP16-43 Executive Summary	
General Description	<p>Proposal WP16-43 requests closure of Federal public lands to caribou harvest in the Upper Adreafsky drainages in Unit 18 and in the portion of Unit 22 south of the Unalakleet River to prevent incidental harvest of reindeer. <i>Submitted by the Seward Peninsula Subsistence Regional Advisory Council.</i></p>
Proposed Regulation	<p>Unit 18—Caribou</p> <p><i>Unit 18—that portion to the east and south of the Kuskokwim River—2 caribou by State registration permit Aug. 1 – Mar. 15</i></p> <p><i>Unit 18, that portion that includes all upper drainages of the Andreafsky River—Federal public lands are closed to the taking of caribou, but can be opened by the in-season manager if caribou are present</i></p> <p><i>Unit 18 remainder—2 caribou by State registration permit Aug. 1 – Mar. 15</i></p> <p>Unit 22—Caribou</p> <p><i>Units 22A, 22B remainder, that portion of Unit 22D in the Kougaruk, Kuzitrin (excluding the Pilgrim River drainage), American, and Agiapuk River Drainages, and Unit 22E, that portion east of and including the Sanaguich River drainage—5 caribou per day; cow caribou may not be taken May 16–June 30. Jul. 1 – Jun. 30</i></p> <p><i>Unit 22A, that portion south of the Unalakleet River—Federal public lands are closed to the hunting of caribou, but can be opened by the in-season manager if caribou are present</i></p>
OSM Preliminary Conclusion	Oppose

WP16–43 Executive Summary	
Yukon-Kuskokwim Delta Regional Advisory Council Recommendation	
Western Interior Regional Advisory Council Recommendation	
Seward Peninsula Regional Advisory Council Recommendation	
Northwest Arctic Regional Advisory Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	1 Support

**DRAFT STAFF ANALYSIS
WP16-43**

ISSUES

Proposal WP16-43, submitted by the Seward Peninsula Subsistence Regional Advisory Council, requests closure of Federal public lands to caribou harvest in portions of Units 18 and 22 to prevent incidental harvest of reindeer.

DISCUSSION

This proposal was submitted in the interest of protecting privately owned reindeer. The proponent asserts that there have been no caribou present in the area for 15-20 years. However, since caribou harvest is allowed, incidental harvest of reindeer occurs at the expense of reindeer herders. The proponent believes that this proposal will affect neither Federally qualified subsistence users, nor nonsubsistence users, since there are no caribou currently present in the area and reindeer harvest is illegal.

Existing Federal Regulation

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 22—Caribou

Units 22A, 22B remainder, that portion of Unit 22D in the Kougaruk, Kuzitritin (excluding the Pilgrim River drainage), American, and Agiapuk River Drainages, and Unit 22E, that portion east of and including the Sanaguich River drainage—5 caribou per day; cow caribou may not be taken May 16–June 30. Jul. 1 – Jun. 30

Proposed Federal Regulation

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, that portion that includes all upper drainages of the Andreafsky River—Federal public lands are closed to the taking of caribou, but can be opened by the in-season manager if caribou are present

Unit 18 remainder—2 caribou by State registration permit Aug. 1 – Mar. 15

Unit 22—Caribou

Units 22A, 22B remainder, that portion of Unit 22D in the Kougaruk, Kuzitrin (excluding the Pilgrim River drainage), American, and Agiapuk River Drainages, and Unit 22E, that portion east of and including the Sanaguich River drainage—5 caribou per day; cow caribou may not be taken May 16–June 30. Jul. 1 – Jun. 30

Unit 22A, that portion south of the Unalakleet River—Federal public lands are closed to the hunting of caribou, but can be opened by the in-season manager if caribou are present

Existing State Regulation

Unit 18—Caribou

Two caribou by permit available online at <http://hunt.alaska.gov> and in person in Anchorage, Bethel, Dillingham, Fairbanks, Homer, King Salmon, McGrath, Palmer, Soldotna and at local license vendors beginning July 17. No more than one bull may be taken; no more than one caribou may be taken from Aug. 1 – Jan. 31 Aug. 1 – Mar. 15

Unit 22—Caribou

Unit 22, remainder

Resident hunters: 5 caribou per day; however, calves may not be taken; cow caribou may not be taken Apr. 1 – Aug. 31; bull caribou may not be taken Oct. 15 – Jan. 31 Season to be announced by emergency order

Nonresident hunters: 1 bull; however, calves may not be taken; during the period Aug. 1 – Sept. 30, a season may be announced by emergency order Season to be announced by emergency order

Extent of Federal Public Lands

Unit 18 is comprised of approximately 66% Federal public lands, and consists of 63% U.S. Fish and Wildlife Service (FWS) managed lands and 3% Bureau of Land Management (BLM) managed lands.

Unit 22A is comprised of approximately 68% Federal public lands, and consists of 56% BLM managed lands and 12% FWS managed lands. See Unit Map.

Customary and Traditional Use Determinations

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

Residents of Units 21D (west of the Koyukuk and Yukon rivers), 22 (except St. Lawrence Island), 23, 24, Kotlik, Emmonak, Hooper Bay, Scammon Bay, Chevak, Marshall, Mountain Village, Pilot Station, Pitka's Point, Russian Mission, St. Marys, Nunam Iqua, and Alakanuk have a positive customary and traditional use determination for caribou in Unit 22A.

Regulatory History

There have been several changes in State and Federal caribou regulations for Unit 22 in the past 20 years. Many of these changes address customary and traditional use. The remainder responded to changing caribou distributions, with an eye toward reducing potential conflicts between reindeer and caribou.

In 1996, the Federal Subsistence Board (Board) adopted Proposal P96-049 with modification to provide a customary and traditional use determination for caribou in Unit 22 for rural residents of Unit 21D west of the Koyukuk and Yukon rivers, Units 22 (except St. Lawrence Island), 23, and 24. This Proposal also provided a customary and traditional use determination for caribou in Unit 22A for residents of Kotlik, Emmonak, Marshall, Mountain Village, Pilot Station, Pitka's Point, Russian Mission, St. Mary's, Sheldon Point, and Alakanuk (OSM 1996).

In 1997, the Board adopted Proposal P97-54 with modification to add residents of Hooper Bay, Scammon Bay, and Chevak to the customary and traditional use determinations for caribou in Unit 22A (OSM 1997).

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

In 2002, the Alaska Board of Game issued two emergency orders addressing caribou/reindeer conflicts. The first, EO 05-03-02, closed the portion of Unit 22D within the Pilgrim River drainage south of the Pilgrim River bridge to caribou hunting between Aug. 31, 2002 and June 30, 2003. The purpose of this action was to prevent the harvest of reindeer, since no caribou were present in the area during this time. The second, EO 05-04-02, opened this same area to the harvest of caribou from Oct. 17, 2002 through Jun. 30, 2003. This emergency order provided harvest opportunity after caribou had moved into the area (Dau 2005).

In 2003, the Board adopted Proposal WP03-40 with modification to establish a season of Jul. 1 – Jun. 30 with a harvest limit of 5 caribou per day in portions of Units 22D and 22E. This action was in response to the recent range expansion of caribou into these subunits, and provided additional subsistence harvest opportunities, with the expectation that neither caribou nor reindeer herds would be impacted. It also resulted in alignment of State and Federal regulations (OSM 2003).

In 2005, the Alaska Board of Game adopted a proposal creating two new hunt areas for caribou in Units 22B and 22D. This proposal also changed the season for these newly described areas to Oct. 1 – Apr. 15 (OSM 2006).

In 2006, the Board adopted Proposal WP06-37 with modification to designate a new hunt area in Unit 22B with a season of Oct. 1 – Apr. 30 and a may-be-announced season of May 1 – Sep. 30. The intent of this proposal was to provide continued subsistence opportunity when caribou were present, while minimizing incidental take of privately-owned reindeer and reducing user conflict when caribou were not present (OSM 2006).

In 2007, the Board adopted a policy on closures to hunting, trapping, and fishing on Federal public lands and waters in Alaska (Appendix A). The intent of the closure policy was to summarize and clarify the circumstances under which the Board has the authority to restrict or close Federal public lands to the harvest of fish and wildlife under existing statutes and regulations. This policy allows establishment or retention of closures primarily for the conservation of subsistence resources or to ensure continued use of these resources by subsistence users.

In the past 20 years, there have been numerous changes in the State and Federal regulations for caribou harvest in Unit 18. These changes, which have affected seasons, allowable harvest limits, permitting requirements, salvage requirements and methods and means, have responded exclusively to changes in abundance and distribution of the Mulchatna caribou herd. As such, they have little bearing on this proposal and will not be detailed here.

Current Events

In 2013, an aerial photo census indicated significant declines in the Western Arctic Caribou Herd (WACH; Dau 2014). In response to this decline, as well as declines in the Teshekpuk (TCH) and Central Arctic caribou populations, the Alaska Board of Game adopted modified Proposal 202 (RC76) in March 2015 to reduce harvest opportunities for both residents and non-residents within the range of the WACH and the TCH. These regulatory changes took effect on July 1, 2015, and were the result of extensive discussion and compromise among a variety of user groups. In Unit 22A, these regulatory changes included defining a new hunt area in the portion north of the Golsovia River drainage. Changes also include adjustments to harvest seasons, restrictions on bull and cow harvest, and a prohibition on calf harvest.

Proposal WP16-37, which is concurrently under consideration, requests changes to Federal subsistence caribou harvest throughout the ranges of the WACH and TCH. In Unit 22, WP16-37 requests that Unit 22A hunt areas reflect the new State hunt areas, using the Golsovia River drainage as the boundary. It also

proposes new harvest seasons and limits. Reconciling the different hunt area descriptors, seasons and limits proposed by these two proposals will be necessary if both proposal are adopted.

Biological Background

The WACH, the largest herd in Alaska, has a home range of approximately 157,000 mi² in northwestern Alaska (**Figure 1**). In the spring, most mature cows move north to calving grounds in the Utukok Hills, while bulls and immature cows lag behind and move toward summer range in the Wulik Peaks and Lisburne Hills. After the calving period, cows and calves move west toward the Lisburne Hills where they mix with the remaining bulls and non-maternal cows. During the summer the herd moves rapidly to the Brooks Range, west of the trans-Alaska pipeline. The caribou rut occurs during fall as the herd migrates south toward their wintering grounds in the northern portion of the Nulato Hills (Dau 2011, WACH Working Group 2011). Satellite collar data show that caribou occur at very low density in the Nulato hills area (no more than 2 caribou/mi² between 2002 and 2010) and occur exclusively in the northernmost portion of this region (Dau 2011). These data are consistent with the Seward Peninsula Subsistence Regional Advisory Council's assertion that caribou have not been present in the southern Nulato Hills, the area addressed by this proposal.

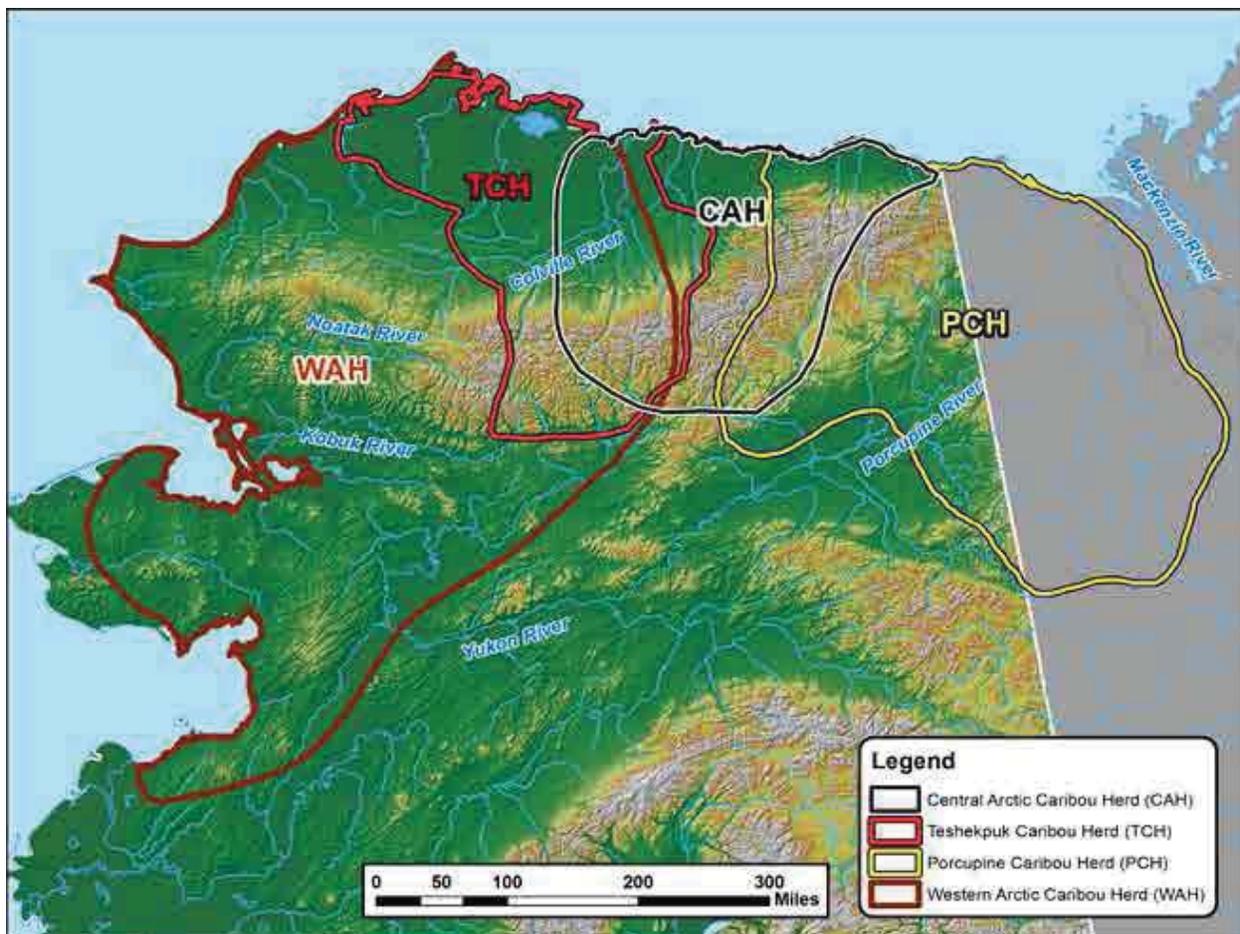


Figure 1. Herd overlap and ranges of the WACH, TCH, CACH and Porcupine caribou herds (WACH 2014).

The State manages the WACH to protect the population and its habitat, provide for subsistence and other hunting opportunities on a sustained yield basis, and provide for viewing and other uses of caribou (Dau 2011). Specific State management objectives for the WACH are presented in the 2011 Western Arctic Caribou Cooperative Management Plan (WACH Working Group 2011, Dau 2011) and include:

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

The WACH population declined rapidly in the early 1970s and bottomed out at about 75,000 animals in 1976. Aerial photo censuses have been used since 1986 to estimate population size. The WACH declined at an average annual rate of 4.7% from approximately 490,000 in 2003 to 235,000 in 2013 (Dau 2011, Caribou Trails 2014, Dau 2014; **Figure 2**). Although factors contributing to the decline are not known with certainty, increased adult cow mortality, and decreased calf recruitment and survival played a role (Dau 2011). Other contributing factors include weather (particularly fall and winter icing events), predation, hunting pressure, decline in range condition (including habitat loss and fragmentation), climate change, and disease (Dau 2014). Joly et al. (2007) documented a decline in lichen cover in portions of the wintering areas of the WACH. Dau (2011, 2014) reported that degradation in range condition is not thought to be a primary factor in the decline of the WACH because animals in the WACH have generally maintained good body condition since the decline began. However, the body condition of the WACH in the spring may be a better indicator of the effects of range condition versus the fall when the body condition of the WACH is routinely assessed and when caribou are in prime condition (Joly 2015, pers. comm).

During periods of rapid population growth (1976–1982), fall calf:cow ratios were generally higher than during periods of herd decline (1992–2013; **Table 1**). However, it should be noted that calf:cow ratios may not accurately reflect the status in the population due to spatial and temporal segregation of cows and bulls, and because not all of the population is sampled. The number of bulls:100 cows were greater during the period of population growth (49:100 between 1976-2001) than during the recent period of decline (44:100 between 2004-2014).

The annual mortality rate of collared adult cows increased from an average of 15% between 1987 and 2003, to 25% from 2004–2009 (Dau 2011, 2014). Estimated mortality includes all causes of death including hunting (Dau 2011). Dau (2009) reported that rain-on-snow events and winter thaws may have contributed to the relatively high estimated mortality rates of 23% during 2008-2009 and 27% during 2009-2010. Prior to 2004 – 2005, estimated adult cow mortality only exceeded 20% twice during

regulatory years 1992 and 1999, but has exceeded 20% in 5 of the 6 regulatory years between 2004–2010 (2004, 2005, 2007, 2008, and 2009). As the WACH declined, the percentage of mortality due to hunting increased relative to natural mortality. For example, during the period October 1, 2013 to September 30, 2014, estimated hunting mortality was approximately 42% and estimated natural mortality about 56% (estimates from slide 16, Dau 2014). In previous years the estimated hunting mortality exceeded 30% only once.

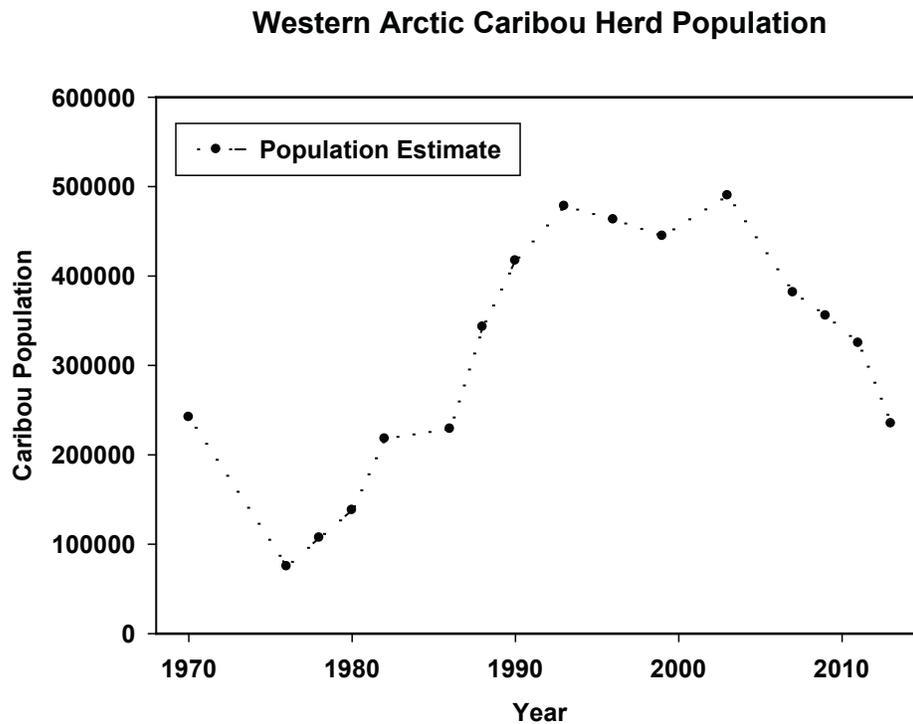


Figure 2. Maximum estimated population estimates of the Western Arctic Caribou Herd from 1970-2013. Population estimates from 1986-2013 are based on aerial photographs of groups of caribou that contained radio-collared animals (Dau 2011, 2014)

Reindeer

Reindeer, originally introduced to Alaska from Siberia in the late 1800s, were once distributed in small herds throughout western Alaska (Stern et al. 1980). More recently, the reindeer industry has been centered in the vicinity of the Seward Peninsula, where there are approximately 15 grazing allotments. Expansion of the WACH onto the Seward Peninsula resulted in the extirpation of many herds, beginning in the 1990s (Finstad et al. 2002). However, a few herds remain outside of the WACH current range, including a herd composed of animals owned by the Stebbins and St. Michael village corporations and by a private individual. This herd was estimated at 2,500 – 3,000 reindeer in 2013 (Blodgett 2015, pers. comm.). The herd currently grazes the areas surrounding the communities of Stebbins and St. Michael, including Stuart Island, though herd managers have expressed an interest in securing grazing permits on State and Federal land south and east of the current grazing area (Sonnen 2015, pers. comm., Thorpe 2015, pers. comm.).

Throughout areas occupied by both reindeer and caribou, there is concern that hunters may harvest reindeer while caribou hunting (Dau 2000). Both the Federal Subsistence Board and the Alaska Board of Game have been responsive to this concern and have periodically modified seasons and hunt areas to prevent intentional or unintentional harvest of reindeer (OSM 2003; Dau 2005; OSM 2006).

Table 1. Western Arctic Caribou Herd fall composition 1976 – 2014 (Dau 2011, 2014).

Regulatory Year	Total bulls: 100 cows ^a	Calves: 100 cows	Calves: 100 adults	Bulls	Cows	Calves	Total
1976/1977	63	52	32	273	431	222	926
1980/1981	53	53	34	715	1,354	711	2,780
1982/1983	58	59	37	1,896	3,285	1,923	7,104
1992/1993	64	52	32	1,600	2,498	1,299	5,397
1995/1996	58	52	33	1,176	2,029	1,057	4,262
1996/1997	51	49	33	2,621	5,119	2,525	10,265
1997/1998	49	43	29	2,588	5,229	2,255	10,072
1998/1999	54	45	29	2,298	4,231	1,909	8,438
1999/2000	49	47	31	2,059	4,191	1,960	8,210
2001/2002	38	37	27	1,117	2,943	1,095	5,155
2004/2005	48	35	24	2,916	6,087	2,154	11,157
2006/2007	42	40	28	1,900	4,501	1,811	8,212
2008/2009	45	48	33	2,981	6,618	3,156	12,755
2010/2011	49	35	23	2,419	4,973	1,735	9,127
2011/2012							
2012/2013	42 ^b						
2013/2014							
2014/2015	39						

^a 40 bulls:100 cows is the minimum level recommended in the WACH Cooperative Management Plan (WACH Working Group 2011)

^b Estimated from power point presentation presented at the WACH Working Group Meeting December 17-18, 2014 (Dau 2014)

Harvest History

From 1999–2014 the average annual harvest from the WACH was approximately 13,600 caribou, which includes harvest from Units 21, 22, 23, 24, and 26A (Dau 2009, Dau 2014, pers. comm.). Local residents take approximately 94% of the caribou harvest within the range of the WACH, with residents of Unit 23 taking the vast majority of the harvest (**Figure 3**). Residents of Unit 22A, which includes the communities of St. Michael, Shaktoolik, Stebbins and Unalakleet, are responsible for less than 0.5% of the total WACH harvest (**Table 2**). There is no reported harvest from Unit 18 (Dau 2011).

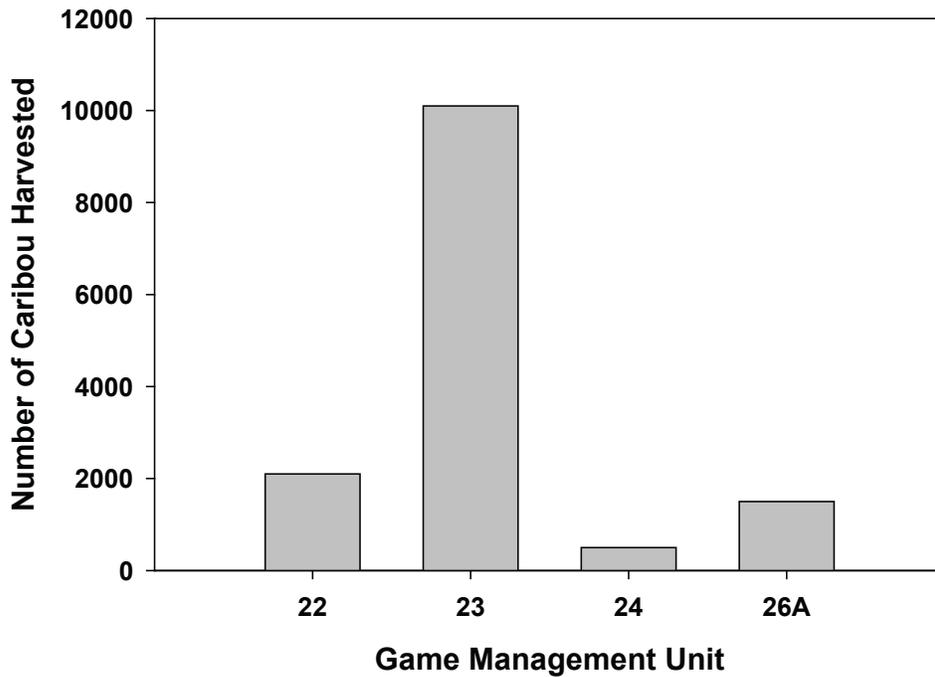


Figure 3. Average annual harvest by residents within the WACH range, RY1998-RY2012 (Dau 2014).

Table 2. Unit 22 caribou harvest by community and subunit. Adapted from Table 10, Dau 2011.

Game Management Unit	Community	Human Population	Relative Distance to Caribou	Estimated Harvest
22A	Saint Michael	444	Far	16
22A	Shaktoolik	214	Far	16
22A	Stebbins	598	Far	16
22A	Unalakleet	724	Far	15
22B	Elim	309	Average	131
22B	White Mountain	215	Average	80
22B	Golovin	167	Average	54
22B	Koyuk	347	Far	16
22C	Nome	3,495	Average	111
22D	Brevig Mission	328	Average	141
22D	Teller	256	Average	102
22E	Shishmaref	608	Average	293
22E	Wales	136	Far	16

Effects of the Proposal

If adopted, this proposal would close Federal public lands to caribou hunting in the upper drainages of the Adreafsky River, located in Unit 18, and the portion of Unit 22 south of the Unalakleet River. Because there have been no caribou in this area for many years, this action would have no effect on the caribou population or on Federally qualified subsistence users or other hunters. It would likely benefit reindeer herders, because it would help prevent the inadvertent harvest of reindeer in the area. The stipulation that the area may be opened by the Federal manager would ensure the opportunity for Federal subsistence harvest if caribou were present in the area.

OSM PRELIMINARY CONCLUSION

Oppose Proposal WP16-43

Justification

Although closing portions of Units 18 and 22A to caribou harvest would have no detrimental effect on subsistence resources or on subsistence users, closures intended solely to protect private property are not allowed by the Board's closure policy. This policy allows establishment or retention of closures primarily for the conservation of subsistence resources or to ensure continued use of these resources by subsistence users. While the Board has a history of considering proposals aimed at minimizing reindeer/caribou conflicts, past proposals have sought changes in seasons, harvest limits, and hunt areas, with the goal of maximizing subsistence opportunity while minimizing risk to reindeer. They have not requested closures of Federal public lands. This proposal is contrary to the Board's closure policy and thus cannot be supported.

LITERATURE CITED

Blodgett, D. 2015. Data specialist. Personal communication: email. University of Alaska, Reindeer Research Program. Fairbanks, AK.

Caribou Trails. 2014. News from the Western Arctic Caribou Herd Working Group. Alaska Department of Fish and Game. Anchorage, AK. Internet: < http://westernarcticcaribou.org/wp-content/uploads/2014/07/CT2014_FINAL_lowres.pdf>. Retrieved May 26, 2015.

Dau, J. 2000. Managing reindeer and wildlife on Alaska's Seward Peninsula. *Polar Research* 19(1):57 – 62.

Dau, J. 2005. Units 21D, 22A, 22B, 22C, 22D, 22E, 23, 24, 26A caribou management report. Pages 177-218 in C. Brown, editor. Caribou management report of survey and inventory activities 1 July 2002 – 30 June 2004. Alaska Department of Fish and Game. Project 3.0. Juneau, AK.

Dau, J. 2009. Units 21D, 22A, 22B, 22C, 22D, 22E, 23, 24, and 26A in Caribou survey–inventory management report. Pages 176-239 in P. Harper, editor. Caribou management report of survey and inventory activities July 1, 2006– June 30, 2008. ADF&G. Juneau, AK

Dau, J. 2011. Units 21D, 22A, 22B, 22C, 22D, 22E, 23, 24, and 26A caribou management report. Pages 187-250 in P. Harper, editor. Caribou management report of survey and inventory activities July 1, 2008–30 June 30, 2010. ADF&G. Juneau, AK.

Dau, J. 2014. Wildlife Biologist. Personal communication. Information, including a power point presentation, presented at the Western Arctic Caribou Herd (WACH) Working Group Meeting, December 17-18, 2014. Anchorage, Alaska. ADF&G. Nome, AK.

Finstad, G.L., H.R. Bader, A.K. Prichard. 2000. Conflicts between reindeer herding and an expanding caribou herd in Alaska. Rangifer Special Issue 13:33-37.

Joly, K., R.R. Jandt, C.R. Meyers, and J.M. Cole. 2007. Changes in vegetative cover on the Western Arctic herd winter range from 1981–2005: potential effects of grazing and climate change. Rangifer Special Issue 17:199-207.

Joly, K. 2015. Wildlife Biologist, Gates of the Arctic National Park and Preserve. Personal communication. email NPS. Fairbanks, AK.

OSM. 1996. Staff analysis P96-049. Office of Subsistence Management, USFWS. Anchorage, AK.

OSM. 1997. Staff analysis P97-054. Office of Subsistence Management, USFWS. Anchorage, AK.

OSM. 2000. Staff analysis P00-053. Office of Subsistence Management, USFWS. Anchorage, AK.

OSM. 2003. Staff analysis P03-040. Office of Subsistence Management, USFWS. Anchorage, AK.

OSM. 2006. Staff analysis WP06-37. Office of Subsistence Management, USFWS. Anchorage, AK.

Sonnen, K. Rangeland management specialist. Personal communication: email. NRCS. Homer, AK.

Stern, R.O., E.L. Arobio, L.L. Naylor, W.C. Thomas. 1980. Eskimos, reindeer and land. University of Alaska Fairbanks, Agricultural and Forestry Experiment Station. Bulletin 59. Fairbanks, AK. Internet: <<http://www.uaf.edu/files/snre/bul59.pdf>>. 93 pp. Retrieved: June 10, 2015.

Thorpe, L. Natural resource specialist. Personal communication: email. BLM. Anchorage, AK.

WACH Working Group. 2011. Western Arctic Caribou Herd Cooperative Management Plan – Revised December 2011. Nome, AK 47 pp.

POLICY ON CLOSURES TO HUNTING, TRAPPING AND FISHING
ON FEDERAL PUBLIC LANDS AND WATER IN ALASKA

FEDERAL SUBSISTENCE BOARD

Adopted August 29, 2007

PURPOSE

This policy clarifies the internal management of the Federal Subsistence Board (Board) and provides transparency to the public regarding the process for addressing federal closures (closures) to hunting, trapping, and fishing on Federal public lands and waters in Alaska. It also provides a process for periodic review of regulatory closures. This policy recognizes the unique status of the Regional Advisory Councils and does not diminish their role in any way. This policy is intended only to clarify existing practices under the current statute and regulations: it does not create any right or benefit, substantive or procedural, enforceable at law or in equity, against the United States, its agencies, officers, or employees, or any other person.

INTRODUCTION

Title VIII of the Alaska National Interest Lands Conservation Act (ANILCA) establishes a priority for the taking of fish and wildlife on Federal public lands and waters for non-wasteful subsistence uses over the taking of fish and wildlife on such lands for other purposes (ANILCA Section 804). When necessary for the conservation of healthy populations of fish and wildlife or to continue subsistence uses of such populations, the Federal Subsistence Board is authorized to restrict or to close the taking of fish and wildlife by subsistence and non-subsistence users on Federal public lands and waters (ANILCA Sections 804 and 815(3)). The Board may also close Federal public lands and waters to any taking of fish and wildlife for reasons of public safety, administration or to assure the continued viability of such population (ANILCA Section 816(b)).

BOARD AUTHORITIES

- ANILCA Sections 804, 814.815(3), and 816.
- 50 CFR Part 100 and 36 CFR Part 242, Section .10(d)(4).

POLICY

The decision to close Federal public lands or waters to Federally qualified or non-qualified subsistence users is an important decision that will be made as set forth in Title VIII of ANILCA. The Board will not restrict the taking of fish and wildlife by users on Federal public lands (other than national parks and park monuments) unless necessary for the conservation of healthy populations of fish and wildlife resources, or to continue subsistence uses of those populations, or for public safety or administrative reasons, or ‘pursuant to other applicable law.’ Any individual or organization may propose a closure. Proposed closures of Federal

public lands and waters will be analyzed to determine whether such restrictions are necessary to assure conservation of healthy populations of fish and wildlife resources or to provide a meaningful preference for qualified subsistence users. The analysis will identify the availability and effectiveness of other management options that could avoid or minimize the degree of restriction to subsistence and non-subsistence users.

Like other Board decisions, closure actions are subject to change during the yearly regulatory cycle. In addition, closures will be periodically re-evaluated to determine whether the circumstances necessitating the original closure still exist and warrant continuation of the restriction. When a closure is no longer needed, actions to remove it will be initiated as soon as practicable. The Office of Subsistence Management will maintain a list of all closures.

Decision Making

The Board will:

- Proceed on a case – by – case basis to address each particular situation regarding closures. In those cases for which conservation of healthy populations of fish and wildlife resources allows, the Board will authorize non-wasteful subsistence taking.
- Follow the statutory standard of "customary and traditional uses." Need is not the standard. Established use of one species may not be diminished solely because another species is available. These established uses have both physical and cultural components, and each is protected against all unnecessary regulatory interference.
- Base its actions on substantial evidence contained within the administrative record, and on the best available information; complete certainty is not required.
- Consider the recommendations of the Regional Advisory Councils, with due deference (ANILCA § 805 (c)).
- Consider comments and recommendations from the State of Alaska and the public (ANILCA § 816(b)).

Conditions for Establishing or Retaining Closures

The Board will adopt closures to hunting, trapping or fishing by non-Federally qualified users or Federally qualified subsistence users when one or more of the following conditions are met:

- Closures are necessary for the conservation of healthy populations of fish and wildlife:
 - a) When a fish or wildlife population is not sufficient to provide for both Federally qualified subsistence users and other users, use by non-Federally qualified users may be reduced or prohibited, or

- b) When a fish or wildlife population is insufficient to sustain all subsistence uses, the available resources shall be apportioned among subsistence users according to their:
- 1) Customary and direct dependence upon the populations as the mainstay of livelihood.
 - 2) Local residency, and
 - 3) Availability of alternative resources, or
- c) When a fish or wildlife population is insufficient to sustain any use, all uses must be prohibited.
- Closures are necessary to ensure the continuation of subsistence uses by Federally qualified subsistence users.
 - Closures are necessary for public safety.
 - Closures are necessary for administrative reasons.
 - Closures are necessary "pursuant to other applicable law."

Considerations in Deciding on Closures

When acting upon proposals recommending closure of Federal public lands and waters to hunting, trapping, or fishing. The Board may take the following into consideration to the extent feasible:

- The biological history (data set) of the fish stock or wildlife population.
- The extent of affected lands and waters necessary to accomplish the objective of the closure.
- The current status and trend of the fish stock or wildlife population in question.
- The current and historical subsistence and non-subsistence harvest, including descriptions of harvest amounts effort levels, user groups, and success levels.
- Pertinent traditional ecological knowledge.
- Information provided by the affected Regional Advisory Councils and Alaska Department of Fish and Game.

- Relevant State and Federal management plans and their level of success as well as any relationship to other Federal or State laws or programs.
- Other Federal and State regulatory options that would conserve healthy populations and provide a meaningful preference for subsistence, but would be less restrictive than closures.
- The potential adverse and beneficial impacts of any proposed closure on affected fish and wildlife populations and uses of lands and waters both inside and outside the closed area.
- Other issues that influence the effectiveness and impact of any closure.

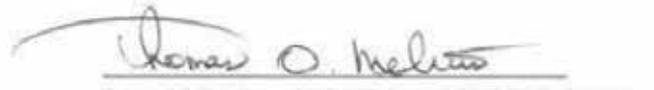
Reviews of Closures

A closure 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. A Regional Council, a State or Federal agency, or a member of the public may submit, during the normal proposal period, a proposal requesting the opening or closing of an area. A closure may also be implemented, adjusted, or lifted based on a Special Action request according to the criteria in 50 CFR 100.19 and 36 CFR 242.19.

To ensure that closures do not remain in place longer than necessary, all future closures will be reviewed by the Federal Subsistence Board no more than three years from the establishment of the closure and at least every three years thereafter. Existing closures in place at the time this policy is implemented will be reviewed on a three-year rotational schedule, with at least one-third of the closures reviewed each year.

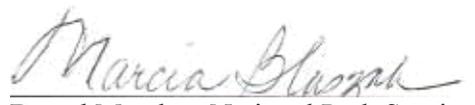
Closure reviews will consist of a written summary of the history and original justification for the closure and a current evaluation of the relevant considerations listed above. Except in some situations which may require immediate action through the Special Action process, closure review analyses will be presented to the affected Regional Council(s) during the normal regulatory proposal process in the form of proposals to retain, modify or rescind individual closures.

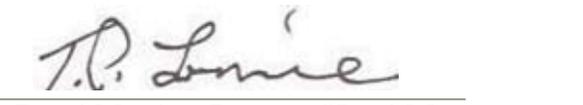

Chair, Federal Subsistence Board


Board Member, U.S. Fish and Wildlife Service


Board Member, Bureau of Indian Affairs


Board Member, U.S. Forest Service


Board Member, National Park Service


Board Member, Bureau of Land Management

WRITTEN PUBLIC COMMENTS

May 28,2015

Federal Subsistence Board
ATTN: Theo Matuskowitz
Office of Subsistence Management
U.S. Fish & Wildlife Service
1011 E. Tudor Road, MS 121
Anchorage, AK 99503

Dear Federal Subsistence Board:

Kawerak, Inc. is the regional non-profit tribal consortium of the Bering Strait Region. Kawerak's Board of Directors is comprised of the Presidents of the 20 tribes of the Bering Strait Region. Kawerak offers numerous programs and services to the 16 communities in the region. Kawerak, Inc. promotes economic development that is both responsible and sustainable.

We are offering suggestions for Federal Wildlife Proposals that are up for your review.

We are in support of Federal Wildlife Proposal WP16-43 to open caribou hunting by Emergency Order on Federal Public Lands when the caribou are present in Game Management Unit (GMU) 18 and the southern portion of Game Management Unit 22A; however we request the following amendment. Instead of GMU 22A "South of the Unalakleet River" we recommend that it be changed to GM U 22A "South of the Golsovia River". In doing so this will align both the Federal and State boundary lines and hopefully this will eliminate any confusion as to what area is open and what area is closed. The Alaska Department of Fish & Game (ADF&G) data indicates that the Western Arctic Caribou Herd has not migrated south of the Unalakleet River in 15-20 years. Another issue of concern in northern portion of GMU 18 and the southern portion of GMU 22A is that individuals mistaking privately owned reindeer for caribou because the season for caribou is open in both Units. This causes immense hardship on the reindeer herd owners by having to take time to go out into the field to confirm what has happened then report to Law Enforcement on theft of privately owned reindeer.

Please contact Subsistence Resources Program Director Brandon Ahmasuk to obtain details and more information at 1-907-443-4265. Thank you for your consideration.

Sincerely,

Kawerak, Inc.
Melanie Bahnke, President

WP16- 44 Executive Summary	
General Description	Proposal WP16-44 requests that the brown bear season for Unit 22C be extended from Aug. 1 – Oct. 31 and May 10 – May 25 to Aug. 1 – May 25. The proposal also requests creation of a new hunt area in southwest Unit 22D with a harvest limit of 2 bears and a season of Aug. 1 – Jul. 31. <i>Submitted by the Seward Peninsula Subsistence Regional Advisory Council.</i>
Proposed Regulation	<p>Unit 22—Brown Bear</p> <p><i>Unit 22A, 22B, 22D remainder, and 22E —1 bear Aug. 1 – May 31 by State registration permit only</i></p> <p><i>Unit 22C —1 bear by State registration permit only Aug. 1 – Oct. 31 May 10 – 25 Aug. 1 – May 25</i></p> <p><i>Unit 22D—that portion west of the Tisuk River drainage, west of the west bank of the unnamed creek originating at the unit boundary opposite the headwaters of McAdam’s Creek to its confluence with Tuksuk Channel—2 bears Aug. 1 – Jul. 31</i></p>
OSM Preliminary Conclusion	Support with modification to retain the split season in Unit 22C, revise the hunt area description for Unit 22D to be more specific, and , in the newly described Unit 22D hunt area, revise the season dates to reflect the regulatory year and require the use of a Federal registration permit.
Seward Peninsula Regional Advisory Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	1 Neutral

**DRAFT STAFF ANALYSIS
WP16-44**

ISSUES

Proposal WP16-44, submitted by the Seward Peninsula Subsistence Regional Advisory Council, requests that the brown bear season for Unit 22C be extended from Aug. 1 – Oct. 31 and May 10 – May 25 to Aug. 1 – May 25. The proposal also requests creation of a new hunt area in southwest Unit 22D with a harvest limit of 2 bears and a season of Aug. 1 – Jul. 31.

DISCUSSION

The proponent requests liberalizing the regulations for Unit 22C and parts of Unit 22D, stating that the bear population in these areas is sufficient to support increased harvest. The proponent also states that extending the season in Unit 22C will improve opportunities for spring harvest, as the area is best accessed by snowmachine and the snow has often melted by May 10, making travel difficult (SPSRAC 2015:140).

Existing Federal Regulation

Unit 22—Brown Bear

Unit 22A, 22B, 22D, and 22E —1 bear by State registration permit only Aug. 1 – May 31

*Unit 22C—1 bear by State registration permit only Aug. 1 – Oct. 31
May 10 – 25*

Proposed Federal Regulation

Unit 22—Brown Bear

Unit 22A, 22B, 22D remainder, and 22E —1 bear by State registration permit only Aug. 1 – May 31

*Unit 22C —1 bear by State registration permit only ~~Aug. 1 – Oct. 31~~
~~May 10 – 25~~
Aug. 1 – May 25*

Unit 22D—that portion west of the Tisuk River drainage, west of the west bank of the unnamed creek originating at the unit boundary opposite the headwaters of McAdam’s Creek to its confluence with Tuksuk Channel—2 bears Aug. 1 – Jul. 31

Existing State Regulation

Resident and Nonresident Hunt

Unit 22—Brown Bear

Unit 22A—south of and including the Golsovia River drainage—two bears every regulatory year

Residents: two bears every regulatory year *Aug. 1 – May 31*

Nonresidents: one bear every regulatory year *Aug. 1 – May 31*

Unit 22A, remainder

Residents: two bears every regulatory year *Aug. 1 – Jun 15*

Nonresidents: one bear every regulatory year *Aug. 1 – Jun 15*

Unit 22B

Residents: one bear every regulatory year *Aug. 1 – May 31*

Nonresidents: one bear every regulatory year by permit *Aug. 1 – May 31*

Unit 22C

Residents: one bear per regulatory year *Aug. 1 – Oct. 31*
May 1 – May 31

Nonresidents: one bear per regulatory year by permit *Aug. 1 – Oct. 31*
May 1 – May 31

Unit 22D and 22E

Residents: one bear every regulatory year *Aug. 1 – May 31*

Nonresidents: one bear every regulatory year by permit *Aug. 1 – May 31*

Resident Subsistence Hunt

Unit 22A

Unit 22A—south of and including the Golsovia River drainage—two bears every regulatory year by permit available at Nome ADF&G and Unit 22 license vendors beginning July 2 Aug. 1 – May 31

Unit 22A, remainder— two bears every regulatory year by permit available at Nome ADF&G and Unit 22 license vendors beginning July 2 Aug. 1 – Jun 15

Unit 22B, 22D, and 22E – one bear every regulatory year by permit available at Nome ADF&G and Unit 22 license vendors beginning July 2 Aug. 1 – May 31

Unit 22C— one bear every regulatory year by permit available at Nome ADF&G and Unit 22 license vendors beginning July 2 Aug. 1 – Oct. 31
May 1 – May31

Extent of Federal Public Lands

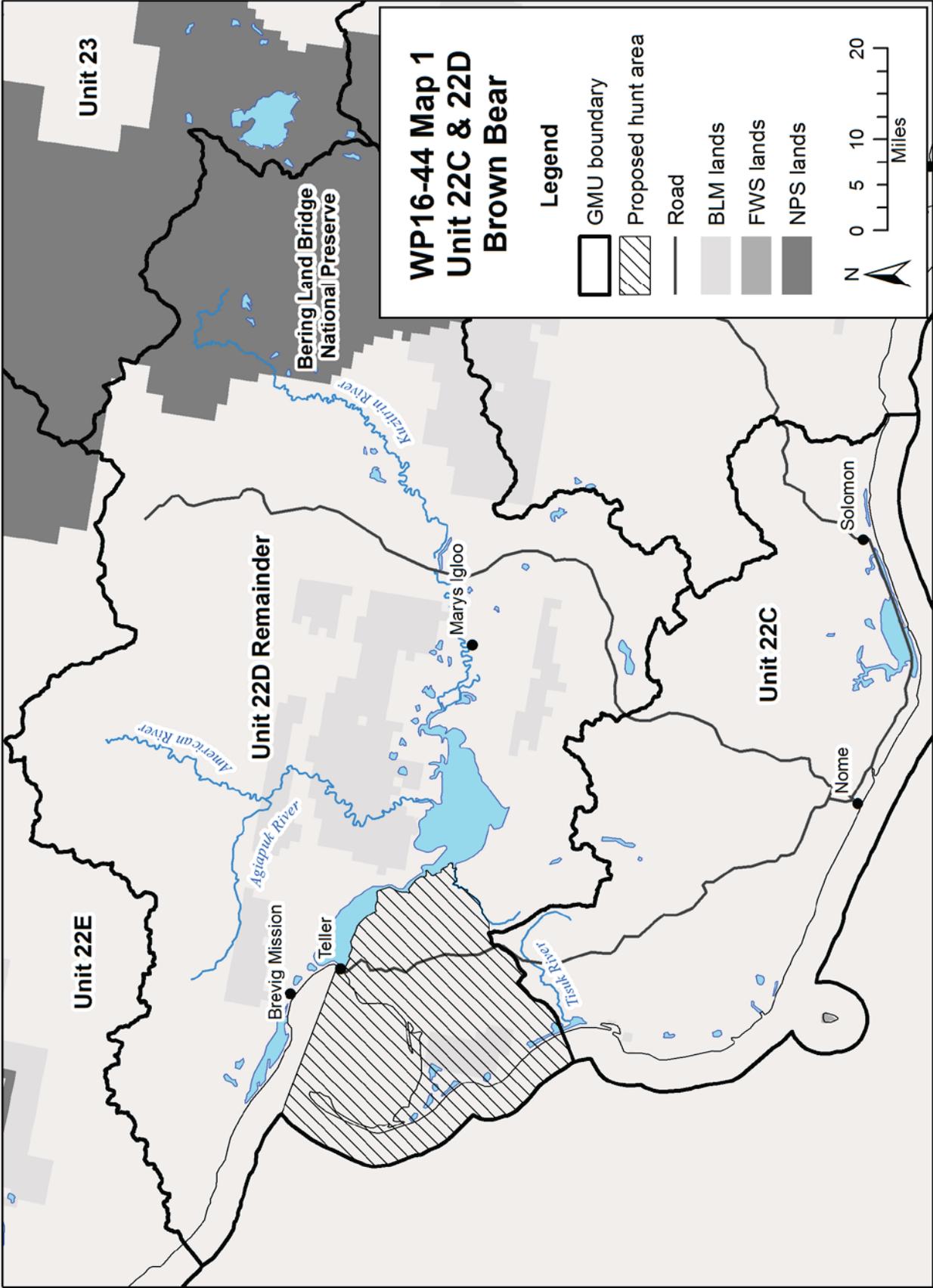
Federal public lands comprise only 0.1% of Unit 22C (approximately 1 mi²). These lands are located on barrier islands in Safety Sound and are managed by the U.S. Fish and Wildlife Service. Unit 22D is comprised of approximately 20% Federal public lands, consisting of 11% National Park Service managed lands 9% and Bureau of Land Management managed lands (**Map 1**).

Customary and Traditional Use Determinations

Rural residents of Unit 22 have a positive customary and traditional use determination for brown bear in Unit 22.

Regulatory History

Unit 22 brown bear seasons have not changed for Federally qualified subsistence users since 2002, when the Federal Subsistence Board opened a season in Unit 22C and extended the season in Units 22A, 22B, and 22D. This change resulted in increased opportunities for Federal subsistence harvest at a time when the bear population was believed to stable or growing slightly. It also simplified the regulations by creating parallel State and Federal brown bear seasons and harvest limits.



There have been few changes in State brown bear regulations for Unit 22 in the last decade. Between 2007 and 2011, State regulations remained static. To provide additional harvest opportunity in Unit 22C, the Alaska Board of Game extended the spring season in 2012, from May 10 – May 25 to May 1 – May 31, and in 2014 increased the harvest limit from one bear every four regulatory years to one bear every regulatory year.

Biological Background

The brown bear population in Unit 22 is believed to have declined during the early 1900s, following the introduction of reindeer herding and gold mining to the area. The diminishment of these activities in the 1940s, along with cessation of predator control by Federal territorial managers in 1959, contributed to the recovery of the brown bear population (Hughes 2011). Population growth continued until the 1990s, when the last population estimate occurred. At this time, bear density in Units 22C and 22D was estimated to be 1 bear/27 mi² (Persons 2001). Observations by biologists, guides and residents indicated that the bear population continued to grow during the 1990s and early 2000s. These observations were corroborated by increased reports of bear encounters, nuisance bears, property damage, and a record high number of defense of life and property kills (Hughes 2011).

Though there is no recent population estimate, observations suggest that the bear population in the area continues to be productive (Hughes 2011). Increased harvest since 1997 appears to be effective in preventing continued population growth and there have been fewer bear sightings since the mid-2000s, indicating that bear numbers may have stabilized or declined. The State's management goal for brown bears in Unit 22 is to sustain a 3-year mean annual reported harvest of at least 50% males (Hughes 2011).

Brown bear harvest typically occurs in the fall, before bears enter their dens, and in spring, after they emerge. Most bears in northwest Alaska and central Canada emerge from their dens in early- to mid-May (Linnell et al. 2000; McLoughlin et al. 2002), though emergence may occur as early as mid-April (Linnell et al. 2000).

Harvest History

Between 1998 and 2013, the annual reported brown bear harvest averaged 94 bears in Unit 22. This represents a 74% increase in harvest compared to 1990 – 1997 (Hughes 2015, pers. comm.). Local residents and nonresidents are responsible for most of the harvest, with each group taking over 40% of the total reported harvest in most years. Nonlocal residents typically harvested less than 15% of the total harvest each year (Hughes 2011).

In Unit 22C, annual harvest doubled from 8 bears between 1990 and 1997 to 16 bears between 1998 and 2013. Harvest increased in Unit 22D at nearly the same rate for the same time period, from 9 to 17 bears. Of the harvested bears in Unit 22D, an average of less than one bear per year was harvested in 22D southwest, the proposed new hunt area.

Effects of the Proposal

If adopted, this proposal would eliminate the split season in Unit 22C, allowing harvest on Federal lands earlier in the spring. The proposed regulation is unlikely to appreciably increase brown bear harvest opportunities for Federally qualified subsistence users, since such a small fraction of the land in Unit 22C is under Federal management, and because harvest under State regulation is allowable beginning May 1. As a result, this proposal is expected to have a negligible effect of this proposal on the bear population.

This proposal would also define a new brown bear harvest area in the southwest portion of Unit 22D. It would increase the harvest limit from one bear to two bears and open the season year-round in this area. This proposed regulation would increase the harvest opportunity for Federally qualified subsistence users. Given current minimal harvest rates in this portion of Unit 22D, the proposed change is expected to result in only a small increase in harvest under Federal regulation, which should have a minimal impact on the brown bear population.

OSM PRELIMINARY CONCLUSION

Support Proposal WP16-44 **with modification** to retain the split season in Unit 22C, revise the hunt area description for Unit 22D to be more specific, and , in the newly described Unit 22D hunt area, require the use of a Federal registration permit and revise the season dates to reflect the regulatory year.

The modified regulation should read:

Unit 22—Brown Bear

Unit 22A, 22B, 22D remainder, and 22E —1 bear by State registration permit only Aug. 1 – May 31

Unit 22C —1 bear by State registration permit only Aug. 1 – Oct. 31
May 10 – 25

Unit 22D—that portion west of the Tisuk River drainage, west of the west bank of the unnamed creek originating at the unit boundary opposite the headwaters of McAdam’s Creek and west of the west bank of Canyon Creek to its confluence with Tuksuk Channel—2 bears by Federal registration permit Jul. 1 – Jun. 30

Justification

Although no conservation concerns are present, extending the brown bear season in Unit 22C is unlikely to result in increased harvest opportunities for Federally qualified subsistence users, due the small percentage of Federal public lands and the current State regulation allowing harvest beginning in May. As a result, there is little basis for supporting harvest season changes in Unit 22C.

Extending the season and increasing the harvest limit in a newly defined area of southwest Unit 22D will result in a small increase in harvest opportunity, though it is not expected to have an appreciable effect on harvest rates. As a result, liberalizing the harvest limit and season within this area does not present any conservation concerns, and is supported. These changes will likely preclude the continued use of a State registration permit within the newly defined hunt area. Rather, a Federal registration permit will be required.

LITERATURE CITED

Hughes, L. 2011. Unit 22 brown bear management report. Pages 267-279 *in* P. Harper, editor. Brown bear management report of survey and inventory activities 1 July 2008-30 June 2010. Alaska Department of Fish and Game. Juneau, AK.

Hughes, L..2015. Wildlife Biologist. Personal communication: email. ADF&G. Nome, AK.

Linnell, J.D.C., J.E. Swenson, R. Anderson and B. Barnes. 2000. How vulnerable are denning bears to disturbance? *Wildlife Society Bulletin*, 28(2):400-413.

McLoughlin, P.D., H.D. Cluff and F. Messier. 2002. Denning ecology of barren-ground grizzly bears in the central Arctic. *Journal of Mammalogy*. 83(1):188-192.

Persons, K. 2001. Unit 22 brown bear management report. Pages 252-263 *in* C. Healy, editor. Brown bear management report of survey-inventory activities 1 July 1998-30 June 2000. Alaska Department of Fish and Game. Juneau, AK.

SPSRAC. 2015. Transcripts of the Seward Peninsula Subsistence Regional Advisory Council proceedings, February 18, 2015 in Nome, Alaska. Office of Subsistence Management, FWS. Anchorage, AK..

WRITTEN PUBLIC COMMENTS

May 28,2015

Federal Subsistence Board
ATTN: Theo Matuskowitz
Office of Subsistence Management
U.S. Fish & Wildlife Service
1011 E. Tudor Road, MS 121
Anchorage, AK 99503

Dear Federal Subsistence Board:

Kawerak, Inc. is the regional non-profit tribal consortium of the Bering Strait Region. Kawerak's Board of Directors is comprised of the Presidents of the 20 tribes of the Bering Strait Region. Kawerak offers numerous programs and services to the 16 communities in the region. Kawerak, Inc. promotes economic development that is both responsible and sustainable.

We are offering suggestions for Federal Wildlife Proposals that are up for your review.

Regarding WP16-44 to extend the season dates for Brown/Grizzly Bear in GMU 22C & D we recommend a separate proposal be sent to the ADF&G Board of Game as these Units are under State jurisdiction for hunting regulations being considered.

Please contact Subsistence Resources Program Director Brandon Ahmasuk to obtain details and more information at 1-907-443-4265. Thank you for your consideration.

Sincerely,

Kawerak, Inc.
Melanie Bahnke, President

WP16-45 Executive Summary	
General Description	Proposal WP16-45 requests shifting the western boundary of the Unit 22E Federal subsistence hunt area for caribou from the Sanaguich River drainage to the Tin Creek drainage. <i>Submitted by the Seward Peninsula Subsistence Regional Advisory Council.</i>
Proposed Regulation	<p>Unit 22—Caribou</p> <p><i>Units 22A, 22B remainder, that portion of Unit 22D in the Kougaruk, Kuzitrin (excluding the Pilgrim River drainage), American, and Agiapuk River Drainages, and Unit 22E, that portion east of and including the Sanaguich River drainage Tin Creek drainage up to the west headwaters at Ear Mountain—5 caribou per day; cow caribou may not be taken May 16–June 30.</i></p> <p style="text-align: right;"><i>Jul. 1 – Jun. 30</i></p>
OSM Preliminary Conclusion	Support
Western Interior Regional Advisory Council Recommendation	
Seward Peninsula Regional Advisory Council Recommendation	
Northwest Arctic Regional Advisory Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	1 Support

**DRAFT STAFF ANALYSIS
WP16-45**

ISSUES

Proposal WP16-45, submitted by the Seward Peninsula Subsistence Regional Advisory Council (Council), requests a change in the hunt area for caribou in Unit 22E.

DISCUSSION

This proposal seeks to shift the western boundary of the Unit 22E Federal subsistence hunt area for caribou from the Sanaguich River drainage to the Tin Creek drainage. Currently, there is no Federal open season for caribou in Unit 22E west of the Sanaguich River drainage. The proponent believes that the proposed boundary change will increase opportunities for subsistence harvest of caribou. As the Western Arctic Caribou Herd (WACH) continues to push westward on the Seward Peninsula, allowing harvest farther west will give Federally qualified subsistence users better access to caribou as they engage in other subsistence activities.

When this proposal was brought forth at the Council's February 19, 2015 meeting, there was considerable discussion about whether Tin Creek was an appropriate boundary. One suggestion was to use the Nuluk River drainage as the western boundary for the hunt area. However, there were concerns about conflicts with reindeer herding (SPSRAC 2015). While the proponent indicates that Clifford Weyiouanna, who holds reindeer grazing permits east of the Nuluk River (Reindeer Research Program, 2015) was consulted and does not object to the proposed boundary changes, there is concern that the Ongtowasruk herd, which grazes the area west of the Nuluk River, may be impacted by this proposal. Overall, the Council expressed the desire to avoid conflict with reindeer herders and welcomed input from the Reindeer Herder's Association.

Existing Federal Regulation

Unit 22—Caribou

Units 22A, 22B remainder, that portion of Unit 22D in the Kougaruk, Kuzitrin (excluding the Pilgrim River drainage), American, and Agiapuk River Drainages, and Unit 22E, that portion east of and including the Sanaguich River drainage—5 caribou per day; cow caribou may not be taken May 16–June 30. Jul. 1 – Jun. 30

Proposed Federal Regulation

Unit 22—Caribou

Units 22A, 22B remainder, that portion of Unit 22D in the Kougaruk, Kuzitrin (excluding the Pilgrim River drainage), American, and Agiapuk River Drainages, and Unit 22E, that portion east of and including the ~~Sanaguich River drainage~~ **Tin Creek drainage up to the west headwaters at Ear Mountain**—5 caribou per day; cow caribou may not be taken May 16–June 30. Jul. 1 – Jun. 30

Existing State Regulation

Unit 22E—Caribou

Unit 22E, that portion east of and including the Sanaguich River drainage

Resident hunters: 5 caribou per day, as follows:

Up to 5 bulls per day; however, calves may not be taken Jul. 1 – Oct. 14
Feb. 1 – Jun. 30

Up to 5 cows per day; however, calves may not be taken Sept. 1 – Mar. 31

Nonresident hunters: 1 bull; however, calves may not be taken Aug. 1 – Sept. 30

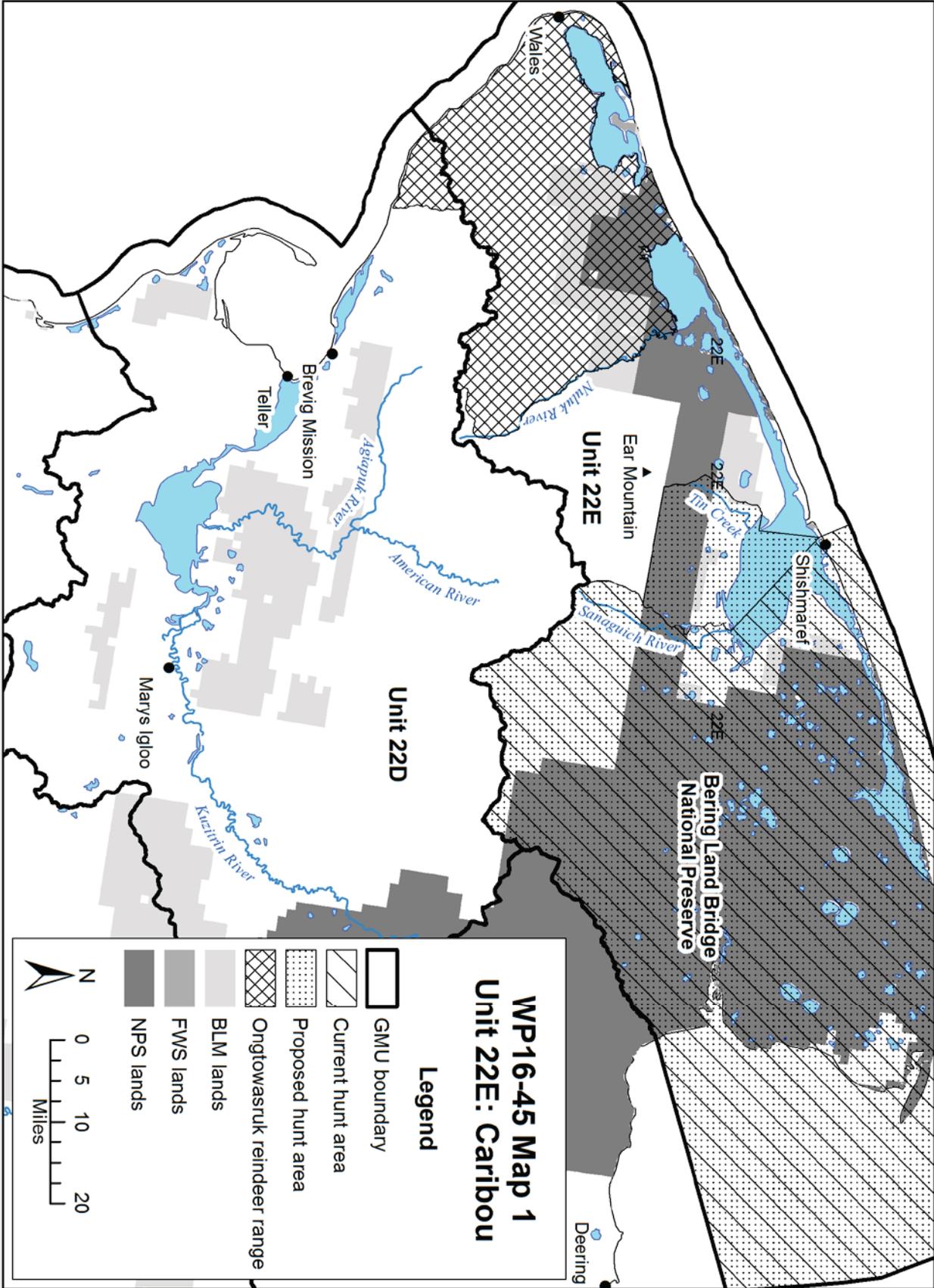
Unit 22, remainder

Resident hunters: 5 caribou per day; however, calves may not be taken; cow caribou may not be taken Apr. 1 – Aug. 31; bull caribou may not be taken Oct. 15 – Jan. 31 Season to be announced by emergency order

Nonresident hunters: 1 bull; however, calves may not be taken; during the period Aug. 1 – Sept. 30, a season may be announced by emergency order Season to be announced by emergency order

Extent of Federal Public Lands

Unit 22E is comprised of approximately 60% Federal public lands, and consists of 54% National Park Service managed lands and 6% Bureau of Land Management managed lands. See **Map 1**.



Customary and Traditional Use Determinations

Residents of Units 21D (west of the Koyukuk and Yukon rivers), 22 (except St. Lawrence Island), 23, and 24 have a positive customary and traditional use determination for caribou in Units 22B, 22C, 22D, and 22E.

Regulatory History

In 1996 and 1997, the Federal Subsistence Board (Board) considered several proposals that addressed customary and traditional use determinations for caribou in Unit 22. In 1996, the Board adopted Proposal P96-049 with modification to provide a customary and traditional use determination for caribou in Unit 22 for rural residents of Unit 21D west of the Koyukuk and Yukon rivers, Units 22 (except St. Lawrence Island), 23, 24. This Proposal also provided a customary and traditional use determination for caribou in Unit 22A for residents of Kotlik, Emmonak, Marshall, Mountain Village, Pilot Station, Pitka's Point, Russian Mission, St. Mary's, Sheldon Point, and Alakanuk (OSM 1996). In 1997, the Board adopted Proposal P97-54 with modification to add residents of Hooper Bay, Scammon Bay, and Chevak to the customary and traditional use determination for caribou in Unit 22A (OSM 1997).

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

In 2002, the Alaska Department of Fish and Game issued two emergency orders addressing caribou/reindeer conflicts. The first, EO 05-03-02, closed the portion of Unit 22D within the Pilgrim River drainage south of the Pilgrim River bridge to caribou hunting between Aug. 31, 2002 and Jun. 30, 2003. The purpose of this action was to prevent the harvest of reindeer, since no caribou were present in the area during this time. The second, EO 05-04-02, opened this same area to the harvest of caribou from Oct. 17, 2002 through Jun. 30, 2003. This emergency order provided harvest opportunity after caribou had moved into the area (Dau 2005).

In 2003, the Board adopted Proposal WP03-40 with modification to establish a season of Jul. 1 – Jun. 30 with a harvest limit of 5 caribou per day in portions of Units 22D and 22E. This action was in response to the recent range expansion of caribou into these subunits, and provided additional subsistence harvest opportunities with the expectation that neither caribou nor reindeer herds would be impacted. It also resulted in alignment of State and Federal regulations (OSM 2003).

In 2005, the Alaska Board of Game adopted a proposal creating two new hunt areas for caribou in Units 22B and 22D. This proposal also changed the season for these newly described areas to Oct. 1 – Apr. 15 (OSM2006).

In 2006, the Board adopted Proposal WP06-37 with modification to designate a new hunt area in Unit 22B with a season of Oct. 1 – Apr. 30 and a may-be-announced season of May 1 – Sept. 30. The intent of this proposal was to provide continued subsistence opportunity when caribou were present, while minimizing

incidental take of privately-owned reindeer and reducing user conflict when caribou were not present (OSM 2006).

Current Events

In 2013, an aerial photo census indicated significant declines in the Western Arctic Caribou Herd (WACH) (Dau 2014). In response to this decline, as well as declines in the Teshekpuk (TCH) and Central Arctic caribou populations, the Alaska Board of Game adopted modified Proposal 202 (RC76) in March 2015 to reduce harvest opportunities for both residents and non-residents within the range of the WACH and the TCH. These regulatory changes took effect on July 1, 2015, and are the result of extensive discussion and compromise among a variety of user groups. In Unit 22E, these regulatory changes include adjustments to harvest seasons, restrictions on bull and cow harvest, a prohibition on calf harvest, and seasonal restrictions for same-day aerial hunting.

Proposal WP16-37, which is concurrently under consideration, requests changes to Federal subsistence caribou harvest throughout the ranges of the Western Arctic and Teshekpuk caribou herds, including Unit 22. It suggests that the Unit 22E hunt area reflect the State hunt area, which uses the Sanaguich River drainage as the boundary. It also proposes new harvest seasons and limits. Reconciling the different hunt area descriptors, seasons and limits proposed by these two proposals will be required if both proposals are adopted.

Biological Background

The WACH, the largest herd in Alaska, has a home range of approximately 157,000 mi² in northwestern Alaska (**Figure 1**). In the spring, most mature cows move north to calving grounds in the Utukok Hills, while bulls and immature cows lag behind and move toward summer range in the Wulik Peaks and Lisburne Hills. After the calving period, cows and calves move west toward the Lisburne Hills where they mix with the remaining bulls and non-maternal cows. During the summer the herd moves rapidly into the Brooks Range, west of the trans-Alaska pipeline. In the fall they move south toward their wintering grounds in the northern portion of the Nulato Hills. The caribou rut occurs during fall migration (Dau 2011, WACH Working Group 2011).

The State manages the WACH to protect the population and its habitat, provide for subsistence and other hunting opportunities on a sustained yield basis, and provide for viewing and other uses of caribou (Dau 2011). Specific State management objectives for the WACH are presented in the 2011 Western Arctic Caribou Cooperative Management Plan (WACH Working Group 2011, Dau 2011) and include:

- Encourage cooperative management of the WACH and among State, Federal, local entities, and all users of the herd.
- Manage for healthy populations using management strategies adapted to fluctuating population levels and trends.
- Assess and protect important habitats.
- Promote consistent and effective State and Federal regulations for the conservation of the WACH.
- Seek to minimize conflict between reindeer herders and the WACH.

- Integrate scientific information, traditional ecological knowledge of Alaska Native users, and knowledge of all users into management of the herd.
- Increase understanding and appreciation of the WACH through the use of scientific information, traditional ecological knowledge of the Alaska Native users, and knowledge of all other users.

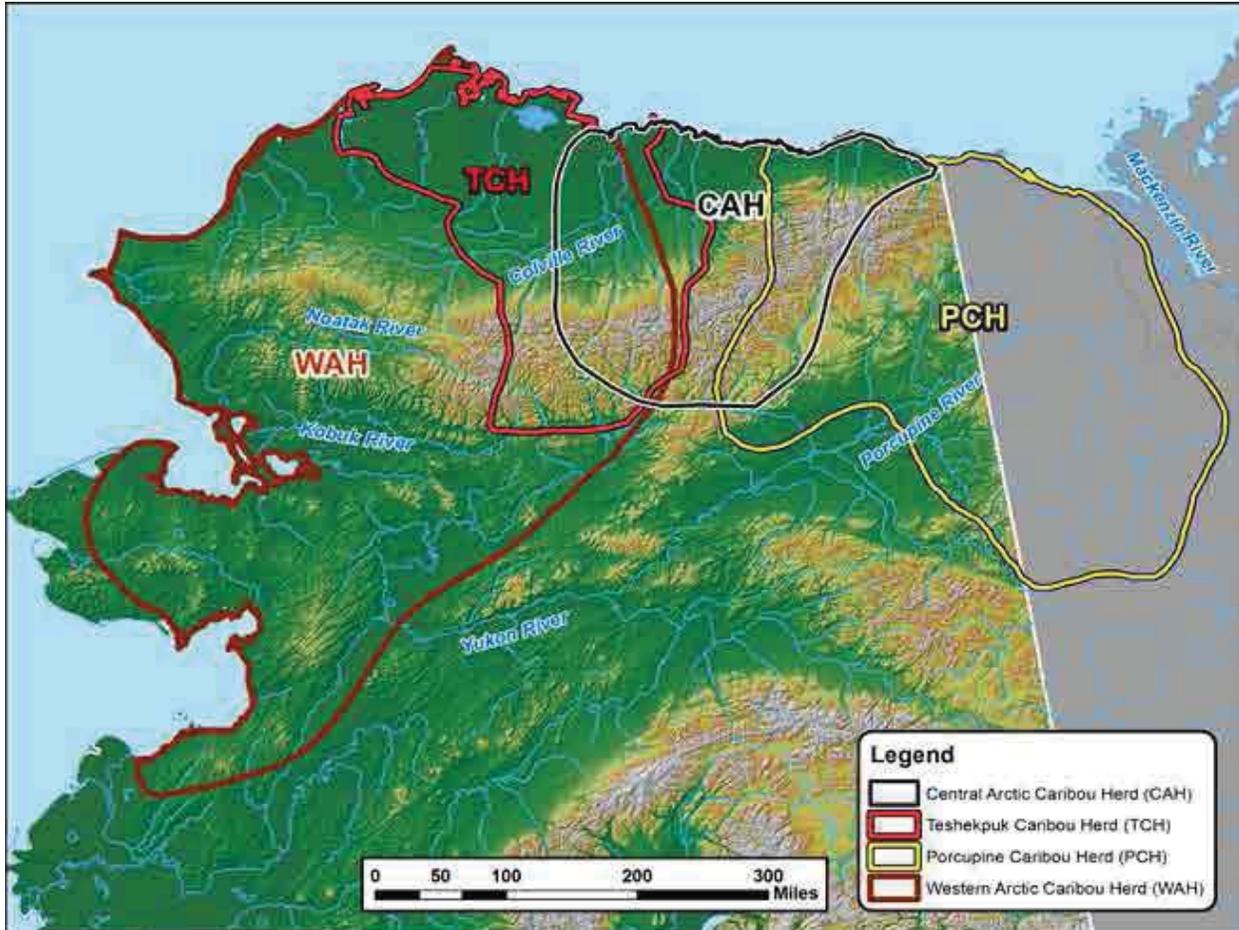


Figure 1. Herd overlap and ranges of the Western Arctic, Teshekpuk, Central Arctic and Porcupine caribou herds (WACH 2014).

The WACH population declined rapidly in the early 1970s and bottomed out at about 75,000 animals in 1976. Aerial photo censuses have been used since 1986 to estimate population size. The WACH declined at an average annual rate of 4.7% from approximately 490,000 in 2003 to 235,000 in 2013 (Dau 2011, Caribou Trails 2014, Dau 2014; **Figure 2**). Although factors contributing to the decline are not known with certainty, increased adult cow mortality, and decreased calf recruitment and survival played a role (Dau 2011). Other contributing factors include weather (particularly fall and winter icing events), predation, hunting pressure, decline in range condition (including habitat loss and fragmentation), climate change, and disease (Dau 2014). Joly et al. (2007) documented a decline in lichen cover in portions of the wintering areas of the WACH. Dau (2011, 2014) reported that degradation in range condition is not thought to be a primary factor in the decline of the WACH because animals in the WACH have generally maintained good body condition since the decline began. However, the body condition of the WACH in

the spring may be a better indicator of the effects of range condition versus the fall when the body condition of the WACH is routinely assessed and when caribou are in prime condition (July 2015, pers. comm).

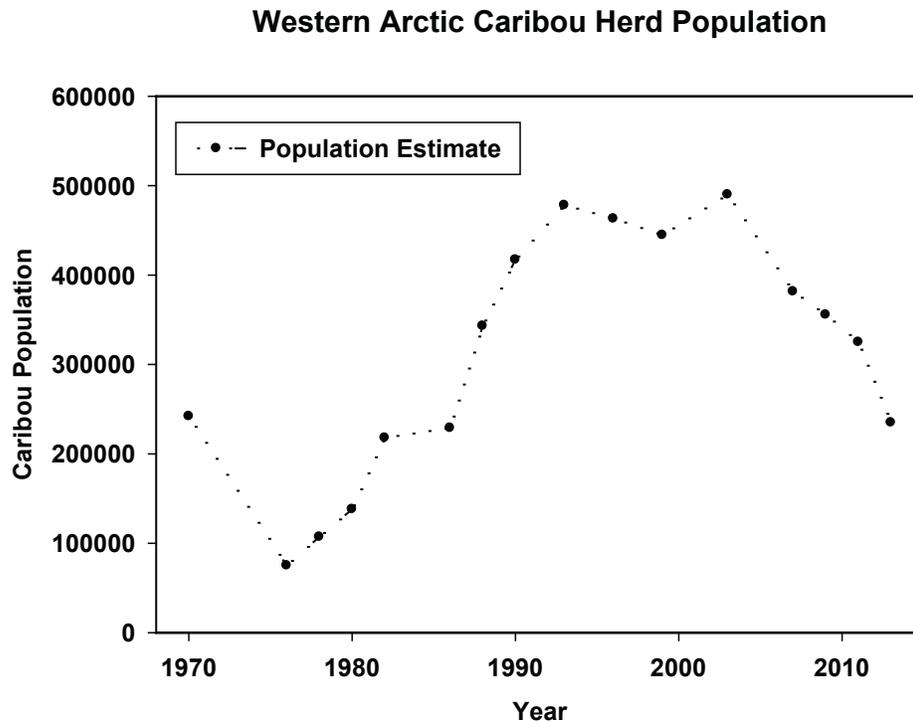


Figure 2. Maximum estimated population estimates of the Western Arctic Caribou Herd from 1970-2013. Population estimates from 1986-2013 are based on aerial photographs of groups of caribou that contained radio-collared animals (Dau 2011, 2014)

During periods of rapid population growth (1976–1982), fall calf:cow ratios were generally higher than during periods of herd decline (1992–2013; **Table 1**). However, it should be noted that calf:cow ratios may not accurately reflect the status in the population due to spatial and temporal segregation of cows and bulls, and because not all of the population is sampled. The number of bulls:100 cows was greater during the period of population growth (49:100 between 1976-2001) than during the recent period of decline (44:100 between 2004-2014).

The annual mortality rate of collared adult cows increased from an average of 15% between 1987 and 2003, to 25% from 2004–2009 (Dau 2011, 2014). Estimated mortality encompasses all causes of death including hunting (Dau 2011). Dau (2009) reported that rain-on-snow events and winter thaws may have contributed to the relatively high estimated mortality rates of 23% during 2008-2009 and 27% during 2009-2010. Prior to 2004 – 2005, estimated adult cow mortality only exceeded 20% twice during regulatory years 1992 and 1999, but has exceeded 20% in 5 of the 6 regulatory years between 2004–2010 (2004, 2005, 2007, 2008, and 2009). As the WACH declined, the percentage of mortality due to hunting increased relative to natural mortality. For example, during the period October 1, 2013 to September 30, 2014, estimated hunting mortality was approximately 42% and estimated natural mortality about 56%

(estimates from slide 16, Dau 2014). In previous years the estimated hunting mortality exceeded 30% only once.

Table 1. Western Arctic Caribou Herd fall composition 1976 – 2014 (Dau 2011, 2014).

Regulatory Year	Total bulls: 100 cows ^a	Calves: 100 cows	Calves: 100 adults	Bulls	Cows	Calves	Total
1976/1977	63	52	32	273	431	222	926
1980/1981	53	53	34	715	1,354	711	2,780
1982/1983	58	59	37	1,896	3,285	1,923	7,104
1992/1993	64	52	32	1,600	2,498	1,299	5,397
1995/1996	58	52	33	1,176	2,029	1,057	4,262
1996/1997	51	49	33	2,621	5,119	2,525	10,265
1997/1998	49	43	29	2,588	5,229	2,255	10,072
1998/1999	54	45	29	2,298	4,231	1,909	8,438
1999/2000	49	47	31	2,059	4,191	1,960	8,210
2001/2002	38	37	27	1,117	2,943	1,095	5,155
2004/2005	48	35	24	2,916	6,087	2,154	11,157
2006/2007	42	40	28	1,900	4,501	1,811	8,212
2008/2009	45	48	33	2,981	6,618	3,156	12,755
2010/2011	49	35	23	2,419	4,973	1,735	9,127
2011/2012							
2012/2013	42 ^b						
2013/2014							
2014/2015	39						

^a 40 bulls:100 cows is the minimum level recommended in the WACH Cooperative Management Plan (WACH Working Group 2011)

^b Estimated from power point presentation presented at the WACH Working Group Meeting December 17-18, 2014 (Dau 2014)

Harvest History

The State of Alaska manages the WACH to maximize a harvestable surplus of animals. In recent years, as the population declined, the State’s total harvestable surplus for the WACH, which is estimated as 2% of the cows and 15% of the bulls, has declined (Dau 2011; Dau 2014, pers. comm.). Harvest from the WACH, which has remained fairly consistent since 1990, now represents a larger proportion of the annual mortality. This is one of the factors that prompted the Alaska Board of Game to enact restrictions to WACH and TCH caribou harvest in March 2015.

From 1999–2014 the average annual harvest from the WACH was approximately 13,600 caribou, which includes harvest from Units 21, 22, 23, 24, and 26A (Dau 2009; Dau 2014, pers. comm.). Local residents

take approximately 94% of the caribou harvest within the range of the WACH, with residents of Unit 23 taking the vast majority of the harvest (**Figure 3**).

Residents of Unit 22E, which includes the communities of Wales and Shishmaref, are responsible for approximately 2% of the total harvest of the WACH. The disparity in harvest rates between these two communities is almost certainly due to proximity to the resource (**Table 2**).

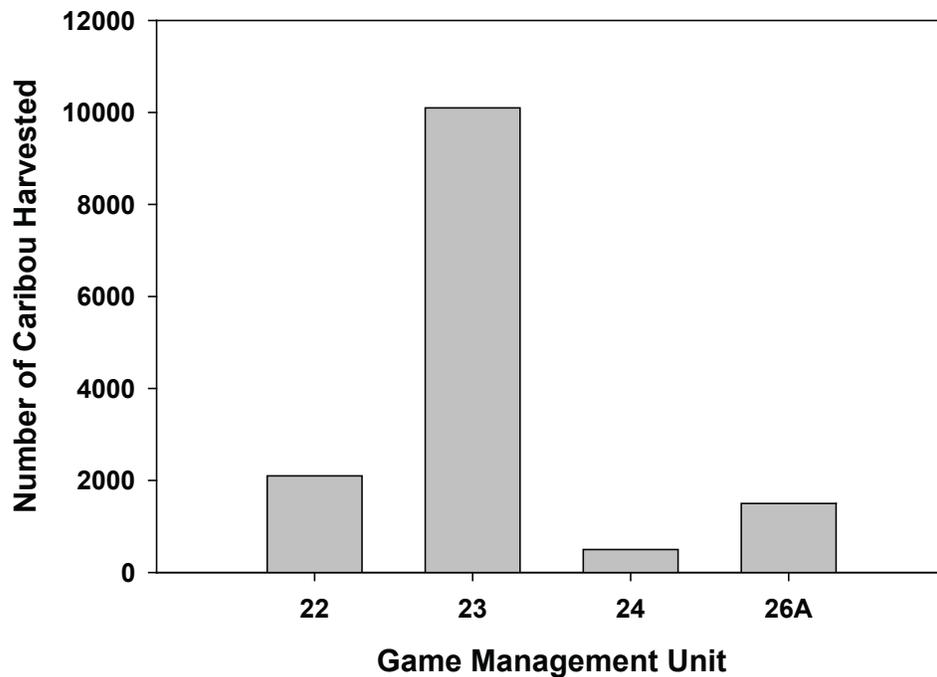


Figure 3. Average annual harvest by residents within the WACH range, RY1998-RY2012 (Dau 2014).

Other Alternatives Considered

Designating the Nuluk River, rather than Tin Creek, as the western boundary for the hunt area was considered. This drainage represents a clear and unambiguous boundary. However, this alternative increases the potential for conflicts with reindeer. The Ongtowsruk reindeer herd, which is permitted to graze the area west of the Nuluk River, is one of the few remaining herds on the Seward Peninsula. Because the grazing allotments are large, remote and fenceless, it is not unusual for animals to wander beyond their designated range without the herders' knowledge. Opening the area east of the Nuluk River to caribou harvest increases the potential that reindeer will be harvested, either intentionally or unknowingly. Given the Council's sensitivity to reindeer/caribou conflicts and the Western Arctic Caribou Cooperative Management Plan's objective to minimize conflict with reindeer, this alternative was rejected.

Table 2. Unit 22 caribou harvest by community and subunit. Adapted from Table 10 Dau 2011.

Game Management Unit	Community	Human Population	Relative Distance to Caribou	Estimated Harvest
22A	Saint Michael	444	Far	16
22A	Shaktoolik	214	Far	16
22A	Stebbins	598	Far	16
22A	Unalakleet	724	Far	15
22B	Elim	309	Average	131
22B	White Mountain	215	Average	80
22B	Golovin	167	Average	54
22B	Koyuk	347	Far	16
22C	Nome	3495	Average	111
22D	Brevig Mission	328	Average	141
22D	Teller	256	Average	102
22E	Shishmaref	608	Average	293
22E	Wales	136	Far	16

Effects of the Proposal

If adopted, this proposal would shift the hunt area boundary west, opening an additional portion of Bering Land Bridge National Preserve to caribou harvest. Expanding the hunt area will increase harvest opportunity for Federally qualified subsistence users by opening lands currently closed to caribou harvest. Given the small proportion of total WACH harvest attributed to residents of this area, this proposal would likely have little impact on the caribou population. Total harvest in this area is not expected to increase appreciably. As a result, this proposal does not present any conservation concerns.

OSM PRELIMINARY CONCLUSION

Support Proposal WP16-45.

Justification

As the WACH expands its range westward on the Seward Peninsula, associated shifts in the areas open to caribou harvest will create additional opportunities for Federally qualified subsistence users. Although conservation of the WACH is a concern throughout its range, a relatively small proportion of the total harvest is attributable to hunters in Unit 22E. As a result, adoption of this proposal is not expected to result in an appreciable increase in harvest and is not expected to affect the herd overall. It will, however, result in additional opportunities for Federally qualified subsistence users in the area.

LITERATURE CITED

- Caribou Trails. 2014. News from the Western Arctic Caribou Herd Working Group. Alaska Department of Fish and Game. Anchorage, AK. Internet: < http://westernarcticcaribou.org/wp-content/uploads/2014/07/CT2014_FINAL_lowres.pdf>. Retrieved May 26, 2015.
- Dau, J. 2005. Units 21D, 22A, 22B, 22C, 22D, 22E, 23, 24, 26A caribou management report. Pages 177-218 in C. Brown, editor. Caribou management report of survey and inventory activities 1 July 2002 – 30 June 2004. Alaska Department of Fish and Game. Project 3.0. Juneau, AK.
- Dau, J. 2009. Units 21D, 22A, 22B, 22C, 22D, 22E, 23, 24, and 26A in Caribou survey–inventory management report. Pages 176-239 in P. Harper, editor. Caribou management report of survey and inventory activities July 1, 2006– June 30, 2008. ADF&G. Juneau, AK
- Dau, J. 2011. Units 21D, 22A, 22B, 22C, 22D, 22E, 23, 24, and 26A caribou management report. Pages 187-250 in P. Harper, editor. Caribou management report of survey and inventory activities July 1, 2008–30 June 30, 2010. ADF&G. Juneau, AK.
- Dau, J. 2014. Wildlife Biologist. Personal communication. Information, including a power point presentation, presented at the Western Arctic Caribou Herd (WACH) Working Group Meeting, December 17-18,2014. Anchorage, Alaska. ADF&G. Nome, AK.
- Joly, K., R.R. Jandt, C.R. Meyers, and J.M. Cole. 2007. Changes in vegetative cover on the Western Arctic herd winter range from 1981–2005: potential effects of grazing and climate change. Rangifer Special Issue 17:199-207.
- Joly, K. 2015. Wildlife Biologist, Gates of the Arctic National Park and Preserve. Personal communication. email NPS. Fairbanks, AK.
- OSM. 1996. Staff analysis P96-049. Office of Subsistence Management, USFWS. Anchorage, AK.
- OSM. 1997. Staff analysis P97–054. Office of Subsistence Management, USFWS. Anchorage, AK.
- OSM. 2000. Staff analysis P00–053. Office of Subsistence Management, USFWS. Anchorage, AK.
- OSM. 2003. Staff analysis P03–040. Office of Subsistence Management, USFWS. Anchorage, AK.
- OSM. 2006. Staff analysis WP06-37. Office of Subsistence Management, USFWS. Anchorage, AK.
- Reindeer Research Program. 2015. Seward Peninsula Range Management Map Database. Internet: <<http://reindeer.salrm.uaf.edu/mapsAndData/public.php>>. Retrieved: May 25, 2015.
- SPSRAC. 2015. Transcripts of the Seward Peninsula Federal Subsistence Advisory Council meeting, February 17, 2015 in Nome, Alaska. Office of Subsistence Management, FWS. Anchorage, AK.
- WACH Working Group. 2011. Western Arctic Caribou Herd Cooperative Management Plan – Revised December 2011. Nome, AK 47 pp.

WRITTEN PUBLIC COMMENTS

May 28,2015

Federal Subsistence Board
ATTN: Theo Matuskowitz
Office of Subsistence Management
U.S. Fish & Wildlife Service
1011 E. Tudor Road, MS 121
Anchorage, AK 99503

Dear Federal Subsistence Board:

Kawerak, Inc. is the regional non-profit tribal consortium of the Bering Strait Region. Kawerak's Board of Directors is comprised of the Presidents of the 20 tribes of the Bering Strait Region. Kawerak offers numerous programs and services to the 16 communities in the region. Kawerak, Inc. promotes economic development that is both responsible and sustainable.

We are offering suggestions for Federal Wildlife Proposals that are up for your review.

Regarding WP16-45 we support expanding the boundary line in GMU 22E for caribou by deleting the Sanaguich River boundary and adding the Tin Creek Drainage up to the west headwaters to Ear Mountain.

Please contact Subsistence Resources Program Director Brandon Ahmasuk to obtain details and more information at 1-907-443-4265. Thank you for your consideration.

Sincerely,

Kawerak, Inc.
Melanie Bahnke, President

WP16-46 Executive Summary	
General Description	Proposal WP16-46 requests that the closure to moose harvest by non-Federally qualified users in Unit 22E be rescinded. <i>Submitted by the Seward Peninsula Subsistence Regional Advisory Council.</i>
Proposed Regulation	Unit 22E—Moose <i>1 antlered bull. Federal public lands are closed to the taking of moose except by Federally qualified subsistence users hunting under these regulations. Aug. 1–Mar. 15.</i>
OSM Preliminary Conclusion	Support
Seward Peninsula Regional Advisory Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	1 Support

**DRAFT STAFF ANALYSIS
WP16-46**

ISSUES

Proposal WP16-46, submitted by the Seward Peninsula Subsistence Regional Advisory Council (Council), requests that the closure to moose harvest by non-Federally qualified users in Unit 22E be rescinded.

DISCUSSION

The proponent believes that the closure is no longer justified, given the recovery of the moose population in the area (SPRAC 2015: 73).

Existing Federal Regulation

Unit 22E—Moose

1 antlered bull. Federal public lands are closed to the taking of moose Aug. 1–Mar. 15. except by Federally qualified subsistence users hunting under these regulations.

Proposed Federal Regulation

Unit 22E—Moose

1 antlered bull. ~~Federal public lands are closed to the taking of moose Aug. 1–Mar. 15. except by Federally qualified subsistence users hunting under these regulations.~~

Existing State Regulation

Unit 22E—Moose

Residents: one bull *Aug. 1 – Dec. 31*

OR

One antlered bull *Jan. 1 – Mar. 15*

Nonresidents: one bull with 50-inch antlers or antlers with 4 or more brow tines on at least one side by permit available online or in person at Nome ADF&G beginning July 25. Season closed by emergency order when 10 bulls are taken. *Sep. 1 – Sep. 14*

Extent of Federal Public Lands

Federal public lands comprise approximately 60% of Unit 22E and consist of approximately 54% National Park Service managed lands and 6% Bureau of Land Management managed lands. See **Unit 22 Map**.

Customary and Traditional Use Determinations

Rural residents of Unit 22 have a positive customary and traditional use determination for moose in Unit 22.

Regulatory History

In 2002, the Federal Subsistence Board (Board) adopted Proposal WP02-34. In Unit 22E, this action restricted moose harvest to bulls only, reduced the season from Aug. 1 – Mar. 31 to Aug. 1 – Dec. 30, and restricted harvest to Federally qualified subsistence users. This proposal was brought forth to address conservation concerns for the moose population and to provide for the continuation of subsistence uses of moose on Federal public lands in Unit 22.

The Alaska Board of Game also adopted new regulations for moose in Unit 22E in 2002, changing the harvest limit from one moose to one antlered bull, shortening the season by three months, and closing the nonresident season.

In the summer of 2003, the Native Village of Wales submitted a Temporary Special Action Request, WSA03-09, to change the harvest season for moose and muskox taken for the *Kingikmiut* Dance Festival from Nov. 15 – Dec. 31 to Jan. 1 – Mar. 15. This Temporary Special Action was approved by the Board in October 2003. The Native Village of Wales subsequently submitted Proposal WP04-69 to permanently change the harvest season for moose and muskox taken for the *Kingikmiut* Dance Festival, as described above. The proposal was adopted by the Board at its May 2004 meeting.

In 2008, the Alaska Board of Game adopted a proposal that established a resident winter season for one antlered bull Jan. 1 – Jan. 31, as well as a nonresident registration hunt with a 10 bull harvest quota. These changes were a result of an increasing moose population.

In 2010, the Board adopted WP10-79, which changed the harvest limit from one bull to one antlered bull, and extended the season from Aug. 1 – Dec. 31 to Aug. 1 – Mar. 15 in Unit 22E. These changes were requested in order to provide more harvest opportunity for Federally qualified subsistence users and to eliminate the inadvertent harvest of cow moose.

At its February 2011 meeting, the Council voted unanimously to submit a proposal requesting that the closure of Federal public lands to moose harvest by non-Federally qualified subsistence users in Unit 22E be rescinded, based on the recovery of the population. However, no proposal was submitted during the regulatory cycle.

At its January 2014 meeting, in response to an increasing moose population, the Alaska Board of Game extended the Unit 22E winter resident moose season from Jan. 1 – Jan. 31 to Jan. 1 – Mar. 15.

Biological Background

Moose migrated into the Seward Peninsula in the 1930s and by the late 1960s became a resident species due to suitable habitat in Unit 22. Moose populations increased during the 1970s and peaked in the mid-1980s (Gorn 2010). Density independent factors, specifically severe winters, were believed to have caused the population to decrease during the early 1990s (Nelson 1995). Populations within Unit 22 have never recovered to the peak levels of the 1980s. Brown bear predation on calves is considered the main limiting factor on Unit 22 moose populations (Gorn 2010).

State management goals for moose in Unit 22E are to increase and stabilize the population at 200-250 moose and maintain a minimum bull:cow ratio of 30:100 (Gorn 2010). Moose populations in Unit 22E have increased from 504 in 2003 to 701 in 2014 (90% C.I. \pm 14%; Gorn 2014). The population is well above the State management goals (Gorn 2010) and is currently believed to be stable (Gorn 2015, pers. comm.). The recruitment rate was 13% in 2014, with 16 calves:100 adults (Gorn 2014). Percentage of yearlings has ranged between 10-19% since 2003 and appears to be stable (Gorn 2014).

Harvest History

Navigable rivers and aircraft provide easy access to suitable moose habitat in the fall and early winter, and snow machines provide access during the winter season. Reported moose harvest has been relatively low in Unit 22E, averaging 14 moose annually between 2004 and 2013 (**Table 1**). Moose harvest is known to be underreported in the region, and total harvest is estimated to be approximately 5% of the population in Unit 22E (Gorn 2015, pers. comm.). Local residents, defined as those with a customary and traditional use determination, accounted for 57% of the reported harvest between 2004 and 2013 (**Table 1**). However, accounting for unreported harvest, local harvest averages an estimated 88% of the total harvest between 2004 and 2013, while nonlocal resident harvest averages only 8% for the same time period. Annual

nonresident harvest was less than two moose from 2004 to 2012, but increased to 10 moose in 2013, following the opening of the nonresident hunt by the State in 2008 (**Table 1**).

Table 1. Reported moose harvest in Unit 22E, 2004-2013 (ADF&G 2015)

Year	Local Resident Harvest	Nonlocal Resident Harvest	Nonresident Harvest	Unknown Residency Harvest	Total Harvest
2004	9	0	0	0	9
2005	8	1	0	0	9
2006	4	2	0	1	7
2007	15	2	0	0	17
2008	10	4	1	3	18
2009	11	4	1	5	21
2010	8	4	1	3	14
2011	3	3	2	4	12
2012	5	1	1	7	14
2013	4	2	10	4	20

Effects of the Proposal

If this proposal is adopted, it would open Federal public lands in Unit 22E to non-Federally qualified users, providing additional harvest opportunities. The moose population in this area has recovered since the closure went into effect in 2002 and appears to be stable. Population parameters remain above State management goals, and nonlocal and nonresident harvest has remained low. Harvest by nonsubsistence users on Federal public lands should not be detrimental to subsistence users and does not currently pose a conservation concern for the species.

OSM PRELIMINARY CONCLUSION

Support Proposal WP16-46.

Justification

The moose population in Unit 22E has grown considerably since 2002, when this closure was adopted by the Board. Despite liberalization of State and Federal regulations since 2008, the moose population in Unit 22E has stabilized and population metrics remain above State management goals. While lifting the closure will provide additional harvest opportunities for nonsubsistence users, Federally qualified subsistence users are expected to remain the primary users of this resource. Since 2004, nonlocal residents have taken only a fraction of the total estimated harvest, and non-resident harvest will be subject to AF&G's 10 bull quota.

LITERATURE CITED

ADF&G. 2015. General harvest reports. Internet: <<https://secure.wildlife.alaska.gov/index.cfm?fuseaction=harvestreports.main>>. Retrieved: April 9, 2015.

Gorn, T. 2010. Unit 22 moose management report. Pages 522-550 *in* P. Harper, editor. Moose management report of survey and inventory activities 1 July 2007 – 30 June 2009. Alaska Department of Fish and Game. Project 1.0. Juneau, AK.

Gorn, T. 2014. 2014 Unit 22D and 22E moose population survey summary. Alaska Department of Fish and Game, Nome, AK.

Gorn, T. 2015. Wildlife Biologist. Personal communication: phone. ADF&G. Nome, AK.

Nelson, R.R. 1995. Unit 22 moose survey-inventory progress report. Pages 405-419 *in* M.V. Hicks, editor. Management report of survey-inventory activities 1 July 1993 – 30 June 1995. Federal aid in wildlife restoration progress report, Project W-24-2, W-24-3, Study 1.0. Juneau, AK. 48 pages.

SPRAC. 2015. Transcripts of the Seward Peninsula Subsistence Regional Advisory Council proceedings, February 18-19, 2015 in Nome, Alaska. Office of Subsistence Management, FWS. Anchorage, AK.

WRITTEN PUBLIC COMMENTS

May 28,2015

Federal Subsistence Board
ATTN: Theo Matuskowitz
Office of Subsistence Management
U.S. Fish & Wildlife Service
1011 E. Tudor Road, MS 121
Anchorage, AK 99503

Dear Federal Subsistence Board:

Kawerak, Inc. is the regional non-profit tribal consortium of the Bering Strait Region. Kawerak's Board of Directors is comprised of the Presidents of the 20 tribes of the Bering Strait Region. Kawerak offers numerous programs and services to the 16 communities in the region. Kawerak, Inc. promotes economic development that is both responsible and sustainable.

We are offering suggestions for Federal Wildlife Proposals that are up for your review.

Regarding WP16-46 we support deleting the language for Federal Public Lands being closed to the taking of moose "except by Federally qualified subsistence user's" in GMU 22E. Current data indicates that the moose population in 22E is healthy and on the rise.

Please contact Subsistence Resources Program Director Brandon Ahmasuk to obtain details and more information at 1-907-443-4265. Thank you for your consideration.

Sincerely,

Kawerak, Inc.
Melanie Bahnke, President

WP16-47 Executive Summary	
General Description	Proposal WP16-47 requests that an antlerless moose season be established in Unit 22E, with a harvest season of Jul. 15 – Dec. 31 and a harvest limit of one moose, excluding calves and cows accompanied by a calf. <i>Submitted by the Seward Peninsula Subsistence Regional Advisory Council.</i>
Proposed Regulation	<p>Unit 22E—Moose</p> <p><i>1 antlered bull. Federal public lands are closed to the taking of moose except by Federally qualified subsistence users hunting under these regulations. Aug. 1–Mar. 15.</i></p> <p><i>1 moose (except calves or a cow accompanied by a calf). Jul. 15 – Dec. 31</i></p>
OSM Preliminary Conclusion	Oppose
Seward Peninsula Regional Advisory Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	1 Oppose

**DRAFT STAFF ANALYSIS
WP16-47**

ISSUES

Proposal WP16-47, submitted by the Seward Peninsula Subsistence Regional Advisory Council (Council), requests that an antlerless moose season be established in Unit 22E, with a harvest season of Jul. 15 – Dec. 31 and a harvest limit of one moose, excluding calves and cows accompanied by a calf.

DISCUSSION

The proponent states that harvest opportunities are limited in Unit 22 by the antlered bull restriction, and that legal animals are difficult to locate, resulting in unsuccessful and expensive trips. The proponent also states that opening an antlerless season on Jul. 15 instead of Aug. 1 would provide additional harvest opportunities for Federally qualified subsistence users, since moose are often present at the end of July (SPRAC 2015).

Existing Federal Regulation

Unit 22E—Moose

1 antlered bull. Federal public lands are closed to the taking of moose Aug. 1–Mar. 15. except by Federally qualified subsistence users hunting under these regulations.

Proposed Federal Regulation

Unit 22E—Moose *

1 antlered bull. Federal public lands are closed to the taking of moose Aug. 1–Mar. 15. except by Federally qualified subsistence users hunting under these regulations.

1 moose (except calves or a cow accompanied by a calf). Jul. 15 – Dec. 31

*Note: At its March 2015 meeting, the Council voted to rescind the closure to non-Federally qualified users. This is being considered concurrently by proposal WP16-46.

Existing State Regulation

Unit 22E—Moose

Residents: one bull *Aug. 1 – Dec. 31*

OR

One antlered bull *Jan. 1 – Mar. 15*

Nonresidents: one bull with 50-inch antlers or antlers with 4 or more brow tines on at least one side by permit available online or in person at Nome ADF&G beginning July 25. Season closed by emergency order when 10 bulls are taken. *Sep. 1 – Sep. 14*

Extent of Federal Public Lands

Federal public lands comprise approximately 60% of Unit 22E and consist of approximately 54% National Park Service managed lands and 6% Bureau of Land Management managed lands. See **Unit 22 Map**.

Customary and Traditional Use Determinations

Rural residents of Unit 22 have a positive customary and traditional use determination for moose in Unit 22.

Regulatory History

In 2002, the Federal Subsistence Board (Board) adopted Proposal WP02-34. In Unit 22E, this action restricted moose harvest to bulls only, reduced the season from Aug. 1 – Mar. 31 to Aug. 1 – Dec. 30, and restricted harvest to Federally qualified subsistence users. This proposal was brought forth to address conservation concerns for the moose population and to provide for the continuation of subsistence uses of moose on Federal public lands in Unit 22.

The Alaska Board of Game also adopted new regulations for moose in Unit 22E in 2002, changing the harvest limit from one moose to one antlered bull, shortening the season by three months, and closing the nonresident season.

In the summer of 2003, the Native Village of Wales submitted a Temporary Special Action Request, WSA03-09, to change the harvest season for moose and muskox taken for the *Kingikmiut* Dance Festival from Nov. 15 – Dec. 31 to Jan. 1 – Mar. 15. This Temporary Special Action was approved by the Board in October 2003. The Native Village of Wales subsequently submitted Proposal WP04-69 to permanently change the harvest season for moose and muskox taken for the *Kingikmiut* Dance Festival to Jan. 1 – Mar. 15. The proposal was adopted by the Board at its May 2004 meeting.

In 2008, the Alaska Board of Game adopted a proposal that established a resident winter season for one antlered bull Jan. 1 – Jan. 31, as well as a nonresident registration hunt with a 10 bull harvest quota. These changes were a result of an increasing moose population.

In 2010, the Board adopted WP10-79, which changed the harvest limit from one bull to one antlered bull, and extended the season from Aug. 1 – Dec. 31 to Aug. 1 – Mar. 15 in Unit 22E. These changes were requested in order to provide more harvest opportunity for Federally qualified subsistence users and to eliminate the inadvertent harvest of cow moose.

At its February 2011 meeting, the Council voted unanimously to submit a proposal requesting that the closure of Federal public lands to moose harvest by non-Federally qualified users in Unit 22E be rescinded, based on the recovery of the population. However, no proposal was submitted during the regulatory cycle.

At its January 2014 meeting, in response to an increasing moose population, the Alaska Board of Game extended the Unit 22E winter resident moose season from Jan. 1 – Jan. 31 to Jan. 1 – Mar. 15.

At its February 19, 2015 meeting, the Council passed a motion to submit a proposal (WP16-46) to remove the closure for moose to non-Federally qualified subsistence users on Federal public lands in Unit 22E, in addition to the current proposal.

Biological Background

Moose migrated into the Seward Peninsula in the 1930s and by the late 1960s became a resident species due to suitable habitat in Unit 22. Moose populations increased during the 1970s and peaked in the mid-1980s (Gorn 2010). Density independent factors, specifically severe winters, were believed to have caused the population to decrease during the early 1990s (Nelson 1995). Populations within Unit 22 have never recovered to the peak levels of the 1980s. Brown bear predation on calves is considered the main limiting factor on Unit 22 moose populations (Gorn 2010).

State management goals for moose in Unit 22E are to increase and stabilize the population at 200-250 moose and maintain a minimum bull:cow ratio of 30:100 (Gorn 2010). Moose populations in Unit 22E have increased from 504 in 2003 to 701 in 2014 (90% C.I. \pm 14%; Gorn 2014). The population is well above the State management goals (Gorn 2010) and is currently believed to be stable (Gorn 2015, pers. comm.). The recruitment rate was 13% in 2014, with 16 calves:100 adults (Gorn 2014). Percentage of yearlings has ranged between 10-19% since 2003 and appears to be stable (Gorn 2014).

Antlerless harvests are a powerful tool in the management of moose populations, and are typically used when the intent is to stabilize or decrease a population. They are generally appropriate when the population is growing and nutritional status is low (Boertje et al. 2007). Historically, liberal antlerless harvests (greater than 2% of the pre-harvest population) have contributed to the decline of moose populations in interior Alaska (Boertje et al. 2007) and antlerless seasons have influenced moose populations in Unit 22 in the recent past. Antlerless harvest was effectively used in Unit 22C to stabilize the population (Gorn 2010) within the last decade. By 2001, this population had reached a historically high density (Persons 2002; Gorn 2015, pers. comm.) and managers were concerned that the population

was reaching its carrying capacity, as evidenced by high recruitment rates and sub-optimal browse conditions (Persons 2002). A low bull:cow ratio provided additional motivation to reduce bull harvest (Persons 2002; Gorn 2010). Several years of conservative antlerless harvest (1-2%) and 2 years of more liberal harvest (5-7%) was sufficient to reduce population growth (Gorn 2015, pers. comm.).

Antlerless harvest was likely influential in reducing the Unit 22E moose population during the 1990s as well. After years of antlerless harvest, the moose population in Unit 22E was estimated at only 169 animals in 2001 (Gorn 2010). This population has since recovered, following the elimination of the antlerless season, shortening the resident season, and closing the nonresident season. While the population in Unit 22E currently exceeds established management goals, it is stable and there is no evidence to suggest that the population is nearing carrying capacity (Gorn 2015, pers. comm.).

Harvest History

Navigable rivers and aircraft provide easy access to suitable moose habitat in the fall and early winter, and snow machines provide access during the winter season. Reported moose harvest has been relatively low in Unit 22E, averaging 14 moose annually between 2004 and 2013 (**Table 1**). However, moose harvest by locals is known to be underreported in the region. Total harvest is estimated to be approximately 5% of the population in Unit 22E (Gorn 2015, pers. comm.). Local residents, defined as those with a Federal customary and traditional use determination, accounted for 57% of the reported harvest between 2004 and 2013 (**Table 1**). However, when unreported harvest is considered, harvest by locals averages an estimated 88% of the total harvest between 2004 and 2013, while nonlocal resident harvest averages only 8% for the same time period. Annual nonresident harvest was very low through 2012, but increased to 10 moose in 2013, following the opening of the nonresident hunt by the State in 2008 (**Table 1**).

Table 1. Reported moose harvest in Unit 22E, 2004-2013 (ADF&G 2015)

Year	Local Resident Harvest	Nonlocal Resident Harvest	Nonresident Harvest	Unknown Residency Harvest	Total Harvest
2004	9	0	0	0	9
2005	8	1	0	0	9
2006	4	2	0	1	7
2007	15	2	0	0	17
2008	10	4	1	3	18
2009	11	4	1	5	21
2010	8	4	1	3	14
2011	3	3	2	4	12
2012	5	1	1	7	14
2013	4	2	10	4	20

Effects of the Proposal

If adopted, Proposal WP16-47 would establish an antlerless moose season Jul. 15 – Dec. 31, excluding calves and cows accompanied by a calf. Establishing this season would provide additional harvest opportunities for Federally qualified subsistence users from summer through early winter. However, an unregulated antlerless harvest could result in the harvest of enough females to reduce recruitment and destabilize the population. Rescinding the closure to non-Federally qualified users for moose in Unit 22E is currently being considered under Proposal WP16-46. If WP16-46 is adopted, it would open Federal public lands to increased harvest pressure.

OSM PRELIMINARY CONCLUSION

Oppose Proposal WP16-47.

Justification

The moose population in Unit 22E has recovered and is believed to be stable. Although the population meets or exceeds the State's management goals, there is no biological basis for initiating an antlerless harvest. While provision of an antlerless season would provide some additional opportunity for Federally qualified subsistence users, an unregulated harvest could contribute to the decline of this population, as has been demonstrated in moose populations in Unit 22 and other parts of Alaska. Furthermore, Proposal WP16-46, which would rescind the moose closure to non-Federally qualified users in Unit 22E, is concurrently under consideration. It is advisable to liberalize moose harvest in Unit 22E incrementally, rather than abruptly.

LITERATURE CITED

ADF&G. 2015. General harvest reports. Internet: <<https://secure.wildlife.alaska.gov/index.cfm?fuseaction=harvestreports.main>>. Retrieved: April 9, 2015.

Boertje, R.D et al. 2007. Ranking Alaska moose nutrition: Signals to begin liberal antlerless harvest. *Journal of Wildlife Management*. 71(5):1494-1506.

Gorn, T. 2010. Unit 22 moose management report. Pages 522-550 in P. Harper, editor. Moose management report of survey and inventory activities 1 July 2007 – 30 June 2009. Alaska Department of Fish and Game. Project 1.0. Juneau, AK.

Gorn, T. 2014. 2014 Unit 22D and 22E moose population survey summary. Alaska Department of Fish and Game, Nome, AK.

Gorn, T. 2015. Wildlife Biologist. Personal communication: phone. Alaska Department of Fish and Game. Nome, AK.

Nelson, R.R. 1995. Unit 22 moose survey-inventory progress report. Pages 405-419 in M.V. Hicks, editor. Management report of survey-inventory activities 1 July 1993 – 30 June 1995. Federal aid in wildlife restoration progress report, Project W-24-2, W-24-3, Study 1.0. Juneau, AK. 48 pages.

Regional Wildlife Proposals

Persons, K. 2002. Unit 22 moose management report. Pages 475-495 *in* C. Healy, editor. Moose management report of survey and inventory activities 1 July 1999 – 30 June 2001. Alaska Department of Fish and Game. Project 1.0. Juneau, AK

SPRAC. 2015. Transcripts of the Seward Peninsula Subsistence Regional Advisory Council proceedings, February 18-19, 2015 in Nome, Alaska. Office of Subsistence Management, FWS. Anchorage, AK.

WRITTEN PUBLIC COMMENTS

May 28,2015

Federal Subsistence Board
ATTN: Theo Matuskowitz
Office of Subsistence Management
U.S. Fish & Wildlife Service
1011 E. Tudor Road, MS 121
Anchorage, AK 99503

Dear Federal Subsistence Board:

Kawerak, Inc. is the regional non-profit tribal consortium of the Bering Strait Region. Kawerak's Board of Directors is comprised of the Presidents of the 20 tribes of the Bering Strait Region. Kawerak offers numerous programs and services to the 16 communities in the region. Kawerak, Inc. promotes economic development that is both responsible and sustainable.

We are offering suggestions for Federal Wildlife Proposals that are up for your review.

Regarding WP16-47 we do not support a cow moose hunt for GMU 22E because of the lack of data which would indicate the need.

Please contact Subsistence Resources Program Director Brandon Ahmasuk to obtain details and more information at 1-907-443-4265. Thank you for your consideration.

Sincerely,

Kawerak, Inc.
Melanie Bahnke, President

WP16–33 Executive Summary	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	None

**DRAFT STAFF ANALYSIS
WP16-33**

ISSUES

Proposal WP16-33, submitted by the Village of Lower Kalskag, requests that Lower Kalskag be added to the current customary and traditional use determination for caribou and moose in Unit 18.

DISCUSSION

The proponent states that the community of Lower Kalskag was originally in Unit 18 but, due to changes made by the State in the Unit 18 boundary, is now in Unit 19A under State regulations. Proposal WP16-36 requests that the Federal boundaries for Units 18, 19, and 21 be changed to align them with State descriptions. If proposal WP16-36 is adopted, then Lower Kalskag will be located in Unit 19A under Federal regulations.

The people of Lower Kalskag have a history of hunting caribou and moose in Unit 18 and would like for their community to be included in the customary and traditional use determination for caribou and moose in Unit 18, so they can continue to hunt in Unit 18 if the Federal Unit boundaries are changed. Upper Kalskag has a customary and traditional use determination for caribou and moose in Unit 18 and residents hunt in the same areas as those from Lower Kalskag.

Existing Federal Regulations

Customary and Traditional Use Determination – Caribou

<i>Unit 18</i>	<i>Residents of Unit 18, Manokotak, Stebbins, St. Michael, Togiak, Twin Hills, and Upper Kalskag.</i>
----------------	---

Customary and Traditional Use Determination – Moose

<i>Unit 18, that portion of the Yukon River drainage upstream of Russian Mission and the portion of the Kukokwim River drainage upstream of, but not including, the Tuluksak River drainage</i>	<i>Residents of Unit 18, Upper Kalskag, Aniak and Chauthbaluk</i>
---	---

<i>Unit 18, that portion north of a line from Cape Romanzof to Kusilvak Mountain to Mountain Village, and all drainages north of the Yukon River downstream from Marshall</i>	<i>Residents of Unit 18, St. Michael, Stebbins, and Upper Kalskag</i>
---	---

Unit 18, remainder

Residents of Unit 18 and Upper Kalskag

Proposed Federal Regulations

Customary and Traditional Use Determination – Caribou

Unit 18

*Residents of Unit 18, Manokotak, Stebbins, St. Michael, Togiak, Twin Hills, **Lower Kalskag**, and Upper Kalskag*

Customary and Traditional Use Determination – Moose

Unit 18, that portion of the Yukon River drainage upstream of Russian Mission and the portion of the Kukokwim River drainage upstream of, but not including, the Tuluksak River drainage

*Residents of Unit 18, St. Michael, Stebbins, **Lower Kalskag**, and Upper Kalskag*

Unit 18, remainder

*Residents of Unit 18, **Lower Kalskag**, and Upper Kalskag*

Extent of Federal Public Lands

Federal public lands comprise approximately 66% of Unit 18 and consist of 63% U.S. Fish and Wildlife Service (USFWS) managed lands and 3% Bureau of Land Management (BLM) managed lands (**See Unit 18 map**).

Regulatory History

The Federal Subsistence Board (Board) has never addressed Lower Kalskag’s customary and traditional use of moose in Unit 18. The original Federal customary and traditional use determination for moose in Unit 18 was adopted in 1990 from the State of Alaska. The community of Lower Kalskag was in Unit 18 at that time, and traditionally hunted in Unit 18 until the State changed the unit boundary in 2014, making the community part of Unit 19. At the March 2014 Alaska Board of Game meeting, residents of Kalskag asked if they would still have customary and traditional use for moose in Unit 18, and were assured they would (Levi 2015, pers. comm).

Community Characteristics

Lower Kalskag is a Yup’ik village located in the Bethel census area, approximately 61° 30’ North Latitude and 160 ° 21’ West Latitude, on the north bank of the Kuskokwim River. The village of Lower Kalskag was settled by people who moved from the village now called Upper Kalskag. The villages are

two miles apart and are connected by a gravel road (Explore North 2015). The community is located 89 miles northeast of Bethel and 350 miles west of Anchorage. According to the US Census, there were 282 people in Lower Kalskag in 2010, living on 1.3 square miles of land. An estimated 185 people, or 66% of the people living in the community, are aged 19 or under (Census.gov 2015).

The climate is semi-arctic with maritime influences from the Bering Sea. Most people in the community depend on at least some subsistence foods such as salmon, moose, black bear, caribou, porcupine and waterfowl. A household survey conducted in 2010 showed that moose constituted 17% of the diet by weight in 2009 (Brown, C.L. et al. 2012). Much of the cash income in the community is derived from jobs through the city, school, or clinic and from seasonal jobs for the BLM fighting fires in the summers. The area is only accessible by small plane, boat, or by vehicles traveling on the frozen Kuskokwim River in the winter.

The original village of Kalskag is situated on land that was used as a seasonal fish camp known as Kessiglik by people from the village of Kalthagamute, located four miles to the southwest of what is now Upper Kalskag. Kalthagamute was listed as having a population of 106 in 1880. In 1898, Nicholas Kameroff, Sr., his wife Olinga Kameroff, and their eight children settled in the community. Starting around 1900, residents of Kalthagamute and other nearby villages began to move to Kalskag. In the 1930s the BIA established a school and residents of neighboring communities started moving to the area of what is now Upper Kalskag. Within a few years, there was a general store, post office, and barge company (Ancestry.com 2015).

Russian and American explorers brought both Roman Catholic and Russian Orthodox religions to Kalskag. In the 1930s, many Russian Orthodox practitioners moved two miles downriver due to religious differences, forming the village of Lower Kalskag. Today, Lower Kalskag is predominantly Russian Orthodox and Upper Kalskag is Roman Catholic (Calista Corporation, 2015). The Russian Orthodox Chapel was built in 1940, a school was built in 1959, and a post office opened in 1965. Lower Kalskag was incorporated in 1969 (Department of Commerce, Community, and Economic Development 2015).

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 which includes the handing down of 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; (8) a pattern of use which relates to reliance upon a wide diversity of fish and wildlife resources of the area and which provides substantial

cultural, economic, social, and nutritional elements to the community or area.

The Board makes customary and traditional use determinations based on an application of these either factors (50 CFR 100.16(b) and 36 CFR 242.16(b)). 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)).

In 2009, 97% of the households surveyed in Lower Kalskag reported using at least one subsistence resource, with families using an average of 12 subsistence resources (Brown, C.L. et al. 2012), demonstrating the importance of subsistence resources for the community. The three most used wild foods were Chinook Salmon, moose and crowberries, with 81% of the households reporting the use of moose. An estimated 30% of the households harvested 78% of the reported subsistence resources used, suggesting substantial resource sharing within the village (Brown, C.L. et al. 2012).

A report completed by the Alaska Department of Fish and Game (ADF&G) (Brown, C.L. et al. 2012), highlighted the importance of moose in Lower Kalskag. They noted that moose was a common theme as they interviewed people and respondents talked about the importance of sharing, adolescent rites of passage, and its value as a resource. Researchers reported that people in Lower Kalskag shared what they harvested with people in the village who either could not go hunting, or did not have the resources to do so. Some people told stories of how their ancestors had hunted moose nearby, where these hunts took place, and how they learned to harvest moose as children. They stressed the importance of using the whole moose and not wasting any parts of it (Brown, C.L. et al. 2012).

Traditionally, according to household surveys, people harvested moose all year long, but preferred moose harvested in the fall. In 2009 the village reported a harvest of 18 moose which provided 9,643 pounds of meat. Households reported harvesting more moose than any other land mammals, with 62% of the households reported receiving moose, and 24% reported sharing moose with others. In 2003, residents of Lower Kalskag harvested an estimated 30 moose, but the harvest dropped to an estimated 12 moose in 2004. In 2009, residents reported seeing more moose around their community than they had in several years (Brown, C.L. et al. 2012).

Lower Kalskag also reported harvesting four caribou in 2009. The number of caribou in the central Kuskokwim River valley reached its peak in the middle 1990s, but became scarcer after that time (Brown, C.L. et al. 2012). According to Nastasia Levi of Kalskag, people harvest caribou when the herds come close enough to the community. She also reported that the herds have changed their migration routes and don't come near the village as often as they did previously (Levi 2015, pers. comm).

Survey, respondents in Lower Kalskag reported using a total of 1,263 square miles of land for subsistence harvests, with the majority of the subsistence activities taking place within 20 miles of the village. Village residents have harvested resources in Unit 18 and Unit 19A, as well as in Unit 21E (Brown, C.L. et al. 2012).

Effects of the Proposal

If adopted, this proposal would provide residents of Lower Kalskag the continued opportunity to hunt moose and caribou in an area they have traditionally used, if the boundaries for Units 18, 19 and 21 are changed under Federal regulations, making Lower Kalskag part of Unit 19. Proposal WP16-36 proposes to change the boundaries of Units 18, 19 and 21. Adopting proposal WP16-33 should not have a major impact on other subsistence users, or put added pressure on the moose or caribou population in the area because people in Lower Kalskag currently hunt moose and caribou in Unit 18. If this proposal is not adopted, the residents of Lower Kalskag will not be able to hunt caribou or moose in areas where they have traditionally hunted if proposal WP16-36 is adopted changing the boundaries.

OSM PRELIMINARY CONCLUSION

Support proposal WP16-33.

Justification

The people of Lower Kalskag have a history of hunting caribou and moose in Unit 18, the unit they are currently in. Proposal WP16-36 proposes to change the boundaries of Units 18, 19 and 21. If adopted, Lower Kalskag would become part of Unit 19 under new Federal regulations. Their use of moose and caribou in Unit 18 has been documented through household surveys. They clearly have demonstrated a customary and traditional use of caribou and moose harvested in this area. Also, Upper Kalskag has a customary and traditional use determination for caribou and moose in Unit 18 and residents hunt in the same areas as those from Lower Kalskag.

LITERATURE CITED

Alaska Department of Fish and Game, 2015, Board of Game Meeting notes 2014. <www.adfg.alaska.gov>. Retrieved May 14, 2015.

Ancestry.com 2015. <www.ancestry.com>. Retrieved May 12, 2015.

Brown, C.L, J.S. Magdanz, and D.S. Koster 2012. Subsistence harvests in 8 communities in the central Kuskokwim River drainage, 2009. Alaska Department of Fish and Game publications. <www.adfg.alaska.gov>. Retrieved May 11, 2015.

Calista Corporation, 2015. <www.calistacorp.com>. Retrieved May 11, 2015

Department of Commerce, Community, and Economic Development 2015. <commerce.state.ak.us>. Retrieved May 11, 2015.

Levi, Jackie 2015, personal communication by phone.

US Census, American Factfinder, 2015. <www.factfinder.census.gov>. Retrieved May 11, 2015.

WP16–34 Executive Summary	
General Description	<p>Proposal WP16-34 requests closure of Federal lands in a portion of Unit 18 to the harvest of all big game by non-Federally qualified subsistence users. <i>Submitted by Leonard Landlord of Mountain Village.</i></p>
Proposed Regulation	<p>Unit 18—Black Bear</p> <p><i>Unit 18—that portion north and west of the Kashunuk River including the north bank from the mouth of the river upstream to the old village of Chakaktolik to Mountain Village and excluding all Yukon River drainages upriver from Mountain Village—3 bears</i> <i>Jul. 1 – Jun. 30</i></p> <p><i>Federal public lands are closed to the harvest of black bear except by Federally qualified subsistence users.</i></p> <p><i>Unit 18 remainder—3 bears</i> <i>Jul. 1 – Jun. 30</i></p> <p>Unit 18—Brown Bear</p> <p><i>Unit 18—that portion north and west of the Kashunuk River including the north bank from the mouth of the river upstream to the old village of Chakaktolik to Mountain Village and excluding all Yukon River drainages upriver from Mountain Village—1 bear by State registration permit only</i> <i>Sep. 1 – May 31</i></p> <p><i>Federal public lands are closed to the harvest of brown bear except by Federally qualified subsistence users.</i></p> <p><i>Unit 18 remainder—1 bear by State registration permit only</i> <i>Sep. 1 – May 31</i></p> <p>Unit 18—Moose</p>

WP16–34 Executive Summary	
	<p><i>Unit 18—that portion north and west of the Kashunuk River including the north bank from the mouth of the river upstream to the old village of Chakaktolik to Mountain Village and excluding all Yukon River drainages upriver from Mountain Village—2 moose, only one of which may be antlered. Antlered bulls may not be harvested from Oct. 1 through Nov. 30.</i> <i>Aug. 1 – Mar. 31</i></p> <p><i>Federal public lands are closed to the harvest of moose except by Federally qualified subsistence users.</i></p> <p><i>Unit 18, remainder—2 moose, only one of which may be antlered. Antlered bulls may not be harvested from Oct. 1 through Nov. 30.</i> <i>Aug. 1 – Mar. 31</i></p> <p>Unit 18—Wolf</p> <p><i>Unit 18—that portion north and west of the Kashunuk River including the north bank from the mouth of the river upstream to the old village of Chakaktolik to Mountain Village and excluding all Yukon River drainages upriver from Mountain Village—10 wolves</i> <i>Aug. 10 – Apr. 30</i></p> <p><i>Federal public lands are closed to the harvest of wolves except by Federally qualified subsistence users.</i></p> <p><i>Unit 18 remainder—10 wolves</i> <i>Aug. 10 – Apr. 30</i></p>
OSM Preliminary Conclusion	Oppose
Bristol Bay Regional Advisory Council Recommendation	

WP16–34 Executive Summary	
Yukon-Kuskokwim Delta Regional Advisory Council Recommendation	
Western Interior Regional Advisory Council Recommendation	
Seward Peninsula Regional Advisory Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	None

**DRAFT STAFF ANALYSIS
WP16-34**

ISSUES

Proposal WP16-34, submitted by Leonard Landlord, requests the closure of Federal lands in a portion of Unit 18 to the harvest of all big game by non-Federally qualified subsistence users.

DISCUSSION

The proponent states that traditional hunting grounds are often occupied by non-local sport hunters who fly overhead and disrupt fall subsistence hunts, while seeking only trophies. The proponent advocates closure of Federal lands west of Mountain Village to the harvest of all big game species by non-Federally qualified subsistence users. Office of Subsistence Management staff was unsuccessful in contacting the proponent to clarify the specific geographic area proposed for closure. Therefore, the analysis was conducted for the formerly delineated moose hunt area known as the lower Yukon hunt area (**Map 1**).

Big game species found in Unit 18 include black bear, brown bear, caribou, moose, muskox and wolf. Caribou and muskox will be excluded from this analysis. Caribou will be excluded because neither the Mulchatna nor the Western Arctic herds' ranges currently or historically overlap the area proposed for closure. Muskox will be excluded because there is currently no harvest allowed under State or Federal regulation in the area proposed for closure.

Existing Federal Regulation

Unit 18—Black Bear

3 bears

Jul. 1 – Jun. 30

Unit 18—Brown Bear

1 bear by State registration permit only

Sep. 1 – May 31

Unit 18—Moose

*Unit 18, remainder—2 moose, only one of which may be antlered.
Antlered bulls may not be harvested from Oct. 1 through Nov. 30.*

Aug. 1 – Mar. 31

Unit 18—Wolf

10 wolves

Aug. 10 – Apr. 30

Proposed Federal Regulation

Unit 18—Black Bear

Unit 18—that portion north and west of the Kashunuk River including the north bank from the mouth of the river upstream to the old village of Chakaktolik to Mountain Village and excluding all Yukon River drainages upriver from Mountain Village—3 bears Jul. 1 – Jun. 30

Federal public lands are closed to the harvest of black bear except by Federally qualified subsistence users.

Unit 18 remainder—3 bears

Jul. 1 – Jun. 30

Unit 18—Brown Bear

Unit 18—that portion north and west of the Kashunuk River including the north bank from the mouth of the river upstream to the old village of Chakaktolik to Mountain Village and excluding all Yukon River drainages upriver from Mountain Village—1 bear by State registration permit only Sep. 1 – May 31

Federal public lands are closed to the harvest of brown bear except by Federally qualified subsistence users.

Unit 18 remainder—1 bear by State registration permit only

Sep. 1 – May 31

Unit 18—Moose

Unit 18—that portion north and west of the Kashunuk River including the north bank from the mouth of the river upstream to the old village of Chakaktolik to Mountain Village and excluding all Yukon River drainages upriver from Mountain Village—2 moose, only one of which may be antlered. Antlered bulls may not be harvested from Oct. 1 through Nov. 30. Aug. 1 – Mar. 31

Federal public lands are closed to the harvest of moose except by

Federally qualified subsistence users.

Unit 18, remainder—2 moose, only one of which may be antlered. Aug. 1 – Mar. 31
Antlered bulls may not be harvested from Oct. 1 through Nov. 30.

Unit 18—Wolf

Unit 18—that portion north and west of the Kashunuk River including Aug. 10 – Apr. 30
the north bank from the mouth of the river upstream to the old village
of Chakaktolik to Mountain Village and excluding all Yukon River
drainages upriver from Mountain Village—10 wolves

Federal public lands are closed to the harvest of wolves except by
Federally qualified subsistence users.

Unit 18 remainder—10 wolves Aug. 10 – Apr. 30

Existing State Regulation

Unit 18—Black Bear

Residents and nonresidents: Three bears No closed season

Unit 18—Brown Bear

Residents and nonresidents: One bear Sep. 1 – May 31

Resident subsistence: One bear every regulatory year by permit Sep. 1 – May 31
available in Bethel, and Unit 18 license vendors beginning July 1

Unit 18—Moose

Unit 18, remainder

Residents: Two moose only one of which may be an antlered bull, Aug. 1 – Sep. 30
taking cows accompanied by calves or calves is prohibited

OR: Two antlerless moose *Oct. 1. – Nov. 30*

OR: Two moose *Dec. 1 – Mar. 15*

Nonresidents: One antlered bull *Sep. 1 – Sep. 30*

Unit 18—Wolf

Residents and nonresidents: Ten wolves *Aug. 10 – Apr. 30*

Extent of Federal Public Lands

Federal public lands comprise 66% of Unit 18 and consist of 63% U.S. Fish and Wildlife Service managed lands and 3% Bureau of Land Management managed lands. See **Map 1**.

Customary and Traditional Use Determinations

Residents of Units 18, 19A (living downstream of the Holokuk River), Holy Cross, Stebbins, St. Michael, Togiak, and Twin Hills have a positive customary and traditional use determination for black bear in Unit 18.

Residents of Akiachak, Akiak, Eek, Goodnews Bay, Kwethluk, Mountain Village, Napaskiak, Platinum, Quinhagak, St. Mary's and Tuluksak Hills have a positive customary and traditional use determination for brown bear in Unit 18.

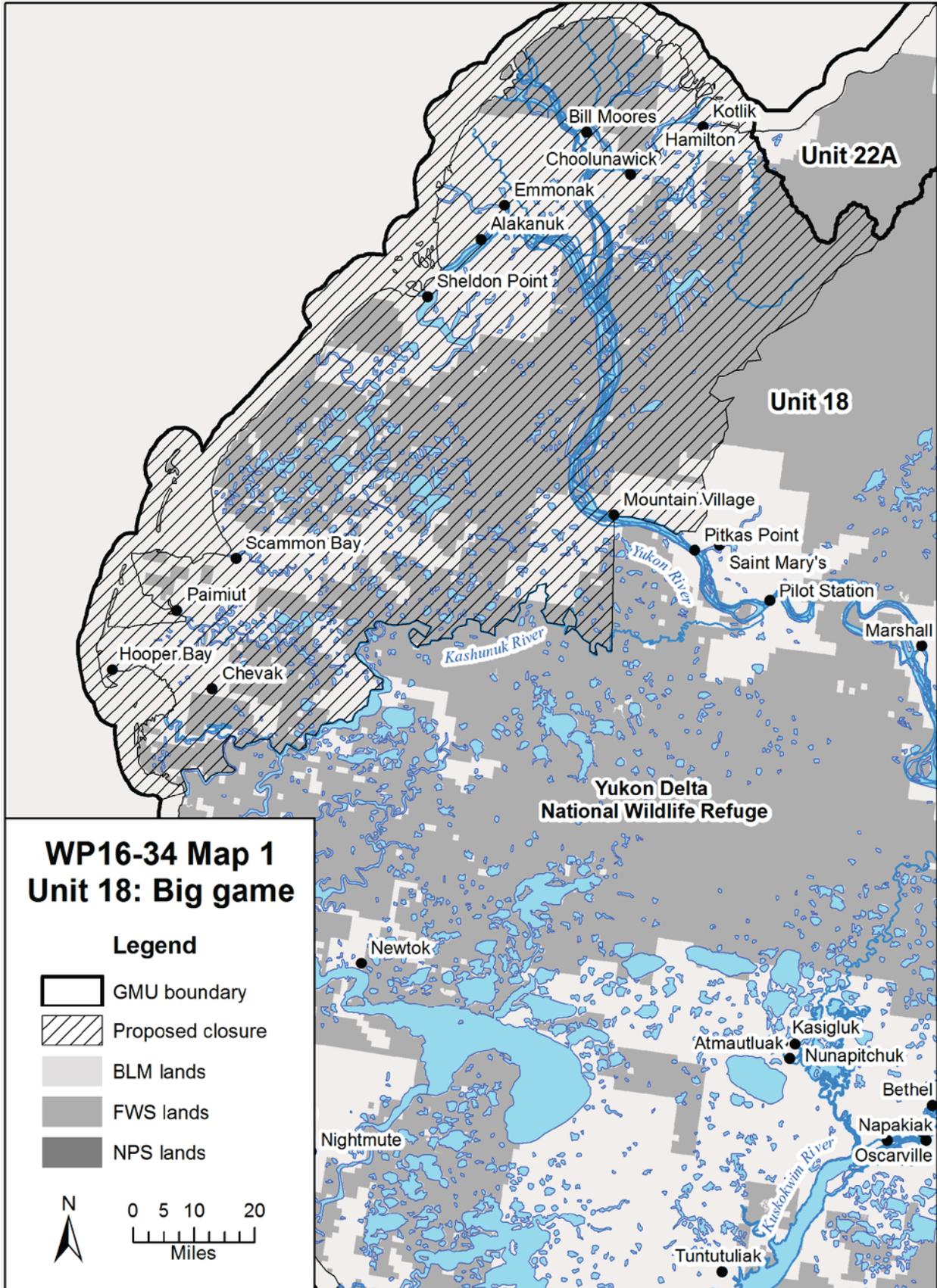
Residents of Unit 18 remainder and Upper Kalskag have a positive customary and traditional use determination for moose in Unit 18 remainder.

Residents of Units 6, 9, 10 (Unimak Island only), 11 – 13, Chickaloon, and 16 – 26 have a positive customary and traditional use determination for wolf in Unit 18.

Regulatory History

Black Bear

In 1996, the Federal Subsistence Board (Board) adopted Proposal P96-40, which requested that all residents of Unit 18 be given a customary and traditional use determination for black bear in Unit 18. There have been no subsequent changes in State or Federal seasons or harvest limits.



Brown Bear

In 1992, Proposals P92-55, P92-58 and P92-59, were adopted by the Board. These proposals liberalized brown bear harvest to accommodate traditional practices of residents who use brown bears primarily for food. Adoption of these proposals by the Board established the current Federal season and harvest limits.

State subsistence harvest regulations for residents have not changed for at least 20 years. However, the Alaska Board of Game has incrementally liberalized the general harvest regulations for brown bear. In 2001, the Alaska Board of Game extended the general resident and nonresident season from Sep 10 – Oct. 10 and May 10 – May 25 to Sep. 1 – May 31 for the lower Yukon portion of Unit 18. In 2003, the same change was made for the remainder of Unit 18 and the harvest limit was raised from one bear every four regulatory years to one bear every regulatory year.

Moose

In November 2005, the Alaska Board of Game adopted Proposal 4 in response to the rapid growth of the lower Yukon moose population. Action taken on the proposal modified the State harvest limit by allowing the harvest of antlered bulls only and established a winter season for antlered bulls and calves. During its November 2007 meeting, the Alaska Board of Game adopted Proposal 6, which lengthened the fall moose season for the lower Yukon and remainder areas of Unit 18 by 21 days and lengthened the winter season in the lower Yukon by 10 days.

At its March 2009 meeting, the Alaska Board of Game adopted Proposal 228, which liberalized the State harvest limit from antlered bulls to any moose for the Dec. 20–Jan. 20 season in the lower Yukon area of Unit 18. The Alaska Board of Game stated that the affected moose population increased to a size that could support the harvest of cows.

At its November 12, 2009 work session, the Board approved Special Action WSA08-13, which requested the harvest limit in the lower Yukon area of Unit 18 be increased to two moose per regulatory year, with one allowed in the fall and one in the winter.

The Alaska Board of Game, at its November 13–16, 2009 meeting, adopted new regulations to extend the winter season from Jan. 20 to Feb. 28 and move the boundary between the lower Yukon and the remainder areas south, to a more discernible geographic land mark.

Proposal WP10-56, submitted by the Yukon Delta National Wildlife Refuge, requested that the harvest limit in the lower Yukon area of Unit 18 (that portion north and west of a line from Cape Romanzof to Kusilvak Mountain to Mountain Village and excluding all Yukon River drainages upriver from Mountain Village) be changed to two moose per regulatory year. Hunters would be allowed to harvest one antlered bull in the fall season and one moose in the winter season. Hunters that did not harvest a moose in the fall would be allowed to harvest two moose during the winter season. The proposal also requested that the Yukon Delta National Wildlife Refuge manager be delegated the authority to restrict the harvest in the winter season to only 1 antlered bull or only 1 moose per regulatory year, after consultation with the Alaska

Department of Fish and Game (ADF&G). The proposal was adopted by the Board with modification to extend the winter season to February 28.

Proposal WP10-57, submitted by the Yukon Delta National Wildlife Refuge, requested a change in a portion of the regulatory boundary description for Unit 18, north and west of a line from Cape Romanzof to Kusilvak Mountain to Mountain Village, and excluding all Yukon River drainages upriver from Mountain Village. This area is referred to as the lower Yukon hunt area. The proposal was adopted by the Board with modification in to remove the Cape Romanzof to Kusilvak Mountain section and replace it with a descriptor for the Kashunuk River drainage.

Proposal WP12-49, submitted by the Yukon Delta National Wildlife Refuge, requested the moose hunting season in Unit 18, that portion north and west of the Kashunuk River including the north bank from the mouth of the river upstream to the old village of Chakaktolik, west of a line from Chakaktolik to Mountain Village and excluding all Yukon River drainages upriver from Mountain Village be revised from fall and winter dates (Aug. 10 - Sept.30 and Dec. 20 - Feb. 28) to Aug. 1 through the last day of February. The harvest limit would be two moose, only one of which may be antlered. The harvest of an antlered bull would be limited to the dates of Aug. 1 – Sept. 30. The proposal was adopted with modification by the Board at its January 2012 meeting to allow for the harvest of an antlered bull starting on Aug. 1 instead of Sept. 1.

Proposal WP14-23, submitted by the Yukon-Kuskokwim Delta Subsistence Regional Advisory Council, requested an extension of the moose season in Unit 18, that portion north and west of the Kashunuk River including the north bank from the mouth of the river upstream to the old village of Chakaktolik to Mountain Village and excluding all Yukon River drainages upriver from Mountain Village, from Aug. 1 to the last day of February, to Aug. 1 to Mar. 31. It also requested removal of the bull-only restriction from Aug. 1-Sept. 30. The proposal was adopted with modification by the Board, which resulted in combining the lower Yukon portion of Unit 18 with Unit 18 remainder, establishing a single Yukon drainage hunt area. The modification also stipulated that antlered bulls may not be harvested Oct. 1 – Nov. 30.

Wolf

In 2012, the Board adopted Proposal WP12-54, which requested that the wolf harvest limit for hunters in Unit 18 be increased from five to ten wolves. The same year, the Alaska Board of Game adopted Proposal 15, which also changed the harvest limit for hunting from five to ten wolves.

All Species

In 2007, the Board adopted a policy on closures to hunting, trapping, and fishing on Federal public lands and waters in Alaska (Appendix A). The intent of the closure policy was to summarize and clarify the circumstances under which the Board has the authority to restrict or close Federal public lands to the harvest of fish and wildlife under existing statutes and regulations. This policy allows establishment or retention of closures primarily for the conservation of subsistence resources or to ensure continued use of these resources by subsistence users.

Biological Background

Black Bear

The distribution of black bears in Alaska generally follows the distribution of spruce forest (Miller and Aumiller 2003). They are found primarily in the eastern portions of Unit 18. However, in recent years, they have been increasingly observed on the lower portions of the Yukon and Kuskokwim Rivers (Perry and Jones 2014). Although little is known about the black bear population in this area, managers have not voiced concern about the population or harvest status (Rearden 2015a, pers. comm.).

Brown Bear

Traditionally, brown bears have been an important subsistence resource for the Yup'ik people of Unit 18. Most bears in the unit occupy either the Kilbuck Mountains or the Andreafsky Mountains. Surveys conducted in 2002 and 2003 indicated that there were approximately 550 bears in Unit 18. Two hundred brown bears are thought to occur in the Adreafsky Mountains and along the Yukon River. The population is currently believed to be stable (Perry 2011).

Moose

Moose began to immigrate into the Yukon-Kuskokwim Delta during the mid-to-late 1940s and have become an important subsistence resource for locals. The Yukon River population occupies most of the available riparian habitat and is growing, while the Kuskokwim population is still small and in the process of colonizing all available riparian habitats. Most of the Yukon-Kuskokwim Delta is lowland treeless tundra and is therefore not suitable as winter moose habitat (Perry 2010).

In February 2008, the Yukon Delta National Wildlife Refuge and ADF&G conducted cooperative moose surveys in portions of Unit 18, including the Lowest Yukon survey area, which encompasses the riparian corridor along main stem of the Yukon River downstream of Mountain Village. The population in this survey area was estimated at $3,319 \pm 16\%$ (95% CI), or 2.8 moose/mi² when corrected for sightability (Rearden 2015b), indicating that the population is growing rapidly (**Figure 1**). Although population estimates in the Lowest Yukon area have not been updated since 2008, surveys were conducted in the adjacent Adreafsky survey area in 2012 (Rearden 2015b). The moose population in this area grew to an estimated at $3,170 \pm 24.3\%$ (95% CI) or 2 moose/mi² (**Figure 1**). In 2011, population composition data for the Lowest Yukon survey area showed 30 bulls per 100 cows and 69 calves per 100 cows (Rearden 2015b), suggesting that the population has continued to grow since 2008.

Moose habitat

The Alaska Department of Fish and Game estimates a minimum of 8,000 mi² of moose habitat within Unit 18. Approximately 4,500 mi² of this habitat occurs along riparian zones of the Yukon River. While Unit 18 does contain areas of unexploited moose habitat (Perry 2010), there is concern that if population growth outpaces harvest, moose will become habitat limited, precipitating a natural population crash (Rearden

2015, pers. comm.). Habitat assessment is expected to become an increasingly important tool in managing the growing moose population in Unit 18 (Perry 2010).

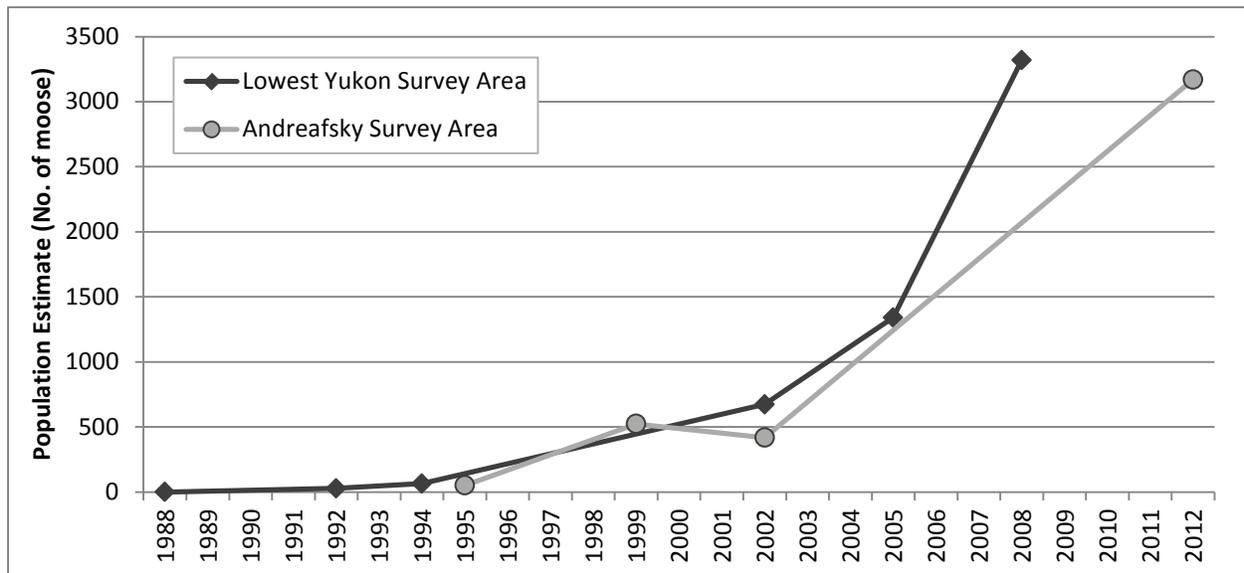


Figure 1. Moose population estimates for the Lowest Yukon and Andraefsky survey areas of Unit 18, 1988-2012 (Rearden 2015b).

Wolf

The wolf population in Unit 18 was small between the 1930s, when reindeer herding was disrupted, and the 1980s, when moose populations became established in the region. Wolves are now established along the entire Yukon River corridor, including the delta. The distribution of packs follows the range and distribution of moose and caribou in the region.

Comprehensive wolf surveys have not been conducted in the region. However, harvest reports and trapper questionnaires indicate that wolves are common and that the population continues to grow. The population was estimated to be 150-200 animals in 15-25 packs as of 2011. While wolves using the eastern portion of the unit are likely transient, following the movement of the Mulchatna Caribou Herd, the growing moose population appears to be promoting the growth of resident packs. It is believed that the growing ungulate population can support a larger numbers of wolves (Jones 2012).

Harvest History

Black Bear

Harvest of black bears in Unit 18 does not require a harvest ticket, and the State does not require sealing (Perry and Jones 2014). As a result, little is known about harvest of black bears along the lower Yukon. However, in the Units immediately to the east, harvest pressure is low, despite the presence of good black bear habitat. It is believed that reported harvest is low in these units, not only because they lack a sealing

requirement, but because actual harvest is low (Pierce 2011). It is likely that harvest is similarly low along the lower Yukon.

Brown Bear

Reported brown bear harvest averaged 22 bears per year between 2000 and 2009 (Perry 2011). Most of the reported harvest occurs along the Kuskokwim River. Harvest along the Yukon River averaged only 2 bears annually during this time period. Between 2000 and 2009, there were a total of 16 reported brown bears harvested along the Yukon River. Only two of these were harvested during the fall season, one in 2003 and one in 2004. Annual harvest by drainage and season is given in **Table 1**.

Table 1. Unit 18 brown bear harvest by drainage and season, 2000-2009 (Perry 2011).

Year	Unit 18 Total	Kuskokwim			Yukon		
		Fall	Spring	Total	Fall	Spring	Total
2000	5	1	4	5	0	0	0
2001	8	5	3	8	0	0	0
2002	14	10	4	14	0	0	0
2003	15	13	1	14	1	0	1
2004	39	33	2	35	1	3	4
2005	24	20	3	23	0	1	1
2006	22	18	4	22	0	0	0
2007	33	25	4	29	0	4	4
2008	31	23	5	28	0	3	3
2009	25	19	3	22	0	3	3

Moose

Overall, the reported moose harvest in Unit 18 has shown an increasing trend since 2000. Most of the harvest occurs in the fall, though winter harvest represents a growing proportion of total harvest (**Figure 2**). While the Unit 18 moose harvest has always been dominated by Alaska residents, nonlocal resident harvest has grown substantially in recent years. Between 2004 and 2008, approximately 64 moose were harvested annually by nonlocal residents. This increased by nearly 350% for 2009 – 2013, when harvest by nonlocal residents averaged 284 moose annually. Annual local harvest increased from 238 for 2004 – 2008 to 316 for 2009 – 2013, though local harvest has declined somewhat since peaking in 2010 (**Figure 3**). Harvest by locals is known to be underreported, but reporting appears to be improving (Perry 2010).

Most hunters use boats to access moose in Unit 18 (**Table 2**). Between 2009 and 2013, 989 hunters reported using boats each year, compared to 53 hunters who reported using airplanes. Compared to the 2004 – 2008 time period, use of boats and airplanes each increased by 77% for 2009 – 2013. Snowmachines are used increasingly to harvest moose, reflecting the increase in winter harvest (**Table 2**).

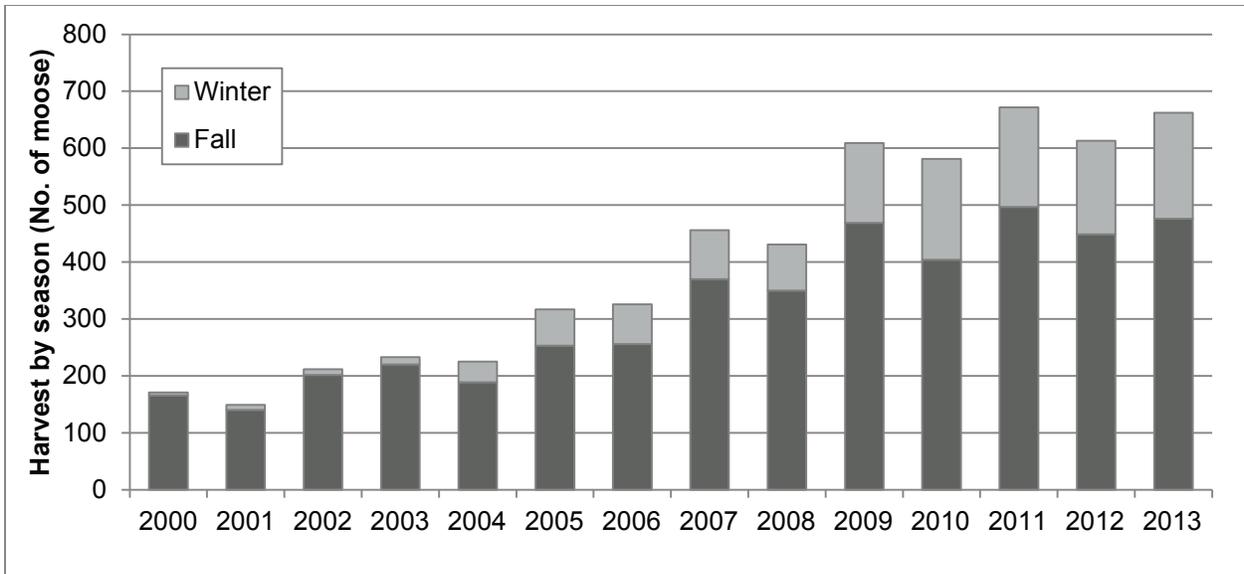


Figure 2. Unit 18 moose harvest by season, 2000-2013 (Perry 2010; ADF&G 2015).

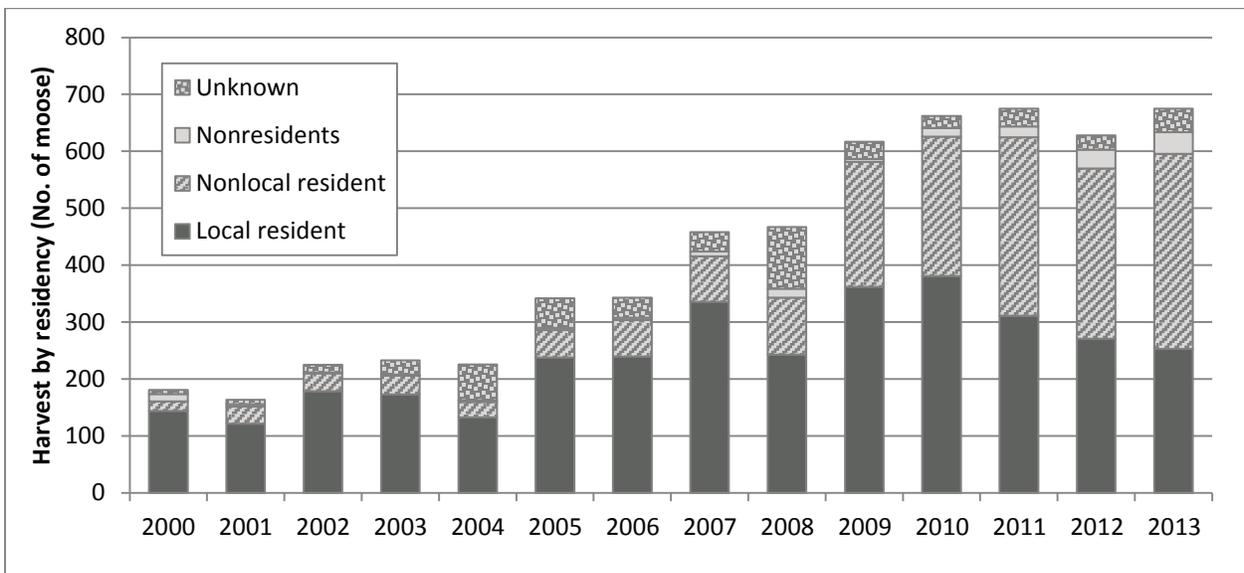


Figure 3. Unit 18 moose harvest by residency, 2000-2013 (ADF&G 2015).

Wolf

Reported wolf harvest has been variable, ranging from 19 to 109 annually between 2000 and 2010. During this time period, approximately half the harvested wolves were trapped, while the other half were shot. Reported harvest occurred almost exclusively by residents. There is high local demand for wolf pelts and it is suspected that many pelts remain unsealed, resulting in an underestimation of local harvest (Jones 2012). Of the reported wolf harvest between 2000 and 2010, 28% was harvested in the Yukon River drainage, though the proportion of wolves harvested in the Yukon drainage increased after 2007 (Figure 4). Between 2000 and 2011, 80% of wolves were harvested December through March (Table 3).

Table 2. Transport method of moose hunters (successful and unsuccessful) in Unit 18, 2000-2013 (ADF&G 2015).

Year	Airplane	Boat	Snowmachine	Three- or four-wheeler	Other or Unknown
2000	14	399	15	0	7
2001	16	384	16	2	12
2002	21	533	33	3	27
2003	13	597	31	2	10
2004	8	442	58	3	22
2005	18	527	127	6	16
2006	22	542	107	3	23
2007	42	640	124	2	22
2008	61	648	115	7	17
2009	31	924	182	12	64
2010	51	827	219	10	27
2011	52	1472	204	4	42
2012	70	949	204	6	92
2013	63	775	219	10	60

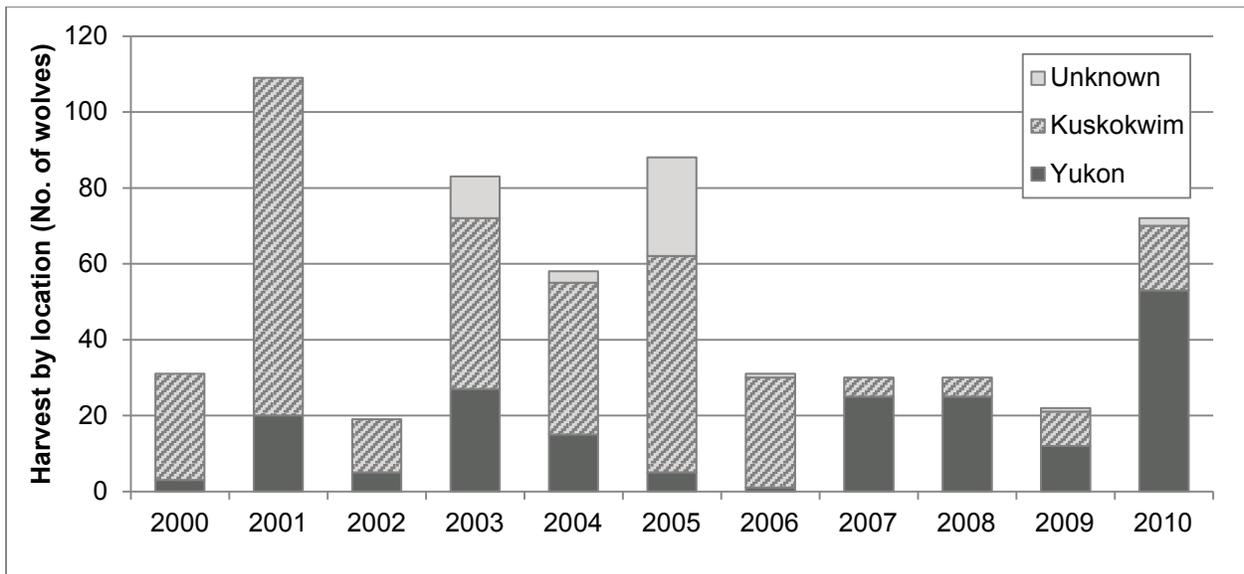


Figure 4. Unit 18 wolf harvest by drainage, 2000-2010 (Jones 2012).

Table 3. Unit 18 wolf harvest in by month, 2000-2011.

Year	September	November	December	January	February	March	April	Unknown
2000	1	1	2	11	4	6	1	5
2001		4	4	27	43	19		12
2002			1	5	10	2		1
2003			9	15	31	27		4
2004			13	20	15	8	1	8
2005		3	7	13	14	11	1	39
2006	1	0	8	4	2	6	1	9
2007			6	7	18	30	2	13
2008		3	6	4	1	11	3	2
2009		1	3	2	7	8		
2010	2	2	12	16	13	18	1	1
2011		1	6	2	8	7		

Effects of the Proposal

If this proposal is adopted, Federal public lands in Unit 18, west of Mountain Village, would be closed to the harvest of wolves, black bears, brown bears and moose except by Federally qualified subsistence users. Adoption of this proposal is not expected to have a significant effect on black or brown bear populations. While little is known about the lower Yukon black bear population, it is believed to be healthy. Current harvest is unknown, but is assumed to be low. Brown bear harvest along the Yukon drainage during the fall appears to be low as well, with only two bears reported between 2000 and 2009. Closing Federal public lands along the lower Yukon to non-Federally qualified users is unlikely to result in an appreciable decrease in hunters targeting bears during fall. As a result, it is not expected to increase opportunity for Federally qualified subsistence users.

If adopted, this proposal would result in fewer non-local moose hunters in the area. An increasing proportion of hunters in Unit 18 are non-local residents, most of whom probably use the area in the fall, when most moose are harvested. Eliminating these users from Federal lands along the lower Yukon River would result in less competition, thereby potentially improving harvest opportunities for Federally qualified subsistence users in the area. However, the consequence of eliminating non-local users would be a substantial reduction in total moose harvest at a time when growth rates are high and managers are concerned about the impact of over browsing and the potential for a population crash.

Adoption of this proposal is expected to have little effect on the wolf population. Nearly all of the wolf harvest can be attributed to local residents, and harvest generally occurs during winter and spring. Closing Federal public lands to non-Federally qualified subsistence users is not likely to result in a decrease in hunters present during the fall. As a result, it is not expected to increase opportunity for Federally qualified subsistence users.

OSM PRELIMINARY CONCLUSION

Oppose Proposal WP16-34.

Justification

The proponent is concerned that non-local big game hunters are impairing the ability of Federally qualified subsistence users to hunt in traditional areas. However this closure request does not meet the criteria for closure, as outlined in the Board's closure policy (Appendix A), for any big game species. There are no conservation concerns for black bear, brown bear, or wolf. Given the residency, chronology and geography of harvest of these three species, it is likely that any non-Federally qualified subsistence users the proponent is encountering during the fall are moose hunters. Eliminating non-Federally qualified moose hunters from Federal lands would likely result in less competition. However, the moose population appears to be sufficient to provide for both subsistence and non-subsistence uses at this time. Furthermore, given current moose population growth rates and concerns about future habitat viability, maintaining high levels of moose harvest along the Yukon River riparian corridor is advisable to prevent overuse of the habitat and a subsequent population crash. Such a crash would likely reduce subsistence harvest opportunities, which could result in significant impacts on Unit 18 communities.

LITERATURE CITED

ADF&G. 2015. General harvest reports database. Internet: < <https://secure.wildlife.alaska.gov/index.cfm?fuseaction=harvestreports.main>>. Retrieved May 1, 2015.

FSB. 2009. Transcript of the Federal Subsistence Board work session. November 12, 2009. Pages 25-27. Office of Subsistence Management, USFWS. Anchorage, AK.

Jones, P. 2012. Unit 18 wolf. Pages 127-137 in P. Harper, editor. Wolf management report of survey and inventory activities 1 July 2008 – 30 June 2011. Alaska Department of Fish and Game, Species Management Report ADF&G/DWC/SMR-2012-4, Juneau, AK

Miller, S.D. and L.D. Aumiller. 2003. Pages 5-9 in J.A.Keay, editor. Proceedings of the fourth western black bear workshop, April 2-5, 1991. National Park Service. Technical report NPS/NRWR.NRTR-93/12. Denver, CO. 144pp.

Perry, P. 2010. Unit 18 moose management report. Pages 271-285 in P.Harper, editor. Moose management report of survey and inventory activities 1 July 2007 – 30 June 2009. Alaska Department of Fish and Game. Project 1.0. Juneau, AK.

Perry, P. 2011. Unit 18 brown bear management report. Pages 189-196 in P.Harper, editor. Brown bear management report of survey and inventory activities 1 July 2008 – 30 June 2010. Alaska Department of Fish and Game. Juneau, AK

Perry, P. and P. Jones. 2014. Unit 18 overview, presented to the Alaska Board of Game, Jan 10-13, 2014. Alaska Department of Fish and Game. Juneau, AK. Internet: <http://www.adfg.alaska.gov/index.cfm?adfg=gameboard.meetinginfo&date=01-10-2014&meeting=kotzebue>. Retrieved: May 7, 2015.

Crossover Wildlife Proposals

Pierce, J.M. 2011. Units 19, 21A, and 21E black bear. Pages 215-224 *in* P. Harper, editor. Black bear management report of survey and inventory activities 1 July 2007 – 30 June 2010. Alaska Department of Fish and Game. Project 17.0. Juneau, AK.

Rearden, S. 2015a. Wildlife biologist. Personal communication: email. UWFWS. Bethel, AK.

Rearden, S. 2015b. Unpublished survey report. USFWS. Bethel, AK. 5 pp.

POLICY ON CLOSURES TO HUNTING, TRAPPING AND FISHING
ON FEDERAL PUBLIC LANDS AND WATER IN ALASKA

FEDERAL SUBSISTENCE BOARD

Adopted August 29, 2007

PURPOSE

This policy clarifies the internal management of the Federal Subsistence Board (Board) and provides transparency to the public regarding the process for addressing federal closures (closures) to hunting, trapping, and fishing on Federal public lands and waters in Alaska. It also provides a process for periodic review of regulatory closures. This policy recognizes the unique status of the Regional Advisory Councils and does not diminish their role in any way. This policy is intended only to clarify existing practices under the current statute and regulations: it does not create any right or benefit, substantive or procedural, enforceable at law or in equity, against the United States, its agencies, officers, or employees, or any other person.

INTRODUCTION

Title VIII of the Alaska National Interest Lands Conservation Act (ANILCA) establishes a priority for the taking of fish and wildlife on Federal public lands and waters for non-wasteful subsistence uses over the taking of fish and wildlife on such lands for other purposes (ANILCA Section 804). When necessary for the conservation of healthy populations of fish and wildlife or to continue subsistence uses of such populations, the Federal Subsistence Board is authorized to restrict or to close the taking of fish and wildlife by subsistence and non-subsistence users on Federal public lands and waters (ANILCA Sections 804 and 815(3)). The Board may also close Federal public lands and waters to any taking of fish and wildlife for reasons of public safety, administration or to assure the continued viability of such population (ANILCA Section 816(b)).

BOARD AUTHORITIES

- ANILCA Sections 804, 814.815(3), and 816.
- 50 CFR Part 100 and 36 CFR Part 242, Section .10(d)(4).

POLICY

The decision to close Federal public lands or waters to Federally qualified or non-qualified subsistence users is an important decision that will be made as set forth in Title VIII of ANILCA. The Board will not restrict the taking of fish and wildlife by users on Federal public lands (other than national parks and park monuments) unless necessary for the conservation of healthy populations of fish and wildlife resources, or to continue subsistence uses of those populations, or for public safety or administrative reasons, or ‘pursuant to other applicable law.’ Any individual or organization may propose a closure. Proposed closures of Federal

public lands and waters will be analyzed to determine whether such restrictions are necessary to assure conservation of healthy populations of fish and wildlife resources or to provide a meaningful preference for qualified subsistence users. The analysis will identify the availability and effectiveness of other management options that could avoid or minimize the degree of restriction to subsistence and non-subsistence users.

Like other Board decisions, closure actions are subject to change during the yearly regulatory cycle. In addition, closures will be periodically re-evaluated to determine whether the circumstances necessitating the original closure still exist and warrant continuation of the restriction. When a closure is no longer needed, actions to remove it will be initiated as soon as practicable. The Office of Subsistence Management will maintain a list of all closures.

Decision Making

The Board will:

- Proceed on a case – by – case basis to address each particular situation regarding closures. In those cases for which conservation of healthy populations of fish and wildlife resources allows, the Board will authorize non-wasteful subsistence taking.
- Follow the statutory standard of "customary and traditional uses." Need is not the standard. Established use of one species may not be diminished solely because another species is available. These established uses have both physical and cultural components, and each is protected against all unnecessary regulatory interference.
- Base its actions on substantial evidence contained within the administrative record, and on the best available information; complete certainty is not required.
- Consider the recommendations of the Regional Advisory Councils, with due deference (ANILCA § 805 (c)).
- Consider comments and recommendations from the State of Alaska and the public (ANILCA § 816(b)).

Conditions for Establishing or Retaining Closures

The Board will adopt closures to hunting, trapping or fishing by non-Federally qualified users or Federally qualified subsistence users when one or more of the following conditions are met:

- Closures are necessary for the conservation of healthy populations of fish and wildlife:
 - a) When a fish or wildlife population is not sufficient to provide for both Federally qualified subsistence users and other users, use by non-Federally qualified users may be reduced or prohibited, or

- b) When a fish or wildlife population is insufficient to sustain all subsistence uses, the available resources shall be apportioned among subsistence users according to their:
- 1) Customary and direct dependence upon the populations as the mainstay of livelihood.
 - 2) Local residency, and
 - 3) Availability of alternative resources, or
- c) When a fish or wildlife population is insufficient to sustain any use, all uses must be prohibited.
- Closures are necessary to ensure the continuation of subsistence uses by Federally qualified subsistence users.
 - Closures are necessary for public safety.
 - Closures are necessary for administrative reasons.
 - Closures are necessary "pursuant to other applicable law."

Considerations in Deciding on Closures

When acting upon proposals recommending closure of Federal public lands and waters to hunting, trapping, or fishing. The Board may take the following into consideration to the extent feasible:

- The biological history (data set) of the fish stock or wildlife population.
- The extent of affected lands and waters necessary to accomplish the objective of the closure.
- The current status and trend of the fish stock or wildlife population in question.
- The current and historical subsistence and non-subsistence harvest, including descriptions of harvest amounts effort levels, user groups, and success levels.
- Pertinent traditional ecological knowledge.
- Information provided by the affected Regional Advisory Councils and Alaska Department of Fish and Game.

- Relevant State and Federal management plans and their level of success as well as any relationship to other Federal or State laws or programs.
- Other Federal and State regulatory options that would conserve healthy populations and provide a meaningful preference for subsistence, but would be less restrictive than closures.
- The potential adverse and beneficial impacts of any proposed closure on affected fish and wildlife populations and uses of lands and waters both inside and outside the closed area.
- Other issues that influence the effectiveness and impact of any closure.

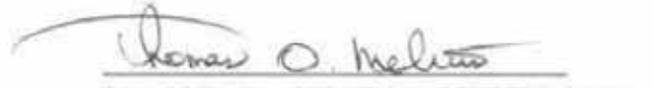
Reviews of Closures

A closure 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. A Regional Council, a State or Federal agency, or a member of the public may submit, during the normal proposal period, a proposal requesting the opening or closing of an area. A closure may also be implemented, adjusted, or lifted based on a Special Action request according to the criteria in 50 CFR 100.19 and 36 CFR 242.19.

To ensure that closures do not remain in place longer than necessary, all future closures will be reviewed by the Federal Subsistence Board no more than three years from the establishment of the closure and at least every three years thereafter. Existing closures in place at the time this policy is implemented will be reviewed on a three-year rotational schedule, with at least one-third of the closures reviewed each year.

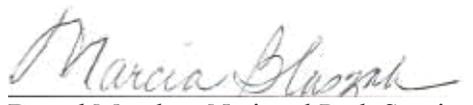
Closure reviews will consist of a written summary of the history and original justification for the closure and a current evaluation of the relevant considerations listed above. Except in some situations which may require immediate action through the Special Action process, closure review analyses will be presented to the affected Regional Council(s) during the normal regulatory proposal process in the form of proposals to retain, modify or rescind individual closures.

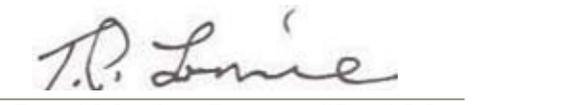

Chair, Federal Subsistence Board


Board Member, U.S. Fish and Wildlife Service


Board Member, Bureau of Indian Affairs


Board Member, U.S. Forest Service


Board Member, National Park Service


Board Member, Bureau of Land Management

WP16-35 Executive Summary									
General Description	Proposal WP16-35 requests that the use of artificial light be allowed to aid in the harvesting of a bear at a den site in Unit 18. <i>Submitted by Martin Nicolai of Kwethluk.</i>								
Proposed Regulation	<p>50 CFR 100.26 and 36 CFR 242.26 Subsistence taking of wildlife</p> <p>...</p> <p><i>(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:</i></p> <p>...</p> <p><i>(8) Using or being aided by use of a pit, fire, artificial light, radio communication, artificial salt lick, explosive, barbed arrow, bomb, smoke, chemical, conventional steel trap with a jaw spread over 9 inches, or conibear style trap with a jaw spread over 11 inches.</i></p> <p>...</p> <p><i>(17) Taking a bear cub or a sow accompanied by cub(s).</i></p> <p>Unit 18—Black Bear</p> <table style="width: 100%; border: none;"> <tr> <td style="text-align: left;">Regulation</td> <td style="text-align: right;">Season</td> </tr> <tr> <td style="text-align: left;"><i>3 bears</i></td> <td style="text-align: right;"><i>July 1–June 30</i></td> </tr> </table> <p>Unit 18—Brown Bear</p> <table style="width: 100%; border: none;"> <tr> <td style="text-align: left;">Regulation</td> <td style="text-align: right;">Season</td> </tr> <tr> <td style="text-align: left;"><i>1 bear by State registration permit only</i></td> <td style="text-align: right;"><i>Sept. 1–May 31</i></td> </tr> </table> <p>§____.26(n)(18)(iii) Unit 18—Unit specific regulations</p> <p>...</p> <p>G) You may use artificial light when taking a bear at a den site.</p>	Regulation	Season	<i>3 bears</i>	<i>July 1–June 30</i>	Regulation	Season	<i>1 bear by State registration permit only</i>	<i>Sept. 1–May 31</i>
Regulation	Season								
<i>3 bears</i>	<i>July 1–June 30</i>								
Regulation	Season								
<i>1 bear by State registration permit only</i>	<i>Sept. 1–May 31</i>								
OSM Preliminary Conclusion	<p>Support with modification to include a head lamp or a hand-held artificial light.</p> <p>The modification regulation should read:</p>								

WP16-35 Executive Summary									
	<p>50 CFR 100.26 and 36 CFR 242.26 Subsistence taking of wildlife</p> <p>...</p> <p><i>(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:</i></p> <p style="padding-left: 40px;">...</p> <p style="padding-left: 40px;"><i>(8) Using or being aided by use of a pit, fire, artificial light, radio communication, artificial salt lick, explosive, barbed arrow, bomb, smoke, chemical, conventional steel trap with a jaw spread over 9 inches, or conibear style trap with a jaw spread over 11 inches.</i></p> <p>...</p> <p style="padding-left: 40px;"><i>(17) Taking a bear cub or a sow accompanied by cub(s).</i></p> <p>Unit 18 Black Bear</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 60%;">Regulation</td> <td style="width: 40%;">Season</td> </tr> <tr> <td><i>3 bears</i></td> <td><i>July 1–June 30</i></td> </tr> </table> <p>Unit 18 Brown Bear</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 60%;">Regulation</td> <td style="width: 40%;">Season</td> </tr> <tr> <td><i>1 bear by State registration permit only</i></td> <td><i>Sept. 1–May 31</i></td> </tr> </table> <p>§____.26(n)(18)(iii) Unit 18—Unit specific regulations</p> <p><i>(G) You may use a head lamp or a hand-held artificial light when taking a bear at a den site.</i></p>	Regulation	Season	<i>3 bears</i>	<i>July 1–June 30</i>	Regulation	Season	<i>1 bear by State registration permit only</i>	<i>Sept. 1–May 31</i>
Regulation	Season								
<i>3 bears</i>	<i>July 1–June 30</i>								
Regulation	Season								
<i>1 bear by State registration permit only</i>	<i>Sept. 1–May 31</i>								
Bristol Bay Subsistence Regional Advisory Council Recommendation									
Yukon-Kuskokwim Delta Subsistence Regional									

WP16-35 Executive Summary	
Advisory Council Recommendation	
Western Interior Alaska Regional Advisory Council Recommendation	
Seward Peninsula Regional Advisory Council Recommendation	
Interagency Staff Committee Comment	
ADF&G Comments	
Written Public Comments	None

**DRAFT STAFF ANALYSIS
WP16-35**

ISSUES

Proposal WP16-35, submitted by Martin Nicolai of Kwethluk, requests that the use of artificial light be allowed to aid in the harvesting of a bear at a den site in Unit 18.

DISCUSSION

The proponent states that some members of the Native Village of Kwethluk traditionally, historically, and currently travel to the Kilbuck Mountains to harvest bears, and sometimes denning bears are targeted. The proponent states that people harvest bears from dens in the springtime to meet subsistence needs. According to the proponent, it is a customary activity practiced over many generations of Yup'ik people. The proponent states that only certain hunters harvest bears from dens and only when there is a heavy covering of snow in springtime when hunters can reach the mountains behind the village on snow machines. Since becoming available, people have used flashlights to observe bears in dens. The proponent states the practice is legal in other management units in State regulations. The proponent became aware that this was illegal when a local hunter pointed it out to him (Nicolai 2015, pers. comm.).

Existing Federal Regulation

50 CFR 100.26 and 36 CFR 242.26 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:

...

(8) Using or being aided by use of a pit, fire, artificial light, radio communication, artificial salt lick, explosive, barbed arrow, bomb, smoke, chemical, conventional steel trap with a jaw spread over 9 inches, or conibear style trap with a jaw spread over 11 inches;

...

(17) Taking a bear cub or a sow accompanied by cub(s).

Unit 18—Black Bear

Regulation

Season

3 bears July 1–June 30

Unit 18—Brown Bear

Regulation	Season
1 bear by State registration permit only	Sept. 1–May 31

Proposed Federal Regulation

50 CFR 100.26 and 36 CFR 242.26 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:

...

(8) Using or being aided by use of a pit, fire, artificial light, radio communication, artificial salt lick, explosive, barbed arrow, bomb, smoke, chemical, conventional steel trap with a jaw spread over 9 inches, or conibear style trap with a jaw spread over 11 inches.

...

(17) Taking a bear cub or a sow accompanied by cub(s).

Unit 18—Black Bear

Regulation	Season
3 bears	July 1–June 30

Unit 18—Brown Bear

Regulation	Season
1 bear by State registration permit only	Sept. 1–May 31

§____.26(n)(18)(iii) Unit 18—Unit specific regulations

(G) You may use artificial light when taking a bear at a den site.

Existing State Regulation

5 AAC 92.080. Unlawful methods of taking game; exceptions

The following methods of taking game are prohibited

...

(7) with the aid of a pit, fire, artificial light, laser sight, electronically enhanced night vision scope, any device that has been airborne, controlled remotely, and used to spot or locate game with the use of a camera or video device, radio communication, cellular or satellite telephone, artificial salt lick, explosive, expanding gas arrow, bomb, smoke, chemical (excluding scent lures), or a conventional steel trap with an inside jaw spread over nine inches, except that

...

(C) artificial light may be used

...

(iv) by a resident hunter taking black bear under customary and traditional use activities¹ at a den site from October 15 through April 30 in Unit 19(A), that portion of the Kuskokwim River drainage within Unit 19(D) upstream from the Selatna River drainage and the Black River drainage, and in Units 21(B), 21(C), 21(D), 24, and 25(D);

5 AAC 92.260. Taking cub bears and female bears with cubs prohibited

A person may not take a cub bear or a female bear accompanied by a cub bear, except that a black bear cub or a female black bear accompanied by a bear cub may be taken by a resident hunter

(1) under customary and traditional use activities at a den site

(A) from October 15 through April 30 in

(i) Unit 19(A);

(ii) Unit 19(D), that portion of the Kuskokwim River drainage upstream from the Selatna and Black river drainages;

(iii) Units 21(B), 21(C), and 21(D); and

¹ Customary and traditional use activities were described in the customary and traditional use work sheets for black bears that were presented at the November 7–11, 2008, Alaska Board of Game meeting (2008 RC 2 Tab D and Tab E at <http://www.adfg.alaska.gov/index.cfm?adfg=gameboard.meetinginfo>).

(iv) Unit 24; and

(B) from December 1 through the last day of February in Unit 25(D); and

(2) from July 1 through November 30 and March 1 through June 30 in Unit 25(D).

Extent of Federal Public Lands

Federal public lands comprise approximately 66% of Unit 18 and consist of 63% U.S. Fish and Wildlife Service and 3% Bureau of Land Management managed lands (see **Unit 18 Map**).

Customary and Traditional Use Determination

For black bear, residents of Unit 18, Unit 19A living downstream of the Holokuk River (including Aniak, Chuathbaluk, Kalskag, and Lower Kalskag), Holy Cross, Stebbins, St. Michael, Twin Hills, and Togiak have a customary and traditional use determination in Unit 18.

For brown bear, residents of Akiachak, Akiak, Eek, Goodnews Bay, Kwethluk, Mountain Village, Napaskiak, Platinum, Quinhagak, St. Marys, and Tuluksak have a customary and traditional use determination in Unit 18

Regulatory History

Black Bears

For black bear, in Unit 18, the season has been opened year round and the harvest limit has been 3 bears per year since 1960 (Boards of Fisheries and Game 1959 *in* FWS 1996). Hunters have not been required to obtain harvest permits or to report their harvests. Sealing is not required. . In 2008, the Alaska Board of Game adopted Proposal 79, which allowed “under customary and traditional use activities at a den site” the use of an artificial light to take a black bear, including a cub or a sow with a cub, at a den site Oct. 15–Apr. 30 in Unit 19A, Unit 19D that portion of the Kuskokwim River drainage upstream from the Selatna and Black River drainage drainages, and in Units 21B, 21C, 21D, 24, and 25D; except that in Unit 25D a black bear cub or a black bear sow accompanied by a cub can be taken from a den site December 1 to the last day of February only. Additionally, a black bear cub or a black bear sow with a cub can be taken Jul. 1–Nov. 30 or Mar. 1–Jun. 30 in Unit 25D by any state resident (ADF&G 2015a).

Brown Bears

Hunters were required to seal brown bears from 1961 through the spring of 1992 in western Alaska, but participation by subsistence users was very limited, and few subsistence harvests were reported through this system. In 1992, the Alaska Board of Game adopted the Western Alaska Brown Bear Management Area (WABBMA) and associated regulations (ADF&G 2015a, **Table 3**).

In 1990, 1991, and 1992, proposals to the Federal Subsistence Board (Board) to exempt Unit 18 hunters from brown bear sealing requirements and tag fees and to implement a year round brown bear season and

community harvest and reporting system were submitted by the Association of Village Council Presidents (AVCP), two individuals, and the Kwethluk, Akiak, and Akiachak tribes (Proposals R90-11, R90-06, R91-17, P92-059, and P92-069). Concurrently, in 1992 the Alaska Department of Fish and Game (ADF&G) submitted Proposals P92-55, 56, 57, 58, 59, 103, 160 and 170 requesting changes to brown bear regulations that would implement the Western Alaska Brown Bear Management Area, described above. The Board took up all of the proposals at once and adopted Proposal P92-55 with modification thereby implementing the WWBBMA in Federal regulations. The resulting regulations covered Units 9B, 17, 18, and 19B, and a portion of 19A. Federally qualified subsistence users did not have to seal brown bears unless the hide or skull was removed from the management unit. If presented for sealing, the trophy value of the hide was destroyed by removing the skin of the head and front claws, and these parts were retained by ADF&G. Federally qualified subsistence users did not have to get tags but were required to have a State registration permit and salvage the meat for human consumption, but the hide and skull need not be salvaged. The brown bear harvest season was lengthened to Sept. 1–May 31, and the harvest limit was increased to one brown bear every regulatory year (see **Table 3**).

Biological Background

Black bears are found in low densities in Unit 18. Most black bears stay in forested areas, along the main Yukon and Kuskokwim river corridors in the eastern portion of Unit 18, and in the Kilbuck and Andreafsky mountains (Perry 2015, pers. comm.). Little is known about the population size or composition.

It is estimated that brown bears exist at moderate density and the population is stable in Unit 18. Brown bear harvests increased after 2000 and success was primarily by aircraft. There are large areas of Unit 18 that are not accessible by hunters. The ADF&G management report suggests that brown bear harvests are not impacting the population status in the unit in part due to the low percentage of sows harvested (Perry 2011). Current population estimates of brown bears in Unit 18 are based on extrapolation studies done in 2002 and 2003 providing a midpoint density of 40.3 bears per 1,000 km² as a comparative value for similar habitats found in the remainder of Unit 18 (Walsh et al. 2006 *in* Perry 2011) and a unit-wide estimate of 550 brown bears; 350 bears in the Kilbuck Mountains along the Kuskokwim River, 200 bears in the Andreafsky Mountains along the Yukon river, and few bears existing elsewhere in Unit 18. Reported brown bear harvests ranged from 25 to 31 bears per year from 2008 through 2010 and represented an estimated 6% harvest rate. Little change in the number of brown bears harvested by nonresidents of the state are anticipated due to guide requirements for hunters and restrictions on the number of guides allowed to operate in the Yukon Delta National Wildlife Refuge that comprises the majority of hunt areas in Unit 18. Subsistence hunts are reported to have low participation and success (Perry 2011, **Table 3**).

It has been shown in northern Alaska that female brown bears do not successfully reproduce until they are older than 5 years (Reynolds 1987). The delay in reproduction, as well as small litter sizes, long intervals between successful reproductive events, and short potential reproduction periods lead to the low rates of successful production in brown bears in northern Alaska (FWS 1982). In addition, female brown bears exhibit high fidelity to home ranges and little emigration or immigration (Reynold 1993). Therefore brown bears are often managed conservatively.

Harvest History

As mentioned previously, the Alaska Board of Game has not implemented an annual harvest reporting system for black bears in Unit 18.

Before the 2006, the harvests of brown bears in the subsistence hunt that were reported on State registration permits were documented for the entire WABBMA and no unit-by-unit harvest reports were available. Since then, in 2007, 2008, and 2009 only one brown bear was reported harvested in the subsistence hunt on State registration permits in Unit 18. In the general season where no State registration permit was required, sealing records indicated that the annual harvest of brown bears in 2007, 2008, and 2009 was 33, 31, and 25 bears, respectively. Nonresidents of the state reported harvesting 14 of 31 brown bears in 2008 and 12 of 25 brown bears in 2009. Most brown bears were harvested in the Kilbuck Mountains south of the Kuskokwim River (Perry 2011). According to management biologist Perry (2011), “prior to the arrival of caribou in Unit 18 in the mid 1990s, most of the bears taken in Unit 18 were killed in the spring. This pattern was variable and depended on snow conditions that allowed travel by snowmachine, which provided greater access. More recently the fall harvest has exceeded the spring harvest, which is attributable to caribou hunters opportunistically taking bears” (Perry 2011:193). Additionally, Perry (2011) noted that “hunters who use subsistence permits typically use snowmachines. Since the subsistence season is open from 1 September through 31 May, and spring hunting is preferred by subsistence hunters, snowmachines are more practical” (Perry 2011:193).

Conventional ADF&G harvest reporting systems, described in the previous paragraph, do not always reflect the true level of harvest (see the discussions in Van Lanen et al. 2012 and Anderson and Alexander 1992 for an understanding): however, household harvest surveys have been conducted to estimate harvest. Based on the results of household harvest surveys conducted between 1980 and 2013, residents of Akiak harvested the highest number of black bears in any one year (36 in 1998), followed by Holy Cross in 1990 (26 black bears) and Bethel in 2012 (21 black bears). Other communities that harvested black bears in most study years included Akiak, Aniak, Chuathbaluk, Kwethluk, Lower Kalskag, Marshal, Mountain Village, Nunapitchuk, Russian Mission, Tuluksak, and Upper Kalskag (**Table 1**). For brown bears, the highest estimated annual harvest was at Quinhagak in 1982 (16 brown bears). Other communities that harvested one or more brown bears in most study years included Akiachak, Eek, Kwethluk, and Tuluksak (**Table 2**). Most brown bears were harvested by residents of the Kuskokwim River portion of Unit 18, and fewer brown bears were harvested by residents of the Yukon River portion of Unit 18.

Cultural Knowledge and Traditional Practices

Although the level of information describing subsistence uses of bears in Unit 18 is not as complete as for other large land mammal species, bears have been and continue to be hunted by residents. The harvest and use of bears was described in the following documents: Andrew and Brelsford (1992); Andrews (1989); Andrews and Peterson (1983); Brown, Magdanz, Koster, and Braem (2012); Brown, Ikuta, Koster, and Magdanz (2013); Coffing (1991); Coffing et al. (2001); Fienup-Riordan (2007); Hensel (1994, 1995); Ikuta et al. (2014); Runfola et al. (2014); Schneider et al. (2004); Stickney (1983); Wolfe (1984); **Table 1** and **Table 2**.

Based on the references cited above, Federally qualified subsistence users hunt black bear in Unit 18 primarily from mid-August through early October or until black bears den up. Hunting denning black bears during the winter months has been done traditionally, and some hunters continue this practice when meat is needed and if hunters have the experience necessary to successfully hunt a denned bear. Some families continue to use traditional hunting camps located along mountain lakes and access their hunting areas by aircraft in April, May, August, and September. During periods of adequate snow cover, access to bear hunting areas is by snowmachine. Black bears are considered a source of food on par with moose, caribou, and other wild resources and they are harvested accordingly.

Based on the references cited above, brown bears have been hunted for their meat and hides and other parts of the bear have been used for traditional medicine or fashioned into such things as tools, ceremonial regalia, and art. Brown bear fat is rendered and is sometimes used as a condiment akin to seal oil for dipping dried meat and fish and is mixed with berries and fish to make ice cream, *akutaq*. It has been customary practice of some Yup'ik villagers to use bear hides for mattresses, trimming on clothing, sitting pads when ice fishing, door coverings and skin for boats. Brown bear skulls are rarely removed from the field and are buried facing east at the kill site. Brown bear harvests for food remain part of the contemporary subsistence pattern in some of the predominantly Yup'ik communities of Unit 18. Brown bear harvesting is a specialized pursuit that is concentrated in certain villages and certain families. Fienup-Riordan (2007) observed that in the Yukon Kuskokwim delta area, "Just as bearded seals and walrus were a coastal hunter's prized catches, bears were highly valued by inland hunters" (Fienup-Riordan 2007:164). Because of their powerful senses and ability to hear through the ground, "brown bears were usually referred to indirectly" and respectfully so that they would continue to give themselves to hunters. They were called "*carayak* (lit., 'terrible fearsome thing'), *ungungssiq* (land animal, quadruped, especially bear), *naparngali* (one who stands upright) or *kavirluq* (red thing, as opposed to *tan'gerliq*, 'black bear,' lit., 'dark thing')" (Fienup-Riordan 2007:164).

Coffing reported in 1991 from Kwethluk,

Both black and brown bears were harvested for food . . . Several families maintain strong ties with the mountain areas east of Kwethluk where many Kwethluk families have traditional camps, where several old settlement sites are located and where a variety of subsistence activities continue to take place. . . . Brown bear were harvested by hunters who went out specifically looking for them . . . Brown and black bear were harvested when people wanted meat and fat . . . Hunters preferred to harvest brown bear within a couple of weeks after the bear emerged from dens in spring . . . Brown bears were sometimes hunted while they were still in their dens . . . some Kwethluk hunters knew the location of brown bear dens and bear trails that were used year after year . . . Occasionally, when hunting on foot from camps near Heart Lake and North Fork Lakes, hunters sometimes spent two or three days away from their main camp when tracking and hunting brown bear (Coffing 1991:167–172).

There was habit and practice and rules surrounding knowledge of butchering, preparing, and distributing meat, and fat, and skins. “Internal organs, such as the heart, kidneys, and intestines were often distributed to elders” (1991:172).

Tuluksak people travelled up the Tuluksak River drainage and other streams as far as the foothills of the Kilbuck Mountains to access moose, brown bears, black bears, caribou, and arctic ground squirrels. Skin-hulled boats were floated down the river in the spring. Especially in Aniak, Chuathbaluk, and Kalskag, bear meat and fat continue to be a significant component of the diet.

Effects of the Proposal

If this proposal was adopted, hunting with an artificial light would be allowed for Federally qualified subsistence users hunting a black bear at a den site that is situated in Unit 18. Only a few specialized hunters concentrated in certain villages and certain families harvest bears from den sites, and the use of artificial light for this purpose is not likely to increase. A hunter inadvertently harvesting a sow that is in a material den can have an impact on cub survival because the surviving cub cannot survive.

If this proposal was not adopted, Federally qualified subsistence users using the method on Federal public lands in Unit 18 could be cited for using an illegal method.

OSM PRELIMINARY CONCLUSION

Support Proposal WP16-35 with modification to include a head lamp or a hand-held artificial light.

The modification regulation should read:

50 CFR 100.26 and 36 CFR 242.26 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:

...

(8) Using or being aided by use of a pit, fire, artificial light, radio communication, artificial salt lick, explosive, barbed arrow, bomb, smoke, chemical, conventional steel trap with a jaw spread over 9 inches, or conibear style trap with a jaw spread over 11 inches.

...

(17) Taking a bear cub or a sow accompanied by cub(s).

Unit 18 Black Bear

Regulation

3 bears

Season

July 1–June 30

Unit 18 Brown Bear

Regulation

1 bear by State registration permit only

Season

Sept. 1–May 31

§ _____.26(n)(18)(iii) Unit 18—Unit specific regulations

(G) You may use a head lamp or a hand-held artificial light when taking a bear at a den site.

Justification

A few specialized hunters harvest bears from den sites. Hunters consider the use of artificial light, such as a flashlight, for hunting a bear at den site to be safe and efficient. It is likely that hunters have used flashlights for this purpose since flashlights became available. A census of bears in Unit 18 has not been conducted, which is true for many fur-bearing animals in rural areas of the State, and the biological effects of adopting the proposal cannot be evaluated. Harvest limits or seasons can be limited to conserve bear populations, if necessary. The use of artificial light for this purpose is not likely to increase.

LITERATURE CITED

Alaska Board of Fish and Game. 1959. Alaska game regulations. Game regulatory announcement No. 1. Juneau.

ADF&G. 2015a. Alaska Board of Game meeting information. <http://www.adfg.alaska.gov/index.cfm?adfg=gameboard.meetinginfo&date=01-08-2015&meeting=juneau>, accessed May 19. Board Support Section, Juneau, AK.

ADF&G. 2015b. Community Subsistence Information Database. <http://www.adfg.alaska.gov/sb/CSIS/>, accessed May 5. Division of Subsistence, Anchorage, AK.

Anderson, D.B., and C.L. Alexander. 1992. Subsistence hunting patterns and compliance with moose harvest reporting requirements in rural interior Alaska. ADF&G Division of Subsistence Technical Paper No. 215. Juneau, AK. 30 pages. <http://www.adfg.alaska.gov/sf/publications/index.cfm?ADFG=addLine.home>

Andrew, J., and T. Brelsford. 1992. Brown bear use in the Western Alaska Brown Bear Management Area. Results of the AVCP Survey of September-October 1992.

Andrews, E. 1989. The Akulmiut: Territorial dimensions of a Yup'ik Eskimo society. ADF&G Division of Subsistence Technical Paper No. 177. Juneau, AK. 547 pages.

Andrews, E, and R. Peterson. 1983. Wild resource use of the Tuluksak River drainage by residents of Tuluksak, 1980-1983. ADF&G Division of Subsistence Technical Paper No. 87. Juneau, AK.

Brown, C.L., J.S. Magdanz, D.S. Koster, and N.M. Braem, editors. 2012. Subsistence harvests in 8 communities in the central Kuskokwim River drainage. ADF&G Division of Subsistence Technical Paper No. 365. Fairbanks, AK.

Brown, C.L., H. Ikuta, D.S. Koster, and J.S. Magdanz, editors. 2013. Subsistence harvest in 6 communities in the lower and central Kuskokwim River drainage, 2010. ADF&G Division of Subsistence Technical Paper No. 379. Fairbanks, AK.

Coffing, M. W. 1991 . Kwethluk subsistence: contemporary land use patterns, wild resource harvest and use and the subsistence economy of a lower Kuskokwim River area community. ADF&G Division of Subsistence Technical Paper No. 157. Juneau, AK. 244 pages.

Coffing, M.W., L. Brown, G. Jennings, and C.J. Utermohle. 2001. The subsistence harvest and use of wild resources in Akiachak, Alaska. ADF&G Division of Subsistence Technical Paper No. 258. Juneau, AK. 197 pages.

Fienup-Riordan, A. 2007. *Yuungnaqpiallerput*, the way we genuinely live: masterworks of Yup'ik science and survival. University of Washington Press, Seattle.

FWS. 2003. Staff Analysis WP03-28. Pages 323–347 in Federal Subsistence Board Meeting Materials May 20–22, 2003. OSM. Anchorage, AK.

FWS. 2015. Proposal database. OSM, Anchorage, AK.

FWS. 1982. Brown Bear (*Ursus arctos*). Pages 247-248 in Initial report baseline study of fish, wildlife and their habitats. Anchorage, AK.

Hensel, C. 1994. Brown bear harvests in the Western Alaska Brown Bear Management Area, 1992–1993: Statistical Information and Cultural Significance. Report of A VCP and USFWS Cooperative Brown Bear Management. Association of Village Council Presidents, Bethel, Alaska. 57 pages.

Hensel, C. 1995. Brown Bear Harvests in the Western Alaska Brown Bear Management Area (WABBMA), 1993/1994: Statistical Information and Cultural Significance. Results of the AVCP Survey of March-May 1995. AVCP, Bethel. 15 pages.

Ikuta, H., C. L. Brown, and D.S. Koster, editors. 2014. Subsistence harvests in 8 communities in the Kuskokwim River drainage and lower Yukon River, 2011. ADF&G Division of Subsistence Technical Paper No. 396. Fairbanks, AK.

Nicolai, M. 2015. Personal communication: by telephone.

Stickney, A.. 1983. Coastal ecology and wild resource use in the Central Bering Sea Area–Hooper Bay and Kwigillingok. ADF&G Division of Subsistence Technical Paper No. 85. Juneau, AK.

Perry, P. 2015. Wildlife Biologist. Personal communication: by telephone. ADF&G Division of Wildlife Conservation. Anchorage, AK.

Perry, P. 2011. Unit 18 brown bear management report. Pages 189–196 in P. Harper, editor. Brown bear management report of survey and inventory activities 1 July 2008–30 June 2010. ADF&G. Juneau, AK.

Reynolds, H.V. 1993. Evaluation of the effects of harvest on grizzly bear population dynamics in the northcentral Alaska range. ADF&G, Federal Aid in Wildlife Restoration. Research Final Report. Grant W-23-5.

Reynolds, H.V. 1987. The brown/grizzly bear *Ursus arctos horribilis*, pages 41-42 in J. Rennie, C. Schwartz, H.V. Reynolds and S.C. Amstrup. Bears of Alaska in life and legend. Alaska Natural History Association. 63 pages.

Runfola, D.M., A.R. Brenner, and D.S. Koster. 2014. Subsistence harvest and use of land mammals in Bethel, Alaska, 2011. ADF&G Division of Subsistence Special Publication 2014-01, Fairbanks, AK. 59 pages.

Van Lanen, J.M., C. Stevens, C.L. Brown, K.B. Maracle, and D.S. Koster. 2012. Subsistence land mammal harvests and uses, Yukon Flats, Alaska: 2008–2010 harvest report and ethnographic update. ADF&G Division of Subsistence Technical Paper No. 377. Juneau, AK. <http://www.adfg.alaska.gov/sf/publications/index.cfm?ADFG=addLine.home>

Walsh, P., J. Reynold, G. Collins, B. Russel, M. Winfree, and J. Denton. 2006. Brown bear population density on the Togiak National Wildlife Refuge and BLM Goodnews Block, southwest Alaska. FWS. Dillingham, AK.

Wolfe, R. J., J.J. Gross, S. J. Langdon, J. M. Wright, G. K. Sherrod, L. J. Ellanna, V. Sumida, and P. J. Usher, 1984. Subsistence-Based Economies in Coastal Communities of Southwest Alaska. ADF&G Division of Subsistence Technical Paper No. 89. Juneau, AK. 629 pages.

Table 1. The number of black bears harvested by communities in the customary and traditional use determination, based on household surveys, by study year.

UNIT 18 HOUSEHOLD SURVEYS					
Community name	Study year	Harvest of black bears			
		Reported	Estimated	Lower estimate	Upper estimate
Akiachak	1998	25	36	28	45
Akiak	2010	3	4	3	7
Alakanuk	2009				
	1980				
Aniak	2009	10	12	10	16
	2005	5	6	5	10
	2004	4	6	4	12
	2003				
Bethel	2012	6	21	21	21
Chevak	2009				
Chuathbaluk	2009	4	5	4	8
	2005	3	6	3	15
	2004	3	4	3	9
	2003	2	4	2	8
	1983	6	6	6	6
Emmonak	2008				
	1980				
Holy Cross	2004				
	2003				
	2002				
	1990	12	26	13	38
Kotlik	2009				
	1980				
Kwethluk	2010	5	8	5	13
	1986	4	4	4	4
Lower Kalskag	2009	1	1	1	9
	2005	1	2	1	10
	2004	3	3	3	5
	2003	1	2	1	2
Marshall	2010	5	9	9	9
	2009	8	12	8	22
Mountain Village	2010				
	2009	1	2	1	21
	1980	1	6	-	-
Napakiak	2011				
Napaskiak	2011				
Nunam Iqua	2009				
	1980				
Nunapitchuk	1983	2	8	2	18
Oscarville	2010				
Russian Mission	2011	5	9	9	9

Continued on next page.

Table 1. Continued from previous page.

UNIT 18 HOUSEHOLD SURVEYS					
Community name	Study year	Harvest of black bears			
		Reported	Estimated	Lower estimate	Upper estimate
Saint Marys	2009				
Saint Michael	2003				
Stebbins	2002				
	1993				
	1980				
Togiak	2008				
	2001				
	1999				
Twin Hills	2001				
	1999				
Tuluksak	2010	6	8	6	11
Upper Kalskag	2009	9	11	9	18
	2005	4	8	4	20
	2004	4	4	4	5
	2003	3	5	3	10

Source: ADF&G 2015b. Blank cell=0. "-"=information not available.

Table 2. The number of brown bears harvested by communities in the customary and traditional use determination, based on household surveys, by study year.

UNIT 18 HOUSEHOLD SURVEYS					
Community name	Study year	Harvest of brown bears			
		Reported	Estimated	Lower estimate	Upper estimate
Akiachak	1998	5	7	5	11
	1993	1	1	1	1
	1992	1	1	1	1
	1991	1	1	1	1
Akiak	2010				
	1991	3	3	3	3
Eek	1993	2	2	2	2
	1992	3	3	3	3
	1991	2	2	2	2
Kwethluk	2010	4	7	4	11
	1992	5	5	5	5
	1991	9	9	9	9
	1986	-	9	-	-
Mountain Village	2010				
	1992	1	1	1	1
	1980				
Napakiak	2011				
Napaskiak	2011				
	1992				
Platinum	1992				
	1991	2	2	2	2
Quinhagak	1993	6	6	6	6
	1992	1	1	1	1
	1991	4	4	4	4
	1982	2	16	2	36
Saint Mary's	2009				
	1992				
Tuluksak	2010	1	1	1	2
	1992	1	1	1	1
	1991				

Source: ADF&G 2015b. Blank cell=0 "-"=information not available.

Table 3. Brown bear hunting regulations in Unit 18, Federal and State, 2015.

BROWN BEAR REGULATIONS—UNIT 18	
Federal	State of Alaska
<p>1 brown bear by State registration permit.</p> <p>Sept. 1–May 31.</p> <p>No resident tag required.</p> <p>The meat must be salvaged for human consumption.</p> <p>Hide and skull need not be sealed unless removed from the area.</p> <p>Eligible hunters must be residents of Akiachak, Akiak, Eek, Goodnews Bay, Kwethluk, Mountain Village, Napaskiak, Platinum, Quinhagak, St. Marys, or Tuluksak.</p>	<p>1 brown bear by State registration permit.</p> <p>Sept. 1–May 31.</p> <p>No resident tag required.</p> <p>The meat must be salvaged for human consumption.</p> <p>Hide and skull need not be sealed unless removed from area.</p> <p>Eligible hunters must be residents of the state.</p>
	<p>OR</p> <p>1 brown bear</p> <p>Sept. 1–May 31</p> <p>No resident tag required.</p> <p>Meat need not be salvaged.</p> <p>Hide and skull must be sealed</p> <p>Eligible hunters can be residents or nonresidents of the state; however nonresident hunters must be accompanied by a guide.</p>

WP16–37 Executive Summary	
General Description	Proposal WP16-37 requests changes to caribou harvest regulations in Units 21D, 22, 23, 24, 26A, and 26B, including: reduction in harvest limits; shortening bull and cow seasons; creation of new hunt areas and to be announced seasons; and a prohibition on the take of calves and cows with calves. <i>Submitted by: Jack Reakoff.</i>
Proposed Regulation	<p>Unit 21D—Caribou</p> <p><i>Unit 21D—north of the Yukon River and east of the Koyukuk River—caribou may be taken during a winter season to be announced by the Refuge Manager of the Koyukuk/Nowitna National Wildlife Refuge Manager and the BLM Central Yukon Field Office Manager, in consultation with ADF&G and the Chairs of the Western Interior Subsistence Regional Advisory Council, and the Middle Yukon and Ruby Fish and Game Advisory Committees.</i></p> <p><i>Unit 21D, remainder—5 caribou per day, as follows: however, cow caribou may not be taken May 16–June 30.</i></p> <p><i>Up to 5 bulls per day; however, calves may not be taken;</i> <i>July 1–Oct. 14</i> <i>Feb. 1–June 30</i></p> <p><i>Up to 5 cows per day; however, calves may not be taken</i> <i>Sept. 1 – Mar. 31</i></p> <p>Unit 22—Caribou</p> <p><i>Unit 22B, that portion west of Golovin Bay and west of a line along the west bank of the Fish and Niukluk Rivers to the mouth of the Libby River, and excluding all portions of the Niukluk River drainage upstream from and including the Libby River drainage—5 caribou per day, as follows:</i></p> <p><i>Up to 5 bulls per day; however, calves may not be taken;</i> <i>Oct. 1–Oct. 14</i> <i>Feb. 1–Apr. 30.</i></p> <p><i>Up to 5 cows per day; however, calves may not be taken.</i> <i>Oct. 1–Mar. 31</i></p> <p><i>Up to 5 caribou per day; however, calves may not be taken; cow caribou may not be taken April 1–Aug. 31; bull caribou</i> <i>May 1–Sept. 30, a season may be opened by</i></p>

WP16–37 Executive Summary

	<p><i>may not be taken Oct. 15-Jan. 31.</i></p> <p><i>Units 22A, that portion north of the Golsovia River drainage, 22B remainder, that portion of Unit 22D in the Kougaruk, Kuzitrin River drainage (excluding the Pilgrim River drainage), American, and the Agiapuk River Drainages, including the tributaries, and Unit 22E, that portion east of and including the Sanaguich River drainage—5 caribou per day, as follows: ; however, cow caribou may not be taken May 16 June 30.</i></p> <p><i>Up to 5 bulls per day; however, calves may not be taken;</i></p> <p><i>Up to 5 cows per day; however, calves may not be taken.</i></p> <p><i>Unit 22D, that portion in the Pilgrim River Drainage—5 caribou per day as follows:</i></p> <p><i>Up to 5 bulls per day; however, calves may not be taken;</i></p> <p><i>Up to 5 cows per day; however, calves may not be taken.</i></p> <p><i>Up to 5 caribou per day; however, calves may not be taken; however, cow caribou may not be taken April 1-Aug. 31.</i></p> <p><i>Unit 22 remainder—5 caribou per day; however, calves may not be taken; cow caribou may not be taken Apr. 1-Aug. 31; bull caribou may not be taken Oct. 15-Jan. 31.</i></p> <p>Unit 23—Caribou</p> <p><i>Unit 23, that portion north of and including the Singoalik River drainage—155 caribou per day as follows: ; however, cow caribou may not be taken May 16 June 30</i></p> <p><i>Up to 5 bulls per day; however, calves may not be taken;</i></p> <p><i>Up to 5 cows per day; however, calves may not be taken.</i></p>	<p><i>announcement by the Anchorage Field Office Manager of the BLM, in consultation with ADF&G.</i></p> <p>July 1–June 30.</p> <p><i>July 1-Oct. 14 Feb. 1-June 30</i></p> <p><i>Sept. 1-Mar. 31.</i></p> <p><i>Oct. 1-Oct. 14 Feb. 1-Apr. 30</i></p> <p><i>Oct. 1-Mar. 31</i></p> <p><i>May 1 – Sept. 30, season to be announced</i></p> <p>No Federal open season <i>Season to be announced</i></p> <p>July 1–June 30.</p> <p><i>July 1-Oct. 14 Feb. 1-June 30</i></p> <p><i>July 15-Apr. 30</i></p>
--	---	--

WP16–37 Executive Summary

Unit 23 remainder—5 caribou per day, as follows:

Up to 5 bulls per day; however, calves may not be taken; *July 1-Oct. 14*
Feb. 1-June 30

Up to 5 cows per day; however, calves may not be taken. *Sept. 1-Mar. 31.*

Unit 24—Caribou

Unit 24A—south of the south bank of the Kanuti River—1 caribou *Aug. 10-Mar. 31*

Unit 24B—that portion south of the south bank of the Kanuti River, upstream from and including that portion of the Kanuti-Kilolitna River drainage, bounded by the southeast bank of the Kodosin-Nolitna Creek, then downstream along the east bank of the Kanuti-Kilolitna River to its confluence with the Kanuti River—1 caribou. *Aug. 10–Mar. 31.*

Unit 24A remainder, that portion north of the south bank of the Kanuti River, 24B remainder, that portion north of the south bank of the Kanuti River downstream from the Kanuti-Killitna River drainage—5 caribou per day as follows; however, cow caribou may not be taken May 16–June 30 *July 1–June 30.*

Up to 5 bulls per day; however, calves may not be taken; *July 1-Oct. 14*
Feb. 1-June 30

Up to 5 cows per day; however, calves may not be taken. *July 15-Apr. 30*

Units 24C, 24D—5 caribou per day as follows:

Up to 5 bulls per day; however, calves may not be taken; *July 1-Oct. 14*
Feb. 1-June 30

Up to 5 cows per day; however, calves may not be taken. *Sept. 1-Mar. 31*

WP16–37 Executive Summary

Unit 26—Caribou

Unit 26A, that portion of the Colville River drainage upstream from the Anaktuvuk River, and drainages of the Chukchi Sea south and west of, and including the Utukok River drainage—10- 5 caribou per day as follows: ; however, cow caribou may not be taken May 16-June 30. *July 1–June 30.*

Up to 5 bulls per day; however, calves may not be taken; *July 1-Oct. 14*
Feb. 1-June 30

Up to 5 cows per day; however, calves may not be taken. *July 15-Apr. 30.*

Unit 26A remainder—5 bulls per day; however, calves may not be taken; *July 1-July 15*

5 caribou per day; however, no more than 3 cows per day; cows accompanied by calves and calves may not be taken; *July 16-Oct. 15*

3 cows per day; however, calves may not be taken; *Oct. 16-Dec. 31*

5 caribou per day; however, no more than 3 cows per day; calves may not be taken; *Jan. 1-Mar. 15*

5 bulls per day; however, calves may not be taken *Mar. 16-June 30.*

Unit 26B, that portion north of 69° 30' N. lat and west of the east bank of the Kuparuk River to a point at 70° 10' N. lat., 149° 04' W. long, then west approximately 22 miles to 70° 10' N. lat. And 149° 56' W. long., then following the east bank of the Kalubik River to the Arctic Ocean—5 caribou per day; however, cow caribou may not be taken May 16-June 30. *July 1-June 30*

Unit 26B, that portion south of 69° 30' N. lat. and west of the Dalton Highway—5 caribou; however, cow caribou may be taken only from July 1-Oct. 10. *July 1-Oct. 10*
May 16-June 30

Unit 26B, that portion south of 69° 30' N. lat. and east of the Dalton Highway—5 caribou; however, cow caribou may be taken only from July 1-May 15. *July 1-June 30*

WP16–37 Executive Summary	
	<p><i>Unit 26B remainder—105 caribou per day; however, cow caribou may be taken only from Oct. 1–Apr. 30</i> <i>July 1–June 30 Apr. 30</i></p> <p><i>Unit 26C—10 caribou per day.</i> <i>July 1–Apr. 30</i></p> <p><i>You may not transport more than 5 caribou per regulatory year from Unit 26 except to the community of Anaktuvuk Pass.</i></p>
OSM Preliminary Conclusion	<p>Support with modification to prohibit the harvest of cows with calves in Units 21D, 22, 23, 24, 26A and 26B, prohibit the harvest of calves in Unit 26B, extend the bull season in Units 26A and 26B, modify the cow season in Unit 26B, modify the hunt area descriptor in Unit 24, modify the harvest limit in Unit 26B, simplify and clarify the regulatory language, and delete regulatory language regarding to be announced seasons for Units 21D and 22 and delegate authority to Federal land managers to announce seasons via delegation of authority letters only.</p> <p>The modified regulations should read:</p> <p>Unit 21D—Caribou</p> <p><i>Unit 21D—north of the Yukon River and east of the Koyukuk River—caribou may be taken during a winter season to be announced by the Refuge Manager of the Koyukuk/Nowitna National Wildlife Refuge Manager and the BLM Central Yukon Field Office Manager, in consultation with ADF&G and the Chairs of the Western Interior Subsistence Regional Advisory Council, and the Middle Yukon and Ruby Fish and Game Advisory Committees.</i></p> <p><i>Unit 21D, remainder—5 caribou per day, as follows: ; however, cow caribou may not be taken May 16–June 30.</i> <i>July 1–June 30.</i></p> <p>However, calves may not be taken</p> <p>Bulls may be harvested July 1–Oct. 14 Feb. 1–June 30</p> <p>Cows may be harvested Sept. 1–Mar. 31. However, cows accompanied by calves may not be taken Sept. 1–Oct. 15.</p>

WP16–37 Executive Summary

	<p>Unit 22—Caribou</p> <p><i>Unit 22B, that portion west of Golovin Bay and west of a line along the west bank of the Fish and Niukluk Rivers to the mouth of the Libby River, and excluding all portions of the Niukluk River drainage upstream from and including the Libby River drainage—5 caribou per day, as follows:</i></p> <p><i>However, calves may not be taken</i></p> <p><i>Bulls may be harvested</i> <i>Oct. 1–Oct. 14</i> <i>Feb. 1–Apr. 30.</i></p> <p><i>Cows may be harvested</i> <i>Oct. 1–Mar. 31</i> <i>However, cows accompanied by calves may not be taken Oct. 1–Oct. 15.</i></p> <p><i>5 caribou per day; however, calves may not be taken; Cows may not be taken April 1–Aug. 31; Bulls may not be taken Oct. 15–Jan. 31.</i> <i>May 1–Sept. 30, a season may be opened by announcement announced by the Anchorage Field Office Manager of the BLM, in consultation with ADF&G.</i></p> <p><i>Units 22A, that portion north of the Golsovia River drainage, 22B remainder, that portion of Unit 22D in the Kougavuk, Kuzitrin River drainage (excluding the Pilgrim River drainage), American, and the Agiapuk River Drainages, including the tributaries, and Unit 22E, that portion east of and including the Sanaguich River drainage—5 caribou per day, as follows: ; however, cow caribou may not be taken May 16–June 30.</i> <i>July 1–June 30.</i></p> <p><i>However, calves may not be taken</i></p> <p><i>Bulls may be harvested</i> <i>July 1–Oct. 14</i> <i>Feb. 1–June 30</i></p>
--	--

WP16–37 Executive Summary

	<p><i>Cows may be harvested However, cows accompanied by calves may not be taken Sept. 1-Oct. 15.</i></p> <p><i>Unit 22D, that portion in the Pilgrim River Drainage—5 caribou per day as follows:</i></p> <p><i>However, calves may not be taken</i></p> <p><i>Bulls may be harvested</i></p> <p><i>Cows may be harvested However, cows accompanied by calves may not be taken Oct. 1-Oct. 15.</i></p> <p><i>5 caribou per day; however, cows may not be taken April 1-Aug. 31.</i></p> <p><i>Unit 22 remainder—5 caribou per day; however, calves may not be taken; cows may not be taken Apr. 1-Aug. 31; cows accompanied by calves may not be taken Sept. 1-Oct. 15; bulls may not be taken Oct. 15-Jan. 31.</i></p> <p>Unit 23—Caribou</p> <p><i>Unit 23, that portion north of and including the Singoalik River drainage—155 caribou per day as follows: ; however, cow caribou may not be taken May 16–June 30</i></p> <p><i>However, calves may not be taken</i></p> <p><i>Bulls may be harvested</i></p> <p><i>Cows may be harvested However, cows accompanied by calves may not be taken July 15-Oct. 14.</i></p>	<p><i>Sept. 1-Mar. 31.</i></p> <p><i>Oct. 1-Oct. 14 Feb. 1-Apr. 30</i></p> <p><i>Oct. 1-Mar. 31</i></p> <p><i>May 1 – Sept. 30 Season may be announced</i></p> <p><i>No Federal open season—Season may be announced</i></p> <p><i>July 1–June 30.</i></p> <p><i>July 1-Oct. 14 Feb. 1--June 30</i></p> <p><i>July 15-Apr. 30</i></p>
--	---	--

WP16–37 Executive Summary	
<p><i>Unit 23 remainder—5 caribou per day, as follows:</i></p> <p><i>However, calves may not be taken</i></p> <p><i>Bulls may be harvested</i></p> <p><i>Cows may be harvested</i> <i>However, cows accompanied by calves may not be taken Sept. 1-Oct. 14.</i></p> <p>Unit 24—Caribou</p> <p><i>Unit 24A—south of the south bank of the Kanuti River—1 caribou</i></p> <p><i>Unit 24B—that portion south of the south bank of the Kanuti River, upstream from and including that portion of the Kanuti-Kilolitna River drainage, bounded by the southeast bank of the Kodosin-Nolitna Creek, then downstream along the east bank of the Kanuti-Kilolitna River to its confluence with the Kanuti River—1 caribou.</i></p> <p><i>Unit 24 that portion north of (and including) the Kanuti River in Units 24A and 24B and that portion north of the Koyukuk River downstream from the confluence with the Kanuti River in Unit 24B to the Unit 24C boundary. remainder—5 caribou per day as follows; however, cow caribou may not be taken May 16–June 30</i></p> <p><i>However, calves may not be taken</i></p> <p><i>Bulls may be harvested</i></p> <p><i>Cows may be harvested</i> <i>However, cows accompanied by calves may not be taken July 15-Oct. 14.</i></p> <p><i>Units 24C, 24D—5 caribou per day as follows:</i></p> <p><i>However, calves may not be taken</i></p> <p><i>Bulls may be harvested</i></p>	<p><i>July 1-Oct. 14</i> <i>Feb. 1-June 30</i></p> <p><i>Sept. 1-Mar. 31.</i></p> <p><i>Aug. 10-Mar. 31</i></p> <p><i>Aug. 10–Mar. 31</i></p> <p><i>July 1–June 30.</i></p> <p><i>July 1-Oct. 14</i> <i>Feb. 1-June 30</i></p> <p><i>July 15-Apr. 30</i></p> <p><i>July 1-Oct. 14</i> <i>Feb. 1-June 30</i></p>

WP16–37 Executive Summary

	<p><i>Cows may be harvested</i> <i>Sept. 1-Mar. 31</i> <i>However, cows accompanied by calves may not be taken Sept. 1-Oct. 14.</i></p>
	<p>Unit 26—Caribou</p> <p><i>Unit 26A, that portion of the Colville River drainage upstream from the Anaktuvuk River, and drainages of the Chukchi Sea south and west of, and including the Utukok River drainage—10 5 caribou per day as follows: ; however, cow caribou may not be taken May 16-June 30.</i> <i>July 1-June 30.</i></p> <p><i>However, calves may not be taken</i></p> <p><i>Bulls may be harvested</i> <i>July 1-Oct. 14</i> <i>Feb. 1-June 30</i></p> <p><i>Cows may be harvested</i> <i>July 15-Apr. 30.</i> <i>However, cows accompanied by calves may not be taken July 15-Oct. 15.</i></p> <p><i>Unit 26A remainder</i></p> <p><i>Calves may not be taken</i></p> <p><i>5 Bulls per day may be harvested</i> <i>July 1-Oct. 14</i> <i>Dec. 6-June 30</i></p> <p><i>3 cows per day may be harvested</i> <i>July 16-Mar. 15</i> <i>However, cows accompanied by calves may not be taken July 16-Oct. 15</i></p> <p><i>Unit 26B, Northwest portion: north of 69° 30' N. lat and west of the east bank of the Kuparuk River to a point at 70° 10' N. lat., 149° 04' W. long, then west approximately 22 miles to 70° 10' N. lat. And 149° 56' W. long., then following the east bank of the Kalubik River to the Arctic Ocean—5 caribou per day; however, cows may not be taken May 16-June 30; Cows accompanied by calves may not be taken July 1-Oct. 15; Calves may not be taken.</i> <i>July 1-June 30</i></p>

WP16–37 Executive Summary	
	<p><i>Unit 26B, that portion south of 69° 30' N. lat. and west of the Dalton Highway—5 caribou per day as follows:</i></p> <p><i>However, calves may not be taken</i></p> <p><i>Bulls may be harvested</i> <i>July 1–Oct. 14</i> <i>Dec. 10–June 30</i></p> <p><i>Cows may be harvested</i> <i>Oct. 14–Apr. 30</i></p> <p><i>Unit 26B, that portion south of 69° 30' N. lat. and east of the Dalton Highway—5 caribou per day; however, cows may not be taken from May 16–June 30; Cows accompanied by calves may not be taken July 1–Oct. 15.</i> <i>July 1–June 30</i></p> <p><i>Unit 26B remainder—105 caribou per day;</i></p> <p><i>However, calves may not be taken—cow caribou may be taken only from Oct. 1–Apr. 30.</i></p> <p><i>Bulls may be harvested</i> <i>July 1–June 30</i> <i>Apr. 30</i></p> <p><i>Cows may be harvested</i> <i>Oct. 14–Apr. 30</i></p> <p><i>You may not transport more than 5 caribou per regulatory year from Unit 26 except to the community of Anaktuvuk Pass.</i></p>
Western Interior Alaska Regional Advisory Council Recommendation	
Seward Peninsula Regional	

WP16–37 Executive Summary	
Advisory Council Recommendation	
Northwest Arctic Regional Advisory Council Recommendation	
Eastern Interior Regional Advisory Council Recommendation	
North Slope Regional Advisory Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	None

**DRAFT STAFF ANALYSIS
WP16-37**

ISSUES

Proposal WP16-37, submitted by Jack Reakoff, requests changes to caribou harvest regulations in Units 21D, 22, 23, 24, 26A, and 26B, including: reduction in harvest limits; shortening bull and cow seasons; creation of new hunt areas and to be announced seasons; and a prohibition on the take of calves and cows with calves.

DISCUSSION

The proponent requests that Federal caribou regulations be aligned with the recently adopted State regulations in order to reduce regulatory complexity and to aid in conserving the declining Western Arctic (WACH) and Teshekpuk (TCH) caribou herds. Numerous entities, including the Western Interior Alaska (WIRAC), Northwest Arctic (NWARAC), Seward Peninsula (SPRAC), and North Slope (NSRAC) Subsistence Regional Advisory Councils, have invested a lot of work developing conservation strategies for these herds. The proponent believes that the herds' conservation is imperative.

Adoption of this proposal would restrict caribou harvest at certain times of the year and reduce daily harvest limits in order to conserve the WACH and TCH. The proponent states that prohibiting the take of calves increases herd recruitment and that the season and harvest limit restrictions should not prevent subsistence users from meeting their needs.

Related Proposals: Eight other Proposals—WP16-43, WP16-45, WP16-49, WP16-52, WP16-61, WP16-62, WP16-63, WP16-64—concerning caribou regulations in Units 21D, 22, 23, 24, or 26 were submitted for the 2016-2018 regulatory cycle. The outcome of these proposals may affect the outcome of this proposal.

Existing Federal Regulations

Unit 21D—Caribou

Unit 21D—north of the Yukon River and east of the Koyukuk River—caribou may be taken during a winter season to be announced by the Refuge Manager of the Koyukuk/Nowitna National Wildlife Refuge and the BLM Central Yukon Field Office Manager, in consultation with ADF&G and the Chairs of the Western Interior Subsistence Regional Advisory Council, and the Middle Yukon and Ruby Fish and Game Advisory Committees. *Winter season to be announced.*

Unit 21D, remainder—5 caribou per day; however, cow caribou may *July 1–June 30.*

not be taken May 16–June 30.

Unit 22—Caribou

Unit 22B west of Golovin Bay and west of a line along the west bank of the Fish and Niukluk Rivers and excluding the Libby River drainage—5 caribou per day.

*Oct. 1–Apr. 30.
May 1–Sept. 30, a season may be opened by announcement by the Anchorage Field Office Manager of the BLM, in consultation with ADF&G.*

Units 22A, 22B remainder, that portion of Unit 22D in the Kougaruk, Kuzitrin (excluding the Pilgrim River drainage), American, and Agiapuk River Drainages, and Unit 22E, that portion east of and including the Sanaguich River drainage—5 caribou per day; cow caribou may not be taken May 16–June 30.

July 1–June 30.

Unit 22 remainder

No Federal open season

Unit 23—Caribou

15 caribou per day; however, cow caribou may not be taken May 16–June 30

July 1–June 30.

Unit 24—Caribou

Unit 24—that portion south of the south bank of the Kanuti River, upstream from and including that portion of the Kanuti-Kilolitna River drainage, bounded by the southeast bank of the Kodosin-Nolitna Creek, then downstream along the east bank of the Kanuti-Kilolitna River to its confluence with the Kanuti River—1 caribou.

Aug. 10–Mar. 31.

Unit 24, remainder—5 caribou per day; however, cow caribou may not be taken May 16–June 30

July 1–June 30.

Unit 26—Caribou

Unit 26A—10 caribou per day; however, cow caribou may not be taken May 16–June 30.

July 1–June 30.

Unit 26B—10 caribou per day; however, cow caribou may be taken only from Oct. 1–Apr. 30. July 1–June 30.

Unit 26C—10 caribou per day. July 1–Apr. 30

You may not transport more than 5 caribou per regulatory year from Unit 26 except to the community of Anaktuvuk Pass.

Proposed Federal Regulations

Unit 21D—Caribou

Unit 21D—north of the Yukon River and east of the Koyukuk River—caribou may be taken during a winter season to be announced by the Refuge Manager of the Koyukuk/Nowitna National Wildlife Refuge Manager and the BLM Central Yukon Field Office Manager, in consultation with ADF&G and the Chairs of the Western Interior Subsistence Regional Advisory Council, and the Middle Yukon and Ruby Fish and Game Advisory Committees. Winter season to be announced.

Unit 21D, remainder—5 caribou per day, as follows: ; however, cow caribou may not be taken May 16–June 30. ~~July 1–June 30.~~

Up to 5 bulls per day; however, calves may not be taken; ***July 1–Oct. 14***
Feb. 1–June 30

Up to 5 cows per day; however, calves may not be taken ***Sept. 1 – Mar. 31***

Unit 22—Caribou

Unit 22B, that portion west of Golovin Bay and west of a line along the west bank of the Fish and Niukluk Rivers to the mouth of the Libby River, and excluding all portions of the Niukluk River drainage upstream from and including the Libby River drainage—5 caribou per day, as follows: ~~Oct. 1–Apr. 30.~~

Up to 5 bulls per day; however, calves may not be taken; ***Oct. 1–Oct. 14***
Feb. 1–Apr. 30.

<i>Up to 5 cows per day; however, calves may not be taken.</i>	Oct. 1-Mar. 31
<i>Up to 5 caribou per day; however, calves may not be taken; cow caribou may not be taken April 1-Aug. 31; bull caribou may not be taken Oct. 15-Jan. 31.</i>	<i>May 1–Sept. 30, a season may be opened by announcement by the Anchorage Field Office Manager of the BLM, in consultation with ADF&G.</i>
<i>Units 22A, that portion north of the Golsovia River drainage, 22B remainder, that portion of Unit 22D in the Kougavuk, Kuzitrin River drainage (excluding the Pilgrim River drainage), American, and the Agiapuk River Drainages, including the tributaries, and Unit 22E, that portion east of and including the Sanaguich River drainage—5 caribou per day, as follows: ; however, cow caribou may not be taken May 16–June 30.</i>	July 1–June 30.
<i>Up to 5 bulls per day; however, calves may not be taken;</i>	July 1-Oct. 14 Feb. 1-June 30
<i>Up to 5 cows per day; however, calves may not be taken.</i>	Sept. 1-Mar. 31.
<i>Unit 22D, that portion in the Pilgrim River Drainage—5 caribou per day as follows:</i>	
<i>Up to 5 bulls per day; however, calves may not be taken;</i>	Oct. 1-Oct. 14 Feb. 1-Apr. 30
<i>Up to 5 cows per day; however, calves may not be taken.</i>	Oct. 1-Mar. 31
<i>Up to 5 caribou per day; however, calves may not be taken; however, cow caribou may not be taken April 1-Aug. 31.</i>	May 1 – Sept. 30, season to be announced
<i>Unit 22 remainder—5 caribou per day; however, calves may not be taken; cow caribou may not be taken Apr. 1-Aug. 31; bull caribou may not be taken Oct. 15-Jan. 31.</i>	No Federal open season Season to be announced
Unit 23—Caribou	
<i>Unit 23, that portion north of and including the Singoalik River drainage—155 caribou per day as follows: ; however, cow caribou may not be taken May 16–June 30</i>	July 1–June 30.
<i>Up to 5 bulls per day; however, calves may not be taken;</i>	July 1-Oct. 14 Feb. 1-June 30
<i>Up to 5 cows per day; however, calves may not be taken.</i>	July 15-Apr. 30

Unit 23 remainder—5 caribou per day, as follows:

- Up to 5 bulls per day; however, calves may not be taken;** **July 1-Oct. 14**
Feb. 1-June 30
- Up to 5 cows per day; however, calves may not be taken.** **Sept. 1-Mar. 31.**

Unit 24—Caribou

Unit 24A—south of the south bank of the Kanuti River—1 caribou **Aug. 10-Mar. 31**

Unit 24B—that portion south of the south bank of the Kanuti River, upstream from and including that portion of the Kanuti-Kilolitna River drainage, bounded by the southeast bank of the Kodosin-Nolitna Creek, then downstream along the east bank of the Kanuti-Kilolitna River to its confluence with the Kanuti River—1 caribou. **Aug. 10–Mar. 31.**

Unit 24A remainder, that portion north of the south bank of the Kanuti River, 24B remainder, that portion north of the south bank of the Kanuti River downstream from the Kanuti-Killitna River drainage—5 caribou per day as follows; however, cow caribou may not be taken May 16–June 30 **July 1–June 30.**

Up to 5 bulls per day; however, calves may not be taken; **July 1-Oct. 14**
Feb. 1-June 30

Up to 5 cows per day; however, calves may not be taken. **July 15-Apr. 30**

Units 24C, 24D—5 caribou per day as follows:

Up to 5 bulls per day; however, calves may not be taken; **July 1-Oct. 14**
Feb. 1-June 30

Up to 5 cows per day; however, calves may not be taken. **Sept. 1-Mar. 31**

Unit 26—Caribou

Unit 26A, that portion of the Colville River drainage upstream from the Anaktuvuk River, and drainages of the Chukchi Sea south and west of, and including the Utukok River drainage—10 5 caribou per day as follows; however, cow caribou may not be taken May 16–June 30. **July 1–June 30.**

Up to 5 bulls per day; however, calves may not be taken; **July 1-Oct. 14**

	<i>Feb. 1-June 30</i>
<i>Up to 5 cows per day; however, calves may not be taken.</i>	<i>July 15-Apr. 30.</i>
<i>Unit 26A remainder—5 bulls per day; however, calves may not be taken;</i>	<i>July 1-July 15</i>
<i>5 caribou per day; however, no more than 3 cows per day; cows accompanied by calves and calves may not be taken;</i>	<i>July 16-Oct. 15</i>
<i>3 cows per day; however, calves may not be taken;</i>	<i>Oct. 16-Dec. 31</i>
<i>5 caribou per day; however, no more than 3 cows per day; calves may not be taken;</i>	<i>Jan. 1-Mar. 15</i>
<i>5 bulls per day; however, calves may not be taken</i>	<i>Mar. 16-June 30.</i>
<i>Unit 26B, that portion north of 69° 30' N. lat and west of the east bank of the Kuparuk River to a point at 70° 10' N. lat., 149° 04' W. long, then west approximately 22 miles to 70° 10' N. lat. And 149° 56' W. long., then following the east bank of the Kalubik River to the Arctic Ocean—5 caribou per day; however, cow caribou may not be taken May 16-June 30.</i>	<i>July 1-June 30</i>
<i>Unit 26B, that portion south of 69° 30' N. lat. and west of the Dalton Highway—5 caribou; however, cow caribou may be taken only from July 1-Oct. 10.</i>	<i>July 1-Oct. 10 May 16-June 30</i>
<i>Unit 26B, that portion south of 69° 30' N. lat. and east of the Dalton Highway—5 caribou; however, cow caribou may be taken only from July 1-May 15.</i>	<i>July 1-June 30</i>
<i>Unit 26B remainder—105 caribou per day; however, cow caribou may be taken only from Oct. 1-Apr. 30</i>	<i>July 1-June 30 Apr. 30</i>
<i>Unit 26C—10 caribou per day.</i>	<i>July 1-Apr. 30</i>
<i>You may not transport more than 5 caribou per regulatory year from Unit 26 except to the community of Anaktuvuk Pass.</i>	

Existing State Regulations

Unit 21D—Caribou

North of the Yukon River and east of the Koyukuk River Residents—Two caribou may be taken during winter season May be announced

21D remainder Residents—5 caribou per day, as follows:

Up to 5 bulls per day; however, calves may not be taken; July 1-Oct. 14
Feb. 1-June 30.

Up to 5 cows per day; however, calves may not be taken Sept. 1-Mar. 31.

Nonresidents—1 bull; however, calves may not be taken Aug. 1-Sept. 30

Unit 22—Caribou

22A, that portion north of the Golsovia River drainage Residents—5 caribou per day, as follows:

Up to 5 bulls per day; however, calves may not be taken; July 1-Oct. 14
Feb. 1-June 30.

Up to 5 cows per day; however, calves may not be taken Sept. 1-Mar. 31.

Nonresidents—1 bull; however, calves may not be taken Aug. 1-Sept. 30

Unit 22B, that portion west of Golovnin Bay, Residents—5 caribou per day, as follows:

and west of a line along the west bank of the Fish *Up to 5 bulls per day; however, calves may not be taken;* Oct. 1-Oct. 14
Feb. 1-Apr. 30

and Niukluk rivers to the mouth of the Libby river, and excluding all *Up to 5 cows per day; however, calves may not be taken* Oct. 1-Mar. 31

portions of the Niukluk River drainage *Up to 5 caribou per day; however, calves may not be taken; during the period May 1-Sept. 30, a season may be announced by emergency order; however, cow caribou* Season to be announced by emergency order

<i>River drainage</i>	<i>may not be taken April 1-Aug. 31; bull caribou may not be taken Oct. 15-Jan. 31</i>	
	<i>Nonresidents: 1 bull; however, calves may not be taken; during the period Aug. 1-Sept. 30, a season may be announced by emergency order</i>	<i>Season to be announced by emergency order</i>
<i>22B Remainder</i>	<i>Residents—5 caribou per day, as follows:</i>	
	<i>Up to 5 bulls per day; however, calves may not be taken;</i>	<i>July 1-Oct. 14 Feb. 1-June 30.</i>
	<i>Up to 5 cows per day; however, calves may not be taken</i>	<i>Sept. 1-Mar. 31.</i>
	<i>Nonresidents—1 bull; however, calves may not be taken</i>	<i>Aug. 1-Sept. 30</i>
<i>22C</i>	<i>Residents—5 caribou per day, however, cows may not be taken May 16-June 30</i>	<i>may be announced .</i>
	<i>Nonresidents—5 caribou total, however, cows may not be taken May 16-June 30.</i>	<i>may be announced</i>
<i>22D, that portion in the Pilgrim River drainage</i>	<i>Residents—5 caribou per day, as follows:</i>	
	<i>Up to 5 bulls per day; however, calves may not be taken;</i>	<i>Oct. 1-Oct. 14 Feb. 1-Apr. 30</i>
	<i>Up to 5 cows per day; however, calves may not be taken</i>	<i>Oct. 1-Mar. 31 .</i>
	<i>Up to 5 caribou per day; however, calves may not be taken; during the period May 1-Sept. 30, a season may be announced by emergency order; however, cow caribou may not be taken April 1-Aug. 31</i>	<i>Season to be announced by emergency order</i>
	<i>Nonresidents: 1 bull; however, calves may not be taken; during the period Aug. 1-Sept. 30, a season may be announced by emergency order</i>	<i>Season to be announced by emergency order</i>

22D, that portion in the Kuzitrin River drainage (excluding the Pilgrim River drainage) and the Agiapuk river drainage, including tributaries	Residents—5 caribou per day, as follows:	
	Up to 5 bulls per day; however, calves may not be taken;	July 1-Oct. 14 Feb. 1-June 30.
	Up to 5 cows per day; however, calves may not be taken	Sept. 1-Mar. 31.
	Nonresidents—1 bull; however, calves may not be taken	Aug. 1-Sept. 30
22E, that portion east of and including the Sanaguich River drainage	Residents—5 caribou per day, as follows:	
	Up to 5 bulls per day; however, calves may not be taken;	July 1-Oct. 14 Feb. 1-June 30.
	Up to 5 cows per day; however, calves may not be taken	Sept. 1-Mar. 31.
	Nonresidents—1 bull; however, calves may not be taken	Aug. 1-Sept. 30
22 Remainder	Residents—5 caribou per day; however, calves may not be taken; cow caribou may not be taken Apr. 1-Aug. 31; bull caribou may not be taken Oct. 15-Jan. 31	Season to be announced by emergency order
	Nonresidents—1 bull; however, calves may not be taken; during the period Aug. 1-Sept. 30, a season may be announced by emergency order	Season to be announced by emergency order

Unit 23—Caribou

23, that portion north of and including the Singoalik River drainage	Residents—5 caribou per day, as follows:	
	Up to 5 bulls per day; however, calves may not be taken;	July 1-Oct. 14 Feb. 1-June 30.
	Up to 5 cows per day; however, calves may not be taken	Jul. 15-Apr. 30
	Nonresidents—1 bull; however, calves may not be taken	Aug. 1-Sept. 30

23 remainder	Residents—5 caribou per day, as follows:	
	Up to 5 bulls per day; however, calves may not be taken;	July 1-Oct. 14 Feb. 1-June 30.
	Up to 5 cows per day; however, calves may not be taken	Sept. 1-Mar. 31.
	Nonresidents—1 bull; however, calves may not be taken	Aug. 1-Sept. 30

Unit 24—Caribou

24A, south of the south bank of the Kanuti River	Residents—1 caribou	Aug. 10-Mar. 31
	Nonresidents—1 caribou	Aug. 10-Sept. 30
	<i>A portion of this area is within the DHCMA and additional restrictions apply.</i>	
24B, that portion south of the south bank of the Kanuti River, upstream from and including that portion of the Kanuti-Kilolitna River drainage, bounded by the southeast bank of the Kodosin-Nolitna Creek, then downstream along the east bank of the Kanuti-Kilolitna River to its confluence with the Kanuti River—1 caribou.	Residents—1 caribou	Aug. 10-Mar. 31
	Nonresidents—1 caribou	Aug. 10-Sept. 30
24A remainder, 24B remainder	Residents—5 caribou per day, as follows:	
	Up to 5 bulls per day; however, calves may not be taken;	July 1-Oct. 14 Feb. 1-June 30.
	Up to 5 cows per day; however, calves may not be taken	Jul. 15-Apr. 30
	Nonresidents—1 bull; however, calves may not be	Aug. 1-Sept. 30

taken

A portion of this area is within the DHCMA and additional restrictions apply.

24C, 24D

Residents—5 caribou per day, as follows:

*Up to 5 bulls per day; however, calves may not be taken; July 1-Oct. 14
Feb. 1-June 30.*

Up to 5 cows per day; however, calves may not be taken Sept. 1-Mar. 31.

Nonresidents—1 bull; however, calves may not be taken Aug. 1-Sept. 30

Unit 26--Caribou

26A, that portion of the Colville River drainage upstream from the Anaktuvuk River, and drainages of the Chukchi Sea south and west of, and including the Utukok River drainage

Residents—5 caribou per day, as follows:

*Up to 5 bulls per day; however, calves may not be taken; July 1-Oct. 14
Feb. 1-June 30.*

Up to 5 cows per day; however, calves may not be taken Jul. 15-Apr. 30

Nonresidents—1 bull; however, calves may not be taken Aug. 1-Sept. 30

26A, Remainder

Residents—5 bulls per day; however, calves may not be taken; July 1-July 15

5 caribou per day; however, no more than 3 cows per day; cows accompanied by calves and calves may not be taken; July 16-Oct. 15

3 cows per day; however, calves may not be taken; Oct. 16-Dec. 31

*5 caribou per day; however no more than 3 cows per day; calves may not be taken; Jan. 1-Mar. 15
Mar. 16-June 30*

5 bulls per day; however, calves may not be taken Aug. 1-Sept. 30

Nonresidents—1 bull; however, calves may not be taken

<i>26B, that portion north of 69° 30' N. lat and west of the east bank of the Kuparuk River to a point at 70° 10' N. lat., 149° 04' W. long, then west approximately 22 miles to 70° 10' N. lat. And 149° 56' W. long., then following the east bank of the Kalubik River to the Arctic Ocean</i>	<i>Residents--5 caribou per day; however, cow caribou may not be taken May 16-June 30.</i> <i>Nonresidents—5 caribou</i>	<i>July 1-June 30</i> <i>July 1-Apr. 30</i>
<i>26B, that portion south of 69° 30' N. lat. and west of the Dalton Highway</i>	<i>Residents and Nonresidents--5 caribou; however, cow caribou may be taken only from July 1-Oct. 10.</i>	<i>July 1-Oct. 10</i> <i>May 16-June 30</i>
<i>26B, that portion south of 69° 30' N. lat. and east of the Dalton Highway</i>	<i>Residents and Nonresidents—5 caribou; however, cow caribou may be taken only from July 1-May 15.</i>	<i>July 1-June 30</i>
<i>26B, Remainder</i>	<i>Residents—5 caribou</i> <i>Nonresidents—5 caribou</i>	<i>July 1-Apr. 30</i> <i>July 1-Apr. 30</i>
<i>26C</i>	<i>Residents—10 Caribou total; Any caribou</i> <i>Bull caribou</i> <i>Nonresidents—Two bulls</i>	<i>July 1-Apr. 30</i> <i>June 23-June 30</i> <i>Aug. 1-Sept. 30</i>

Extent of Federal Public Lands

Federal public lands comprise approximately 56% of Unit 21D and consist of 29.2.4% U.S. Fish and Wildlife Service (USFWS) managed lands, and 26.6% Bureau of Land Management (BLM) managed lands (see **Unit 21 Map**).

Federal public lands comprise approximately 42.1% of Unit 22 and consist of 27% BLM managed lands, 12.2% National Park Service (NPS) managed lands, and 2.9% USFWS managed lands (see **Unit 22 Map**).

Federal public lands comprise approximately 69% of Unit 23 and consist of 41.8% NPS managed lands, 17.5% BLM managed lands, and 9.6% USFWS managed lands (see **Unit 23 Map**).

Federal public lands comprise approximately 67% of Unit 24 and consist of 23% BLM managed lands, 21.9% NPS managed lands, and 21.8% USFWS managed lands (see **Unit 24 Map**).

Federal public lands comprise approximately 68% of Unit 26 and consist of 45.2% BLM managed lands, 17.3% USFWS managed lands, and 5% NPS managed lands (see **Unit 26 Map**).

Customary and Traditional Use Determinations

Residents of Units 21B, 21C, 21D, and Huslia have a customary and traditional use determination for caribou in Unit 21D.

Residents of Units 21D west of the Koyukuk and Yukon Rivers, 22 (except residents of St. Lawrence Island), 23, 24, Kotlik, Emmonak, Hooper Bay, Scammon Bay, Chevak, Marshall, Mountain Village, Pilot Station, Pitka's Point, Russian Mission, St. Marys, Nunam Iqua, and Alakanuk have a customary and traditional use determination for caribou in Unit 22A.

Residents of Units 21D west of the Koyukuk and Yukon Rivers, 22 (excluding residents of St. Lawrence Island), 23, and 24 have a customary and traditional use determination for caribou in Unit 22 remainder.

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

Residents of Unit 24, Galena, Kobuk, Koyukuk, Stevens Village, and Tanana have a customary and traditional use determination for caribou in Unit 24.

Residents of Unit 26 (except the Prudhoe Bay–Deadhorse Industrial Complex), Anaktuvuk Pass, and Point Hope have a customary and traditional use determination for caribou in Unit 26A and 26C.

Residents of Unit 26, Anaktuvuk Pass, Point Hope, and Unit 24 within the Dalton Highway Corridor Management Area have a customary and traditional use determination for caribou in Unit 26B.

Regulatory History

Unit 21D

In 1991, the Federal Subsistence Board (Board) adopted proposal P91-132 with modification to designate new hunt areas in Unit 21D and establish a to-be-announced winter season with a harvest limit of two caribou (FWS 1991).

In 1992, the Board approved Temporary Special Action S92-06 to open a temporary winter season for caribou in Unit 21D north of the Yukon River and east of the Koyukuk River (FWS 1992).

In 2007, the Board adopted proposal WP07-33, closing Unit 21D north of the Yukon River and east of the Koyukuk River to caribou hunting during the Federal fall season. This was done in order to conserve the declining Galena Mountain Caribou Herd (FWS 2007).

Unit 22

In 1994, the Board adopted Proposal P94-63A with modification to allow snowmachines to be used to take caribou and moose in Unit 22 (FWS 1994).

In 1996, the Board adopted Proposal P96-049 with modification to provide a customary and traditional use determination for caribou in Unit 22 for rural residents of Unit 21D west of the Koyukuk and Yukon rivers, Units 22 (except St. Lawrence Island), 23, 24. The Proposal also provided a customary and traditional use determination for caribou in Unit 22A for residents of Kotlik, Emmonak, Marshall, Mountain Village, Pilot Station, Pitka's Point, Russian Mission, St. Mary's, Sheldon Point, and Alakanuk (FWS 1996).

In 1997, the Board adopted Proposal P97-54 with modification to add residents of Hooper Bay, Scammon Bay, and Chevak to the customary and traditional use determination for caribou in Unit 22A (FWS 1997a).

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

In 2003, the Board adopted Proposal WP03-40 with modification to establish a harvest season of July 1-June 30 and a 5 caribou per day harvest limit in portions of Units 22D and 22E. This was done because caribou had expanded their range into these subunits and harvest was not expected to impact the caribou or reindeer herds, to provide additional subsistence hunting opportunities, and to align State and Federal regulations (FWS 2003).

In 2006, the Board adopted Proposal WP06-37 with modification, which designated a new hunt area in Unit 22B with an open season of Oct. 1-Apr. 30 and a closed season from May 1-Sept. 30 unless opened by a Federal land manager. This was done to prevent incidental take of privately-owned reindeer and to reduce user conflicts (FWS 2006a).

Unit 23

In 1995, the Board adopted Proposal P95-51 to increase the caribou harvest limit from 5 per day to 15 per day to increase opportunity for subsistence hunters to maximize their hunting when the caribou were available (FWS 1995a).

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

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

Unit 24

In 2000, the Board adopted Proposal P00-44 to expand the hunting area north of the Kanuti River for caribou to allow Federally qualified subsistence users additional opportunities to harvest from the WACH (OSM 2000b). The harvest limit was set at 5 caribou per day with the restriction that cows may not be taken from May 16-June 30 (FWS 2000b).

The Board, however, did not change the harvest limit of one caribou in the southern section of Unit 24B and 24A which was enacted to protect the Ray Mountain Caribou Herd, a small population of about 1,000 animals, on their wintering range (Jandt 1998).

Unit 26A and 26B

In 1995, the Board adopted Proposal P95-64 to increase the harvest limit from 5 caribou per day to 10 caribou per day to increase opportunity for subsistence hunters (FWS 1995c). This harvest limit has remained in effect since then. The Board also adopted Proposal P95-62 which closed the area east of the Killik River and south of the Colville River to non-Federally qualified subsistence users on Federal public lands (OSM 1995b). This closure was enacted to prevent non-Federally qualified subsistence users from harvesting lead animals, which may have caused the migration to move away from the area that local subsistence users hunted in Unit 26A (FWS 1995b).

In 2005, the Alaska Board of Game established a Controlled Use Area for the Anaktuvuk River drainage that prohibited the use of aircraft for caribou hunting from Aug. 15–Oct. 15. The intent of this proposal was to limit access by non-subsistence users, reduce user conflicts, and lessen the impact on caribou migration.

In 2006, the Board adopted Proposal WP06-65, which opened the area east of the Killik River and south of the Colville River to non-Federally qualified subsistence users (FWS 2006b). The 1995 closure was lifted for several reasons. First, due to changes in land status because of lands selected under the Statehood Act and the Alaska Native Claims Settlement Act (ANCSA), lands formerly managed by BLM were transferred to ANCSA corporations or the State of Alaska. Only the lands east of Anaktuvuk Pass were affected by the closure, making it less effective. Second, the population level was at a point where it could support both subsistence and non-subsistence uses.

In 2013, an aerial photo census indicated significant declines in the TCH (Caribou Trails 2014), WACH (Dau 2011), and possibly the Central Arctic Caribou Herd (CACH) populations. In response, the Alaska Board of Game adopted modified Proposal 202 (RC76) in March 2015 to reduce harvest opportunities for both residents and non-residents within the range of the WACH and the TCH. These regulation changes – which included lowering bag limits, changing harvest seasons, modifying the hunt area descriptors, and restricting bull and cow harvest and prohibiting calf harvest – were adopted to slow or reverse the population decline.

These regulatory changes took effect on July 1, 2015, and are the result of extensive discussion and compromise among a variety of stakeholders. State regulatory changes and the proposed changes to

Federal regulations represent the first time in over 30 years that harvest restrictions have been implemented for the WACH and TCH. The restrictions requested in this proposal for the WACH are also supported by management recommendations outlined in the Western Arctic Herd Management Plan (WACH Working Group 2011).

Four Special Actions, WSA15-03/04/05/06, submitted by the North Slope Regional Advisory Council requested changes to caribou regulations in Units 23, 24, and 26 and have recently been approved by the Federal Subsistence Board (Board), effective July 1, 2015. Temporary Special Action WSA15-03, requested designation of a new hunt area for caribou in Unit 23 where the harvest limit would be reduced from 15 caribou per day to 5 caribou per day, the harvest season be reduced for bulls and cows, and the take of calves would be prohibited.

Temporary Special Action WSA15-04, requested designation of a new hunt area for caribou in Unit 24, harvest seasons for bulls and cows to be shortened, and the take of calves to be prohibited.

Temporary Special Action WSA15-05, requested that caribou harvest limit in Unit 26A be reduced from 10 caribou per day to 5 caribou per day, the harvest seasons for bulls and cows be shortened, and the take of calves and cows with calves be prohibited. Compared to the new State caribou regulations, it requested 3 additional weeks to the bull harvest season from Dec. 6-31.

Temporary Special Action WSA15-06, requested designation of a new hunt area for caribou in Unit 26B where the harvest limit would be reduced from 10 caribou per day to 5 caribou per day, the harvest season would be shortened, and the take of calves would be prohibited.

Current Events

Eight additional proposals concerning caribou regulations in Units 21D, 22, 23, 24, or 26 were submitted to the Board for the 2016-2018 regulatory cycle. The outcome of those proposals may affect the outcome of this proposal.

Four proposals: WP16-61, WP16-62, WP16-63, and WP16-64, submitted by the North Slope Subsistence Regional Advisory Council, mirror Temporary Special Actions WSA15-03/04/05/06 described above.

WP16-43, submitted by the Seward Peninsula Subsistence Regional Advisory Council (SPRAC), requests that portions of Unit 22A be closed to caribou hunting unless opened by the Federal in-season manager. The intent of this proposal is to prevent incidental take of privately-owned reindeer.

WP16-45, also submitted by the SPRAC, requests that additional areas be opened to caribou hunting in Unit 22 along with a modification in a hunt area descriptor.

Combined Proposals WP16-49 and WP16-52, submitted by the Northwest Arctic Subsistence Regional Advisory Council and the Upper and Lower Kobuk Advisory Committee request reductions in harvest limits for caribou in Unit 23, restrictions on bull and cow seasons, and a prohibition on the harvest of cows with calves.

Biological Background

Caribou abundance naturally fluctuates over decades (Gunn 2003, WACH Working Group 2011). Gunn (2003) reports the mean doubling rate for Alaskan caribou as 10 ± 2.3 years. Although the underlying mechanisms causing these fluctuations are uncertain, Gunn (2003) suggests climatic oscillations as the primary factor, exacerbated by predation and density-dependent reduction in forage availability, resulting in poorer body condition.

Caribou calving generally occurs from late May to mid-June (Dau 2013). Weaning generally occurs in late October and early November before the breeding season (Taillon et al 2011). Calves stay with their mothers through their first winter, which improves calves' access to food and body condition.

Joly (2000) predicts that calves orphaned later in life have greater chances of surviving. Data from Russell et al (1991) suggests 50% and 75% of the calves orphaned in September and November, respectively, survived the winter (Joly 2000). Indeed, there is little evidence that calves orphaned after weaning experience strongly reduced overwintering survival rates than non-orphaned calves (Rughetti and Festa-Bianchet 2014, Joly 2000, Holand et al. 2012). However, Holand et al. (2012) found orphaned calves to have greater losses of winter body mass than non-orphaned calves, indicating orphaned calves may be more susceptible to severe winters.

The TCH, WACH, and CACH have ranges that overlap in Unit 26A (**Figure 1**) and there can be considerable mixing of herds during the fall and winter. During the early 2000s, the number of caribou wintering on the North Slope peaked at over 700,000 animals (this includes the Porcupine Caribou Herd in northeast Alaska and Northwest Territories, Canada), which may be the highest number since the 1970s. During the 1970s, there was little overlap between these four herds, but the degree of mixing seems to be increasing (Lenart 2011, Dau 2011, Parrett 2011).

Because the proposed regulatory changes for this proposal were put forward primarily due to the decline of the WACH and TCH, the focus of the biology will be on the WACH and TCH with a brief overview of the current population status of the CACH.

Central Caribou Herd

The current status of the CACH is unclear. The most recent population count, based on aerial photo census in 2013, was over 70,000 animals, which was similar to the peak count in 2010. However, the presence of 10 collared caribou from the Porcupine Caribou Herd (PCH) detected in the CACH could represent up to 20,000 caribou, which could indicate that the CACH may have declined by about 20% since 2010 (Caribou Trails 2014, Lenart 2011).

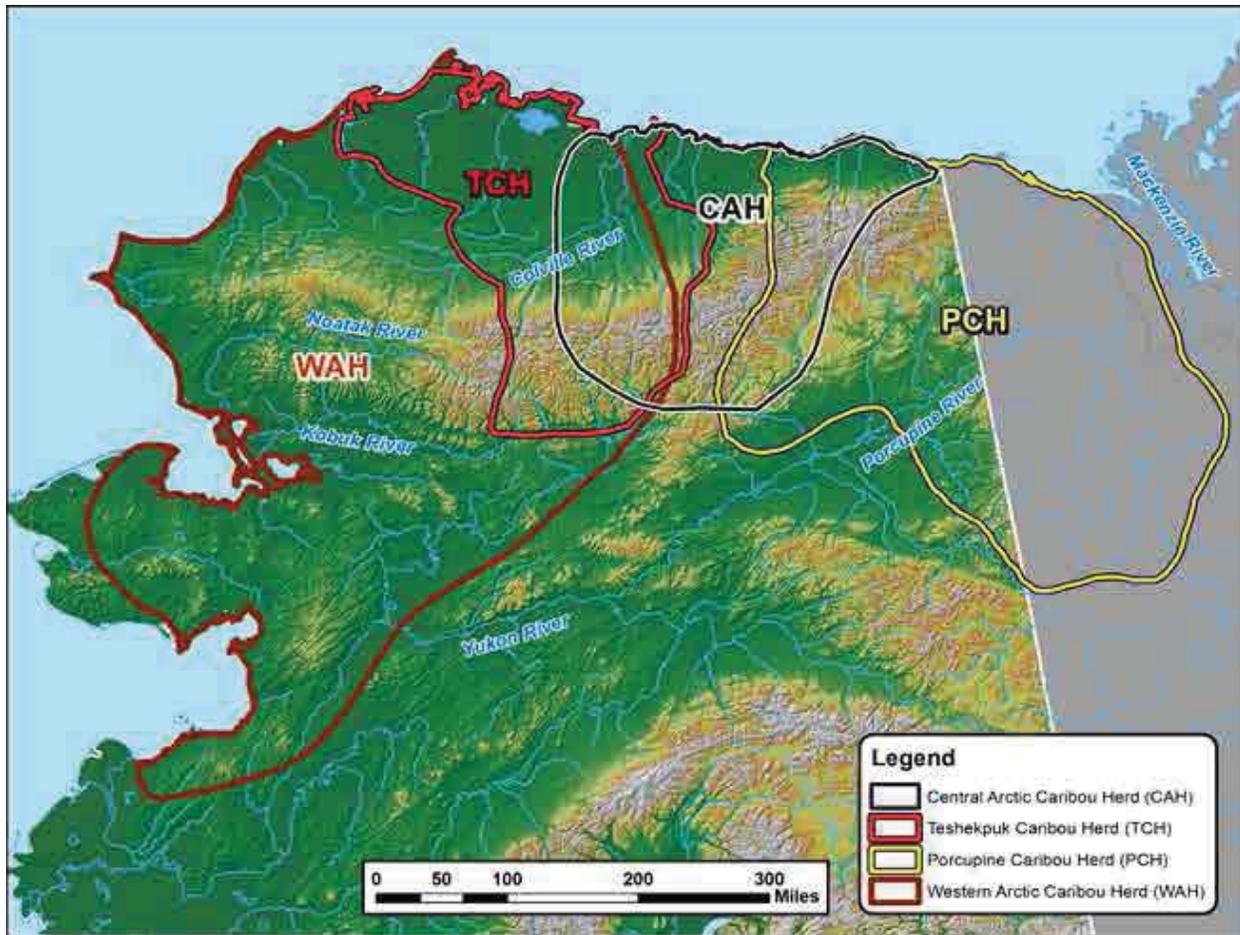


Figure 1. Herd overlap and ranges of the WACH, TCH, CACH and Porcupine caribou herds (WACH 2014).

Teshekpuk Caribou Herd

The TCH calving and summering areas overlap with the eastern portion of the National Petroleum Reserve–Alaska (NPR–A). Most of the TCH moves toward Teshekpuk Lake in May to calve in early June. The primary calving grounds of the TCH (approximately 1.8 million acres) occur to the east, southeast and northeast of Teshekpuk Lake (Person et al. 2007, Wilson et al. 2012).

From late June through July, cows and bulls move to the Beaufort Sea coast from Dease Inlet to the mouth of Kogru River (Barrow to the Colville Delta), around the north and south side of the Teshekpuk Lake, and the sand dunes along the Ikpikpuk River to seek relief from insects (Carroll 2007, Parrett 2007). The narrow corridors of land to the east and northwest of the Teshekpuk Lake are important migratory corridors to insect relief areas as well (Yokel et al. 2009). River corridors are also used more during periods of insect harassment.

Fall and winter movements are more variable, although most of the TCH winters on the coastal plain around Atkasuk, south of Teshekpuk Lake. However, the TCH has wintered as far south as the Seward Peninsula,

as far east as the Arctic National Wildlife Refuge, and in the foothills and mountains of the Brooks Range (Carroll 2007). In 2008/09, the TCH used many of these widely disparate areas in a single year (Parrett 2011).

The State has set management goals for the TCH to provide for subsistence and other hunting opportunities on a sustained yield basis, ensure that adequate habitat exists, and provide for viewing and other uses of caribou (Parrett 2013). Specific State management objectives for the TCH are as follows (Parrett 2013):

- Attempt to maintain a minimum population of 15,000 caribou, recognizing that caribou numbers naturally fluctuate.
- Maintain a harvest level of 900–2,800 caribou using strategies adapted to population levels and trends.
- Maintain a population composed of least 30 bulls:100 cows.
- Monitor herd characteristics and population parameters (on an annual or regular basis).
- Develop a better understanding of the relationships and interactions among North Slope caribou herds.
- Encourage cooperative management of the herd and its habitat among State, Federal, and local entities and all users of the herd.
- Seek to minimize conflicts between resource development and the TCH.

Since 1984, the minimum population of the TCH has been estimated using aerial photo censuses and information from radio-collared individuals. Population estimates are determined by methods described by Rivest et al. (1998) which account for caribou in groups that do not have a collared animal and for missing collars.

The TCH population increased from an estimated 18,292 caribou (minimum estimate 11,822) in 1982 to 68,932 caribou (minimum estimate 64,106) in 2008. From 2008 to 2014 the population declined by almost half to 39,000, which is still well above State management objectives (**Figure 2**, Parrett 2015, pers. comm.).

Interpretation of population estimates is difficult due to movements and range overlap among caribou herds, which results in both temporary and permanent immigration (Person et al. 2007). For example, following the 2013 census, ADF&G decided to manage the TCH based on minimum counts rather than population estimates due to substantial mixing of the TCH and WACH during the photo census, which compromises the reliability of the population estimates (Parrett 2015, pers, comm.).

From 1991-2010, the bull:cow ratio varied widely, ranging from 25-98 bulls:100 cows/year (**Figure 3**). The number of bulls declined during this time period from an average of 62 bulls:100 cows/year (1991-2000) to an average of 46 bulls:100 cows (2001-2010), which is still above State management objectives (**Figure 3**, Parrett 2013).

Between 1998-2011, the fall calf:adult ratio fluctuated widely, ranging from 6-32 calves:100 adults/year, with an average of 22.5 calves:100 adults/year (**Figure 4**). Short yearlings (SY) are 10-11 months old

caribou. SY:adult ratios are determined from spring surveys and indicate overwintering calf survival and recruitment. The SY:adult ratios were closely correlated with fall calf:adult ratios until 2009 (**Figure 4**).

From 1998-2008, the fall calf:adult and spring SY:adult ratios averaged 21 calves:100 adults/year and 20 SY:100 adults/year, respectively, indicating most calves survived the winter. Conversely, from 2009-2011, the fall calf:adult and spring SY:adult ratios averaged 30 calves:100 adults/year and 14 SY:100 adults/year, respectively, indicating much lower overwintering calf survival in recent years (Parrett 2013, **Figure 4**).

The annual mortality of adult radio collared females from the TCH has remained close to the long term (1991-2012) average of 14.5% (range 8–25%) (Parrett 2011, Caribou Trails 2014, Parrett 2015, pers. comm.). The highest cow and bull mortalities occurred in spring and fall, respectively. Female mortalities may be tied to poor nutrition while bull mortalities are likely tied to the rut. Predation is also a proximal cause of mortality. While harvest is included in mortality, it is a small proportion of the mortality for both sexes (Dau 2013).

As the TCH has declined, calf weights have declined, indicating that poor nutrition may be having a significant effect on this herd (Carroll 2015, pers. comm., Parrett 2015, pers. comm.).

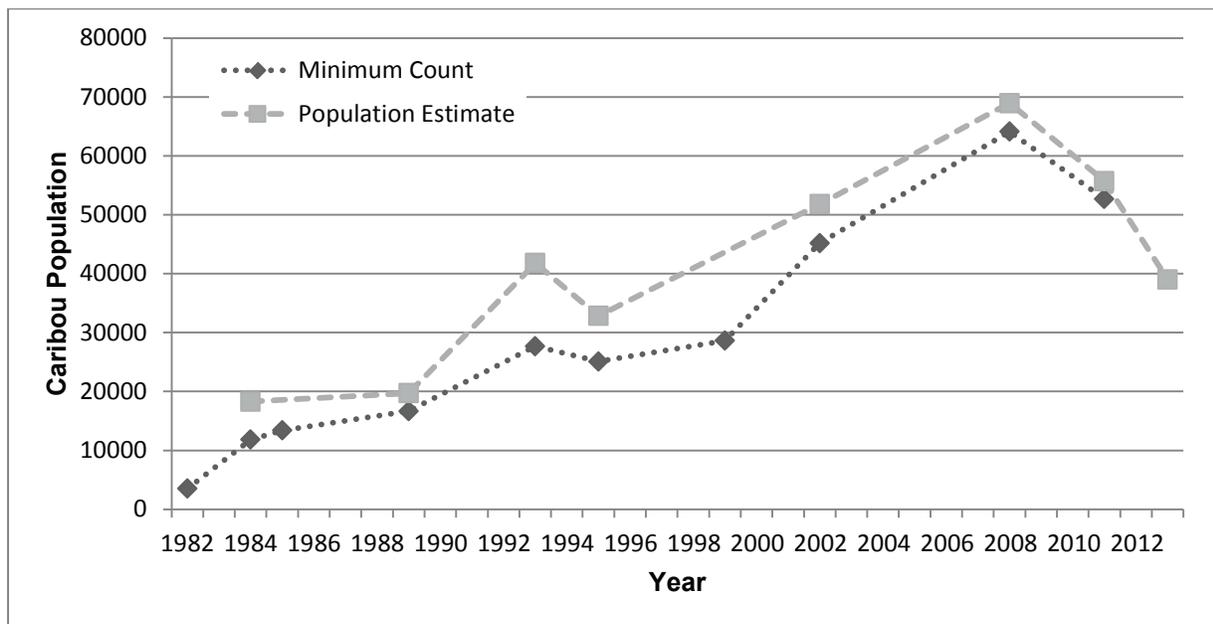


Figure 2. Minimum counts and population estimates of the Teshekpuk Caribou Herd from 1980-2014. Population estimates from 1984-2014 are based on aerial photographs of groups of caribou that contained radio-collared animals (Parrett 2011, 2013, Parrett 2015, pers. comm.).

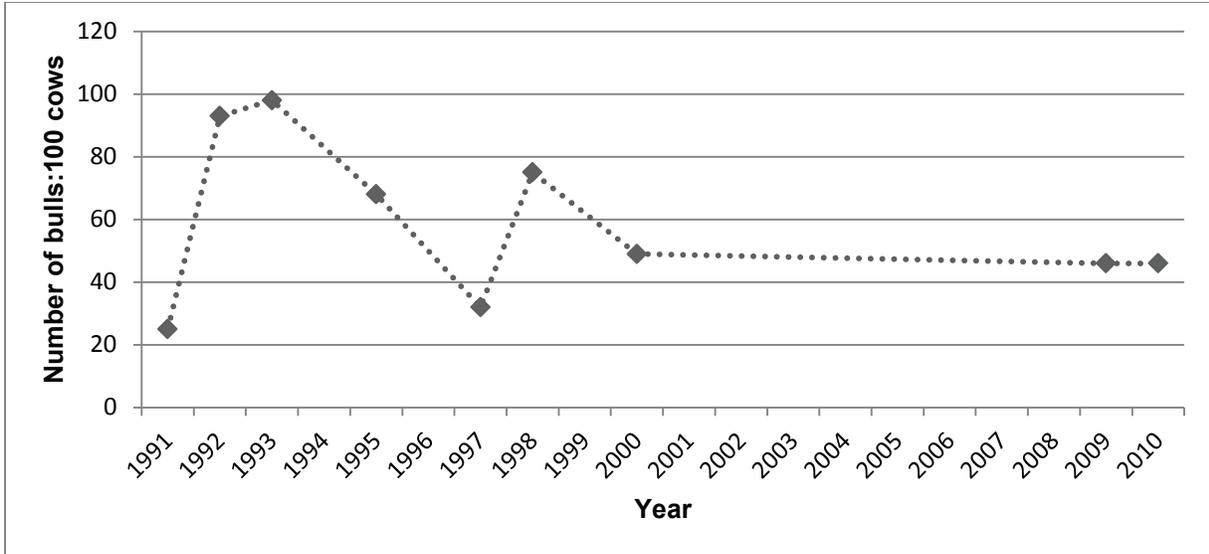


Figure 3. Bull:cow ratios of the Teshekpuk Caribou Herd (Parrett 2013).

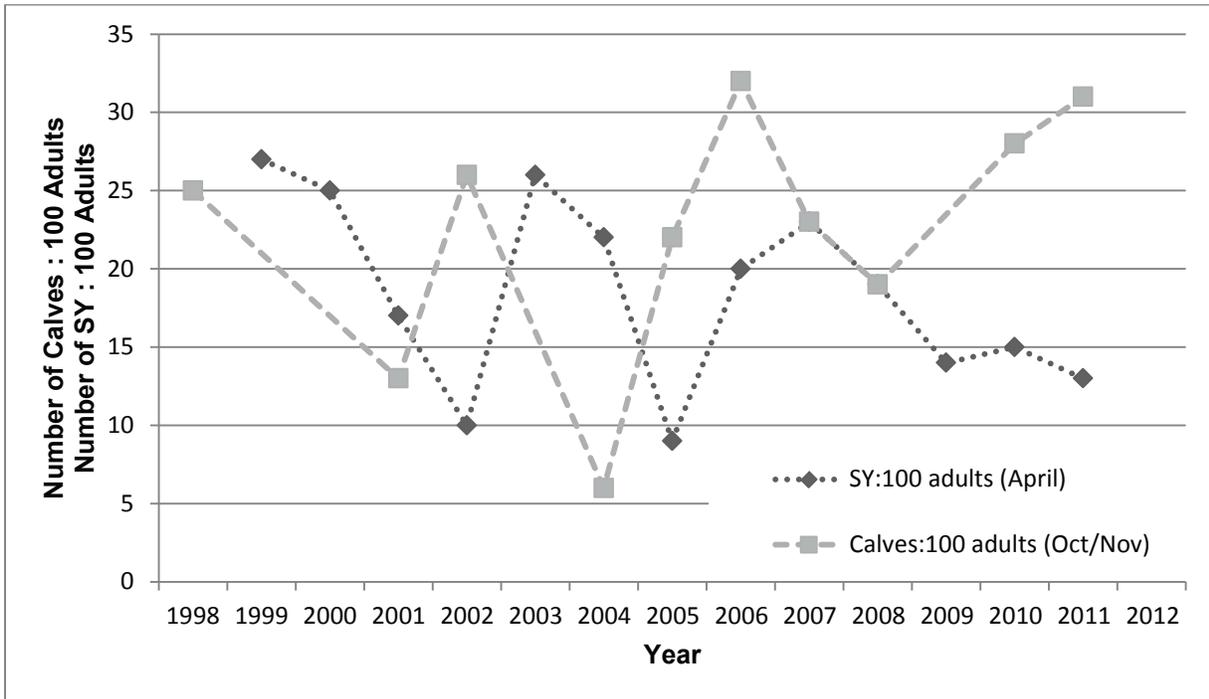


Figure 4. Calf:adult and short yearling (SY):adult ratios for the Teshekpuk Caribou Herd (Parrett 2013). Short yearlings are 10-11 months old caribou.

Western Arctic Caribou Herd

The WACH has historically been the largest caribou herd in Alaska and has a home range of approximately 157,000 mi² in northwestern Alaska (Figure 1). In the spring, most mature cows move north to calving grounds in the Utukok Hills, while bulls and immature cows lag behind and move toward summer range in the Wulik Peaks and Lisburne Hills (Dau 2011, WACH Working Group 2011).

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

In the fall, the herd moves south toward wintering grounds in the northern portion of the Nulato Hills. The caribou rut occurs during fall migration (Dau 2011, WACH Working Group 2011). Dau (2013) determined the WACH rut dates to be October 22-26. This is based on back-calculations from calving dates using a 230 day gestation period.

The Western Arctic Caribou Herd Working Group (WACH WG) formed in 1997 to ensure the long-term conservation and traditional use of the WAH. It is comprised of 20 voting chairs, including subsistence hunters from local villages, sport hunters, hunting guides, reindeer herders, and other stakeholders. The WAH WG developed a Western Arctic Caribou Herd Cooperative Management Plan (WACH Management Plan) in 2003, which was revised in 2011 (WACH Working Group 2011).

The Management Plan identifies seven plan elements: cooperation, population management, habitat, regulations, reindeer, knowledge, and education as well as associated goals, strategies, and management actions.

The State manages the WACH to protect the population and its habitat, provide for subsistence and other hunting opportunities on a sustained yield basis, and provide for viewing and other uses of caribou (Dau 2011). State management objectives for the WACH are the same as the goals specified in WACH Management Plan (WACH Working Group 2011, Dau 2011) and include:

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

As part of the population management element, the WACH Working Group developed a guide to herd management determined by population size, population trend, and harvest rate (**Table 1**).

The WACH population declined rapidly in the early 1970s and bottomed out at about 75,000 animals in 1976. Aerial photo censuses have been used since 1986 to estimate population size. The WAH popula-

tion increased throughout the 1980s, and 1990s, peaking at 490,000 animals in 2003 (**Figure 5**). Since 2003, the WACH has declined at an average annual rate of 7.1% from approximately 490,000 in 2003 to 234,757 caribou in 2013 (Dau 2011, Caribou Trails 2014, Dau 2014) (**Figure 5**).

Between 1982 and 2011, the WAH population was within the liberal management level prescribed by the WAH Working Group (**Table 1**). In 2013, the WAH population estimate fell below the population threshold for liberal management of a decreasing population (265,000), slipping into the conservative management level (**Table 1, Figure 5**).

Between 1970 and 2012, the bull:cow ratio has exceeded critical management levels (see **Table 1**) in all years, except 1975 and 2001 (**Figure 6**). However, reduced sampling intensity in 2001 likely biased the bull:cow ratio low (Dau 2013). The average annual number of bulls:100 cows were greater during the period of population growth (54:100 between 1976-2001) than during the recent period of decline (45:100 between 2004-2014). Additionally, Dau (2013) states all bull:cow ratios should be interpreted with caution due to sexual segregation during sampling and their inability to sample the entire population.

Table 1. Western Arctic caribou herd management levels using herd size, population trend, and harvest rate (WAH Working Group 2011).

Management Level and Harvest Level	Population Trend		
	Declining Low: 6%	Stable Med: 7%	Increasing High: 8%
Liberal	Pop: 265,000+ Harvest: 18,550-24,850	Pop: 230,000+ Harvest: 16,100-21,700	Pop: 200,000+ Harvest: 16,000-21,600
Conservative	Pop: 200,000-265,000 Harvest: 14,000-18,550	Pop: 170,000-230,000 Harvest: 11,900-16,100	Pop: 150,000-200,000 Harvest: 12,000-16,000
Preservative	Pop: 130,000-200,000 Harvest: 8,000-12,000	Pop: 115,000-170,000 Harvest: 8,000-12,000	Pop: 100,000-150,000 Harvest: 8,000-12,000
Critical Keep Bull: Cow ratio ≥ 40 Bulls:100 Cows	Pop: < 130,000 Harvest: 6,000-8,000	Pop: < 115,000 Harvest: 6,000-8,000	Pop: < 100,000 Harvest: 6,000-8,000

Between 1970 and 2012, the fall calf:cow ratio ranged from 35-59 calves:100 cows/year, averaging 46 calves:100 cows/year (**Table 2, Figure 7**). During periods of rapid population growth (1976–1992), fall calf:cow ratios were generally higher (averaging 54 calves:100 cows/year) than during periods of slow population growth or decline (1993–2013, averaging 43 calves:100 cows/year) (**Table 2, Figure 7**).

Although factors contributing to the decline are not known with certainty, increased adult cow mortality, and decreased calf recruitment and survival played a role (Dau 2011). Since the mid-1980s, adult mortality has slowly increased while recruitments has slowly decreased (Dau 2013, **Figures 7, 8**).

Calf production has likely had little influence on the population trajectory (Dau 2013). Between 1990 and 2003, the June calf:cow averaged 66 calves:100 cows/year. Between 2004 and 2012, the June calf:cow ratio averaged 69 calves:100 cows/year (**Figure 7**).

However, decreased calf survival and recruitment are likely contributing to the current population decline (Dau 2013). Short yearlings (SY) are 10-11 months old caribou. SY:adult ratios indicate overwintering calf survival and recruitment. Between 1990 and 2003, SY:adult ratios averaged 20 SY:100 adults/year. Since the decline began in 2003, SY:adult ratios have averaged 16 SY:100 adults/year (2004-2012, **Figure 7**).

Similarly, fall calf:cow ratios indicate calf survival over summer. Fall calf:cow ratios declined from an average of 46 calves:100 cows/year between 1990-2003 to an average of 39 calves:100 cows/year between 2004-2012 (**Figure 7**).

The annual mortality rate of radio-collared adult cows increased, from an average of 15% between 1987 and 2003, to 25% from 2004–2012 (Dau 2011, 2013, 2014, **Figure 8**). Estimated mortality includes all causes of death including hunting (Dau 2011). Dau (2013) states these mortality rates are biased high due to selection of older caribou to radio-collar. Dau (2013) attributed the high mortality rate for 2011-2012 (33%, **Figure 8**) to a winter with deep snows, which weakened caribou and enabled wolves to predate them more easily. Prior to 2004, estimated adult cow mortality only exceeded 20% twice, but has exceeded 20% in 7 of the last 9 regulatory years between 2004 and 2012 (**Figure 8**).

Far more caribou have died from natural causes than from hunting between 1992 and 2012. Cow mortality remained constant throughout the year. However, natural and harvest mortality for bulls spiked during the fall. Predation, particularly by wolves, accounted for the majority of the natural mortality (Dau 2013).

As the WACH declined, the percentage of mortality due to hunting increased relative to natural mortality. For example, during the period October 1, 2013 to September 30, 2014, estimated hunting mortality was approximately 42% and estimated natural mortality about 56% (estimates from slide 16, Dau 2014). In previous years (1983-2013), the estimated hunting mortality exceeded 30% only once in 1997-1998 (Dau 2013).

Other contributing factors that may be contributing to the current population decline include weather (particularly fall and winter icing events), predation, hunting pressure, deteriorating range condition (including habitat loss and fragmentation), climate change, and disease (Dau 2014).

Joly et al. (2007) documented a decline in lichen cover in portions of the wintering areas of the WACH. Dau (2011, 2014) reported that degradation in range condition is not thought to be a primary factor in the decline of the WACH because animals in the WACH, unlike the TCH, have generally maintained good body condition since the decline began. However, the body condition of the WACH in the spring may be a better indicator of the effects of range condition versus the fall when the body condition of the WACH is routinely assessed and when caribou are in prime condition (July 2015, pers. comm.).

Habitat

Caribou feed on a wide variety of plants including lichens, fungi, sedges, grasses, forbs, and twigs of woody plants. Arctic caribou depend primarily on lichens during the fall and winter, but during summer they feed on leaves, grasses and sedges (Miller 2003). The importance of high use areas for the TCH at Teshekpuk Lake during the summer has been well documented (Person et al. 2007, Carroll 2007, Parrett 2011, Wilson 2012, Smith, Witten, and Loya 2015). Presumably the importance of areas to the north, south, and east of Teshekpuk Lake during calving is due to the high concentration of sedge-grass meadows (Wilson et al. 2012). The areas around Teshekpuk Lake in the NPR–A are currently protected from oil and gas leasing in recognition of the importance of these areas for caribou, waterfowl and shorebirds (BLM 1998, 2008).

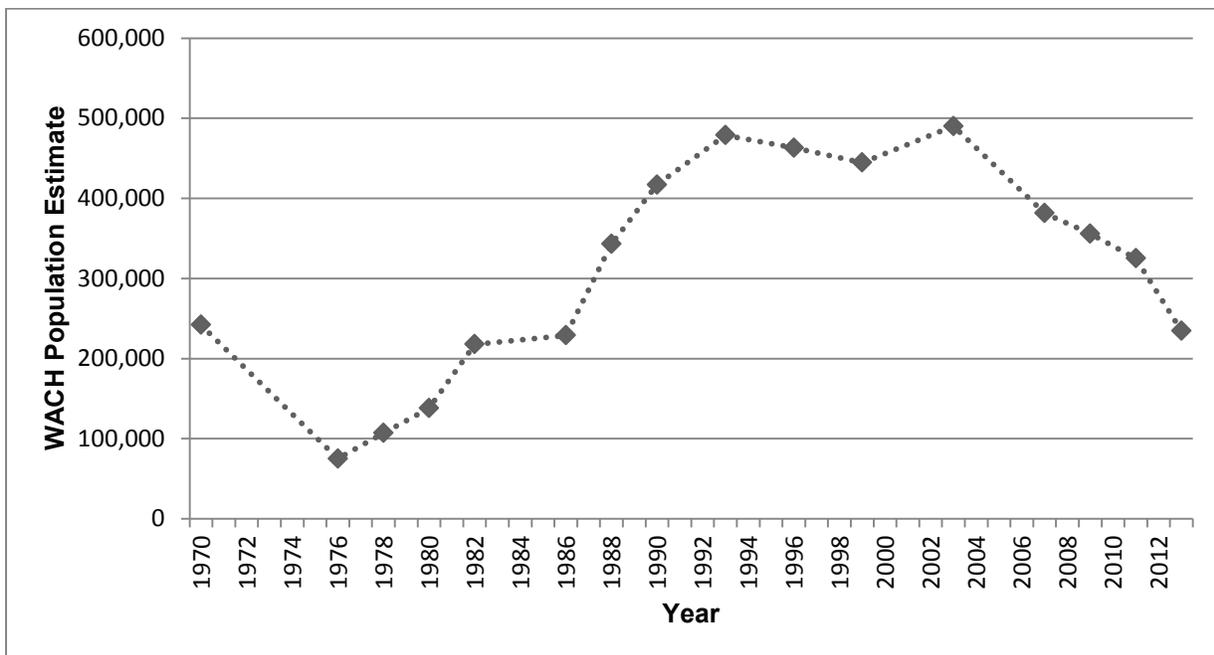


Figure 5. Western Arctic caribou herd population estimates from 1970-2013. Population estimates from 1986-2013 are based on aerial photographs of groups of caribou that contained radio-collared animals (Dau 2011, 2013, 2014).

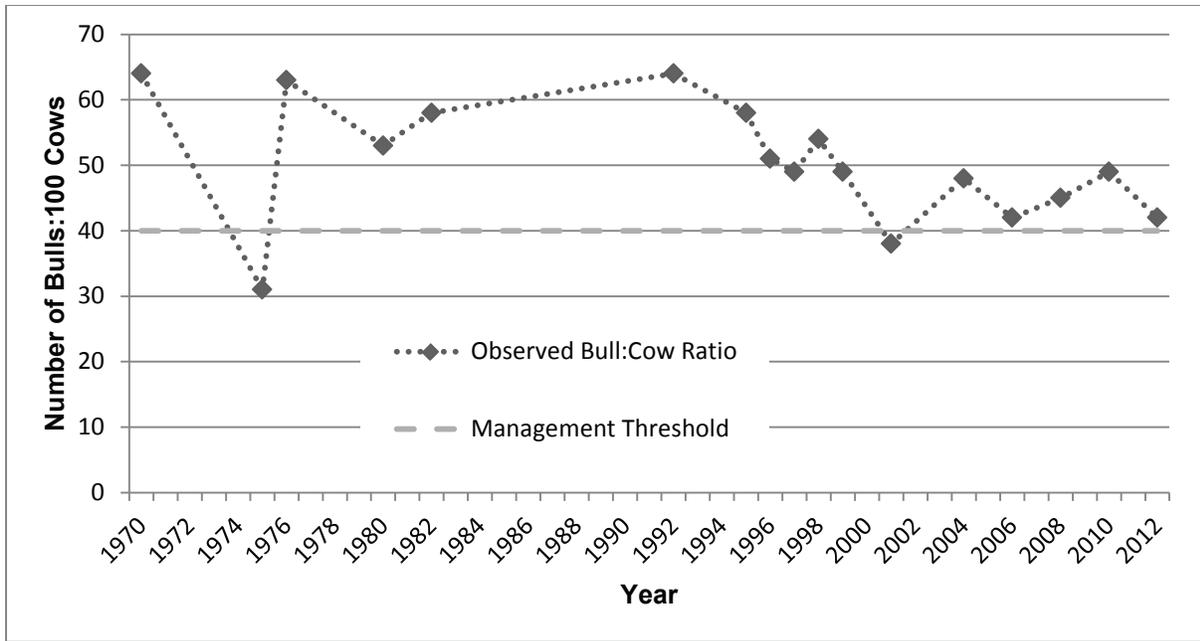


Figure 6. Bull: Cow ratios for the Western Arctic Caribou Herd (Dau 2013).

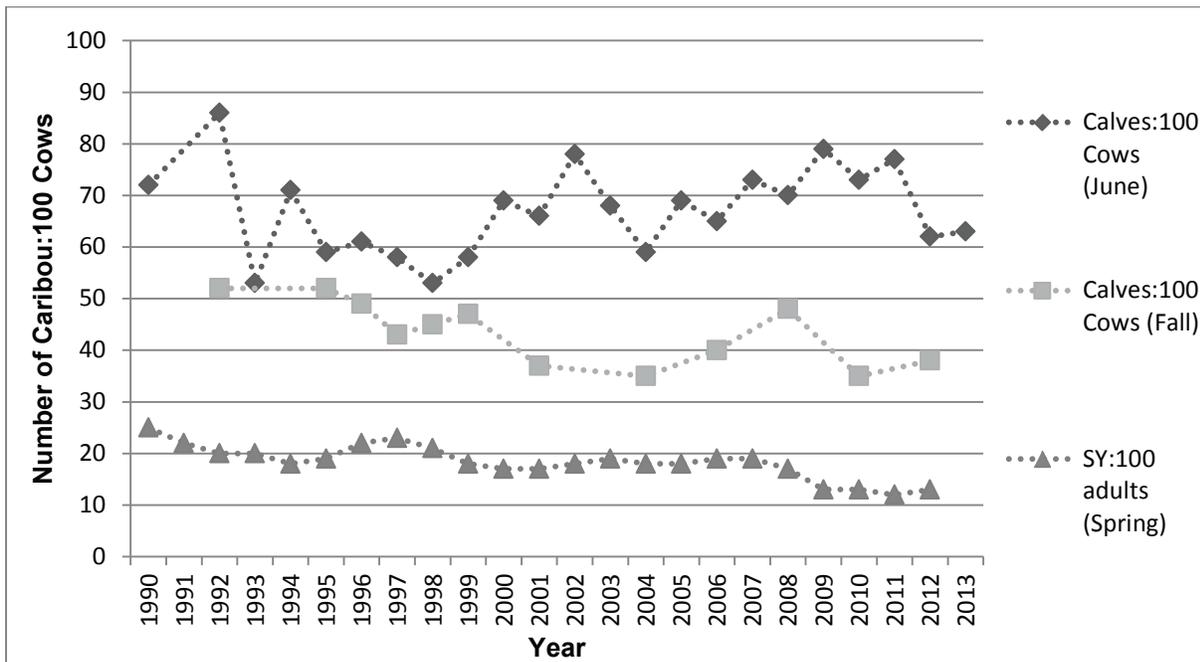


Figure 7. Calf: cow and short yearling (SY): adult ratios for the Western Arctic Caribou Herd (Dau 2013). Short yearlings are 10-11 months old caribou.

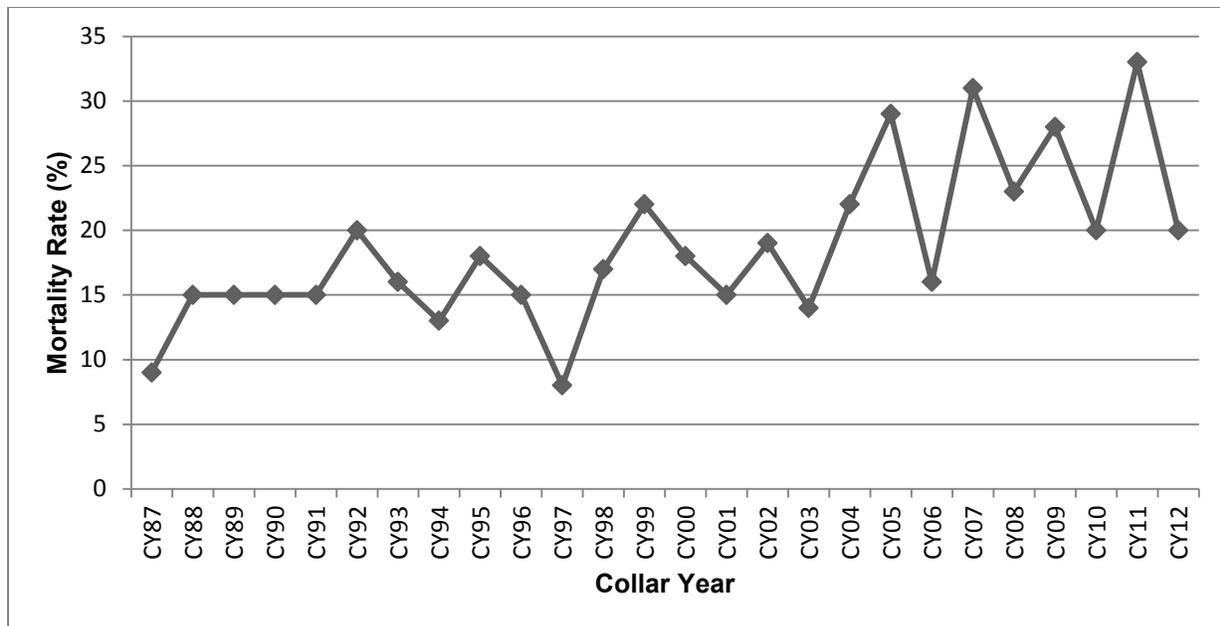


Figure 8. Mortality rate of radio-collared caribou in the Western Arctic caribou herd (Dau 2013). Collar Year = 1 Oct-30 Sept.

Harvest History

Harvest from the TCH is difficult to estimate because of very poor reporting, variation in community survey effort and location, widely varying wintering distribution of the TCH, and mixing of caribou herds. Most of the harvest occurs from July-October by local hunters in Unit 26A. Very low levels of TCH harvest occur in Units 23, 24, and 26B. Non-locals and non-residents account for less than 3% of the TCH harvest (Parrett 2013). Parrett (2013) estimates 3,387 TCH caribou were harvested in Unit 26A by local communities in each of 2010/11 and 2011/12 and that previously reported harvest estimates (Parrett 2009) were biased high due to oversampling (**Table 3**). This estimate is well above State objectives.

From 1999–2014, the average annual estimated harvest from the WACH was 13,600 caribou, ranging from 9,500-15,800 caribou/year (Dau 2009, Dau 2014, pers. comm., **Figure 9**). These harvest levels are within the conservative harvest level specified in the WACH Management Plan (**Table 1**). Local residents take approximately 94% of the caribou harvest within the range of the WACH, with residents of Unit 23 accounting for the vast majority of the harvest. From 1999-2011, 66-88% of all WACH caribou were harvested from Unit 23 by residents and non-residents (Dau 2013, **Figure 9**).

The State of Alaska manages the WACH to maximize a harvestable surplus of animals. In recent years, as the WACH population has declined, the State's total harvestable surplus for the WACH, which is estimated as 2% of the cows and 15% of the bulls, has declined (Dau 2011, Dau 2014, pers. comm.). Harvest from the WACH, which has remained fairly consistent since 1990, now represents a larger proportion of the annual mortality. This is one of the factors that prompted the Alaska Board of Game to enact restrictions to WACH and TCH caribou harvest in March 2015.

Table 2. Western Arctic Caribou Herd fall composition 1976 – 2014 (Dau 2011, 2013, 2014).

Regulatory Year	Total bulls: 100 cows ^a	Calves: 100 cows	Calves: 100 adults	Bulls	Cows	Calves	Total
1976/1977	63	52	32	273	431	222	926
1980/1981	53	53	34	715	1,354	711	2,780
1982/1983	58	59	37	1,896	3,285	1,923	7,104
1992/1993	64	52	32	1,600	2,498	1,299	5,397
1995/1996	58	52	33	1,176	2,029	1,057	4,262
1996/1997	51	49	33	2,621	5,119	2,525	10,265
1997/1998	49	43	29	2,588	5,229	2,255	10,072
1998/1999	54	45	29	2,298	4,231	1,909	8,438
1999/2000	49	47	31	2,059	4,191	1,960	8,210
2001/2002	38	37	27	1,117	2,943	1,095	5,155
2004/2005	48	35	24	2,916	6,087	2,154	11,157
2006/2007	42	40	28	1,900	4,501	1,811	8,212
2008/2009	45	48	33	2,981	6,618	3,156	12,755
2010/2011	49	35	23	2,419	4,973	1,735	9,127
2012/2013	42	38	27	2,119	5,082	1,919	9,120
2013/2014							
2014/2015	39						

^a 40 bulls:100 cows is the minimum level recommended in the WACH Cooperative Management Plan (WACH Working Group 2011)

Reliance on caribou from a particular herd varies by community. Residents of Atqasuk, Barrow, Nuiqsut, and Wainwright harvest caribou primarily from the TCH while residents from Anaktuvuk Pass, Point Lay, and Point Hope harvest caribou primarily from the WACH (Dau 2011, Parrett 2011, 2013). Weather, distance of caribou from the community, terrain, and high fuel costs are some of the factors that can affect the availability and accessibility of caribou. Residents of Nuiqsut, which is on the northeast corner of Unit 26A, harvest approximately 11% of their caribou from the CACH (**Table 3**, Parrett 2013).

Range overlap between the three caribou herds, frequent changes in the wintering distribution of the TCH and WACH, and annual variation in the community harvest survey effort and location make it difficult to determine the proportion of the TCH, WACH and CACH in the harvest. Knowledge of caribou distribution at the time of the reported harvest is often used to estimate the proportion of the harvest from each herd. Community harvest surveys continue to be the preferred method to estimate harvest by Federally qualified subsistence users, since previous attempts to conduct registration hunts were not effective (Georgette 1994). However, community surveys are not always reliable due to sampling issues (Braem et al. 2011, Parrett 2011).

For communities where harvest surveys are not conducted or are unreliable, harvest estimates are often based on the current population estimate and previous estimates of the per capita harvest. A general overview of the relative utilization based on estimated harvest of each caribou herd by community for regulatory year 2010/11, is presented in **Table 3** (Parrett 2011, Dau 2011, and Lenart 2011). The percentage of caribou harvested from different herds by community has varied $\leq 2\%$ for all communities between 2008/09, 2009/10, and 2010/11. Total annual estimated caribou harvest by community varied with community population estimates.

The WACH Management Plan recommends harvest strategies at different management and harvest levels (**Table 1**). The harvest recommendations under conservative management include: no harvest of calves, no cow and restricted bull harvest by nonresidents, voluntary reduction of cow harvest by residents, and limiting harvest to maintain a minimum 40:100 bull:cow ratio (WACH Working Group 2011).

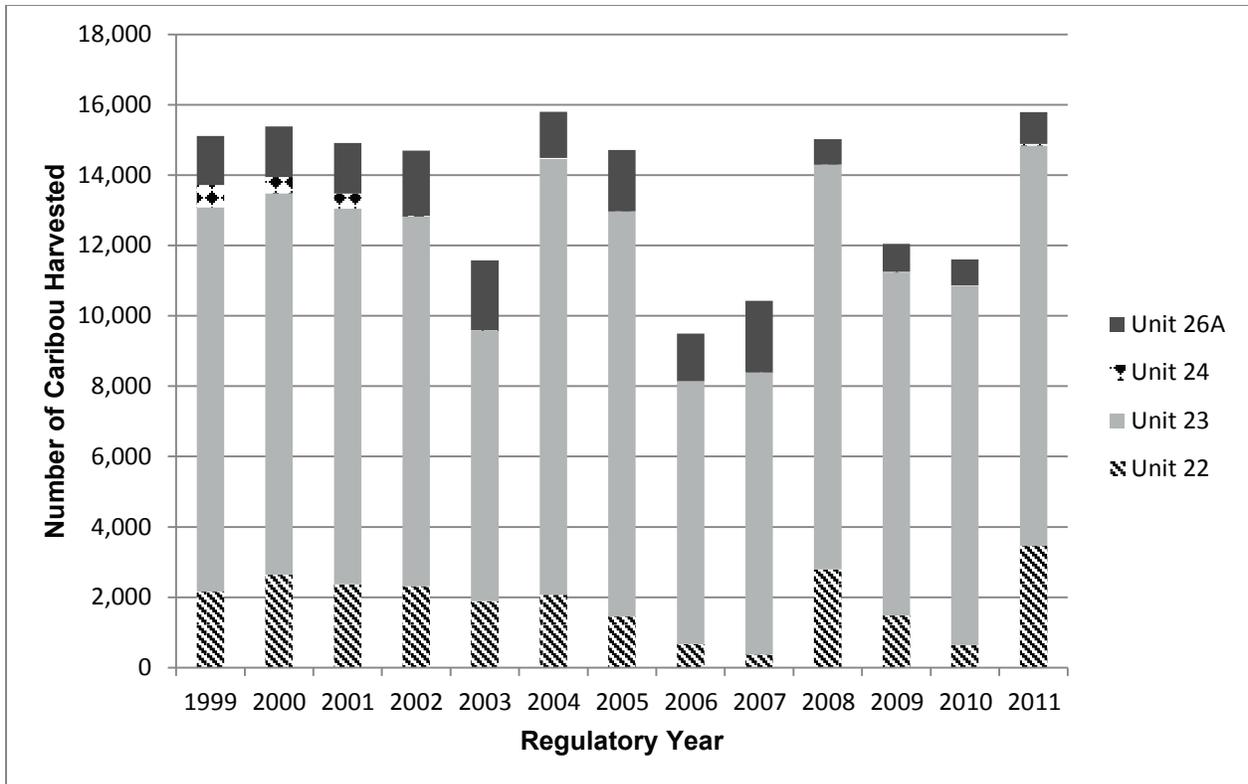


Figure 9. Total (resident and non-resident) estimated annual harvest of Western Arctic caribou by unit (Dau 2009, 2013). Unit 21D not included (average harvest is 0-10 caribou/year).

Other Alternatives Considered

WP16-43 and WP16-45 request changes to hunt area descriptors and areas open to caribou hunting in Unit 22 to mitigate user conflicts and the incidental take of reindeer. One alternative considered was to align the hunt area descriptors proposed in WP16-43 and WP16-45 with this proposal (WP16-37). However, considering the different intents of the proposals and the potential for the exact hunt areas descriptors to change through the review process, it was not deemed prudent at this time to reconcile these proposals. However, integrating the different hunt area descriptors and season dates requested by these proposals will be needed before the Board meets to take action on these proposals.

The North Slope Subsistence Regional Advisory Council (NSRAC) submitted Proposals WP16-63 and WP16-64 concerning caribou in Units 26A and 26B, respectively. The hunt areas identified by the NSRAC in Unit 26 do not align with the hunt areas requested by this proposal (WP16-37). Another alternative considered was to align the hunt areas between WP16-63, WP16-64, and WP16-37. However, alignment of hunt areas between the respective proposals is more appropriate after the affected Councils have had an opportunity to review and comment on proposals.

Table 3. Estimated caribou harvest of the Teshekpuk, Western Arctic and Central Arctic caribou herds during the 2010/2011 regulatory years in Unit 26A by federally qualified users (Parrett 2013, Dau 2013). Note: Due to the mixing of the herds, annual variation in the community harvest surveys and missing data, the percentages for each community do not add up to 100%.

Community	Human population ^a	Per capita caribou harvest ^{bc}	Approximate total community harvest	Estimated annual TCH harvest (%)	Estimated annual WACH harvest (%)	Estimated annual CACH harvest (%)
Anaktuvuk Pass	331	1.8	582	174 (30)	431 (80)	
Atkasuk	234	0.9	215	210 (98)	6 (2)	
Barrow	4,290	0.5	2,145	2,123 (97)	62 (3)	
Nuiqsut	411	1.1	468	403 (86)	3 (1)	36 (11)
Point Lay	191	1.3	247	49 (20)	120 (40)	
Point Hope	704		894	0	894 (100)	
Wainwright	559	1.3	710	426 (60)	48 (15)	
Total Harvest				3,387	1564	36

^a Population estimates averaged from the 2010 U.S. Census and 2012 Alaska Department of Commerce, Division of Community and Regional Affairs data

^b Citations associated with per-capita caribou harvest assessment by community can be found in Table 5 (Parrett 2011).

^c Sutherland (2005)

Effects of the Proposal

If this proposal is adopted, Federally qualified subsistence users would have less opportunity to harvest caribou on Federal public lands in Units 21D, 22, 23, 24, 26A, and 26B. The caribou harvest limit in Unit 23 would be reduced from 15 per day to 5 per day and in Units 26A and 26B the harvest limit would be reduced from 10 per day to 5 per day. The reductions in the daily harvest limits and more restrictive harvest seasons for bulls and cows could reduce the potential harvest opportunities for Federally qualified subsistence users when caribou are available. The reduction on the take of calves is unlikely to have much effect on Federally qualified subsistence users since they rarely target calves.

Adopting this proposal would align State and Federal regulations, reducing regulatory complexity for users. Minimizing confusion among State and Federal regulations is desirable given the large and overlapping ranges of the WACH and TCH.

The benefits of these proposed regulations for the conservation of the WACH and TCH vary. The reduction in the harvest of cows with calves as recommended in Unit 26A from Jul. 16 to Oct. 15 is likely to increase calf survival. The restriction on the take of calves is likely to have little conservation effect because subsistence users rarely target calves. Efforts to reduce harvest of bulls and cows should help

reduce the overall caribou harvest for the declining TCH and WACH populations. Since cow mortality is one of the major contributing factors to the decline of WACH and TCH, any efforts to reduce cow mortality are recommended.

In Unit 23, that portion north of and including the Singoalik River drainage, the cow season is much longer (July 15-Apr. 30) than the cow season in Unit 23 remainder (Sept. 1-Mar. 31). Federally qualified subsistence users from locations outside of the hunt area may take advantage of this longer season resulting in increased competition for Point Hope subsistence users and disproportionate impacts to the caribou in that area.

OSM PRELIMINARY CONCLUSION

Support Proposal WP16-37 **with modification** to prohibit the harvest of cows with calves in Units 21D, 22, 23, 24, 26A and 26B, prohibit the harvest of calves in Unit 26B, extend the bull season in Units 26A and 26B, modify the cow season in Unit 26B, modify the hunt area descriptor in Unit 24, modify the harvest limit in Unit 26B, simplify and clarify the regulatory language, and delete regulatory language regarding to be announced seasons for Units 21D and 22 and delegate authority to Federal land managers to announce seasons via delegation of authority letters only (**Appendices 1-4**).

The modified regulations should read:

Unit 21D—Caribou

Unit 21D—north of the Yukon River and east of the Koyukuk River—caribou may be taken during a winter season to be announced by the Refuge Manager of the Koyukuk/Nowitna National Wildlife Refuge-Manager and the BLM Central Yukon Field Office Manager, in-consultation with ADF&G and the Chairs of the Western Interior Subsistence Regional Advisory Council, and the Middle Yukon and Ruby Fish and Game Advisory Committees. *Winter season to be announced.*

Unit 21D, remainder—5 caribou per day, as follows: ; however, cow caribou may not be taken May 16–June 30. *July 1–June 30.*

However, calves may not be taken

Bulls may be harvested

*July 1-Oct. 14
Feb. 1-June 30*

Cows may be harvested

However, cows accompanied by calves may not be taken Sept. 1-Oct. 15.

Sept. 1-Mar. 31.

Unit 22—Caribou

Unit 22B, that portion west of Golovin Bay and west of a line along the west bank of the Fish and Niukluk Rivers to the mouth of the Libby River, and excluding all portions of the Niukluk River drainage upstream from and including the Libby River drainage—5 caribou per day, as follows:

However, calves may not be taken

Bulls may be harvested

*Oct. 1-Oct. 14
Feb. 1-Apr. 30.*

Cows may be harvested

Oct. 1-Mar. 31

However, cows accompanied by calves may not be taken Oct. 1-Oct. 15.

5 caribou per day; however, calves may not be taken; Cows may not be taken April 1-Aug. 31; Bulls may not be taken Oct. 15-Jan. 31.

May 1–Sept. 30, a season may be opened by announcement announced by the Anchorage Field Office Manager of the BLM, in consultation with ADF&G.

Units 22A, that portion north of the Golsovia River drainage, 22B remainder, that portion of Unit 22D in the Kougaruk, Kuzitrin River drainage (excluding the Pilgrim River drainage), American, and the Agiapuk River Drainages, including the tributaries, and Unit 22E, that portion east of and including the Sanaguich River drainage—5 caribou per day, as follows: ; however, cow caribou may not be taken May 16–June 30.

July 1–June 30.

However, calves may not be taken

Bulls may be harvested

*July 1-Oct. 14
Feb. 1-June 30*

Cows may be harvested

Sept. 1-Mar. 31.

However, cows accompanied by calves may not be taken Sept. 1-Oct. 15.

Unit 22D, that portion in the Pilgrim River Drainage—5 caribou per

day as follows:

However, calves may not be taken

Bulls may be harvested

*Oct. 1-Oct. 14
Feb. 1-Apr. 30*

Cows may be harvested

Oct. 1-Mar. 31

However, cows accompanied by calves may not be taken Oct. 1-Oct. 15.

5 caribou per day; however, cows may not be taken April 1-Aug. 31.

*May 1 – Sept. 30
Season may be announced*

Unit 22 remainder—5 caribou per day; however, calves may not be taken; cows may not be taken Apr. 1-Aug. 31; cows accompanied by calves may not be taken Sept. 1-Oct. 15; bulls may not be taken Oct. 15-Jan. 31.

*No Federal open—
season
Season may be announced*

Unit 23—Caribou

Unit 23, that portion north of and including the Singoalik River drainage—155 caribou per day as follows: ; however, cow caribou may not be taken May 16 June 30

July 1 June 30.

However, calves may not be taken

Bulls may be harvested

*July 1-Oct. 14
Feb. 1--June 30*

Cows may be harvested

July 15-Apr. 30

However, cows accompanied by calves may not be taken July 15-Oct. 14.

Unit 23 remainder—5 caribou per day, as follows:

However, calves may not be taken

Bulls may be harvested

*July 1-Oct. 14
Feb. 1-June 30*

Cows may be harvested

Sept. 1-Mar. 31.

However, cows accompanied by calves may not be taken Sept. 1-Oct. 14.

Unit 24—Caribou

Unit 24A—south of the south bank of the Kanuti River—1 caribou Aug. 10–Mar. 31

Unit 24B—that portion south of the south bank of the Kanuti River, upstream from and including that portion of the Kanuti-Kilolitna River drainage, bounded by the southeast bank of the Kodosin-Nolitna Creek, then downstream along the east bank of the Kanuti-Kilolitna River to its confluence with the Kanuti River—1 caribou. Aug. 10–Mar. 31.

Unit 24 that portion north of (and including) the Kanuti River in Units 24A and 24B and that portion north of the Koyukuk River downstream from the confluence with the Kanuti River in Unit 24B to the Unit 24C boundary. remainder—5 caribou per day as follows; however, cow caribou may not be taken May 16–June 30 ~~July 1–June 30.~~

However, calves may not be taken

Bulls may be harvested July 1–Oct. 14
Feb. 1–June 30

Cows may be harvested July 15–Apr. 30
However, cows accompanied by calves may not be taken July 15–Oct. 14.

Units 24C, 24D—5 caribou per day as follows:

However, calves may not be taken

Bulls may be harvested July 1–Oct. 14
Feb. 1–June 30

Cows may be harvested Sept. 1–Mar. 31
However, cows accompanied by calves may not be taken Sept. 1–Oct. 14.

Unit 26—Caribou

Unit 26A, that portion of the Colville River drainage upstream from the Anaktuvuk River, and drainages of the Chukchi Sea south and west of, and including the Utukok River drainage—5 caribou per day as follows; however, cow caribou may not be taken May 16–June 30. July 1–June 30.

However, calves may not be taken

Bulls may be harvested

*July 1-Oct. 14
Feb. 1-June 30*

Cows may be harvested

However, cows accompanied by calves may not be taken July 15-Oct. 15.

July 15-Apr. 30.

Unit 26A remainder

Calves may not be taken

5 Bulls per day may be harvested

*July 1-Oct. 14
Dec. 6-June 30*

3 cows per day may be harvested

However, cows accompanied by calves may not be taken July 16-Oct. 15

July 16-Mar. 15

Unit 26B, Northwest portion: north of 69° 30' N. lat and west of the east bank of the Kuparuk River to a point at 70° 10' N. lat., 149° 04' W. long, then west approximately 22 miles to 70° 10' N. lat. And 149° 56' W. long., then following the east bank of the Kalubik River to the Arctic Ocean—5 caribou per day; however, cows may not be taken May 16-June 30; Cows accompanied by calves may not be taken July 1-Oct. 15; Calves may not be taken.

July 1-June 30

Unit 26B, that portion south of 69° 30' N. lat. and west of the Dalton Highway—5 caribou per day as follows:

However, calves may not be taken

Bulls may be harvested

*July 1-Oct. 14
Dec. 10-June 30*

Cows may be harvested

Oct. 14-Apr. 30

Unit 26B, that portion south of 69° 30' N. lat. and east of the Dalton Highway—5 caribou per day; however, cows may not be taken from May 16-June 30; Cows accompanied by calves may not be taken July 1-Oct. 15.

July 1-June 30

Unit 26B remainder—105 caribou per day;

However, calves may not be taken—cow caribou may be taken only from Oct. 1–Apr. 30.

Bulls may be harvested

July 1–~~June 30~~ Apr. 30

Cows may be harvested

Oct. 14–Apr. 30

You may not transport more than 5 caribou per regulatory year from Unit 26 except to the community of Anaktuvuk Pass.

Justification

The precipitous decline of the caribou herds in northern and western Alaska warrant strong measures to ensure the conservation of these populations. Since 2008, the Teshekpuk and Western Arctic caribou populations have declined approximately 50%. Low calf survival and recruitment combined with increasing adult mortality are contributing factors to the overall population decline. In addition, current harvest rates including the taking of cows accompanied by calves, if allowed to continue, could prolong or worsen the current decline, and hamper recovery.

The Alaska Board of Game recently responded to these population concerns by passing restrictions to caribou hunting under their regulations for the 2015 regulatory year. General alignment of the State and Federal regulations will provide for a consistent management approach to conservation of these populations. Additionally, it will reduce the regulatory complexity for Federally qualified subsistence users. Minimizing confusion among State and Federal regulations is desirable given the large and overlapping ranges of the WACH and TCH. Overall, coordination of State and Federal conservation efforts will provide an opportunity to evaluate the effectiveness of reducing the caribou harvest in slowing down or reversing the population declines in the TCH and WACH. The restrictions proposed by this proposal for the WACH are also supported by management recommendations outlined in the Western Arctic Herd Management Plan (WACH Working Group 2011).

Two important conservation measures that can be taken to address the declining populations of the WACH and TCH are to increase calf survival and recruitment and reduce adult cow mortality. To address these conservation measures, cow harvest seasons have been shortened and regulations to protect cows with calves during their first six months have been incorporated into this proposal for Units 21D, 22, 23, 24, 26A, and 26B. These measures protect cows with calves while the calves are still nursing as orphaning calves before weaning decreases their chances of survival (Rughetti and Festa-Bianchet 2014, July 2000, Holand et al. 2012). Additionally, over summer calf survival in the WACH has decreased since 2003, ultimately leading to decreased recruitment into the herd. Prohibiting the take of cows with calves during the summer may improve over summer calf survival.

Modification of the hunt area descriptor in Unit 24B clarifies which parts of Unit 24B are included in the

regulations. The State's hunt area descriptor for Unit 24B is incomplete and leaves that portion north of the Koyukuk River downstream from the confluence with the Kanuti River in an ambiguous management unit.

The modified opening date of Dec. 6 for caribou in Unit 26A was specifically requested by the NSRAC as bull caribou are considered edible by then. This modification provides an additional three weeks of harvest opportunity to Federally qualified subsistence users.

The change in the bull season in Unit 26B from the proposed May 16-Oct. 10 (current State regulations) to the modified Dec. 10-Oct. 14 aligns with the bull season requested by the NSRAC in WP16-64. The proposed season dates (current State regulations) prohibited the take of bulls during late winter and early spring, which is unnecessarily restrictive. The modified bull season dates prohibit the take of bulls during rut when their meat is inedible.

The change in the cow season in Unit 26B from the proposed July 1-Oct. 10 (current State regulations) to the modified Oct. 14-Apr. 30 affords better protection for cows and cows with calves than the newly adopted State regulations. The proposed season allowed the take of cows when calves are still less than 6 months old, which may reduce recruitment and prohibited the take of cows in late winter and early spring, which is unnecessarily restrictive.

The change in the harvest limit for portions of Unit 26B from 5 caribou/season (current State regulations) to 5 caribou/day affords more harvest opportunity to Federally qualified subsistence users, aligns with the harvest limit proposed by the NSRAC (WP16-64), and is more consistent with the harvest limits of other units.

Simplifying the regulatory language reduces confusion for users. Creation of a delegation of authority letter for the Federal land manager will simplify regulations and allow for management flexibility through adjustment of in-season hunt parameters.

LITERATURE CITED

Braem, N.M., S. Pedersen, J. Simon, D. Koster, T. Kaleak, P. Leavitt, J. Paktotak, and p. Neakok. 2011. Monitoring of caribou harvests in the National petroleum Reserve in Alaska: Atqusuk, Barrow, and Nuiqsut, 2003-2007. Alaska Department of the Fish and Game, Division of the Subsistence Technical Paper No 361, ADF&G, Fairbanks, AK

Bureau of Land Management. 1998. Northeast National Petroleum Reserve—Alaska: final integrated activity plan/environmental impact statement. Department of Interior, BLM, Anchorage, AK.

Bureau of Land Management. 2008. Northeast National Petroleum Reserve—Alaska: supplemental integrated activity plan/environmental impact statement. Department of Interior, BLM, Anchorage, AK.

Caribou Trails 2014. News from the Western Arctic Caribou Herd Working Goup. Western Arctic Caribou Herd Working Group, Nome, AK. Issue

14. http://westernarcticcaribou.org/wp-content/uploads/2014/07/CT2014_FINAL_lowres.pdf. Retrieved: June 23, 2015.

Carroll, G. 2007. Unit 26A, Teshekpuk caribou herd. Pages 262-283 in P. Harper, editor. Caribou management report of survey and inventory activities 1 July 2004–30 June 2006. Alaska Department of Fish and Game. Project 3.0. Juneau, AK.

Carroll, G. M. 2015. Wildlife Biologist. Personal communication. email, in-person. ADF&G. Barrow, AK.

Dau, J. 2009. Units 21D, 22A, 22B, 22C, 22D, 22E, 23, 24, and 26A in Caribou survey–inventory management report. Pages 176-239 in P. Harper, editor. Caribou management report of survey and inventory activities July 1, 2006– June 30, 2008. ADF&G. Juneau, AK

Dau, J. 2011. Units 21D, 22A, 22B, 22C, 22D, 22E, 23, 24, and 26A caribou management report. Pages 187-250 in P. Harper, editor. Caribou management report of survey and inventory activities July 1, 2008–30 June 30, 2010. ADF&G. Juneau, AK.

Dau, J. 2013. Units 21D, 22A, 22B, 22C, 22D, 22E, 23, 24, and 26A caribou management report. Pages 201-280 in P. Harper, editor. Caribou management report of survey and inventory activities July 1, 2010–30 June 30, 2012. ADF&G. Juneau, AK.

Dau, J. 2014. Wildlife Biologist. Personal communication. Information, including a power point presentation, presented at the Western Arctic Caribou Herd (WACH) Working Group Meeting, December 17-18, 2014. Anchorage, Alaska. ADF&G. Nome, AK.

FWS. 1991. Staff analysis P91-132. Pages 67-68 in Federal Subsistence Board Meeting materials March 4-8, 1991. Office of Subsistence Management, USFWS. Anchorage, AK. 246pp.

FWS. 1992. Staff analysis S92-06. Office of Subsistence Management, USFWS. Anchorage, AK. 246pp.

FWS. 1994. Staff analysis P94-63A. Pages 519-523 in Federal Subsistence Board Meeting materials April 1994. Office of Subsistence Management, USFWS. Anchorage, AK. 726pp.

FWS. 1995a. Staff analysis P97–051. Pages 334-339 in Federal Subsistence Board Meeting materials April 10-14, 1995. Office of Subsistence Management, USFWS. Anchorage, AK. 398pp.

FWS. 1995b. Staff analysis P95–062. Pages 399-404 in Federal Subsistence Board Meeting materials April 10-14, 1995. Office of Subsistence Management, USFWS. Anchorage, AK. 488pp.

FWS. 1995c. Staff analysis P95–064/065. Pages 411-417 in Federal Subsistence Board Meeting materials April 10-14, 1995. Office of Subsistence Management, USFWS. Anchorage, AK. 488pp.

FWS. 1996. Staff analysis P96-049. Pages 602-615 in Federal Subsistence Board Meeting materials April 29-May 3, 1996. Office of Subsistence Management, USFWS. Anchorage, AK. 784pp.

- FWS. 1997a. Staff analysis P97–054. Pages 745-754 in Federal Subsistence Board Meeting materials April 7-11, 1997. Office of Subsistence Management, USFWS. Anchorage, AK. 1034pp.
- FWS. 1997b. Staff analysis P97–066. Pages 879-895 in Federal Subsistence Board Meeting materials April 7-11, 1997. Office of Subsistence Management, USFWS. Anchorage, AK. 1034pp.
- FWS. 2000a. Staff analysis P00–053. Pages 563-573 in Federal Subsistence Board Meeting materials May 2-4, 2000. Office of Subsistence Management, USFWS. Anchorage, AK. 661pp.
- FWS. 2000b. Staff analysis P00–044. Pages 466-475 in Federal Subsistence Board Meeting materials May 2-4, 2000. Office of Subsistence Management, USFWS. Anchorage, AK. 661pp.
- FWS. 2003. Staff analysis P03–040. Pages 106-115 in Federal Subsistence Board Meeting materials May 20-22, 2003. Office of Subsistence Management, USFWS. Anchorage, AK. 765pp.
- FWS. 2006a. Staff analysis WP06-37. Pages 368-376 in Federal Subsistence Board Meeting materials May 16-18, 2006. Office of Subsistence Management, USFWS. Anchorage, AK. 579 pp.
- FWS. 2006b. Staff analysis WP06-65. Pages 520-528 in Federal Subsistence Board Meeting materials May 16-18, 2006. Office of Subsistence Management, USFWS. Anchorage, AK. 579 pp.
- FWS. 2007. Staff analysis WP07-33. Pages 363-375 in Federal Subsistence Board Meeting materials April 30-May 2, 2007. Office of Subsistence Management, USFWS. Anchorage, AK. 643 pp.
- Georgette, S. 1994. Summary of Western Arctic Caribou Herd overlays (1984-1992) and comparison with harvest data from other sources. Unpublished manuscript. Alaska Department of Fish and Game, Division of Subsistence, Fairbanks, AK. 26 pp.
- Gunn, A. 2001. Voles, lemmings and caribou – population cycles revisited? *Rangifer*, Special Issue. 14: 105-111.
- Holand, O., R.B. Weladji, A. Myrnes, K. Roed, E. Reimers, M. Nieminen. 2012. Induced orphaning reveals post-weaning maternal care in reindeer. *European Journal of Wildlife Research*. 58: 589-596.
- Jandt, R.R. 1998. Ray Mountain caribou: Distribution, movements, and seasonal use areas, 1994-1997. BLM–Alaska Open File Report 67. Anchorage, AK. 39pp.
- Joly, K. 2000. Orphan Caribou, *Rangifer tarandus*, Calves: A re-evaluation of overwinter survival data. *The Canadian Field Naturalist*. 114: 322-323.
- Joly, K., R.R. Jandt, C.R. Meyers, and J.M. Cole. 2007. Changes in vegetative cover on the Western Arctic herd winter range from 1981–2005: potential effects of grazing and climate change. *Rangifer* Special Issue 17:199-207.
- Joly, K. 2015. Wildlife Biologist, Gates of the Arctic National Park and Preserve. Personal communication. email NPS. Fairbanks, AK.
- Lenart, E. A. 2011. Units 26B and 26C caribou. Pages 315-345 in P. Harper, editor. Caribou management report of survey and inventory activities 1 July 2008–30 June 2010. ADF&G. Project 3.0. Juneau, AK.

- Miller, F.L. 2003. Caribou (*Rangifer tarandus*). Pages 965-997 in Feldhamer, B.C. Thompson, and J.A. Chapman, eds. Wild Mammals of North America- Biology, Management, and Conservation. John Hopkins University Press. Baltimore, Maryland.
- Parrett, L.S. 2007. Summer ecology of the Teshekpuk Caribou Herd. M.S. Thesis. University of Alaska, Fairbanks. Fairbanks, AK. 161 pp.
- Parrett, L.S. 2009. Unit 26A, Teshekpuk caribou herd. Pages 246-278 in P. Harper, editor. Caribou management report of survey and inventory activities 1 July 2006–30 June 2008. Alaska Department of Fish and Game, Project 3.0 Juneau, AK.
- Parrett, L.S. 2011. Units 26A, Teshekpuk caribou herd. Pages 283-314 in P. Harper, editor. Caribou management report of survey and inventory activities 1 July 2008–30 June 2010. Alaska Department of Fish and Game. Project 3.0. Juneau, AK.
- Parrett, L.S. 2013. Unit 26A, Teshekpuk caribou herd. Pages 314-355 in P. Harper, editor. Caribou management report of survey and inventory activities 1 July 2006–30 June 2008. Alaska Department of Fish and Game, species management report. ADF&G/DWC/SMR-2013-3, Juneau, AK.
- Parrett, L.S. 2015. Wildlife Biologist. Personal communication. email ADF&G. Fairbanks, AK.
- Person, B.T., A.K. Prichard, G.M. Carroll, D.A. Yokel, R.A. Suydam, and J.C. George. 2007. Distribution and movements of the Teshekpuk Caribou Herd 1990-2005: Prior to oil and gas development. Arctic 60(3):238-250.
- Rivest, L.P., S. Couturier, and H. Crepeau. 1998. Statistical methods for estimating caribou abundance using post-calving aggregations detected by radio telemetry. Biometrics 54:865-876.
- Russell, D.E., S.G. Fancy, K.R. Whitten, R.G. White. 1991. Overwinter survival of orphan caribou, *Rangifer tarandus*, calves. Canadian Field Naturalist. 105: 103-105.
- Rughetti, M., M. Festa-Bianchet. 2014. Effects of selective harvest of non-lactating females on chamois population dynamics. Journal of Applied Ecology. 51: 1075-1084.
- Smith, M, E. Witten, and W. Loya.
2015. <http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/alaska/explore/alaska-caribou-herd-analysis.pdf> Accessed April 2, 2015.
- Sutherland, R. 2005. Harvest estimates of the Western Arctic caribou herds, Alaska. Proceedings of the 10th North American Caribou Workshop, May 4-6, 2004. Girdwood, AK. Rangifer Special Issue:16:177-184.
- Taillon, J., V. Brodeur, M. Festa-Bianchet, S.D. Cote. 2011. Variation in body condition of migratory caribou at calving and weaning: which measures should we use? Ecoscience. 18(3): 295-303.
- Western Arctic Caribou Herd Working Group. 2011. Western Arctic Caribou Herd Cooperative Management Plan – Revised December 2011. Nome, AK 47 pp.

Wilson, R.R., A.K. Prichard, I.S. Parrett, B.T. Person, G.M. Carroll, M.A. Smith, C.L. Rea, and D.A. Yokel. 2012. Summer resource selection and identification of important habitat prior to industrial development for the Teshekpuk Caribou herd in Northern Alaska. PLOS ONE 7(11): e48697.

Yokel, D.A., A.K. Prichard, G. Carroll, L. Parrett, B. Person, C. Rea. 2009. Teshekpuk Caribou Herd movement through narrow corridors around Teshekpuk Lake, Alaska, Alaska Park Science 8(2):64-67.

Appendix 1

Refuge Manager
Koyukuk/Nowitna/Innoko National Wildlife Refuge
101 Front Street 287
Galena, Alaska 99741

Dear Refuge Manager:

This letter delegates specific regulatory authority from the Federal Subsistence Board (Board) to the Innoko National Wildlife Refuge Manager 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 Land Conservation Act (ANILCA) Title VIII jurisdiction within Unit 21D north of the Yukon River and east of the Koyukuk River as it applies to 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) and the Chair of the Western Interior Alaska Subsistence Regional Advisory Council (Council) to the extent possible. Federal managers are expected to work with managers from the State and other Federal agencies, the Council Chair, and applicable Council members to minimize disruption to subsistence resource users and existing agency programs, consistent with the need for special action.

DELEGATION OF AUTHORITY

1. Delegation: The Koyukuk/Nowitna/Innoko 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** below. Any action greater than 60 days in length (temporary special action) requires a public hearing before implementation. Special actions are governed by regulation at 36 CFR 242.19 and 50 CFR 100.19.

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

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

- Announce season dates for the winter season for caribou on Federal public lands in Unit 21D north of the Yukon River and east of the Koyukuk River in consultation with ADF&G and the Chairs of the Western Interior Subsistence Regional Advisory Council, and the Middle Yukon and Ruby Fish and Game Advisory Committees.

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

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

The Federal public lands subject to this delegated authority are those within Unit 21D north of the Yukon River and east of the Koyukuk River.

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

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

You will notify OSM and coordinate with local ADF&G managers and the Chair of the Western Interior Alaska Subsistence Regional Advisory Council regarding special actions under consideration. You will issue decisions in a timely manner. Before the effective date of any decision, reasonable efforts will be made to notify the public, OSM, affected State and Federal managers, law enforcement personnel, and Council representatives. If an action is to supersede a State action not yet in effect, the decision will be communicated to the public, OSM, affected State and Federal Managers, and the local Council representatives at least 24 hours before the State action would be effective. If a decision to take no action is made, you will notify the proponent of the request immediately. A summary of special action requests and your resultant action must be provided to the coordinator of the appropriate Subsistence Regional Advisory Council(s) at the

end of each calendar year for presentation to the Council(s).

You may defer a special action request, otherwise covered by this delegation of authority, to the Federal Subsistence 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 Federal Subsistence 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.

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

Sincerely,

Tim Towarak
Chair, Federal Subsistence Board

cc: Assistant Regional Director, Office of Subsistence Management
Deputy Assistant Regional Director, Office of Subsistence Management
Subsistence Council Coordinator, Office of Subsistence Management
Chair, Western Interior Alaska Regional Advisory Council
Commissioner, Alaska Department of Fish and Game
Federal Subsistence Liaison Team Leader, Alaska Department of Fish and Game
Federal Subsistence Board
Interagency Staff Committee
Administrative Record

Appendix 2

Field Office Manager
BLM Anchorage Field Office
470 BLM Rd.
Anchorage, Alaska 99507

Dear Field Office Manager:

This letter delegates specific regulatory authority from the Federal Subsistence Board (Board) to the BLM Anchorage Field Office Manager 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 Land Conservation Act (ANILCA) Title VIII jurisdiction within Unit 22B west of Golovin Bay and west of a line along the west bank of the Fish and Niukluk Rivers to the mouth of the Libby River, and excluding all portions of the Niukluk River drainage upstream from and including the Libby River drainage as it applies to 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) and the Chair of the Western Interior Alaska Subsistence Regional Advisory Council (Council) to the extent possible. Federal managers are expected to work with managers from the State and other Federal agencies, the Council Chair, and applicable Council members to minimize disruption to subsistence resource users and existing agency programs, consistent with the need for special action.

DELEGATION OF AUTHORITY

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

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

frameworks established by the Board.”

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

- You may open a season between May 1 and Sept. 3 for caribou on Federal public lands in Unit 22B west of Golovin Bay and west of a line along the west bank of the Fish and Niukluk Rivers to the mouth of the Libby River, and excluding all portions of the Niukluk River drainage upstream from and including the Libby River drainage in consultation with ADF&G.

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

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

The Federal public lands subject to this delegated authority are those within Unit 22B west of Golovin Bay and west of a line along the west bank of the Fish and Niukluk Rivers to the mouth of the Libby River, and excluding all portions of the Niukluk River drainage upstream from and including the Libby River drainage.

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

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

You will notify OSM and coordinate with local ADF&G managers and the Chair of the Western Interior Alaska Subsistence Regional Advisory Council regarding special actions under consideration. You will issue decisions in a timely manner. Before the effective date of any decision, reasonable efforts will be made to notify the public, OSM, affected State and Federal managers, law enforcement personnel, and Council representatives. If an action is to supersede a State action not yet in effect, the decision will be communicated to the public, OSM, affected State

and Federal Managers, and the local Council representatives at least 24 hours before the State action would be effective. If a decision to take no action is made, you will notify the proponent of the request immediately. A summary of special action requests and your resultant action must be provided to the coordinator of the appropriate Subsistence Regional Advisory Council(s) at the end of each calendar year for presentation to the Council(s).

You may defer a special action request, otherwise covered by this delegation of authority, to the Federal Subsistence 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 Federal Subsistence 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.

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

Sincerely,

Tim Towarak
Chair, Federal Subsistence Board

cc: Assistant Regional Director, Office of Subsistence Management
Deputy Assistant Regional Director, Office of Subsistence Management
Subsistence Council Coordinator, Office of Subsistence Management
Chair, Seward Peninsula Regional Advisory Council
Commissioner, Alaska Department of Fish and Game
Federal Subsistence Liaison Team Leader, Alaska Department of Fish and Game
Federal Subsistence Board
Interagency Staff Committee
Administrative Record

Appendix 3

Field Office Manager
BLM Anchorage Field Office
470 BLM Rd.
Anchorage, Alaska 99507

Dear Field Office Manager:

This letter delegates specific regulatory authority from the Federal Subsistence Board (Board) to the BLM Anchorage Field Office Manager 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 Land Conservation Act (ANILCA) Title VIII jurisdiction within Unit 22D in the Pilgrim River Drainage as it applies to 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) and the Chair of the Western Interior Alaska Subsistence Regional Advisory Council (Council) to the extent possible. Federal managers are expected to work with managers from the State and other Federal agencies, the Council Chair, and applicable Council members to minimize disruption to subsistence resource users and existing agency programs, consistent with the need for special action.

DELEGATION OF AUTHORITY

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

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

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

- You may announce a season between the dates of May 1 – Sept. 30 for caribou on Federal public lands in Unit 22D in the Pilgrim River Drainage.

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

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

The Federal public lands subject to this delegated authority are those within Unit 22D in the Pilgrim River Drainage.

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

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

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

You may defer a special action request, otherwise covered by this delegation of authority, to the

Federal Subsistence 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 Federal Subsistence 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.

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

Sincerely,

Tim Towarak
Chair, Federal Subsistence Board

cc: Assistant Regional Director, Office of Subsistence Management
Deputy Assistant Regional Director, Office of Subsistence Management
Subsistence Council Coordinator, Office of Subsistence Management
Chair, Seward Peninsula Regional Advisory Council
Commissioner, Alaska Department of Fish and Game
Federal Subsistence Liaison Team Leader, Alaska Department of Fish and Game
Federal Subsistence Board
Interagency Staff Committee
Administrative Record

Appendix 4

Field Office Manager
BLM Anchorage Field Office
470 BLM Rd.
Anchorage, Alaska 99507

Dear Field Office Manager:

This letter delegates specific regulatory authority from the Federal Subsistence Board (Board) to the BLM Anchorage Field Office Manager 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 Land Conservation Act (ANILCA) Title VIII jurisdiction within Unit 22 remainder as it applies to 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) and the Chair of the Western Interior Alaska Subsistence Regional Advisory Council (Council) to the extent possible. Federal managers are expected to work with managers from the State and other Federal agencies, the Council Chair, and applicable Council members to minimize disruption to subsistence resource users and existing agency programs, consistent with the need for special action.

DELEGATION OF AUTHORITY

- 1. Delegation:** The BLM Anchorage Field Office Manager is hereby delegated authority to issue emergency or temporary special actions affecting caribou on Federal lands as outlined under the **Scope of Delegation** below. Any action greater than 60 days in length (temporary special action) requires a public hearing before implementation. Special actions are governed by regulation at 36 CFR 242.19 and 50 CFR 100.19.
- 2. Authority:** This delegation of authority is established pursuant to 36 CFR 242.10(d)(6) and 50 CFR 100.10(d)(6), which state: “The Board may delegate to agency field officials the authority to set harvest and possession limits, define harvest areas, specify methods or means of harvest, specify permit requirements, and open or close specific fish or wildlife harvest seasons within frameworks established by the Board.”
- 3. Scope of Delegation:** The regulatory authority hereby delegated is limited to the following authorities within the limits set by regulation at 36 CFR 242.26 and 50 CFR 100.26:

You may announce season dates for caribou on Federal public lands in Unit 22 remainder.

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

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

The Federal public lands subject to this delegated authority are those within Unit 22 remainder.

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

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

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

You may defer a special action request, otherwise covered by this delegation of authority, to the Federal Subsistence 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 Federal Subsistence 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.

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

Sincerely,

Tim Towarak
Chair, Federal Subsistence Board

cc: Assistant Regional Director, Office of Subsistence Management
Deputy Assistant Regional Director, Office of Subsistence Management
Subsistence Council Coordinator, Office of Subsistence Management
Chair, Seward Peninsula Regional Advisory Council
Commissioner, Alaska Department of Fish and Game
Federal Subsistence Liaison Team Leader, Alaska Department of Fish and Game
Federal Subsistence Board
Interagency Staff Committee
Administrative Record

WP16–49/52 Executive Summary	
General Description	<p>Proposal WP16–49 requests that in Unit 23 the caribou harvest limit be reduced from 15 to 5 per day, lengthening the closure on cow harvest, prohibiting harvest of cows with calves from July 1 to Oct. 10, and closing of bull harvest from Oct. 10 to Jan. 31. <i>Submitted by Northwest Arctic Subsistence Regional Advisory Council.</i></p> <p>Proposal WP16-52 requests that in Unit 23 the caribou harvest limit be reduced from 15 to 7 per day. <i>Submitted by Upper and Lower Kobuk Fish and Game Advisory Committee.</i></p>
Proposed Regulation	<p><u>WP16-49</u></p> <p>Unit 23—Caribou</p> <p>15 caribou per day; however, cow caribou July 1–June 30 may not be taken May 16 April 1 – June 30 and no harvesting of cows with calves July 1–Oct. 10. No harvesting of bulls Oct. 10–Jan. 31.</p> <p><u>WP16-52</u></p> <p>Unit 23—Caribou</p> <p>157 caribou per day; however, cow caribou July 1–June 30 may not be taken May 16 – June 30</p>
OSM Preliminary Conclusion	<p>Support with modification to add the Singoalik River drainage hunt area, prohibit the harvest of calves, align with State season dates and simplify regulatory language; and Oppose Proposal WP16-52.</p> <p>The modified regulation should read:</p> <p>Unit 23—Caribou</p> <p>Unit 23, that portion north of and including the Singoalik River drainage—15 caribou per day July 1–June 30. as follows: ; however, cow caribou may not be taken May 16–June 30</p> <p>However, calves may not be taken</p>

WP16–49/52 Executive Summary	
	<p><i>Bulls may be harvested</i> <i>July 1-Oct. 14</i> <i>Feb. 1--June 30</i></p> <p><i>Cows may be harvested</i> <i>July 15-Apr. 30</i> <i>However, cows accompanied by calves may not be taken July 15-Oct. 14.</i></p> <p><i>Unit 23 remainder—5 caribou per day, as follows:</i></p> <p><i>However, calves may not be taken</i> <i>July 1-Oct. 14</i></p> <p><i>Bulls may be harvested</i> <i>Feb. 1-June 30</i></p> <p><i>Cows may be harvested</i> <i>Sept. 1-Mar. 31.</i> <i>However, cows accompanied by calves may not be taken Sept. 1-Oct. 14.</i></p>
Western Interior Regional Advisory Council Recommendation	
Seward Peninsula Regional Advisory Council Recommendation	
Northwest Arctic Regional Advisory Council Recommendation	
North Slope Regional Advisory Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	None

**DRAFT STAFF ANALYSIS
WP16-49/52**

ISSUES

Proposal WP16-49, submitted by the Northwest Arctic Subsistence Regional Advisory Council (Council), requests changes to the Unit 23 caribou regulations that includes reducing the harvest limit from 15 to 5 caribou per day, lengthening the closure on cow harvest, prohibiting harvest of cows with calves from Jul. 1 to Oct. 10, and closing of bull harvest from Oct. 10 to Jan. 31.

Proposal WP16-52, submitted by the Upper and Lower Kobuk Advisory Committee, asks for a reduction of the harvest limit from 15 to 7 caribou per day in Unit 23.

DISCUSSION

The Council believes that conservation measures must be taken to protect the Western Arctic Caribou Herd (WACH) for future sustainability and that reducing the daily harvest limit from 15 to 5 caribou per day will help assist in this effort. They also think great care should be taken to protect pregnant cows and cows with calves to improve calf survival. The Council believes that after Jul. 1, the ability to harvest a cow without a calf provides an opportunity to harvest meat while engaging in other subsistence activities such as berry picking. The Council states that bulls should not be taken as trophies during the rut since the meat is not salvageable as food.

The Upper and Lower Kobuk Advisory Committee states that the decline in the WACH is due to a number of factors, including some within their control, such as reducing the daily harvest limit. They believe this harvest reduction will help to improve caribou population numbers and avoid a potential crisis for a resource that is of the utmost importance to the survival of the region's people. They also state that this harvest limit reduction will bring closer alignment to the recently enacted State caribou regulations in Unit 23.

Similar caribou proposals are presented in WP16-37 and WP16-61.

Existing Federal Regulation

Unit 23—Caribou

*15 caribou per day; however,
cow caribou may not be taken
May 16 – June 30*

July 1–June 30

Proposed Federal Regulation_

WP16-49

Unit 23—Caribou

~~455~~ caribou per day; however,
cow caribou may not be
taken ~~May 16~~ **April 1 – June 30**
and no harvesting of cows with
calves July 1–Oct. 10. No
harvesting of bulls Oct. 10–Jan.
31.

July 1–June 30

WP16-52

Unit 23 - Caribou

~~457~~ caribou per day; however,
cow caribou may not be taken
May 16 – June 30

July 1–June 30

Existing State Regulation

Unit 23—Caribou

Unit 23, that portion north of and including the Singoalik River drainage Resident Hunters: 5 caribou per day, as follows:

Up to 5 bulls per day; however, calves may not be taken July 1 – Oct. 14
Feb. 1 – June 30

Up to 5 cows per day; however, calves may not be taken July 15 – Apr. 30

Nonresident hunters: 1 bull; however, calves may not be taken Aug. 1 – Sept. 30

Unit 23–remainder Resident Hunters: 5 caribou per day, as follows;

Up to 5 bulls per day; however, calves may not be taken July 1 – Oct. 14
Feb. 1 – June 30

Up to 5 cows per day; however, calves may not be taken Sept. 1 – Mar. 31

Nonresident Hunters: 1 bull; however, Aug. 1 – Sept. 30 calves may not be taken

Extent of Federal Public Lands

Federal public lands comprise approximately 69% of Unit 23 and consist of 41.8% National Park Service (NPS) managed lands, 17.5% Bureau of Land Management (BLM) managed lands, and 9.6% U.S. Fish and Wildlife Service (FWS) managed lands (See **Unit 23 Map**).

Customary and Traditional Use Determinations

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

Regulatory History

In 1995, the Federal Subsistence Board (Board) adopted Proposal P95-51 to increase the caribou harvest limit from 5 per day to 15 per day to increase opportunity for subsistence hunters to maximize their hunting when the caribou were available (OSM 1995a).

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

In 2000, the Board adopted Proposal P00-53 with modification allowing the use of snowmachines to position and select individual caribou for harvest in Units 22 and 23. This was done to recognize a customary and traditional practice in the region (OSM 2000a).

Temporary Special Action WSA15-03, submitted by the North Slope Subsistence Regional Advisory Council, requested designation of a new hunt area for caribou in Unit 23, a reduction in the harvest limit from 15 caribou per day to 5 caribou per day, a shortening of the season for bulls and cows, and a prohibition on the take of calves. The Board adopted the Special Action with modification in response to the declining WACH population. The Board approved the harvest limit reduction of 15 caribou to 5 caribou per day, prohibition on taking of calves, protection of cows with calves, and reduction of the length of the bull and cow seasons, but did not approve the designation of a new hunt area in Unit 23.

Current Events Involving Species

Proposals WP16-37 and WP16-61 are multi-region crossover proposals that address the declining WACH population and affect Unit 23 regulations. Since Proposals WP16-37, WP16-49 and WP16-52, also

requested changes to the caribou hunting regulations in Units 23, 24, and 26 an attempt was made to make the regulations as similar as possible for each Game Management Unit. These proposals also request changes to harvest limits and other conservation measures, and will be presented to all affected Subsistence Regional Advisory Councils at their fall meetings.

In 2013 an aerial photo census indicated significant declines in the WACH populations (Dau 2011). In response, the Alaska Board of Game adopted modified Proposal 202 (RC76) in March 2015 to reduce harvest opportunities for both residents and non-residents within the range of the WACH. These regulation changes, which included lower bag limits, changes to harvest seasons, modification to the hunt area descriptors, restrictions on bull and cow harvest and a prohibition on calf harvest, were adopted to slow or reverse the population decline. These regulatory changes take effect on July 1, 2015, and are the result of extensive discussion and compromise among a variety of user groups. State regulatory changes and the proposed changes to Federal regulations represent the first time in over 30 years that harvest restrictions have been implemented for the WACH. The restrictions proposed by these Special Actions and proposals for the WACH are also supported by management recommendations outlined in the Western Arctic Herd Management Plan (WACH Working Group 2011).

Biological Background

Caribou calving generally occurs during late May and early June. Weaning generally occurs in late October and early November before the breeding season (Taillon et al 2011). Calves stay with their mothers through their first winter, which improves calves' access to food and body condition.

Joly (2000) predicts that calves orphaned later in life have greater chances of surviving. Data from Russell et al (1991) suggests 50% and 75% of the calves orphaned in September and November, respectively, survived the winter (Joly 2000). Indeed, there is little evidence that calves orphaned after weaning experience strongly reduced overwintering survival rates than non-orphaned calves (Rughetti and Festa-Bianchet 2014, Joly 2000, Holand et al. 2012), although Holand et al (2012) found orphaned calves to have greater losses of winter body mass than non-orphaned calves.

The Western Arctic, Teshekpuk, and Central Arctic Caribou Herds have ranges that overlap in Unit 26A (**Figure 1**) and there can be considerable mixing of herds during the fall and winter. During the early 2000s, the number of caribou wintering on the North Slope peaked at over 700,000 animals (this includes the Porcupine Caribou Herd in northeast Alaska and Northwest Territories, Canada), which may be the highest number since the 1970s. During the 1970s, there was little overlap between these four herds, but the degree of mixing seems to be increasing (Lenart 2011, Dau 2011, Parrett 2011).

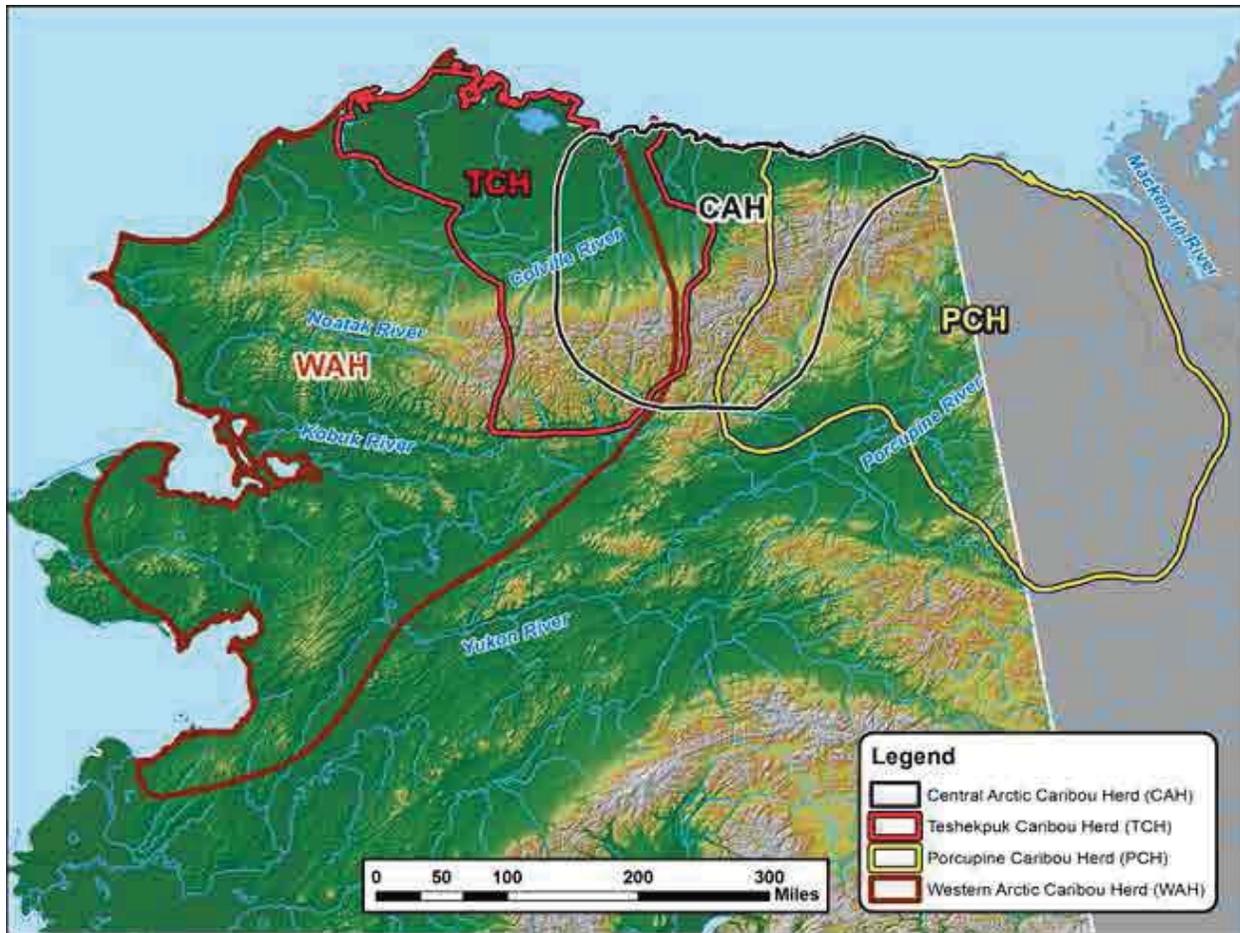


Figure 1. Herd overlap and ranges of the WACH, TCH, CACH and Porcupine caribou herds (WACH 2014).

The WACH, the largest herd in Alaska, has a home range of approximately 157,000 mi² in northwestern Alaska (**Figure 1**). In the spring, most mature cows move north to calving grounds in the Utukok Hills, while bulls and immature cows lag behind and move toward summer range in the Wulik Peaks and Lisburne Hills. After the calving period, cows and calves move west toward the Lisburne Hills where they mix with the remaining bulls and non-maternal cows. During the summer the herd moves rapidly to the Brooks Range. In the fall they move south toward their wintering grounds in the northern portion of the Nulato Hills. The caribou rut occurs during fall migration (Dau 2011, WACH Working Group 2011).

The State manages the WACH to protect the population and its habitat, provide for subsistence and other hunting opportunities on a sustained yield basis, and provide for viewing and other uses of caribou (Dau 2011). Specific State management objectives for the WACH are presented in the 2011 Western Arctic Caribou Cooperative Management Plan (WACH Working Group 2011, Dau 2011) and include:

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

The WACH population declined rapidly in the early 1970s and bottomed out at about 75,000 animals in 1976. Aerial photo censuses have been used since 1986 to estimate population size. The WACH declined at an average annual rate of 4.7% from approximately 490,000 in 2003 to 235,000 in 2013 (Dau 2011, Caribou Trails 2014, Dau 2014) (**Figure 2**). Although factors contributing to the decline are not known with certainty, increased adult cow mortality, and decreased calf recruitment and survival played a role (Dau 2011). Other contributing factors include weather (particularly fall and winter icing events), predation, hunting pressure, declining range condition (including habitat loss and fragmentation), climate change, and disease (Dau 2014). Joly et al. (2007) documented a decline in lichen cover in portions of the wintering areas of the WACH. Dau (2011, 2014) reported that degradation in range condition is not thought to be a primary factor in the decline of the WACH because animals in the WACH, unlike the TCH, have generally maintained good body condition since the decline began. However, the body condition of the WACH in the spring may be a better indicator of the effects of range condition versus the fall when the body condition of the WACH is routinely assessed and when caribou are in prime condition (Joly 2015, pers. comm).

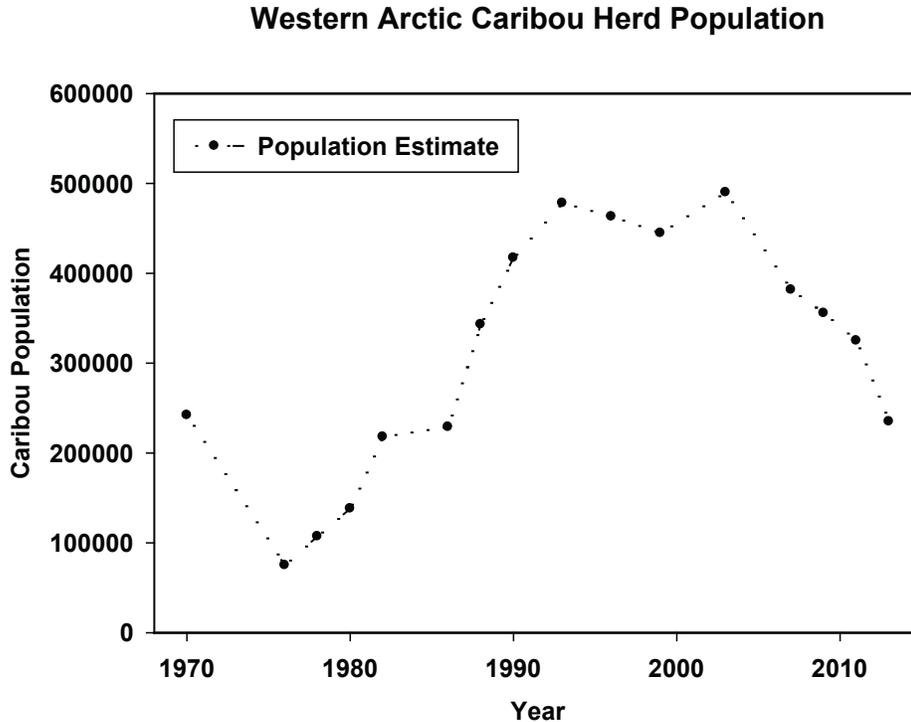


Figure 2. Maximum estimated population estimates of the Western Arctic Caribou Herd from 1970-2013. Population estimates from 1986-2013 are based on aerial photographs of groups of caribou that contained radio-collared animals (Dau 2011, 2014)

During periods of rapid population growth (1976–1982), fall calf:cow ratios were generally higher than during periods of herd decline (1992–2013) (**Table 1**). However, it should be noted that calf:cow ratios may not accurately reflect the status in the population due to spatial and temporal segregation of cows and bulls, and because not all of the population is sampled. The number of bulls:100 cows were greater during the period of population growth (49:100 between 1976-2001) than during the recent period of decline (44:100 between 2004-2014).

The annual mortality rate of collared adult cows has increased, from an average of 15% between 1987 and 2003, increased to 25% from 2004–2009 (Dau 2011, 2014). Estimated mortality includes all causes of death including hunting (Dau 2011). Dau (2009) reported that rain-on-snow events and winter thaws may have contributed to the relatively high estimated mortality rates of 23% during 2008-2009 and 27% during 2009-2010. Prior to 2004-2005, estimated adult cow mortality only exceeded 20% twice during regulatory years 1992 and 1999, but more recently has exceeded 20% in 5 of the 6 regulatory years between 2004–2010 (2004, 2005, 2007, 2008, and 2009). As the WACH declined, the percentage of mortality due to

hunting increased relative to natural mortality. For example, during the period October 1, 2013 to September 30, 2014, estimated hunting mortality was approximately 42% and estimated natural mortality about 56% (estimates from slide 16 Dau 2014). In previous years the estimated hunting mortality exceeded 30% only once.

Table 1. Western Arctic Caribou Herd fall composition 1976 – 2014 (Dau 2011, 2013, 2014).

Regulatory Year	Total bulls: 100 cows ^a	Calves: 100 cows	Calves: 100 adults	Bulls	Cows	Calves	Total
1976/1977	63	52	32	273	431	222	926
1980/1981	53	53	34	715	1,354	711	2,780
1982/1983	58	59	37	1,896	3,285	1,923	7,104
1992/1993	64	52	32	1,600	2,498	1,299	5,397
1995/1996	58	52	33	1,176	2,029	1,057	4,262
1996/1997	51	49	33	2,621	5,119	2,525	10,265
1997/1998	49	43	29	2,588	5,229	2,255	10,072
1998/1999	54	45	29	2,298	4,231	1,909	8,438
1999/2000	49	47	31	2,059	4,191	1,960	8,210
2001/2002	38	37	27	1,117	2,943	1,095	5,155
2004/2005	48	35	24	2,916	6,087	2,154	11,157
2006/2007	42	40	28	1,900	4,501	1,811	8,212
2008/2009	45	48	33	2,981	6,618	3,156	12,755
2010/2011	49	35	23	2,419	4,973	1,735	9,127
2011/2012							
2012/2013	42	38	27	2,119	5,082	1,919	9,120
2013/2014							
2014/2015	39 ^b						

^a 40 bulls:100 cows is the minimum level recommended in the WACH Cooperative Management Plan (WACH Working Group 2011)
^b Estimated from power point presentation presented at the WACH Working Group Meeting December 17-18, 2014 (Dau 2014)

Harvest History

From 1999–2014 the average annual harvest from the WACH was approximately 13,600 caribou (9500-15,800) (Units 21, 22, 23, 24, and 26A) (Dau 2009; Dau 2014, pers. comm.). Local residents take approximately 94% of the caribou harvest within the range of the WACH, with residents of Unit 23 taking the vast majority of the harvest (**Figure 3**). The State of Alaska manages the WACH to maximize a harvestable surplus of animals. In recent years, as the population declined, the State’s total harvestable

surplus for the WACH, which is estimated as 2% of the cows and 15% of the bulls, has declined (Dau 2011, Dau 2014, pers. comm.). Harvest from the WACH, which has remained fairly consistent since 1990, now represents a larger proportion of the annual mortality due to the population decline. This is one of the factors that prompted the Alaska Board of Game to enact restrictions to Western Arctic caribou harvest in March 2015.

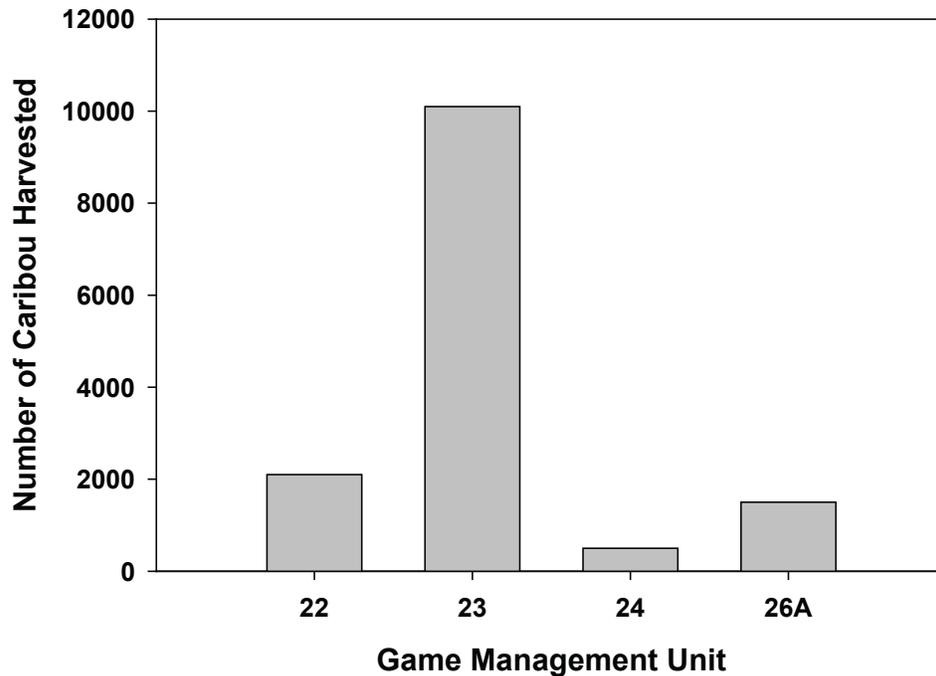


Figure 3. Average annual harvest by residents within the WACH range, RY1998-RY2012 (Dau 2014).

Effects of the Proposal

If these proposals are adopted, Federally qualified subsistence users would have less opportunity to harvest caribou on Federal public lands in Unit 23 as both proposals would reduce harvest limits for Federally qualified subsistence users. If Proposal WP16-49 was adopted, it would reduce the daily harvest limit and establish more restrictive harvest seasons for bulls and cows. The Council submitted this proposal in an effort to balance the need to slow or reverse the decline of the WACH population with the reduced opportunities for Federally qualified subsistence users.

The reduction in the harvest of cows with calves from July 1 to Oct. 10 will likely increase calf survival. The restriction on the take of cows from April 1-June 30 will have some conservation effect by stopping harvest of late-term pregnant cows. Reduction of the daily harvest limit for bulls and cows should help reduce the overall caribou harvest for the declining WACH population. Since cow mortality is one of the major contributing factors in the decline of the WACH, any efforts to reduce the cow mortality are

recommended. Reduced bull harvest during the rut may help to increase the bull:cow ratio closer to rates seen during the period of population growth. These proposed restrictions are also supported by management recommendations outlined in the Western Arctic Herd Management Plan (WACH Working Group 2011). Adopting Proposal WP16-49 would also reduce regulatory complexity for Federally qualified subsistence users by aligning with newly adopted harvest reductions by the State.

OSM PRELIMINARY CONCLUSION

Support Proposal WP16-49 **with modification** to add the Singoalik River drainage hunt area, prohibit the harvest of calves, align with State season dates and simplify regulatory language; and **Oppose** Proposal WP16-52.

The modified regulation should read:

Unit 23—Caribou

Unit 23, that portion north of and including the Singoalik River drainage—155 caribou per day as follows: ~~however, cow caribou may not be taken May 16–June 30~~ ~~July 1–June 30.~~

However, calves may not be taken

Bulls may be harvested

*July 1–Oct. 14
Feb. 1–June 30*

Cows may be harvested

*However, cows accompanied by calves may not be taken
July 15–Oct. 14.*

July 15–Apr. 30

Unit 23 remainder—5 caribou per day, as follows:

However, calves may not be taken

Bulls may be harvested

*July 1–Oct. 14
Feb. 1–June 30*

Cows may be harvested

*However, cows accompanied by calves may not be taken
Sept. 1–Oct. 14.*

Sept. 1–Mar. 31.

Justification

Since 2008, the Western Arctic caribou population has declined approximately 50%. Low calf survival and recruitment combined with increased adult mortality are contributing factors to the overall population decline. If the current harvest rates and allowance for the taking of cows accompanied by calves are allowed to continue, the population decline could be prolonged and could hamper recovery of the populations. The subsistence users and the Federal and State land managers agree that strong measures

need to be taken in order to conserve the population. The Alaska Board of Game recently responded to these population concerns by adopting caribou hunting restrictions starting in the 2015/2016 regulatory year. General alignment of the State and Federal regulations will ensure that there is a coordinated conservation effort in place and assist in reducing the regulatory complexity for Federally qualified subsistence users. While these proposals, if adopted, reduce harvest opportunity for Federally qualified subsistence users, they were requested by the Council. The restrictions proposed for the WACH are also supported by management recommendations outlined in the Western Arctic Caribou Herd Management Plan (WACH Working Group 2011).

Two important conservation measures need to be taken to address the declining population of the WACH 1) increase calf survival and recruitment and 2) reduce adult cow mortality. Proposal WP16-49 and recommended modifications are intended to decrease overall harvest and, more specifically, to increase the survival and recruitment of calves and to reduce adult cow mortality. With the recommended modifications, the harvest limits, shortened cow harvest seasons, and regulations to protect cows with calves during their first six months of life will be more consistent throughout Unit 23. Proposal WP16-52 requests reduced daily harvest limit from 15 to 7 caribou and should be opposed because that will not provide enough conservation protection for the WACH.

The recommended modifications will provide more consistent regulations throughout the range of the WACH and promote a coordinated conservation effort by the Federal and State managers. Since the majority of harvest of the WACH comes from residents of Unit 23, it is important to ensure that conservation measures are in place to aid in recovery in the most effective manner possible. Although the Council did not request it, the modification to add the Unit 23 hunt area north of the Singoalik River, mirrors the request in Proposal WP16-37 for the 2016-2018 regulatory cycle, aligns with recently adopted State regulations and provides regulatory clarity to Federally qualified subsistence users.

Reducing the harvest limit to 5 caribou per day in Unit 23 will reduce regulatory complexity between State and Federal regulations and promote conservation efforts for WACH. Since the majority of harvest of the WACH comes from residents of Unit 23, it is important to ensure that conservation measures are in place to aid in recovery in the most effective manner possible.

These conservation efforts will provide an opportunity to evaluate the effectiveness of reducing the caribou harvest in slowing down or reversing the population declines in the WACH.

LITERATURE CITED

Caribou Trails 2014. News from the Western Arctic Caribou Herd Working Group. Western Arctic Caribou Herd Working Group, Nome, AK. Issue 14.

Dau, J. 2009. Units 21D, 22A, 22B, 22C, 22D, 22E, 23, 24, and 26A in Caribou survey–inventory management report. Pages 176-239 in P. Harper, editor. Caribou management report of survey and inventory activities July 1, 2006– June 30, 2008. ADF&G. Juneau, AK

Dau, J. 2011. Units 21D, 22A, 22B, 22C, 22D, 22E, 23, 24, and 26A caribou management report. Pages 187-250

in P. Harper, editor. Caribou management report of survey and inventory activities July 1, 2008–30 June 30, 2010. ADF&G. Juneau, AK.

Dau, J. 2013. Units 21D, 22A, 22B, 22C, 22D, 22E, 23, 24, and 26A caribou management report. Pages 201-280 in P. Harper, editor. Caribou management report of survey and inventory activities July 1, 2010–30 June 30, 2012. ADF&G. Juneau, AK.

Dau, J. 2014. Wildlife Biologist. Personal communication. Information, including a power point presentation, presented at the Western Arctic Caribou Herd (WACH) Working Group Meeting, December 17-18,2014. Anchorage, Alaska. ADF&G. Nome, AK.

Holand, O., R.B. Weladji, A. Mysterud, K. Roed, E. Reimers, M. Nieminen. 2012. Induced orphaning reveals post-weaning maternal care in reindeer. *European Journal of Wildlife Research*. 58: 589-596.

Joly, K. 2000. Orphan Caribou, *Rangifer tarandus*, Calves: A re-evaluation of overwinter survival data. *The Canadian Field Naturalist*. 114: 322-323.

Joly, K., R.R. Jandt, C.R. Meyers, and J.M. Cole. 2007. Changes in vegetative cover on the Western Arctic herd winter range from 1981–2005: potential effects of grazing and climate change. *Rangifer Special Issue 17*:199-207.

Joly, K. 2015. Wildlife Biologist, Gates of the Arctic National Park and Preserve. Personal communication. email NPS. Fairbanks, AK.

Lenart, E. A. 2011. Units 26B and 26C caribou. Pages 315-345 in P. Harper, editor. Caribou management report of survey and inventory activities 1 July 2008–30 June 2010. ADF&G. Project 3.0. Juneau, AK.

OSM. 1995a. Staff analysis P97–051. Office of Subsistence Management, FWS. Anchorage, AK.

OSM. 1995b. Staff analysis P95–062. Office of Subsistence Management, FWS. Anchorage, AK.

OSM. 1995c. Staff analysis P95–064/065. Office of Subsistence Management, FWS. Anchorage, AK.

OSM. 1997. Staff analysis P97–066. Office of Subsistence Management, FWS. Anchorage, AK.

OSM. 2000a. Staff analysis P00–053. Office of Subsistence Management, FWS. Anchorage, AK.

OSM. 2000b. Staff analysis P00–044. Office of Subsistence Management, FWS. Anchorage, AK.

OSM. 2006. Staff analysis WP06-65. Office of Subsistence Management, FWS. Anchorage, AK.

Parrett, L.S. 2011. Units 26A, Teshekpuk caribou herd. Pages 283-314 in P. Harper, editor. Caribou management report of survey and inventory activities 1 July 2008–30 June 2010. ADF&G. Project 3.0. Juneau, AK.

Rughetti, M., M. Festa-Bianchet. 2014. Effects of selective harvest of non-lactating females on chamois population dynamics. *Journal of Applied Ecology*. 51: 1075-1084.

Russell, D.E., S.,G. Fancy, K.R. Whitten, and R.G. White. 1991. Overwinter survival of orphan caribou, *Rangifer tarandus*, calves. *The Canadian Field Naturalist*. 105(1):103-105.

Taillon, J., V. Brodeur, M. Festa-Bianchet, S.D. Cote. 2011. Variation in body condition of migratory caribou at calving and weaning: which measures should we use? *Ecoscience*. 18(3): 295-303.

Western Arctic Caribou Herd Working Group. 2011. Western Arctic Caribou Herd Cooperative Management Plan – Revised December 2011. Nome, AK 47 pp.

FISHERIES RESOURCE MONITORING PROGRAM

BACKGROUND

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

Biennially, the Office of Subsistence Management announces a funding opportunity for investigation plans addressing subsistence fisheries on Federal public lands. The 2016 Notice of Funding Availability focused on priority information needs developed either by strategic planning efforts or subject matter specialist input, followed by review and comment by the Subsistence Regional Advisory Councils. The Monitoring Program is administered through regions, which were developed to match subsistence management regulations, as well as stock, harvest, and community issues common to a geographic area. The six Monitoring Program regions are shown in **Figure 1**.

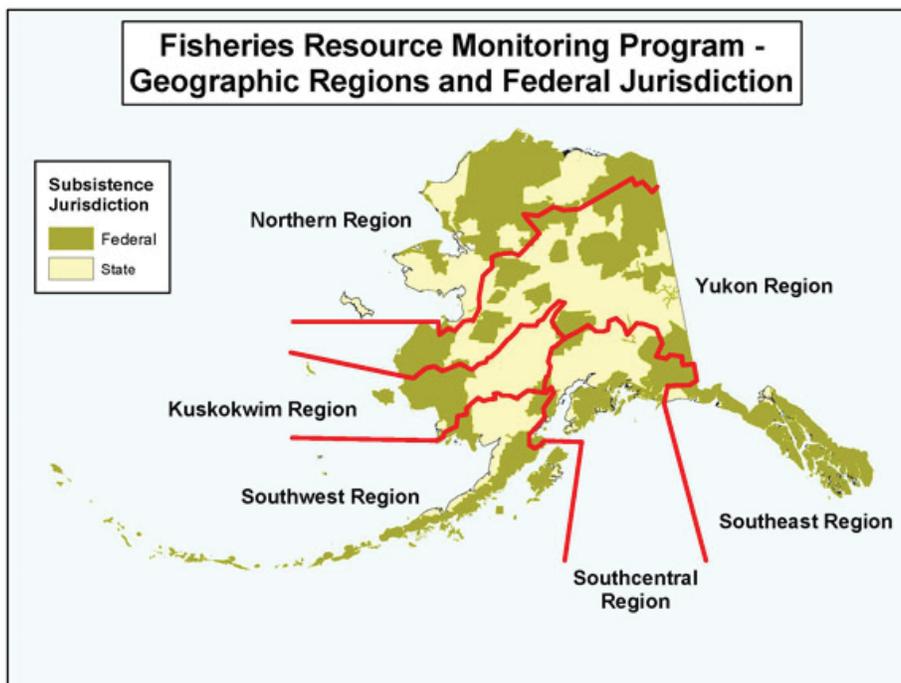


Figure 1. Geographic Regions for the Fisheries Resource Monitoring Program.

To implement the Monitoring Program, a collaborative approach is utilized in which five Federal agencies (U.S. Fish and Wildlife Service, Bureau of Land Management, National Park Service, Bureau of Indian Affairs, and U.S. Forest Service) work with the Alaska Department of Fish and Game, Regional Advisory Councils, Alaska Native Organizations, and other organizations. An interagency Technical Review Committee provides scientific evaluation of investigation plans submitted for funding consideration. The Regional Advisory Councils provide review and recommendations, and public comment is invited. The Interagency Staff Committee also provides recommendations. The Federal Subsistence Board takes into consideration recommendations and comments from the process, and forwards a Monitoring Plan to the Assistant Regional Director of OSM for final approval.

Strategic plans sponsored by the Monitoring Program have been developed by workgroups of fisheries managers, researchers, Federal Subsistence Regional Advisory Councils, and by other stakeholders for three of the six regions: Southeast, Southcentral (excluding Cook Inlet Area), and Southwest Alaska. These plans identify prioritized information needs for each major subsistence fishery and are available for viewing on the Federal Subsistence Management, Fisheries Resource Monitoring Program website (<http://www.doi.gov/subsistence/index.cfm>). Individual copies of plans are available by placing a request to the Office of Subsistence Management. Independent strategic plans were completed for the Yukon and Kuskokwim regions for salmon in 2005. For the Northern Region and the Cook Inlet Area, assessments of priority information needs were developed from experts on the Regional Advisory Councils, the Technical Review Committee, Federal and State managers, and staff from the Office of Subsistence Management. Finally, a strategic plan specifically for research on whitefish species in the Yukon and Kuskokwim River drainages was completed in spring 2011 as a result of efforts supported through Monitoring Program project 08-206 (Yukon and Kuskokwim Coregonid Strategic Plan). Currently, all regional strategic plans need to be updated. The OSM, in collaboration with Regional Advisory Councils and agency partners, will be exploring methods to update these plans, develop a schedule into the future and ensure they are current and represent the most up-to-date information about subsistence needs and concerns throughout the state.

HISTORICAL OVERVIEW

The Monitoring Program was first implemented in 2000, with an initial allocation of \$5 million. Since 2001, a total of \$103.6 million has been allocated for the Monitoring Program to fund a total of 431 projects (**Figure 2; Figure 3**).

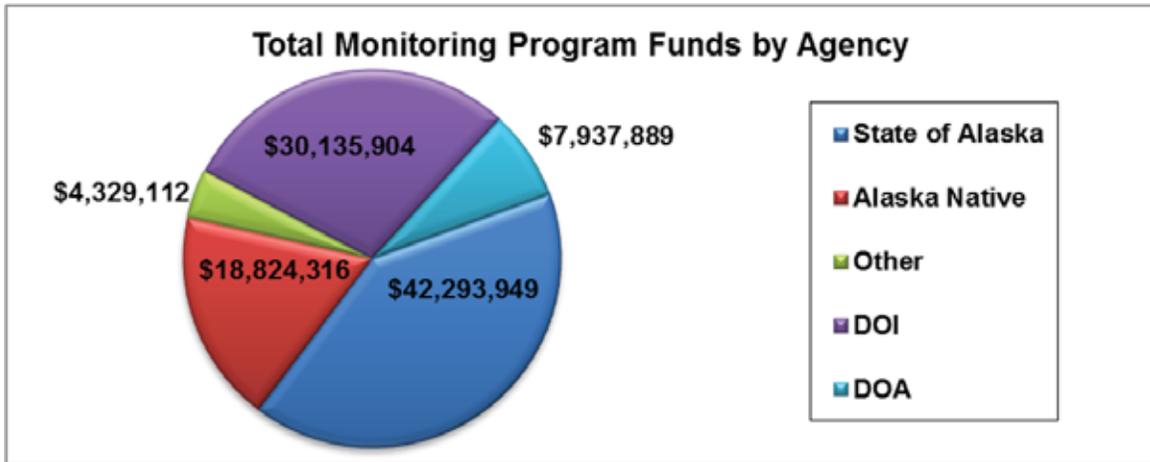


Figure 2. Total Project funds through the Monitoring Program from 2000 through 2014 listed by the organization of the Principal Investigator for projects funded. The funds listed are the total approved funds from 2000 to 2014. DOI = Department of Interior and DOA = Department of Agriculture.

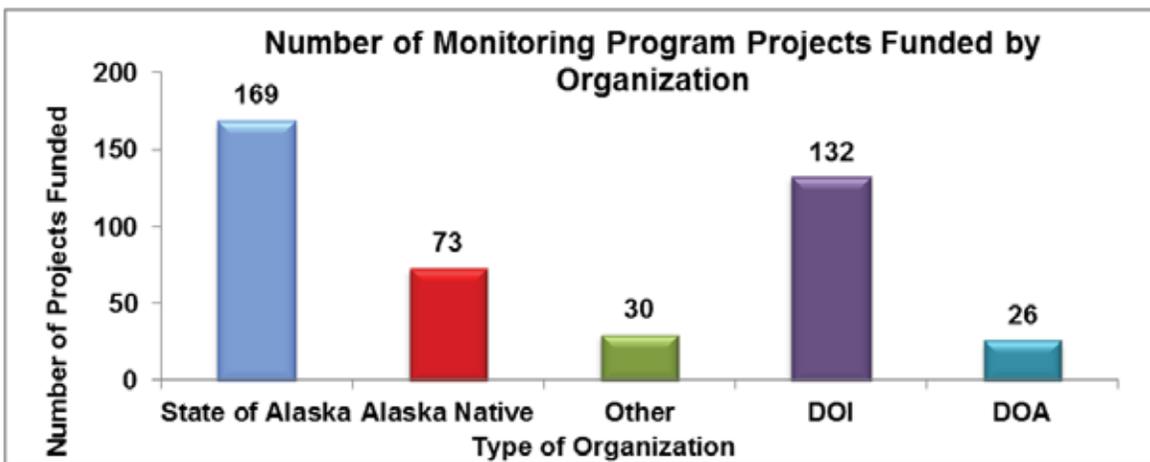


Figure 3. The total number of projects funded through the Monitoring Program from 2000 through 2014 listed by the organization of Principal Investigator. DOI = Department of Interior and DOA = Department of Agriculture.

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

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

Region	Department of Interior	Department of Agriculture
	Funds	Funds
Northern	17%	0%
Yukon	29%	0%
Kuskokwim	29%	0%
Southwest	15%	0%
Southcentral	5%	33%
Southeast	0%	67%
Inter-regional	5%	0%

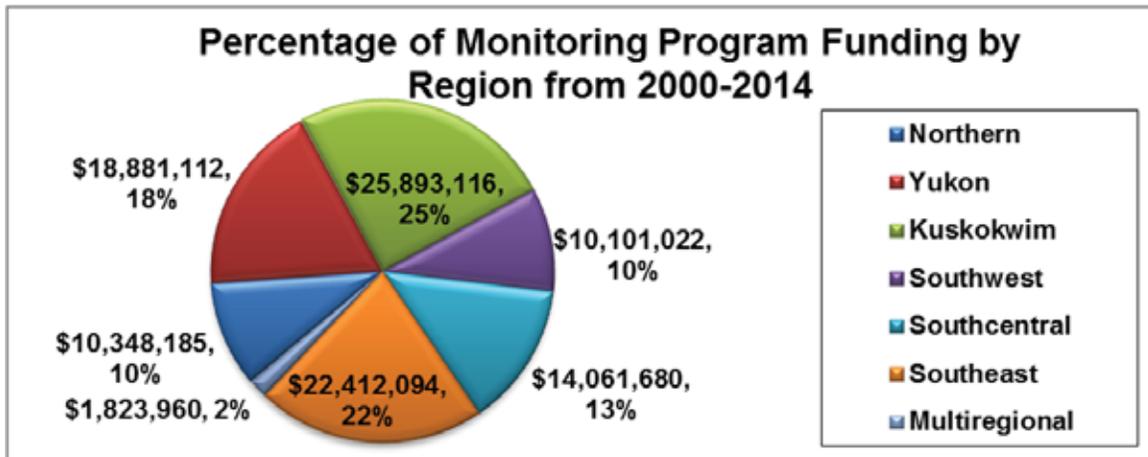


Figure 4. Total Project funding by Geographic Region from 2000 through 2014.

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

- **Stock Status and Trends Studies (SST)** - These projects address abundance, composition, timing, behavior, or status of fish populations that sustain subsistence fisheries with linkage to Federal public lands.
- **Harvest Monitoring and Traditional Ecological Knowledge (HMTEK)** -These projects address assessment of subsistence fisheries including quantification of harvest and effort, and description and assessment of fishing and use patterns.

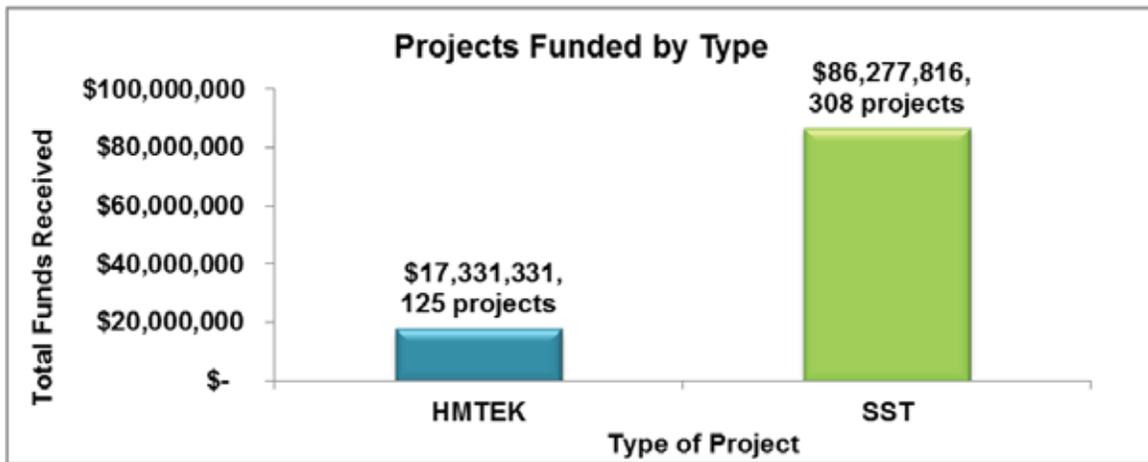


Figure 5. Total Project funding by type from 2000 through 2014. HMTEK = Harvest Monitoring/Traditional Ecological Knowledge and SST = Stock, Status and Trends.

PROJECT EVALUATION PROCESS

In the current climate of increasing conservation concerns and subsistence needs, it is imperative that the Monitoring Program prioritizes high quality projects that address critical subsistence questions. Several changes were implemented in the 2016 Monitoring Program to address the challenges facing Federal subsistence users across the state. These changes will enhance the Monitoring Program by increasing overall program transparency, identifying and funding high quality and high priority research projects and maximizing funding opportunities. This will allow the Monitoring Program to make substantial contributions to Federal subsistence users and to the Federal Subsistence Management Program.

Projects are selected for funding through an evaluation and review process that is designed to advance projects that are strategically important for the Federal Subsistence Program, technically sound, administratively competent, promote partnerships and capacity building, and are cost effective. Projects are evaluated by a panel called the Technical Review Committee (TRC). This committee is a standing interagency committee of senior technical experts that is foundational to the credibility and scientific integrity of the evaluation process for projects funded by the Monitoring Program. The TRC reviews, evaluates, and make recommendations about proposed projects, consistent with the mission of the Monitoring Program. Fisheries and Anthropology staff from the OSM provide support for the TRC. Recommendations from the TRC provide the basis for further comments from Councils, the public, the Interagency Staff Committee (ISC), and the Federal Subsistence Board, with final approval of the Monitoring Plan by the Assistant Regional Director of OSM.

The 2016 Monitoring Program changes involve how projects are submitted and also how they are reviewed. To be considered for funding under the Monitoring Program, a proposed project must have a linkage to Federal subsistence fishery management. This means that a proposed project must have a direct association to a Federal subsistence fishery, and that either the subsistence fishery or fish stocks in question must occur in or pass through waters within or adjacent to Federal public lands. Complete project packages need to be submitted on time and must address five specific criteria (see below) in order to be considered a high quality project. Addressing only some of the criteria will not guarantee a

successful project submission. Additionally, project review has been changed to aid transparency and consistency throughout the process. Key modifications include specific guidelines for assessing how and whether a proposed project has addressed each of the five criteria, receiving a single consolidated review from each participating agency, and requiring that agencies recuse themselves from providing reviews for projects involving their agency.

Five criteria are used to evaluate project proposals:

1. **Strategic Priority** - Studies must be responsive to identified issues and priority information needs. 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 include a synthesis of project findings in their investigation plans. This synthesis should clearly and concisely document project performance, key findings, and uses of collected information for Federal subsistence management.
 - a. *Federal linkage* – Study must have a direct association to a subsistence fishery within Federal Subsistence Management Program jurisdiction. That is, the subsistence fishery or stocks in question must occur in waters within or adjacent to Federal public lands (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).
 - b. *Conservation Mandate* – Risk to the conservation of species and populations that support subsistence fisheries and risk to public lands purposes.
 - c. *Allocation Priority* – Risk of failure to provide for Federal subsistence uses.
 - d. *Data Gaps* – Amount of information available to support Federal subsistence management. A higher priority is given where a lack of information exists.
 - e. *Management Application* – The application of proposed project data must be clearly explained and linked to current Federal management strategies and needs.
 - f. *Role of Resource* – Importance of a species or a population to a Federal subsistence harvest (e.g. number of subsistence users affected, quantity of subsistence harvest), and qualitative significance (e.g. cultural value, unique seasonal role).
 - g. *Local Concern* – Level of user concern over Federal subsistence harvests (e.g., allocation, competing uses, changes in populations).
2. **Technical-Scientific Merit** - Technical quality of the study design must meet accepted standards for information collection, compilation, analysis, and reporting. Studies must have clear

objectives, appropriate sampling design, correct analytical procedures, and specified progress, annual and final reports.

3. **Investigator Ability and Resources** - Investigators must demonstrate that they are capable of successfully completing the proposed study by providing information on the ability (training, education, and experience) and resources (technical and administrative) they possess to conduct the work. Applicants who have received funding in the past will be evaluated and ranked on their past performance, including meeting deliverable deadlines. A record of failure to submit reports or delinquent submittal of reports will be taken into account when rating investigator ability and resources.

4. **Partnership-Capacity Building** - Partnerships and capacity building are priorities of the Monitoring Program. ANILCA mandates that rural residents be afforded a meaningful role in the management of Federal subsistence fisheries, and the Monitoring Program offers opportunities for partnerships and participation to local residents in monitoring and research. Investigators are requested to include a strategy for integrating local capacity development in their investigation plans. Investigators must not only inform communities and regional organizations in the area where work is to be conducted about their project plans, but must also consult and communicate with local communities to ensure that local knowledge is utilized and concerns are addressed. Letters of support from local organizations add to the strength of a proposal. 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.

Investigators are encouraged to develop the highest level of tribal, community and regional involvement that is practical. Investigators must demonstrate that capacity building has already reached the communication or partnership development stage during proposal development. Ideally, a strategy to increase capacity to higher levels will be provided in the project proposal, recognizing, however, that in some situations sustainable or higher level involvement may not be desired or feasible by the local organizations. Successful capacity building requires developing trust and dialogue among investigators, tribes, 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 should emphasize reciprocity and sharing of knowledge and information.

5. **Cost Benefit**

Cost/Price Factors – Applicant’s cost/price proposal will be evaluated for reasonableness. For a price to be reasonable, it must represent a price to the government that a prudent person would pay when consideration is given to prices in the market. Normally, price reasonableness is

established through adequate price competition, but may also be determined through cost and price analysis techniques.

Selection for Award – Applicant should be aware that the government shall perform a “best value analysis” and the selection for award shall be made to the Applicant whose proposal is most advantageous to the government, taking into consideration the technical factors listed above and the total proposed price across all agreement periods. Matching funds will be factored into the review process based on overall value to the government.

POLICY AND FUNDING GUIDELINES

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

1. Projects of up to four years duration may be considered in any year’s monitoring plan.
2. Studies must not duplicate existing projects.
3. A majority of Monitoring Program funding will be dedicated to non-Federal agencies.
4. Long term projects will be considered on a case by case basis.
5. Activities that are not eligible for funding include:
 - a) habitat protection, mitigation, restoration, and enhancement;
 - b) hatchery propagation, restoration, enhancement, and supplementation;
 - c) contaminant assessment, evaluation, and monitoring; and
 - d) projects where the primary or only objective is outreach and education (for example, science camps, technician training, and intern programs), rather than information collection, are not eligible for funding under the Monitoring Program.

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.

2016 FISHERIES RESOURCE MONITORING PLAN

For 2016, a total of 46 investigation plans were received and 45 are considered eligible for funding (**Table 1**). One project was not eligible for funding because the project falls under habitat mitigation, restoration, and enhancement. Of the projects that are considered for funding, 33 are SST projects and 13 are HMTEK projects.

In 2016, the Department of the Interior, through the U.S. Fish and Wildlife Service, will provide up to \$2.0 million in funding and up to \$2.7 million for ongoing projects that were initially funded in 2014. The Department of Agriculture, through the U.S. Forest Service, has historically provided \$1.8 million annually, but the amount of 2016 funds available projects is uncertain. If the Department of Agriculture funding is not provided, none of the proposed projects submitted for the Southeast Region will be funded.

FISHERIES RESOURCE MONITORING PROGRAM NORTHERN REGION OVERVIEW

Since the inception of the Monitoring Program in 2000, 42 projects have been undertaken in the Northern Region for a total of \$10.3 million (**Figure 1**). Of these, the State of Alaska conducted 21 projects, the Department of Interior conducted 13 projects, 5 projects have been conducted by Alaska Native Organizations, and other organizations conducted 3 projects (**Figure 2**). Of these projects 27 projects were Stock, Status, and Trends (SST), and 15 projects were Harvest Monitoring and Traditional Ecological Knowledge (HMTEK).

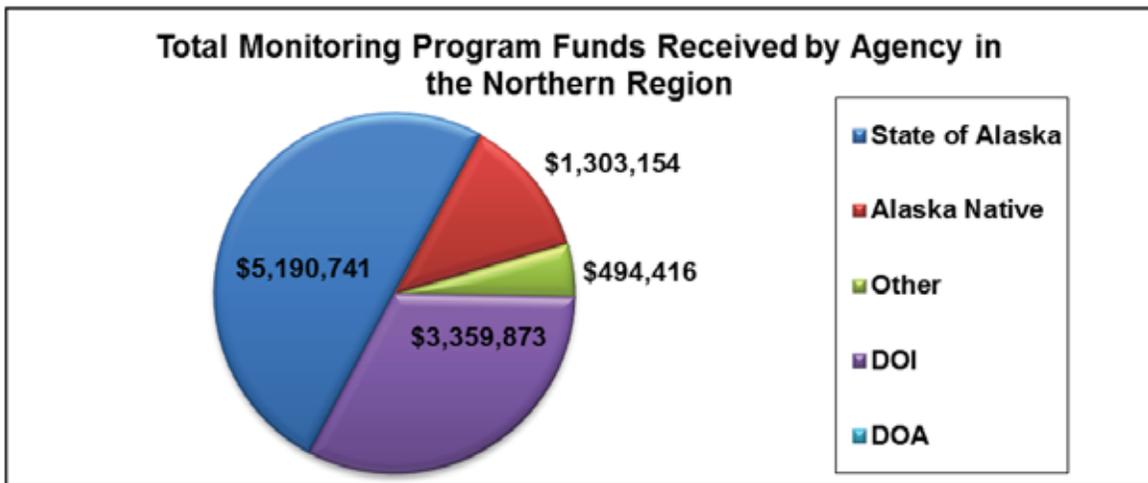


Figure 1. Monitoring Program funds received by agencies for projects in the Northern Region. The funds listed are the total approved funds from 2000 to 2014. DOI = Department of Interior and DOA = Department of Agriculture.

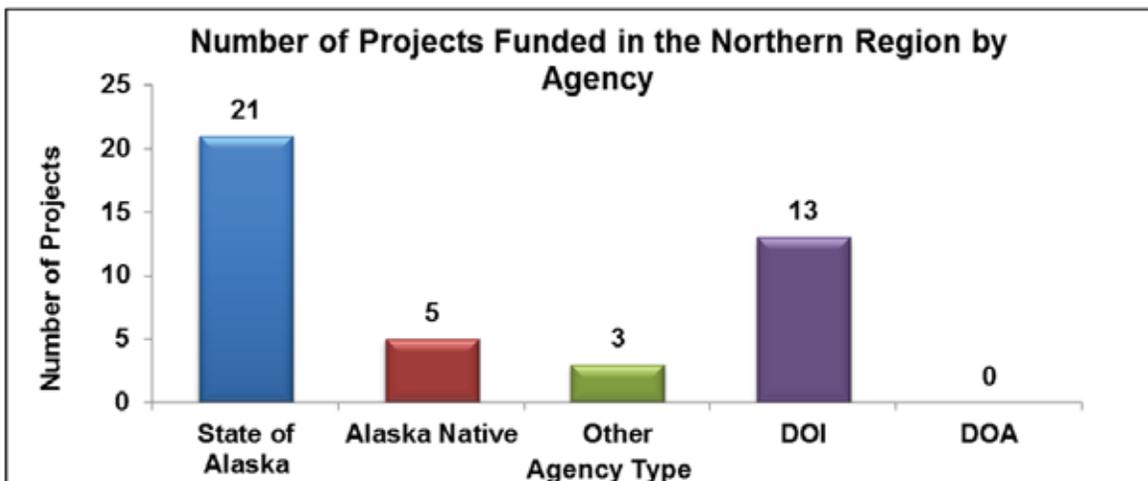


Figure 2. Total number of Monitoring Program projects funded, by agency, in the Northern Region from 2000 to 2014. DOI = Department of Interior and DOA = Department of Agriculture.

2016 DRAFT NORTHERN REGION FISHERIES RESOURCE MONITORING PLAN

OVERVIEW

Priority Information needs

The 2016 Notice of Funding Opportunity for the Northern Region identified 12 priority information needs:

- Understanding differences in cultural knowledge, beliefs, and perceptions of subsistence resources between fishery managers and subsistence users in Northwestern Alaska.
- Document rural residents' beliefs, attitudes, and knowledge about beavers and perceptions of changes to fish habitat related to beavers.
- Spawning locations for broad whitefish in the Northwest Arctic Region.
- Traditional/local knowledge of subsistence fish. Include application to Federal subsistence management, such as identifying critical habitat, refining range maps, and shedding light on ecological relationships.
 - Whitefish on the northern Seward Peninsula in the communities of Buckland, Deering, and the north coast in the community of Kivalina.
 - Dolly Varden in the communities of Noatak, Kobuk, and Kivalina
- Selawik River Clams (freshwater mussels) traditional harvest and use, abundance and life history.
- Description and analysis of sharing networks and customary trade of salmon in villages in northern Alaska.
- Documentation of longevity, age of maturity, and the abundance of fish of a given size range or maturity status for lake trout in the upper Anaktuvuk River.
- Description of temporal changes in subsistence harvest patterns and resource availability of broad whitefish, Arctic cisco and burbot in the Niglik River.
- Description of changes in harvests and relative abundance of broad and round whitefish observed by subsistence fishers in the context of climate change on the Meade River.
- Description of environment conditions leading to increased expression of *Saprolegnia* fungus in broad whitefish in the Colville River drainage.
- Identification of overwintering areas for Dolly Varden in the Hulahula River including demographic qualities of overwintering fish and estimating overwintering fidelity of fish.
- Reliable estimates of Chinook salmon escapement in the Unalakleet River drainage.

Available Funds

Federal Subsistence Board guidelines direct initial distribution of funds among regions and data types. While regional budget guidelines provide an initial target for planning, they are not final allocations. Prior commitments to the 2014 Monitoring Program are up to \$2.7 million. The anticipated funding available for the 2016 Monitoring Program is up to \$2.0 million.

Technical Review Committee Proposal Ranking

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

For the 2016 Monitoring Program, 10 proposals were submitted for the Northern Region. The Technical Review Committee evaluated and scored each proposal for Strategic Priority, Technical and Scientific Merit, Investigator Ability and Resources, Partnership and Capacity Building, and Cost/Benefit. The final score determined the ranking of each proposal within the region (**Table 1**). Projects that rate higher comprise a strong Monitoring Plan for the region by addressing strategically important information needs based on sound science and promote cooperative partnerships and capacity building. The projects listed are currently being considered for Funding in the 2016 Fisheries Resource Monitoring Program. Projects which were not eligible due to the nature of the activity are not included. For more information on projects submitted to the 2016 Fisheries Resource Monitoring Program please see the Executive Summaries in **Appendix A**.

Table 1. Technical Review Committee (TRC) ranking for projects in the Northern Region. Projects are listed by TRC ranking and include the total matching funds, total funds requested, and the average annual request for each project submitted to the 2016 Monitoring Program within the Northern Region. The projects listed are currently being considered for Funding in the 2016 Fisheries Resource Monitoring Program. Projects which were not eligible due to the nature of the activity are not included.

TRC Ranking	Project Number	Title	Total Matching Funds	Total Project Request	Average Annual Request
1	16-105	Kobuk River Sheefish abundance	\$93,000	\$183,592	\$61,197
2	16-106	North Slope Overwintering Aerial Monitoring Dolly Varden	\$117,900	\$229,302	\$57,325
3	16-107	Chandler Lake Spawning aggregations of Lake Trout	\$152,380	\$245,686	\$81,895
4	16-152	Mead River Changes in Subsistence Fisheries	\$0	\$329,495	\$82,373.75
5	16-151	Northwest TEK Whitefish, Cisco, and Beavers	\$0	\$225,418	\$75,139
6	16-103	Kobuk River Dolly Varden Genetics	\$10,500	\$21,500	\$21,500
7	16-101	Arctic Dolly Varden Telemetry	\$0	\$105,400	\$26,350
8	16-104	Selawik Inconnu Age Abundance	\$30,000	\$390,560	\$130,187
9	16-108	Changing Conditions in Colville River Leading to Increased Mold on Whitefish	\$93,000	\$185,575	\$61,858.33
10	16-102	Colville Grayling Habitat and Migrations	\$145,300	\$236,160	\$78,720
Total			\$642,080	\$2,152,688	\$676,545

2016 PROJECT SUMMARY AND TRC JUSTIFICATION FOR PROJECT RANKING

TRC Ranking: 1
Project Number: 16-105
Project Title: Spawning abundance of Kobuk River sheefish

Project Summary: The investigators seek funding to monitoring Kobuk River outmigration of post-spawning sheefish from the Kobuk River as a tool to provide managers with an index of the entire Kobuk River stock. A dual-frequency identification sonar (DIDSON) system would be used to produce this estimate. This work builds on abundance estimate work completed by the Alaska Department of Fish and Game and U.S. Fish and Wildlife Service in 1995-1997 and 2008-2010 (project 08-103).

Project Justification: This project will build upon Monitoring Program project 08-103 by allowing continue monitoring of sheefish in the Kobuk River. Sheefish are an important subsistence resource in northwest Alaska and can be harvested year-round throughout the Kobuk and Selawik River drainages. The largest subsistence harvest occurs in Hotham Inlet and Selawik Lake. These sheefish fisheries are a mixed stock group comprised of two spawning population s. The investigators propose ongoing monitoring of this stock to ensure long-term population stability. The project would be part of an ANSEP intern program that Alaska Department of Fish and Game wants to develop in Northern Alaska with the goal of developing professional biologist. The investigator has successfully completed a pilot study addressing the feasibility of using DIDSON sonar. The cost of this project is low and the investigator has a significant match covering 30% of the project.

TRC Ranking: 2
Project Number: 16-106
Project Title: Aerial monitoring of Dolly Varden overwintering abundance in the Anaktuvuk, Ivishak, Canning, Hulahula, and Kongakut rivers

Project Summary: Dolly Varden populations are utilized by subsistence fisheries in Eastern North Slope communities. These populations depend on a relatively small amount of overwintering habitat, most of this over wintering habitat is thought to be located in upwelling areas near the headwaters of major river systems in the region. The investigators propose conducting a series of aerial surveys to monitor overwintering populations of Dolly Varden in five northern Alaska rivers. This project will build upon information collect in 06-108 Aerial Monitoring of Dolly Varden overwintering abundance in the Anaktuvuk, Ivishak, Canning, Hulahula, and Kongakut rivers.

Project Justification: The proposal addresses a need for ongoing monitoring of potentially very vulnerable overwintering Dolly Varden stocks concentrations in the Arctic National Wildlife Refuge. This project specifically addresses the priority information need for identification of overwintering areas for Dolly Varden in the Hulahula River. The project has well defined and achievable objects. The investigators have a strong track record with successful completion of Monitoring Projects. The proposed project has a well-developed capacity building component that involves both an intern program for ANSEP students and training local borough biologist. Information from this project will help address any potential stock declines based on overwintering survey results.

TRC Ranking: 3

Project Number: 16-107

Project Title: Estimation of yield potential, identification and sampling of lake trout spawning aggregations, and abundance estimation of lake trout in Chandler Lake

Project Summary: The last assessment of Chandler Lake occurred from 1987-1989 when the goal was to determine sustainable yield and various metrics were examined including estimated population size, relative abundance, fecundity, growth, age composition, and length-weight relationships. Ultimately, an annual yield 0.14 kg/hectare was recommended, as well as continued efforts to monitor the population and harvests. Currently, comprehensive data on subsistence use for lake trout and freshwater fishes in Chandler Lake is limited to a single reporting year. In 2011, 504 lake trout were harvested by subsistence fishers, primarily from Chandler Lake, and when combined with sport fish harvests (~21 fish), equates to ~656 kg/yr and approaches the upper threshold of even the LA model (695 kg/yr), which is nearly 5 times the amount recommended during 1989.

Project Justification: This project addresses a 2016 Priority Information Need and a concern of the North Slope Regional Advisory Council. Subsistence users have expressed concern over the sustainability of Lake trout near the community of Anaktuvuk Pass. The investigators propose assessing the Lake trout population in Chandler Lake. The project would be part of an ANSEP intern program that Alaska Department of Fish and Game wants to develop in Northern Alaska with the goal of developing professional biologist. The investigator has successfully completed a pilot study addressing the feasibility of using DIDSON sonar. The cost of this project is low and the investigator has a significant match covering 38% of the project.

TRC Ranking: 4

Project Number: 16-152

Project Title: Meade River subsistence fisheries: Evaluating changes in harvests and abundance of broad whitefish, other non-salmon species, and salmon

Project Summary: The research would be conducted with subsistence fishers living in Barrow

and Atqasuk and who fish in the Meade River. The investigation plan focuses on two research questions:

1. Based on the analysis of updated quantitative and qualitative data, how are subsistence harvests and uses of broad whitefish and other fish species changing over time?
2. Are changes occurring in the abundance of broad whitefish and other fishes taken for subsistence; what are their causes?

Three methods of data collection are proposed to meet the study objectives: a harvest survey, key respondent interviews, and participant-observation. Three objectives are proposed:

1. Estimate annual harvest and use patterns of whitefishes, char, Arctic grayling, and other species of fish used by residents of Atqasuk for three years. Assess whether subsistence needs for these species are being met and impacts to households when needs are not being met.
2. In Atqasuk and with a subset of Barrow households that fish on the Meade River, document traditional and local knowledge about whitefishes, Arctic grayling, char, burbot, and other fishes with particular attention to temporal changes in run timing, abundance, locations, and links to other species. Document how environmental and other changes are affecting harvest methods, species targeted, how fishing is socially organized, fishing locations, preservation techniques, and harvest timing.
3. Compare data collected to previously collected information; interpret changes and trends in the subsistence harvest and use of whitefishes, Arctic grayling, burbot, and other fish species.

Project Justification: The investigator has proposed to conduct research in Atqasuk and Barrow with Federally-qualified residents who fish for subsistence in the Meade River. The project would have potential implications for this portion of the National Petroleum Reserve. The proposed study would allow managers to learn more about whitefishes, Arctic grayling, char, burbot, and other non-salmon and salmon species. These subsistence fisheries are likely to become more important to rural residents in the future as the Western Arctic Caribou herd declines.

There is potential to obtain baseline subsistence harvest information for the Meade River that is needed both for established State and Federal management processes and for planning and impact assessment efforts. Existing data are 10 years old and would be updated.

The investigator proposed to address one priority information need for the Northern Region described in the 2016 notice of funding availability. The objectives are clearly written, measurable, and achievable. The proposed methods are well established in the Alaskan context. The sampling strategy is sound and achievable. The investigation plan describes how each objective would be achieved and when reports would be delivered.

The principle investigator has a demonstrated track record of successful completion of similar projects and reports. There are no co-investigators or research partnerships described. We

recommend adding 1-2 co-investigators from local governmental agencies or tribes, the State, Bureau of Land Management, and/or the Office of Subsistence Management to help ensure project success and meaningful insights for managers.

No letters of support were submitted with the investigation plan. The investigator has initiated consultations with both tribal councils to obtain their permission to work in their communities and shared the investigation plan with each tribe. The project would build some technical capacity and provide temporary employment through local hire and training. The local tribal government would provide logistical help with the research.

The annual average cost of this project to the Office of Subsistence Management would be \$82,374. The cost of this project would seem to be reasonable for the amount of work and deliverables being proposed and the potential benefits to management of subsistence fisheries.

TRC Ranking: 5
Project Number: 16-151
Project Title: Traditional ecological knowledge of subsistence whitefish and cisco and attitudes/perceptions of beaver to subsistence fishing in Southern Kotzebue Sound

Project Summary: The investigators propose to examine subsistence harvest and use of whitefish and cisco in Buckland and Deering. The investigators propose to collect traditional ecological knowledge for these subsistence fisheries, including harvest locations and timing over the last twenty years to document temporal changes in harvest and use.

To address public concern about range expansion of beavers in the region, the investigators propose to examine residents' attitudes, beliefs, and perceptions about the effects of beavers on subsistence fishing in Buckland, Deering, and Selawik. The investigators propose an ethno-ecological approach to collect traditional ecological knowledge followed by comparison and integration with existing scientific knowledge and data. The proposed research goals include:

1. Collect qualitative ethnographic data on subsistence harvesting and processing, using interviews, participant-observation, and mapping of harvest locations.
2. Collect qualitative and quantitative ethnographic data on beliefs and attitudes toward beavers in terms of their impacts on subsistence fishing practices, using free-listing and pile sort methods.

The investigators propose a design and approach to provide Federal managers and scientists with comparative data and a framework for meaningfully integrating expert knowledge and Alaska Native knowledge of whitefish harvest and uses. The investigators propose to recommend strategies for managers to use in communicating about effects of beavers on subsistence fisheries.

Project Justification: The investigation plan directly addresses two priority information needs for the northern region. The proposed research has a clear nexus to Federal public lands and waters managed by three Federal agencies. The investigation plan covers five species of fish important for subsistence and addresses long-term, continuous public concern about beavers and subsistence fishing in the region. This information would have important implications for how Federal agencies communicate with subsistence fishers in the region regarding beavers and whitefish.

The conceptual framework and study design are grounded in well-established and sound approaches used in applied social science. The research goals are straightforward, and the study objectives are clearly written and achievable. The methodology is technically sound and meets up-to-date standards in applied social science. We recommend the investigators provide more detail and clarification on how the pile sort data would be analyzed in the final Investigation plan.

The project would contribute essential comparative data for Federal subsistence managers and identify and richly describe new areas for continued research. The proposed research has good potential to provide a framework for meaningfully integrating expert knowledge and observations and Alaska Native knowledge and observations.

The proposed project clearly describes a plan for partnering with rural community leaders, training residents of the region to conduct research, and sharing results and data. The data would augment local heritage preservation and local interest in and engagement with documenting local subsistence practices.

The proposed research process and results would further encourage local stakeholders to partner with Federal managers and fisheries biologists in future harvest monitoring and related fisheries management and research. The study would build the capacity of rural residents and Alaska Native Organizations to conduct their own research on subsistence fisheries and more effectively collaborate and partner with Federal agency staff and programs.

The annual average cost of this project to the Office of Subsistence Management would be \$75,139. The investigation plan outlines a research project that is cost effective.

TRC Ranking: 6

Project Number: 16-103

Project Title: Genetic diversity of Dolly Varden populations in Kobuk River

Project Summary: The investigator is requesting funding for two trips to the Kobuk River to collect genetic samples and for lab time to process the samples. The results of the analysis would add to the genetic baseline for Dolly Varden in Northwestern Alaska. Dolly Varden spend summers in the ocean feeding and return to fresh water to overwinter. Spawning Dolly Varden return to their natal streams, while non-spawning Dolly Varden typically overwinter in large

mixed-stock aggregations in non-natal streams. The Wulik River is thought to be one of the largest overwintering populations in Northwestern Alaska. Fish natal to the Noatak, Kivalina, Wulik, Kobuk, and Pilgrim rivers have all used the Wulik River as an overwintering site. However, the relative proportions of the contribution stocks are not completely known.

Project Justification: This project addresses an important subsistence Dolly Varden fishery resource in Northwest Alaska. Information from this project will assist fishery managers in identifying the portion of Dolly Varden harvested in the Wulik River subsistence fishery that originates in the Kobuk River. The investigators plan to collect and analyze genetic samples from the Kobuk River Dolly Varden population. While this project addresses an important subsistence resource it does not address a 2016 Priority Information Need identified for the Monitoring Program.

TRC Ranking: 7

Project Number: 16-101

Project Title: A radio telemetry investigation of overwintering habitats of Dolly Varden in the Canning River

Project Summary: The investigator is requesting funding for the six aerial surveys and analysis time in support of an on-going radio-telemetry project for Canning River Dolly Varden. Work on the project was initiated in 2014 with the goal of describing the overwintering distribution and fidelity rate of Dolly Varden in the Canning River drainage and any inter-drainage exchange that might occur. Dolly Varden populations are utilized by subsistence fisheries in Eastern North Slope communities. These populations depend on a relatively small amount of overwintering habitat. Most of the habitat is thought to be located in upwelling areas near the headwaters of major river systems in the region. The tagging component of this project will be paid for with other funds and completed in 2015. The requested funds are for aerial surveys to locate the deployed tags and one month per year of time for analysis and reporting on the aerial survey data. Aerial surveys will be completed from spring 2016 through 2018.

Project Justification: This project represents the aerial survey component of an on-going radio-tagging project in the Canning River to study overwintering Dolly Varden habitat. Results from this work will describe run timing and spawning location of Dolly Varden, giving fishery managers the context for better understanding important habitat. This project is technically sound and addresses an important subsistence resource associated with the Arctic National Wildlife Refuge. The investigator has the expertise needed to successfully conduct this ongoing project. He has worked on several successful Monitoring Program projects. This project presents an excellent opportunity to leverage Monitoring Plan dollars against other funding sources to address a priority information need in Northern Alaska.

TRC Ranking: 8

Project Number: 16-104

Project Title: Selawik River sheefish age structure evaluation and spawning population abundance

Project Summary: A permafrost slump located about 40 km upstream from the sheefish spawning area in the Selawik River began emitting large amounts of sediment into the river in 2004. The Selawik River below the slump has become turbid during the summer months transporting huge quantities of sediment downstream, potentially having a negative effect on the habitat for stream-spawning fish. In 2010 and 2011, prior to Monitoring Program funding, a pilot study was implemented to assess a site for a dual-frequency identification sonar (DIDSON) system and evaluate its potential success at enumerating migrating Selawik River sheefish. In 2012, the Monitoring Program began funding 12-100 Selawik River Sheefish Age Structure Evaluation and Spawning Population Abundance. This funding was renewed in 2014, with project 14-104 Selawik River Sheefish Age Structure Evaluation and Spawning Population Abundance. The investigators are estimating the annual abundance and age structure of the Selawik River sheefish spawning population over time to determine if the sediment emitted from the permafrost slump resulted in an identifiable impact to the sheefish population. Changes in the Selawik River sheefish spawning population age structure will be compared to the Kobuk River sheefish spawning population to ensure any detected change is unique to the Selawik River. Given the sheefish live-cycle any changes reducing production in the Sheefish population would be expected starting in 2014.

Project Justification: This investigation plan requests continued funding for Monitoring Program project 12-100/14-104 to study the effect of a permafrost slump located about 40 km upstream from the sheefish spawning area in the Selawik River. In 2004, the permafrost slump began emitting large amounts of sediment into the river. In 2010, the investigators began monitor the annual abundance and age structure of the Selawik River sheefish spawning population to determine if the sediment emitted from the permafrost slump resulted in an identifiable impact to the sheefish population over time. The proposed work is technically sound and addresses an important subsistence sheefish fishery associated with Selawik National Wildlife Refuge. This project builds upon several Monitoring Plan projects (02-020, 02-040, 03-016 and 04-101). Investigators have successfully completed 6 years of work funded through Monitoring Plan. Investigators have collected age structure data for both the Selawik and Kobuk river sheefish populations for a comparison over time. Currently, the investigators are funded to collect data through 2016. Funding the project through 2019 will allow for conclusion of the project and an opportunity to understand the effects of the permafrost slum on sheefish spawning success.

TRC Ranking: 9

Project Number: 16-108

Project Title: Environmental conditions in the Colville River drainage potentially leading to increased expression of freshwater mold

Project Summary: In early October 2013, a freshwater mold was found on some broad

whitefish near the community of Nuiqsut. Concurrently, traditional ecological knowledge and western science note that this mold had not been recorded in the area except on one occasion in 1980. *Saprolegnia* spp. was found on one broad whitefish on the Inaru River. While there may be many factors leading to the onset of *Saprolegnia* on broad whitefish in the Colville River drainage, the investigator will examine environmental conditions such as temperature, in the spawning waters. One environmental factor that has been documented in increasing the efficiency of colonization of this mold on fish is abrupt change in water temperature and /or low water temperatures during spawning.

Project Justification: The results of the work would describe the environmental factors of water temperature and water level that occurring during the presence of the freshwater mold *Saprolegnia parasitica* on broad whitefish in the Colville River drainage. By obtaining environmental data and specimens (mold and fish) from local, subsistence fishermen whose fishery is being impacted, this work will describe the presence of this mold but will not establish causation. In addition, application to management is unclear. This was identified as a 2016 Priority Information Need. The *Saprolegnia parasitica* outbreak has been a concern for both the local subsistence users and the North Slope Regional Advisory Council.

TRC Ranking: 10

Project Number: 16-102

Project Title: Seasonal habitats and migrations of Arctic grayling within the Nuiqsut subsistence fishery of the lower Colville River

Project Summary: Arctic grayling are an important component of subsistence fisheries of the Colville River drainage. Unfortunately, very little is known about the population of the Colville River, and although the river and drainage are large, the available winter habitat may be quite limiting. During winter, river discharge reaches annual lows and some streambeds go dry while others freeze to the bottom. To avoid these areas, Arctic grayling of northern Alaska vacate small tributaries and upper portions of the drainage during autumn. Arctic grayling are most vulnerable to declines in water quality and quantity during late winter. Identification of overwinter habitats and timing of migrations to and from all seasonal habitats is needed to avoid or greatly reduce impacts associated with development and narrowly directed fisheries at vulnerable times and places.

Project Justification: While this project addresses a general concern of the North Slope Regional Advisory Council it does not address a 2016 Priority Information Need. The investigator proposes assessing the Colville River Arctic Grayling population to describe winter habitat. Currently, it is thought that winter habitat is a limiting factor in Arctic grayling population growth. This project is technically sound and addresses an important subsistence resource associated with the National Petroleum Reserve. The investigator has the expertise needed to successfully conduct this ongoing project. He has worked on several successful Monitoring Program projects.

APPENDIX A

The following Executive Summaries were written by the Principle Investigators and submitted to the Office of Subsistence Management as part of the proposal package. The statements and information contained in the Executive Summaries were not altered and they may not reflect the opinions of the Office of Subsistence Management or the Technical Review Committee. The Executive Summaries listed are for projects that are currently being considered for Funding the 2016 Fisheries Resource Monitoring Program. Projects which were not considered for funding were not eligible due to the nature of the activity and are not included in this appendix.

Project Number: 16-101
Title: A radio telemetry investigation of overwintering habitats of Dolly Varden in the Canning River
Geographic Region: Arctic
Data Type: Stock Status and Trends
Principle Investigator: Randy J. Brown, U.S. Fish and Wildlife Service

Project Cost:	2016: \$35,000	2017: \$35,000	2018: \$24,600	2019: \$10,800
----------------------	-----------------------	-----------------------	-----------------------	-----------------------

Total Cost: \$105,400

Issue Addressed: Activities associated with hydrocarbon development in Arctic environments require large volumes of water for drilling as well as for the construction of ice roads. On the North Slope of Alaska, water for industrial purposes is typically withdrawn from lakes, which are present at greater densities west of the Sagavanirktok River than east. It has been suggested that water could be withdrawn from rivers in the east if it did not prevent fish passage or measurably degrade aquatic habitat. However, the volume of winter water from lakes and rivers of the eastern Arctic region of Alaska is not considered to be sufficient to support hydrocarbon development. Despite the low volume of water potentially available for industrial use, discussions over hydrocarbon development on the coastal plain of the Arctic NWR continue, and if development is eventually approved, water use will become a significant issue.

Dolly Varden *Salvelinus malma* is a common anadromous species in the Alaskan Arctic and the most important subsistence fishery resource for residents in the eastern Arctic region. After rearing for two or more years in their natal streams, anadromous Dolly Varden follow an annual pattern of migration to marine environments each spring to feed and return to freshwater environments by fall for both spawning and overwintering. Conventional anchor tagging and genetics studies have shown that Dolly Varden from all the northern populations migrate widely along the Beaufort Sea coast during summer feeding periods making them available for harvest in subsistence fisheries throughout the region. Overwintering habitat in eastern North Slope drainages is essential for anadromous Dolly Varden populations in northern Alaska and is limited to a relatively small number of perennial springs that maintain flow throughout the winter.

The Canning River flows north for about 225 km from its headwaters in the Philip Smith Mountains in the eastern Brooks Range, across the North Slope of Alaska to its mouth at the Beaufort Sea. The west bank of the Canning River delineates the western boundary of the Arctic NWR across the coastal plain. The 1002 Area lies to the east of this boundary and Alaska State land lies to the west. Hydrocarbon leases have been sold and development is currently taking place on State land immediately west of the Canning River but development is not permitted at this time in the 1002 Area to the east. If the U.S. Congress eventually permits hydrocarbon development in the 1002 Area, the Canning River will be the first drainage in the Arctic NWR to experience environmental impacts, which may involve water withdrawal.

Like several other eastern Arctic rivers in Alaska, the Canning River supports a population of anadromous Dolly Varden that depends on perennial springs in the drainage for spawning and overwintering habitat. Our understanding of the proportional distribution of overwintering Dolly Varden among spring systems, however, is poor. This information will be important for judging the environmental consequences of allocating winter water from the Canning River drainage for industrial purposes in the future. For example, the farthest downstream perennial spring system known to support overwintering fish originates at Shublik Spring and extends downstream under ice into the 1002 Area. The consequences of allocating winter water from this spring system for industrial purposes would be very different if a small fraction of the Dolly Varden population utilized it than if a large fraction utilized it. This 4-year radio telemetry project is designed primarily to estimate the proportional distribution of Dolly Varden among major overwintering regions of the Canning River, which would inform water use decisions in the future.

Objectives:

1. Estimate overwintering distribution of Dolly Varden among three major regions of the Canning River;
2. Estimate the overwintering site fidelity rate for Dolly Varden that return to the Canning River one or more years following tagging;
3. Estimate overwinter survival of Dolly Varden in the Canning River;
4. If data allow, estimate spawning distribution of Dolly Varden among three major regions of the Canning River;
5. If data allow, estimate the rate of inter-drainage exchange of Canning River Dolly Varden.

Methods: We propose to conduct a radio telemetry investigation with mature, anadromous Dolly Varden returning to the Canning River from the sea during each of two fall seasons. We will deploy a total of 210 radio tags. Transmitters are designed to last for more than 2.5 years and provide overwintering location data for three winters. Our primary objective is to estimate the proportional distribution of overwintering Dolly Varden among three major regions of the Canning River, one of which includes the lower drainage springs that extend into the 1002 Area. We will estimate overwintering site fidelity rates for fish that overwinter more than once in the Canning River. If we are able to identify and tag pre-spawning individuals, their spawning distribution among the three major regions of the Canning River will be estimated. Secondary objectives include estimating overwintering survival and the rate of inter-drainage exchange a

year following tagging. These data will provide information necessary to guide water and habitat management decisions to minimize impacts to Dolly Varden in the Canning River if development occurs, and will improve our understanding of Dolly Varden population dynamics in northern Alaska.

Overwintering distribution of Dolly Varden within the three major regions of the Canning River drainage will be estimated for each deployment year with associated confidence intervals determined using multinomial probability functions. We will compare overwintering distributions of Dolly Varden from the 2014 and 2015 deployment events with Chi-squared tests for differences in probabilities. If it is possible to know overwintering locations during spawning and non-spawning years for tagged Dolly Varden, we will test the null hypothesis that proportional overwintering distributions are the same for both demographic groups. We will estimate overwinter survival of Dolly Varden as the proportion of radio tagged fish known to be alive in fall that migrate to sea or elsewhere in the drainage after the winter season. The rate of inter-drainage exchange will be estimated as the proportion of all tagged Dolly Varden returning to fresh water a year following tagging that are located in rivers other than the Canning River.

Partnerships and Capacity Building: We reached out to a number of entities and individuals with an offer of inclusion in the initial field component of the project in 2014. Included in the final crew were two individuals from the Alaska Department of Fish and Game, a representative from the USFWS Conservation Genetics Laboratory, a fish biologist with surgical experience from the Anchorage FWFO, and a new biologist with the USFWS Barrow Field Office, Uiiñiq Ahgeak. Ms. Ahgeak recently earned a degree in fish biology from the University of Alaska Fairbanks and it is my understanding that our 2014 field project on the Canning River was her first fisheries field project. We are still working on the staff composition for the 2015 field crew but Ms. Ahgeak will be offered a position. We have commonly presented the results of our projects to interested parties, local communities, and Regional Advisory Councils as appropriate, and it is our intention to do so in this case as well.

Project Number: 16-102
Title: Seasonal habitats and migrations of Arctic grayling within the Nuiqsut subsistence fishery of the lower Colville River
Principle Investigator: Andrew Gryska, Alaska Department of Fish and Game, Sport Fish Division
Geographic Region: Northern Alaska Region (Colville River).
Federal Conservation: National Petroleum Reserve in Alaska (BLM); Gates of the
System Units Arctic National Park and Preserve (USNPS).
Information Type: Stock Status and Trends (SST)

Project Cost	2016: \$147,570	2017: \$59,120	2018: \$17,300	2019: \$0
--------------	-----------------	----------------	----------------	-----------

Total Cost: \$236, 160

Issues Addressed: Arctic grayling *Thymallus arcticus* are an important component of subsistence fisheries of the Colville River drainage (Fall and Utermohle 1993; Holen et al. 2012). Unfortunately, very little is known about the population of the Colville River, and although the river and drainage are large, the available winter habitat may be quite limiting. During winter, river discharge reaches annual lows and some streambeds go dry while others freeze to the bottom. To avoid these areas, Arctic grayling of northern Alaska vacate small tributaries and upper portions of a drainage during autumn. For the winter, Arctic grayling seek out habitat that minimizes energy expenditure (e.g. low velocity water), has physiochemically suitable water (e.g. adequate depth, oxygen, and no frazzle ice), and provides cover from predators (e.g. overhead ice; Cunjak 1996). These habitat requirements may be found in a limited number of areas, and, in conjunction with reduced metabolism (i.e. less feeding and competition for food and space), large congregations of fish can occur among normally competitive fish (Cunjak 1996; Gryska *In prep*). During winter, some of these locations may also become isolated refugia from which fish cannot migrate. For these reasons, Arctic grayling, as well other fishes, are most vulnerable to declines in water quality and quantity during late winter. Identification of overwinter habitats and timing of migrations to and from all seasonal habitats is needed to avoid or greatly reduce impacts associated with development and narrowly directed fisheries at vulnerable times and places. In addition, alterations of the hydrologic regime (e.g. droughts limiting migration corridors) due to climate change may impact the population.

Objective: The objective of this project is to use radiotelemetry to describe the seasonal movements and locations of Arctic grayling ≥ 330 mm FL that inhabit the lower Colville River drainage between Umiat and Nuiqsut during August 2016 over the subsequent 16-month period.

Methods: Radiotelemetry techniques will be used to collect location and movement data that will describe seasonal locations and migrations of Arctic grayling that occupy the lower 100 miles of the Colville River drainage (Figure 1), including such tributaries as the Itikillik, Anaktuvuk, Chandler and other smaller rivers and creeks . Radio tags will be surgically implanted in 150 Arctic grayling ≥ 330 mm FL. Radio tags will be distributed throughout the study area

systematically (i.e. each sample reach will be allocated a proportion of the radio tags; Table 1). Because radio tags cannot be allocated by abundance and size composition of Arctic grayling in each sample reach, unbiased total population inferences cannot be estimated. However, the systematic distribution of the tags through the drainage will serve to maximize identification of seasonal habitats and migratory behavior for the majority of the population for the period from August 2016 through December 2017.

Nearly all sample reaches are extremely remote and will be reached using small helicopter transport to rivers and streams within an approximate 65 mile radius of Umiat. All Arctic grayling will be captured by hook and line, and only Arctic grayling ≥ 330 mm FL that appear to be healthy, will be surgically implanted with a radio tag. The radio tags will be model MST-930 manufactured by Lotek™, which are small (9.5 mm x 26 mm), lightweight (4 g), and have at least a 15-month operational life. Each tag will emit an individual code for each fish on a particular radio frequency (149.xxx MHz). The radio tags will be programmed to operate 10 hours per day, which will enable them to have a 15 month operational life.

Locations of radiotagged Arctic grayling will be determined using periodic flights in a fixed wing aircraft. Tracking flights will utilize a Lotek SRX 600 receiver with an internal GPS that will record time and location data. Flights will occur during a 16-month period primarily to determine locations of winter refuge, pre-spawning, spawning, and subsequent summer feeding habitats. The periodicity of flights will vary between weekly and multi-monthly dependent upon typical Arctic grayling behavior (e.g. greater intensity of flights before, during, and after spawning). To facilitate data analysis, all radiotagged Arctic grayling will be assigned a “fate” during each tracking survey. Fates (e.g. tagging mortality, post-tagging mortality, alive, and at-large) will be assigned based on a combination of information collected from the tracking station, aerial surveys, the use of motion sensors, and harvested fish for which tags were returned. Following fate assignment and description, seasonal locations and migratory periods will be described and depicted on maps.

Partnerships and Capacity Development: Local knowledge and involvement of residents of Nuiqsut in the study is essential for the project’s success. Letters of support are being solicited, but will not be final by March 11. A teleconference is scheduled for the third week of March with Karen Hyer and the members of the NW and North Slope RAC’s. Informing RAC, tribal entities and local residents about the project well before the field work will continue. A college intern will be hired from the Alaska Native Science and Engineering Program to assist in sampling.

The BLM has conducted research from Umiat and their experience relative to logistics and sampling will prove beneficial. Progress reports will be presented and distributed to fisheries managers, researchers, local community groups and other interested parties. A presentation of the study finding will be presented in Nuiqsut at the completion of the field work.

Project Number: 16-103
Title: Genetic diversity of Dolly Varden populations in Kobuk River
Geographic Region: Northern Alaska Region
Data Type: Stock Status and Trends
Principle Investigator: James Saveriede, Alaska Department of Fish and Game, Sport Fish Division
Co-Investigators: Penelope Crane, U. S. Fish and Wildlife Service, Conservation Genetics Laboratory

Project Cost	2016: \$0	2017: \$21,500	2018: \$0	2019: \$0
--------------	-----------	----------------	-----------	-----------

Total Cost: \$21,500

Issues: The Dolly Varden charr *Salvelinus malma* population that overwinters in the Wulik River is the most important subsistence resource for the residents of Kivalina, Alaska (Burch 1985). The Wulik River is likely the largest and most important overwintering site for Dolly Varden in northwestern Alaska (Seitz et al. 2014), and fish natal to the Noatak, Kivalina, Wulik, Kobuk, and Pilgrim rivers have all used the Wulik River as an overwintering site (Scanlon 2011). However, the relative proportions of the contributing stocks to this overwintering aggregation are not completely known. A previous genetic study found that the level and pattern of genetic differences detected among the stocks surveyed in their study provided a powerful and cost effective method for estimating the relative contribution of stocks to the Wulik River overwintering aggregation (Crane et al. 2004). However, they concluded that representative samples from all the geographic regions contributing to the Wulik River aggregate are desirable, which includes the Kobuk River. This project addresses the priority need to improve the method developed by Crane et al. (2004) that identifies the origin of Dolly Varden harvested in the Wulik River subsistence fishery so managers can assess the impacts on the Dolly Varden stocks represented in this overwintering aggregation. Adding three known Dolly Varden spawning stocks in the Kobuk River, the Hunt, Salmon, and Tutuksuk River stocks, to the established baseline will improve the mixed-stock analysis of this important subsistence fishery.

Objectives: The objective of this project will be to:

1. Collect and genetically analyze fin clips taken juvenile Dolly Varden from three known spawning streams in the Kobuk River drainage, to add to the Northwest Alaska genetic baseline for mixed-stock subsistence harvest analysis.

Methods: The Kobuk River Dolly Varden spawning areas are located in the Hunt, Salmon, and Tutuksuk rivers, upstream from the village of Kiana. Site visits to these three rivers to capture and collect Dolly Varden juveniles will be made from mid to late July 2016. Juvenile Dolly Varden will be susceptible to baited minnow traps at this time because of their size and voracious appetite. The objective is to capture and collect the sample size needed to determine genetic differences or lack thereof between the three Kobuk River stocks and include them in the established genetic baseline for mixed-stock analysis of the Wulik River subsistence harvest. Two biologists will visit each river in July 2016 and spend three days at each site deploying 50 baited G40-type minnow traps. The traps will be deployed and checked each day for a minimum of 48 hours of fishing time. Traps will be placed in multiple areas within each river to

avoid any family effects from sampling juveniles (Hansen et al. 1997). All species of fish will be identified and juvenile Dolly Varden will be sampled for genetic analysis. If catch rates are good and the desired sample size will be easily achieved, samples will be taken systematically from the minnow traps to further avoid any family genetic effects. All Dolly Varden samples will be sent to Penny Crane at the USFWS Conservation Genetics Lab for analysis. The methods and statistical analysis used to analyze tissue samples have been established by the lab and were recently used on Dolly Varden from Southwestern Alaska (Crane et al. 2014). The same approach will be used for the Kobuk River stocks that are sampled during this study.

Partnerships/Capacity Building: An ANSEP internship, up to three weeks in duration in August 2016, will be available in the CGL. The student would work in conjunction with a laboratory technician to isolate DNA from the samples collected in this study. The student would also job shadow staff in the laboratory to observe the remaining steps in data analysis, and gain an understanding of their application in fishery management.

The principle investigator will provide project updates to the Regional Advisory Council as well as the local communities. He is actively seeking letters of support from RAC and local community members, but they were unavailable before the deadline. However, they will be submitted to OSM as soon as they become available. He will work closely with local communities to learn about the rivers to be sampled and gain any insight from their knowledge of fish in those areas. In past years the project biologist has found that local knowledge has been invaluable to the success of sheefish projects conducted in the area. The boat to be used for this study is stored by a local family in Kobuk that has worked on sheefish projects in the past. The project biologist also contracts the local community occasionally for logistic support such as boat rides and field camp set-up and take-down. He will also look into other avenues for capacity development with river residents such as giving school presentations and radio updates. The biologist will also coordinate logistics such as storage, etc. with ADF&G Kotzebue as well as the Selawik National Wildlife Refuge.

The USFWS Conservation Genetics Lab supports this project and will be used to analyze the samples to include in the Dolly Varden genetic baseline they developed.

Project Number: 16-104
Title: Selawik River inconnu spawning population abundance and age structure evaluation
Geographic Region: Northwest Alaska
Data Type: Stock Status and Trends
Principle Investigator: William K. Carter III, U.S. Fish and Wildlife Service
Co-Investigators: Randy J. Brown, USFWS, Raymond Hander, USFWS

Project Cost:	2016: \$0	2017: \$145,587	2018: \$145,548	2019: \$99,425
----------------------	------------------	------------------------	------------------------	-----------------------

Total Cost: \$390,560

Issue Addressed: The Selawik National Wildlife Refuge (Refuge) has a congressional mandate through ANILCA to conserve Inconnu (sheefish) *Stenodus leucichthys* populations. This project is a continuance of priority issues identified for the Northern Region in the Fisheries Resource Monitoring Program (FRMP): 2012 “Spawning distribution, timing, and stock structure of Selawik River whitefish species”; 2014 “Identify and characterize critical factors affecting population dynamics of Selawik River Inconnu”; and 2016 “Changes in subsistence fishery resources, in the context of climate change, including but not limited to fish movement and barriers including permafrost slump, water quality and temperature, draining of tundra lakes, changing patterns of precipitation both snow and rain, changing freeze-up and break-up.” This project benefits from information provided by FRMP projects 12-100 (in progress and transitioning to FRMP 14-104), 04-101, 03-016, 02-040, and 00-020.

There are two known populations of Inconnu in Northwest Alaska, one that spawns in the upper Selawik River within the Refuge and the other in the upper Kobuk River outside of the Refuge. Both populations are subject to intensive fisheries throughout the region. A large permafrost thaw slump (slump) located about 40 km upstream from the Inconnu spawning area on the Selawik River began releasing large amounts of sediment into the river in 2004. Since then the normally clear Selawik River has flowed extraordinarily turbid during the summer months transporting huge quantities of sediment downstream, potentially negatively affecting the habitat for stream-spawning fish. Similar slumps in the upper Yukon River drainage have been emitting sediment into the Stewart River for over 40 years so we assume that the Selawik River slump will continue for the foreseeable future. However, no assessment of the effects on fish has been conducted on the Yukon River slumps. Habitat qualities of the Inconnu spawning area in the Selawik River have undoubtedly changed because of the dramatically increased sediment exposure. These changes may reduce the proportion of fertilized eggs that develop successfully and produce young. If production is reduced but not eliminated the Inconnu population would be expected to decline over time. If production is eliminated the population would be expected to become extinct as existing fish gradually die off, or possibly to become established in another suitable location. The increased sediment in the upper Selawik River is an environmental factor that may have a profound effect on the Inconnu population that spawns there as well as the subsistence fishers that depend on them.

Objectives:

2. Collect Inconnu age structure data from male Inconnu from the Selawik and Kobuk River spawning populations in 2016, 2017, and 2018;
3. Identify possible recruitment events based on a series of non-parametric statistical tests of annual age distribution samples;
4. Determine the spawning population abundance of Selawik River Inconnu in 2016, 2017, and 2018; and
5. Determine whether age structure and spawning population abundance data support the null hypothesis that sediment deposition from the slump has not affected Inconnu recruitment.

Project Design based on FRMP 12-100 preliminary findings: This project will involve three distinct components that together will reveal whether the Selawik River thaw slump is affecting recruitment of the inconnu population in the drainage. The first component will be a series of annual age distribution profiles of spawning male inconnu collected from the Selawik River spawning area. We have chosen to focus on males because they will provide the recruitment data we are seeking without reducing the number of fertilized eggs on the spawning grounds each year. These pre-slump age distribution profiles will serve as baselines for comparison with later profiles. The second component will be a series of annual age distribution profiles of spawning male and female inconnu from the Kobuk River population. The Alaska Department of Fish and Game operates an annual chum salmon *Oncorhynchus keta* test fishery on the Kobuk River near the community of Kiana during July and August. They have agreed to sample the inconnu they capture during that test fishery and provide those biological data and age structures for this project. We initially thought that if recruitment failure was observed in both sample collections, it would indicate an effect in their shared rearing environment and not necessarily in the Selawik River spawning area. And, if recruitment failure is observed only in the Selawik River sample collection it would indicate an effect from the Selawik River spawning area. However, given the age distributions observed for both populations in 2011–2014, in which both populations appear to have experienced several years of poor recruitment, we modified our statement to read; if recruitment success is observed in both sample collections it would indicate no negative slump effect on spawning success. And if recruitment success is observed only in the Kobuk River sample it would indicate a negative slump effect on spawning success the Selawik River spawning area. The third component of the project will be a series of annual spawning population abundance estimates for the Selawik River inconnu population. Age distribution data are proportional to abundance so one could see identical profiles from a population at radically different spawner abundance levels. The age distribution profiles from the Kobuk and Selawik rivers show a dominance of older inconnu with fewer younger age recruits. A significant increase in recruitment to the spawning population should eventually be reflected in an increase in abundance. The combination of spawner abundance and age structure data provides a robust means of assessing changes in spawning population dynamics.

Partnerships and Capacity Building: Residents of Selawik will continue to be sought for assistance with local knowledge, collecting otoliths, overseeing inconnu carcass processing, and transportation and logistical support. Specific training to address project specific sampling procedures and protocols will be conducted for individuals prior to initiating sampling. In the 2011 pilot study year and 2012–2014 there

were five to seven Selawik residents plus the Native Village of Selawik that interacted with the project to help make it a success. The FFWFO has worked with Selawik residents or the NVOS organization for about 28 years.

Project Number: 16-105
Title: Spawning abundance of Kobuk River Sheefish
Geographic Region: Northern Alaska Region
Data Type: Stock Status and Trends
Principle Investigator: James Savereide, Alaska Department of Fish and Game, Sport Fish Division

Project Cost	2016: \$0	2017: \$65,364	2018: \$54,364	2019: \$63,864
--------------	-----------	----------------	----------------	----------------

Total Cost: \$183,592

Issues: The Kobuk River sheefish or inconnu *Stenodus leucichthys* population supports substantial inriver subsistence and sport fisheries along with winter subsistence and commercial fisheries that occur in Hotham Inlet and Selawik Lake. This project primarily addresses the need for baseline harvest assessment and monitoring subsistence fisheries. The subsistence and sport fisheries take place throughout Hotham Inlet and Selawik Lake, which are bordered by the Selawik National Wildlife Refuge, around the mouth of the Kobuk River also in the Selawik National Wildlife Refuge, around summer feeding areas in Kobuk Valley National Park, and throughout the spawning grounds in Gates of the Arctic National Park & Preserve. Federal management of these fisheries is mandated through ANILCA to conserve sheefish stocks (USFWS 1993).

The majority of sheefish harvested in the Selawik National Wildlife Refuge are a mixed-stock comprised of the only two known spawning stocks in the region, the Selawik and Kobuk River stocks (Alt 1987). To effectively manage these fisheries an understanding of harvest (numbers and composition) and stock abundance is necessary to describe the population dynamics of these stocks and identify sustainable harvest levels. Unfortunately, the sheer size of this region coupled with stock differences in seasonal movements and timing (Smith 2013) make deriving estimates of stock abundance from typical mark-recapture experiments unfeasible. It is feasible to obtain estimates of spawning stock abundance but because sheefish are iteroparous (spawn more than once) and known to skip a year or more after spawning (Nikolskii 1954, Scott and Crossman 1973, Savereide 2014), estimates of spawning frequency would be needed to derive estimates of total mature stock size. A current study (Savereide *In prep.*) is attempting to derive these estimates of spawning frequency; however, if the estimates are too erratic to expand spawning abundance estimates, then a reliable index of the whole stock would be required to effectively manage this resource. Total annual estimates of the spawning stock abundance would provide this index. This project will use sonar methodology to enumerate the outmigration of post-spawning sheefish from the Kobuk River and provide managers with an accurate index of the entire Kobuk River stock.

A dual-frequency identification sonar (DIDSON produced by Sound Metrics Corp.) feasibility study conducted in 2014 (Savereide *In prep.*) found that enumerating migrating sheefish is possible over the course of their outmigration. Two DIDSON sonar units were used to ensonify the majority of the river and sheefish were primarily located in thalweg, which is the deep part of the channel with relatively fast flowing water. We also found that nearly the whole outmigration was complete before ice filled the river.

Objectives: The objective of this project will be to annually (2016-2018):

1. Enumerate the post-spawning outmigration of sheefish in the Kobuk River using sonar methodology.

Methods: To estimate the spawning abundance of Kobuk River sheefish, one or two DIDSON sonar units will be used to enumerate post-spawning sheefish as they migrate downriver to overwintering areas. The objective is to position the sonar so it can record images from the entire river, 24 hours a day, 7 days a week. The DIDSON will be deployed over the course of the outmigration from 15 September to 15 October (Savereide 2014), or until ice fills the river and eliminates our ability to use sonar techniques. Due to the considerable size disparity between sheefish and other whitefish species that are migrating at that time, sonar counts will only consider fish > 650 mm, which will exclude virtually all the humpback whitefish in addition to the much smaller round whitefish. Periodically, a number of beach seine hauls throughout the outmigration will be conducted near the study area to ensure all fish being counted are sheefish. Two technicians will ensure the sonar is running 24 hours a day, 7 days a week. During the season daily estimates will be determined by tallying the number of sheefish migrating downstream from the top of every hour to 20 minutes past. This count will be multiplied by three to estimate the number of sheefish by hour. The total count for the day will be the sum of the hourly estimates. The variance will not be calculated inseason because a census of spawning abundance will be completed postseason by counting the total number of sheefish over the entire outmigration.

Partnerships/Capacity Building: ADF&G, Division of Sport Fish-Region III has submitted 8 proposals each requiring 2-4 weeks of a college intern during various times of the summer. Our preference is to hire 1-3 ANSEP student(s) and to create a full-time intern position. During and voids between OSM projects, we would integrate them into existing projects conducted by Region III.

The project biologist has discussed this sheefish project and previous results with numerous people who live on the Kobuk River, including Kiana, Kobuk, Shungnak, and Ambler villages. The project biologist will visit the Kobuk School and talk to the high school class as well as have the class process some sonar files. The project biologist hired local technicians from Kobuk during previous telemetry and abundance work. The boat to be used for this study is stored by a local family in Kobuk that has worked on sheefish projects in the past. The project biologist also contracts the local community occasionally for logistic support such as boat rides and field camp set-up and take-down. All knowledge gathered from this project will be shared with local and agency representatives.

The project biologist will provide project updates to the Regional Advisory Council as well as the local communities. He is actively seeking letters of support from RAC and local community members, but they were unavailable before the deadline. However, they will be submitted to OSM as soon as they become available. He will work closely with ANSEP and/or local communities to hire college interns and/or local hires and will encourage local participation from Kobuk River villages. In past years he has found that local knowledge has been invaluable to the success of sheefish projects. He will also coordinate logistics such as storage, etc. with ADF&G Kotzebue as well as the Selawik National Wildlife Refuge.

Project Number: 16-106
Title: Aerial monitoring of Dolly Varden overwintering abundance in the Anaktuvuk, Ivishak, Canning, Hulahula, and Kongakut rivers.
Investigator: Brendan Scanlon, Alaska Department of Fish and Game (ADF&G) Sport Fish Division
Investigator: Tim Viavant, Alaska Department of Fish and Game (ADF&G) Sport Fish Division
Co-Investigator: Randy Brown, U.S. Fish and Wildlife Service (USFWS), Fairbanks Field Office
Geographic Region: Northern Alaska Region.
Federal Conservation: Arctic National Wildlife Refuge, Gates of the Arctic National Park,
System Units National Petroleum Reserve Alaska.
Information Type: Stock Status and Trends

Project Cost	2016: \$56,966	2017: \$56,742	2018: \$57,226	2019: \$58,368
---------------------	-----------------------	-----------------------	-----------------------	-----------------------

Total Cost: \$229,302

Issues Addressed: This proposed study will partially address the Northern Alaska Region Subsistence Fisheries Monitoring Issues, Priority Information Need: Identification of overwintering areas for Dolly Varden in the Hulahula River including demographic qualities of overwintering fish, and estimating overwintering fidelity of fish as identified in the January 2015 OSM document: Priority Information Needs - Federal Subsistence Fisheries. However, some of this information specific to the Hulahula River has been collected and published in 2007; therefore we propose broaden our scope to collect information on overwintering areas and abundance of overwintering fish in not only the Hulahula River but also the Canning, Anaktuvuk, Ivishak, and Kongakut rivers, all of which contribute to subsistence harvests.

Objectives: This project is being proposed as a 4-year (2016-2019) study. The objective of the project for each of the 4 years is to conduct a single aerial index count of the mid-September overwintering abundance of Dolly Varden char within established index areas in the Anaktuvuk, Ivishak, Canning, Hulahula, and Kongakut rivers. An additional objective of the first year is to identify Dolly Varden overwintering index areas in the Canning, Hulahula, and Kongakut rivers. An overall goal of this project is also to familiarize staff of the North Slope Borough Fish and Wildlife Department with the methods and index areas used in this assessment to enhance the capacity of a local organization to conduct future monitoring.

Methods: In all drainages, surveys will be conducted from a helicopter by two observers, each counting only the fish present on one side of the river. Surveys will be flown from upstream to downstream at an altitude of approximately 50 m, and a ground speed of approximately 40 km/hr. Surveys will be flown (when practical) around solar noon (1 – 2:30 PM). In areas of multiple channels, the channel with the most flow will be counted. For each survey conducted, survey conditions (light level, water clarity, and wind conditions) will be rated as poor, fair, good, or excellent.

Whenever possible, a third observer (preferably from the North Slope Borough Fish and Wildlife Department) will participate in the survey, and conduct a count on their side of the helicopter for comparison with an experienced observer. Observers will tally counts on individual digital voice recorders. To eliminate conscious or unconscious bias during counts, surveyors will wear headsets while counting to eliminate the ability to hear each other's counts. Counts of the two experienced observers and the third observer will not be known by any of the observers until all counts within a given year are completed.

Surveys of the Ivishak, Anaktuvuk, and Kongakut rivers will be conducted within the boundaries of the index areas established during previous aerial index counts (Bendock 1980; Viavant 2005, 2009). Surveys of other drainages will be conducted each year within boundaries of index areas established during the first year of the project. These index areas will be established based on the distribution of fish during the initial survey of the drainage combined with local knowledge of fish distribution within the drainage. Local knowledge of fish distribution within drainages will be solicited from subsistence users in cooperation with the North Slope Regional Advisory Council, the Arctic National Wildlife Refuge and North Slope Borough Wildlife Department. Boundaries of index areas will be recorded as GPS waypoints.

During each year of the project, surveys in each drainage will be conducted as near to the same date as practical. All surveys will be conducted between September 15 - 25. If possible within the restraints of budget and weather, surveys will only be conducted when survey conditions are rated as fair or better.

Partnerships and Capacity Development: ADF&G, Division of Sport Fish-Region III has submitted 8 proposals each requiring 2-4 weeks of a college intern during various times of the summer. Our preference is to hire 1-3 ANSEP student(s) and to create a full-time intern position. During and voids between OSM projects, we would integrate them into existing projects conducted by Region III. Local hires will be employed in the event no ANSEP student is available, such as in the fall. In addition, the North Slope Borough Wildlife Department has been invited to provide an observer to accompany project biologists during some or all of the surveys conducted in order to familiarize a staff member in the techniques used for conducting these surveys. It is the intent of this project to train and familiarize staff of a local organization (local government agency, village or regional corporation, or tribal organization) with this survey methodology, so that a local organization would have the capacity to continue stock monitoring into the future.

Project Number: 16-107
Title: Estimation of yield potential, identification and sampling of lake trout spawning aggregations, and abundance estimation of lake trout in Chandler Lake, Alaska
Principle Investigator: Klaus Wuttig, Alaska Department of Fish and Game, Sport Fish Division
Geographic Region: Northern Alaska Region.
Federal Conservation System Units: Gates of the Arctic National Park and Preserve.
Information Type: Stock Status and Trends

Project Cost:	2016: \$0	2017: \$95,553	2018: \$135,841	2019: \$14,292
----------------------	------------------	-----------------------	------------------------	-----------------------

Total Cost: \$245,686

Issues Addressed: This study proposes to collect information on the lake trout *Salvelinus namaycush* population in the Chandler Lake system in Gates of the Arctic National Park and to provide a long-term cost effective approach for evaluating sustainability. Lake trout in the Chandler Lake system were last assessed from 1987-1989 and more current information is needed to evaluate sustainability relative to past and future changes in environmental variables and harvest patterns. Of immediate concern is that subsistence harvests alone may be exceeding the lakes productivity.

Chandler Lake system provides an important subsistence fishery for lake trout primarily by residents of Anaktuvuk Pass. The last assessment of Chandler Lake occurred from 1987-1989 when the goal was to determine sustainable yield and various metrics were examined including estimated population size, relative abundance, fecundity, growth, age composition, and length-weight relationships. Ultimately, an annual yield 0.14 kg/hectare was recommended, as well as continued efforts to monitor the population and harvests.

The difficulty and cost of lake specific stock assessments, like what was conducted on Chandler Lake, has led to the use of the lake-area (LA) model to establish recommended harvest guidelines for many Alaskan lakes. The LA model provides an estimate of sustained yield in terms of biomass (kg/yr). However, the LA model is based on lakes across Ontario at a lower latitude than Alaska and its potential yields are therefore treated as a threshold that should not be exceeded rather than a target level of exploitation. Chandler Lake, on the northern side of the Brooks Range, represents an even more severe climate and greater caution may be warranted.

Comprehensive data on subsistence use for lake trout and freshwater fishes is limited to a single reporting year. In 2011, 504 lake trout were harvested by subsistence fishers, primarily from Chandler Lake, and when combined with sport fish harvests (~21 fish), equates to ~656 kg/yr and approaches the upper threshold of even the LA model (695 kg/yr), which is nearly 5 times the amount recommended during 1989.

Objectives: The objectives of this project will be to:

1. Identify spawning areas that account for >80% of the spawning population of lake trout at Chandler and Little Chandler Lake with 95% confidence using radiotelemetry;
2. Use radiotagged lake trout to determine movement of tagged fish between spawning sites and lakes;
3. Update and estimate the yield potential, in numbers of lake trout, from Chandler Lake and/or Little Chandler Lake (based on results of objective 2); and,
4. Estimate the abundance of mature sized lake trout in Chandler and Little Chandler lakes such that the estimate is within 25 percentage points of the actual value 95% of the time.

Methods: This study will use radiotelemetry to determine the number and locations of major lake trout spawning areas within Chandler and Little Chandler lakes, and contingent upon these results, conduct a mark-recapture experiment to estimate abundance. Lake trout will be captured and radiotagged during summer 2017. Radiotagged lake trout will then be tracked to spawning areas during fall 2017, and an attempt will be made to capture lake trout off the spawning grounds. These fish will be marked and this event will be used as the first sample event of a Petersen two-event mark-recapture experiment. The second event would occur the following summer (2018) and each captured fish will be inspected for evidence of being previously captured. Using fall-to-summer events has proven to provide complete mixing and unbiased and cost-effective estimate of abundance. Weights of captured lake trout will also be used to update lake trout yield potential based on the LA model.

In the event that fall sampling in 2017 is incomplete due to inclement weather or our inability adequately locate and sample all spawning areas, the mark-recapture experiment would be abandoned and a second attempt would be made to thoroughly document all spawning locations in the fall of 2018 for use in future assessments.

Tracking radiotagged fish will include a single aerial survey from fixed-wing aircraft (Fall 2017), tracking from boats, and fixed radiotracking stations placed at strategic locations to record movement between lakes.

Partnerships and Capacity Development: Local knowledge and involving residents of Anaktuvuk Pass in the study is essential for the project's success. Letters of support are being solicited, but will not be final by March 11. A teleconference is scheduled for the third week of March with Karen Hyer and the members of the NW and North Slope RAC's. Informing RAC, tribal entities and local residents about the project well before the field work will continue. Locals will be interviewed prior to field work about their ideas on sampling techniques and changes in the population. A college intern will be hired from the Alaska Native Science and Engineering Program to assist in sampling. If not feasible then a local from Anaktuvik Pass will be recruited.

The NPS has conducted research on Chandler Lake and their experience relative to logistics and sampling will prove beneficial. ADF&G will collect samples from the Chandler under the direction of John O'Donnell for the Arctic Inventory and Monitoring program - Large Lake Vital Sign Project. Tissue collections will also be submitted for contaminate investigations.

Progress reports will be presented and distributed to fisheries managers, researchers, local community groups and other interested parties. A presentation of the study finding will be presented in Anaktuvuk Pass at the completion of the field work.

Project Number: 16-108
Title: Environmental conditions in the Colville River drainage potentially leading to increased expression of the freshwater mold *Saprolegnia parasitica* on broad whitefish *Coregonus nasus*
Geographic Region: Northern Alaska Region
Location: Colville River Drainage, Nuiqsut, Alaska
Data Type: Monitoring (environmental conditions and fish) and Traditional Ecological Knowledge
Principle Investigator: Todd Sformo, PhD, North Slope Borough-Department of Wildlife Management

Project Cost	2016: \$ 69,975	2017: \$ 57,800	2018: \$ 57,800	2019: \$ 0
--------------	-----------------	-----------------	-----------------	------------

Total Cost: \$185,575

Need for Project: Broad whitefish is an invaluable subsistence resource on the North Slope of Alaska in general and in the Nuiqsut area in particular. In Nuiqsut, for instance, in 1994-95, broad whitefish were the second most popular fish taken for subsistence (over 3,000) in a village of 83 households (99% survey rate) (Brower Jr. and Opie 1997; Braund 2010). Between 1994 - 2003, total large whitefish catch (broad, humpback, and unidentified large whitefish) among all North Slope villages was approximately 18,629 but is considered a minimum (Bacon et al. 2009). Earlier studies indicate an average harvest of 20,000 broad whitefish per year at Barrow alone for the years 1987-1989 (Braund 1993). In early October 2013, a freshwater mold was found on some broad whitefish in the Nuiqsut region (Appendix: Map). Concurrently, traditional ecological knowledge and western science note that this mold has not been recorded in the area except on one occasion in 1980. *Saprolegnia* spp. was found on one broad whitefish on the Inaru River (Appendix: 1981-094). While there may be many factors leading to the onset of Saprolegniosis on broad whitefish in the Colville River drainage, we will examine a known cause, namely environmental conditions such as temperature, in the spawning waters. One environmental factor that has been documented in increasing the efficiency of colonization of this mold on fish is abrupt change in water temperature (Bly et al. 1992; Van den Berg et al. 2013) and /or low water temperatures during spawning (Meyers et al. 2008).

Goals: Determine whether the environmental factors of water temperature and water level are correlated to the presence of the freshwater mold *Saprolegnia parasitica* on broad whitefish *Coregonusnasus* in the Colville River drainage in relation to spawning and subsistence fishing.

- Objectives:**
1. Deploy data loggers to measure water temperature and level at fishing sites.
 2. Record catch (species, mass, fork length, presence of mold, other TEK) at nets.
 3. Necropsy broad whitefish or other species with mold and genetic analysis of mold.
 4. Deploy loggers in potential broad whitefish spawning waters.

Project Number: 16-151
Title: Traditional ecological knowledge of subsistence whitefish and cisco and attitudes/perceptions of beaver to subsistence fishing in southern Kotzebue Sound
Principle Investigators: George Weekley and Ross Smith , SWCA Environmental Consultants
Co-Investigator(s): Susan Georgette, USFW Selawik Refuge; Leyla Arsan, SWCA Environmental Consultants; Brian Brettschneider, SWCA Environmental Consultants
Geographic Area: Northwest Arctic/Seward Peninsula (Management Unit 23)
Federal Conservation System Units: Selawik National Wildlife Refuge, Bering Land Bridge National Preserve, and Bureau of Land Management lands
Information Type: Harvest Monitoring/Traditional Ecological Knowledge (HM-TEK)

Project Cost	2016: \$108736	2017: \$104,971	2018: \$11,711	2019: \$0
---------------------	-----------------------	------------------------	----------------	------------------

Total Cost: \$ 225,418

Issue: The project intends to examine whitefish and cisco harvest and use in the communities of Buckland and Deering. This project will document traditional Inupiaq knowledge of whitefish and cisco resources to inform federal fisheries management. Our study will build upon the whitefish traditional ecological knowledge (TEK) study by Georgette and Shiedt (2005) by collecting TEK whitefish harvest data in Buckland and Deering, two communities that were not examined by that project. The study will gather TEK subsistence harvest and uses data on species including broad whitefish (*Coregonus nasus*), round whitefish (*Prosopium cylindraceum*), humpack whitefish (*Coregonus pidschian*), Bering cisco, (*Coregonus laurettae*) and least cisco (*Coregonus sardinella*), hereafter collectively referred to as whitefish. Whitefish are an important and reliable subsistence resource for consumption throughout Kotzebue Sound. TEK whitefish harvest and use data will help federal fishery managers better understand harvest and use of whitefish in these communities and better understand how fishery proposals to the Federal Subsistence Board may affect subsistence harvesting practices, locations, and uses in the communities. It will provide a more comprehensive picture of whitefish use in the region

In addition, the study will examine resident attitudes, beliefs, and perceptions about negative effects to subsistence fishing from beaver (*Castor canadensis*) in the communities of Buckland, Deering, and Selawik. Anecdotal information from residents in these communities suggest that there are widespread beliefs and attitudes that beavers negatively affect subsistence fisheries and residents have expressed great concern as beavers become more prevalent in the area. For the beaver portion of the study, negative attitudes and beliefs have made it difficult for fisheries managers to address other management issues, as residents feel that the beaver issue is their greatest concern. The study will explore those attitudes and beliefs in depth so that federal fishery managers can better understand local concerns. In addition, the study will also evaluate ways that residents and federal fishery managers can better communicate perceived positive and negative effects to subsistence fisheries from beaver.

Objectives:

1. Gather traditional knowledge of whitefish ecology, including traditional taxonomy, life histories, seasonal patterns of movement, long term abundance trends, as well as their interactions with beavers.
2. Identify traditional subsistence harvest locations of whitefish for each community.
3. Document place names for traditional whitefish harvest locations for each community.
4. Document timing of subsistence harvest and duration of use at various harvest locations for whitefish for each community.
5. Document subsistence harvest methods and traditional conservation practices
6. Map community subsistence whitefish harvest locations using subsistence mapping techniques.
7. Provide experience to community residents in the collection of TEK information.
8. Convert TEK information into a useable computer-searchable database.
9. Train Maniilaq Association staff and community tribal staff in the use of the database.
10. Identify perceived potential reasons for changes (if any) to subsistence harvest locations and timing of subsistence harvest for whitefish resulting from beavers.
11. Evaluate potential strategies to improve communications between fishery managers and local residents on beaver and fisheries concerns.

Methods: To attain the objectives above, data will be collected by a combination of conversational interview, subsistence mapping, and participant observation. Conversational interviews will typically start with structured questions, flexibly followed by other questions based on participant response. The interviewer will use a digital voice recorder and take notes as back-up, to clarify information in digital recordings, and to document information from participants who may not want to be recorded. Areas identified by study participants as historic and/or contemporary subsistence harvesting locations will be documented on paper maps through subsistence mapping techniques. The interviewer will use GIS-generated aerial photography maps showing known topographical identification points. Participants will be asked to circle locations where harvesting of the target subsistence resources occurs and to identify specific species harvested at those locations. Maps showing subsistence harvest locations will then be digitized for GIS use. Catch data including harvest species documentation will be collected through participant observation of knowledgeable individuals identified during the conversational interviews. At the end of the analysis, SWCA will produce a report that outlines in text and graphics the data that were gathered from the study and an interpretation of these data in the results.

Partnerships/Capacity Building: SWCA will team with community leaders within the Northwest Arctic Borough (NWAB), including representatives of the communities of Selawik, Buckland and Deering. SWCA will work with them to help improve their local capacity for conducting research projects involving qualitative research methods. The project would contribute to NWAB identified mission, goals, issues and objectives defined in the NWAB Comprehensive Plan.

Deliverables/Products: The study will have three deliverables:

1. A report outlining the study findings based on the study objectives
2. GIS shapefiles identifying historic and contemporary harvest locations and place names
3. A searchable database of information collected for the project categorized by study objectives.

Project Number: 16-152
Title: Meade River subsistence fisheries: evaluating changes in harvests and abundance of broad whitefish, other nonsalmon species, and salmon
Geographic Region: Northern Alaska
Information Type: Harvest monitoring/traditional ecological knowledge
Investigator: Nicole M. Braem, Division of Subsistence, Alaska Department of Fish and Game

Project Cost	2016: \$79,539	2017: \$80,952	2018: \$83,696	2019: \$85,308
---------------------	-----------------------	-----------------------	-----------------------	-----------------------

Total Cost: \$329,495

Issue Addressed: A growing body of research documents local observations of environmental changes in Arctic Alaska including: warmer temperatures that lead to earlier spring breakup and later fall freeze-ups, thawing permafrost, reduced thickness in sea ice, the spread of brushy vegetation, drying tundra lakes, and erratic weather patterns (Carothers et al. 2014; Herman-Mercer et al. 2011; Hinzman et al. 2005; Huntington and Fox 2005; Huntington et al. 2007; Gregory, Failing and Leiserowitz 2006; Kruse 2011; McBeath and Shepro 2007; McNeeley 2009; Moerlein and Carothers 2012).

Changes in the environment have implications for subsistence on multiple scales, potentially impacting fish, wildlife, plants, access (travel), and traditional food processing and storage techniques. These changes also threaten local adaptations to the environment — for example, the fit between harvest approaches, weather conditions and species migration and run timing. Fall fisheries, many of which depend on ice, are particularly vulnerable to changes in the timing of freeze-up and erratic weather patterns. The mismatch between when river ice is thick enough for human use and the run timing of various fish species has meant that fishers who use nets set under the ice on the Upper Kobuk river have in some years “missed” prized broad whitefish laden with eggs as they moved upriver to spawn.¹ At Noatak, a different sort of mismatch has occurred in some years, where Dolly Varden have run in the fall *after* ice has formed, preventing local fishers from using beach seines.² Much as subsistence activities are uniquely patterned to local conditions, the impacts of climate change will play out in unique ways upon each community’s subsistence patterns.

While commonly held perceptions of subsistence fishing invoke images of summer caught salmon drying on racks or in smokehouses, in many communities salmon are not abundant or the most important fish species, nor is summer the most important season. In these communities, a variety of other species such as whitefishes, Arctic grayling, northern pike, and Dolly Varden play a more significant role in local diets; fall fishing efforts may provide the bulk of fish caught and consumed in a year.

Such is the case in Atqasuk, a small predominately Inupiat community of 229,³ located on the Meade River about 60 miles southwest of Barrow. Numerous prehistoric and contemporary fishing sites have been documented along the main river and its tributaries. Fishers from the Barrow have also traditionally

¹ From fieldnotes from the ongoing OSM Project 12-153, Key Northwest Subsistence Fisheries. See also Braem et al. 2015.

² Ibid.

³ ADLWD, <http://laborstats.alaska.gov/pop/popest.htm>. Accessed on 2/27/15.

used the Meade River for subsistence fishing (Alaska Consultants et al. 1984; Stephen Braund and Associates (SRB&A) 1993, 2010, and 2011; Schneider et. 1980).

The primary objective of this project is to document changes in harvests of broad whitefish and other fishes important to subsistence fishers who use the Meade River. A second objective is to gather local observations on changes in abundance of broad whitefish and other species, as well as other related changes relevant to subsistence fisheries. While harvest surveys, repeated over time, provide a means to evaluate changes in harvests, key respondent interviews and participant observation can provide information that harvest surveys do not easily collect, such as observations on changes in abundance, size, fisher effort, methods and location of harvests, as well as a suite of related subjects such as river ecology, the current seasonal round, weather patterns, food processing and storage techniques, and the social organization of fishing. They will also provide needed context for the quantitative information collected. Baseline subsistence harvest information, collected systematically over time, is needed both for established state and federal management processes and for planning and impact assessment efforts. Impact assessment efforts, particularly in the development of project alternatives and mitigative measures, need to have an understanding of subsistence fisheries beyond merely the number of fish caught. Existing information is more than 10 years old and needs to be updated.

Objectives: This project has the following objectives:

1. Estimate annual harvest and use patterns of whitefishes, char, Arctic grayling and other species of fish used by residents of Atqasuk for 2016, 2017, and 2018. Assess whether subsistence needs for these species are being met and impacts to households when needs are not being met.
2. In Atqasuk and with a subset of Barrow households that fish on the Meade River, document traditional and local knowledge about whitefishes, Arctic grayling, char, burbot and other fishes with particular attention to observed changes over time. These may include run timing, abundance, locations, and links to other species. Document how environmental and other changes are affecting harvest methods, species targeted, the organization of fishing, fishing locations, preservation techniques, and harvest timing.
3. Compare data collected to previously collected information; interpret changes and trends in the subsistence harvest and use of whitefishes, Arctic grayling, burbot and other fish species.

Methods: Three methods of data collection will be used in order to meet the objectives of this study: an adapted harvest survey, key respondent interviews, and participant-observation.

- Of an estimated 64 total Atqasuk households (based on 2014 Alaska Department of Labor estimates), we estimate that about 58 (90%) will be surveyed each year in January 2017, 2018, and 2019. These will result in estimates of subsistence fish harvests in Atqasuk for the calendar years 2016, 2017, and 2018. 10-20 key respondent interviews will be conducted each year (5-10 in Atqasuk and 5-10 in Barrow) with knowledgeable subsistence fishers and processors identified in collaboration with the Atqasuk tribal council and the North Slope Borough Wildlife Department. A snowball sample will be used in Barrow, in order to identify those households who use the Meade River for subsistence fishing.

- Investigators will make two trips to Atkasuk and Barrow each year for the purpose of participant observation. Trips will be timed to coincide with an important fish harvest period, i.e. setting nets in times of open water, jigging through the ice, or during periods when under ice nets are used.

Partnerships and Capacity Building: Consultation with the Native Village of Atkasuk and the North Slope Borough Wildlife Department has been initiated. Both organizations have been provided a copy of the draft investigation plan for review. It is the intention of PI Braem to work with both entities in refining the design of the project and conduct data collection through cooperative agreements. To continue capacity building at the community level, project partners will hire and train local residents to conduct surveys within their communities. Through cooperative agreement, local project partners will provide payment to local research assistants for training, completed surveys, and quality assurance/quality control of surveys, and honoraria to key respondents.

APPENDIX B

Table 1. Fisheries Resource Monitoring Program projects funded in the Northern Region from 2000 to 2014.

Project Number	Project Title	Investigators
North Slope		
00-002	Eastern NS Dolly Varden Spawning and Over-wintering Assessment	ADF&G, USFWS
01-113	Eastern NS Dolly Varden Genetic Stock ID Stock Assessment	ADF&G, USFWS
01-101	Eastern NS (Kaktovik) Subsistence Fish Harvest Assessment	ADF&G, KIC
02-050	NS (Anaktuvuk Pass) Subsistence Fish Harvest Assessment	ADF&G, NSB, AKP
03-012	SST of Arctic Cisco and Dolly Varden in Kaktovik Lagoons	USFWS
04-103	North Slope Dolly Varden Sonar Feasibility	USFWS
06-108	North Slope Dolly Varden Aerial Monitoring	ADF&G
07-105 ^a	North Slope Dolly Varden Genetic Baseline Completion	USFWS
07-107 ^a	Hulahula River Dolly Varden Sonar Enumeration	USFWS
12-155	Climate Change and Traditional Ecological Knowledge of Subsistence Whitefish and Cisco on the North Slope of Alaska	SWCA
14-103 ^b	Beaufort Sea Dolly Varden Dispersal Patterns	UAF
Northwest Arctic		
00-001	Northwestern Dolly Varden and Arctic Char Stock Identification	ADF&G, USFWS
00-020	Hotham Inlet Kotzebue Winter Subsistence Sheefish Harvest	ADF&G
01-136	Northwestern Alaska Dolly Varden Genetic Diversity	ADF&G, USFWS
01-137	Northwestern Alaska Dolly Varden Spawning Stock Assessment	ADF&G
02-023	Qaluich Nigingnaqtuat: Fish That We Eat	AJ
02-040	Kotzebue Sound Whitefish Traditional Knowledge	ADF&G, MQ
03-016	Selawik River Harvest ID, Spring and Fall Subsistence Fisheries	USFWS
04-101	Selawik River Inconnu Spawning Abundance	USFWS
04-102 ^a	Selawik Refuge Whitefish Migration and Habitat Use	USFWS
04-109 ^a	Wulik River Dolly Varden Wintering Stocks	USFWS, ADF&G
04-157	Exploring Approaches to Sustainable Fisheries Harvest Assessment	ADF&G, MQ
07-151	Northwest Alaska Subsistence Fish Harvest Patterns and Trends	ADF&G, MQ
Northwest Arctic (continued)		
08-103	Kobuk River Sheefish Spawning and Run Timing	ADF&G, USFWS
10-100 ^a	Selawik Drainage Sheefish Winter Movement Patterns	UAF, USGS, USFWS, NVK
10-102 ^a	Unalakleet River Chinook Salmon Abundance Estimate	ADF&G, NPS, BLM

Continued on next page

Table 1 continued

Project Number	Project Title	Investigators
Northwest Arctic (continued)		
10-104	Hotham Inlet Kotzebue Winter Subsistence Sheefish Harvest	USFWS
10-152	Climate Change and Subsistence Fisheries in Northwest Alaska	UAF
10-152	Climate Change and Subsistence Fisheries in Northwest Alaska	UAF
12-100 ^a	Selawik River Sheefish Spawning Abundance and Age Structure	USFWS
12-103 ^a	Kobuk River Sheefish Spawning Frequency, Location, and Run Timing	ADF&G, USFWS
12-104 ^a	Noatak River Dolly Varden Evaluation of Overwintering Populations	ADF&G, NPS
12-153 ^a	NW Ak Key Subsistence Fisheries Harvest Monitoring Program	ADF&G, MQ
14-101 ^b	Unalakleet R Chinook Salmon Escapement Assessment	ADF&G, NPS, BLM
14-104 ^b	Selawik R Inconnu Spawning Population Abundance	USFWS
Seward Peninsula		
01-224	Nome Sub-district Subsistence Salmon Survey	ADF&G, KI
02-020	Pikmiktalik River Salmon Site Surveys and Enumeration	USFWS, NPS, STB, KI
04-105	Pikmiktalik River Chum and Coho Salmon Enumeration	KI
04-151	Customary Trade of Fish in the Seward Peninsula Area	ADF&G, KI
05-101	Unalakleet River Coho Salmon Distribution and Abundance	ADF&G, NVU
06-101	Pikmiktalik River Chum and Coho Salmon Enumeration	KI
10-151	Local Ecological Knowledge of Non-Salmon Fish in the Bering Strait	KI
12-154 ^a	North Slope Salmon Fishery HMTEK	ADF&G

^a = Final Report in Preparation.

^b = On-going projects during 2016.

Abbreviations used for investigators are: **ADF&G** = Alaska Department of Fish and Game, **AJ** = Anore Jones, **AKP** = City of Anaktuvuk Pass, **KI** = Kawarek Inc., **KIC** = Kaktovik Inupiat Corp., **MQ** = Maniilaq, **NPS** = National Park Service, **NVK** = Native Village of Kotzebue, **NVU** = Native Village of Unalakleet, **NSB** = North Slope Borough, **STB** = Stebbins IRA, **SWCA** = SWCA Environmental Consultants, **UAF** = University Alaska Fairbanks, **USFWS** = U.S. Fish and Wildlife Service, and **USGS** = U.S. Geological Survey.

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.



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

Federal Subsistence Board

1011 East Tudor Road, MS121
Anchorage, Alaska 99503



FOREST SERVICE

FWS/OSM 15046.CJ

Louis Green, Chair
Seward Peninsula Subsistence
Regional Advisory Council
U.S. Fish and Wildlife Service
Office of Subsistence Management
1011 East Tudor Road, MS 121
Anchorage, Alaska 99503

Dear Chairman Green:

This letter responds to the Seward Peninsula Subsistence Regional Advisory Council's (Council) fiscal year 2014 Annual Report. The Secretaries of the Interior and Agriculture have delegated to the Federal Subsistence Board (Board) the responsibility to respond to these reports. The Board appreciates your effort in developing the Annual Report. Annual Reports allow the Board to become aware of the issues outside of the regulatory process that affect subsistence users in your region. We value this opportunity to review the issues concerning your region.

1. Decreased Abundance and Availability of Wildlife Populations Important to Subsistence Users in the Seward Peninsula and Norton Sound Region.

The Council previously identified significantly reduced harvest opportunities throughout the Seward Peninsula and Norton Sound region resulting from declining moose, muskox, reindeer and caribou populations. Although the Council believes predation by brown bears and wolves may be contributing to reduced productivity and survival of these populations, the Council is aware of the limitations of the Federal Subsistence Board's policy on predator control and the sensitivity of this subject. It is hoped the Board will share the Council's opinion that current wildlife management processes resulting in wildlife population levels insufficient for consumptive use by Federally qualified users are unacceptable.

Chairman Green

2

***Recommendation:** The Council urges the Board to work with the Office of Subsistence Management (OSM) to provide the Council with sufficient staff support to facilitate discussions between the Council, the Alaska Board of Game, and State and Federal management agencies to protect subsistence harvest opportunities near the communities of this Region. It is clearly within your authority to exert influence with OSM to assist the Council in developing proposals that will allow for the continuation of subsistence uses of wildlife in this region.*

Response:

The Board is aware of Council concerns about declining populations of wildlife subsistence resources on the Seward Peninsula. If population levels are insufficient to meet subsistence users' consumptive needs, there are a variety of steps that can be taken within the Federal Subsistence Management System to provide for a subsistence priority. One such step is submitting wildlife proposals. There are currently several wildlife regulatory proposals that have been submitted to Board that directly address wildlife populations in your area. These include proposals to change the harvest structure for the Western Arctic Caribou Herd across its entire range, changes to moose harvest in Unit 22E, and liberalization of brown bear harvest limits in Unit 22, among others. OSM will be analyzing these proposals and presenting them to the Council for its review and comments at your October 14-15 meeting this year. This meeting will be the opportunity for the Council to weigh in on these proposed regulatory changes and make recommendations you think will best serve Federally qualified subsistence users in your area.

In addition to that, OSM staff – from your Council Coordinator to wildlife biologists – can assist you in a variety of other ways to address these concerns. They can assist you in developing other proposals to submit to the Alaska Board of Game or in drafting correspondence to applicable land managers. They can also arrange for presentations to be given at one of your meetings on a variety of topics from current research in the region to status of certain populations.

2. Decreased Abundance and Availability of Salmon Populations Important to Subsistence Users in the Seward Peninsula and Norton Sound Region.

The Council recognizes that the majority of land and inland waters in the Seward Peninsula and Norton Sound region are managed by the State of Alaska. Waters managed by the State are important for the taking of fish for subsistence, along with commercial, sport and personal use. The migratory ranges of many of the fish species harvested for these uses span areas of land managed by several State and Federal agencies. The Federal program has an interest in the management of salmon by the State because salmon that spawn in Federal waters are often taken in waters under State jurisdiction.

There has been a persistent, long term decline in western Alaska salmon stocks and a concurrent decrease in salmon harvesting opportunity for all users. The causes of these declines are poorly understood. Understanding salmon ecology requires a comprehensive approach to research

Chairman Green

3

throughout the migratory range of salmon populations independent of land ownership patterns and agency jurisdictions. Currently, some Federal research funding programs are limited to studies conducted on Federal public lands. The Council does not have sufficient staff support to effectively interact with the State management program.

Recommendation: The Council recommends the Board work in partnership with State and Federal fish and wildlife resource management agencies in managing fish and wildlife resources in the Seward Peninsula and Norton Sound regions. The Council requests assistance from the Office of Subsistence Management to facilitate communications with the Alaska Board of Fish and the North Pacific Fishery Management Council to develop management plans to protect the salmon resources of this region and allow for the continuation of subsistence uses.

Additionally, Federal funds should be made available for research on fish populations in the Seward Peninsula and Norton Sound region wherever they occur, independent of land ownership.

Response:

The Federal Subsistence Board, through staff of the Office of Subsistence Management (OSM), participates with State and Federal managers when necessary to assist with management decisions regarding fish and wildlife resources within the Seward Peninsula and Norton Sound regions. One way this is accomplished is by interacting and attending the Alaska Boards of Fish and Game meetings. Another way is through direct analysis of regulatory proposals affecting wildlife or fisheries resources within the region. OSM also monitors the work and decisions of the North Pacific Fisheries Management Council with respect to salmon bycatch in the Bering Sea/Aleutian Islands commercial Pollock fishery. Management plans have recently been changed to provide additional protection to declining salmon stocks (see response to issue 3 below).

Beyond participation with the Alaska Boards of Fish and Game and the North Pacific Fisheries Management Council, OSM will assist with rapidly emerging issues when they arise. If there are specific concerns regarding Federal subsistence management, the Council may contact OSM at any time to discuss specific management or regulatory concerns.

The Fisheries Resource Monitoring Program (FRMP) was established with the intent of creating a balanced program throughout the state in proportion to each region's informational needs for the Federal Subsistence Program. Funded projects include studies of the status of fish stocks, subsistence harvest and use patterns, and collection and analysis of traditional knowledge. In order to be eligible for funding, a proposed project must "clearly articulate the relevance to Federal subsistence management," or, what have what we call a "Federal nexus." As the Council is aware, this often limits the types of projects available for funding in the Seward Peninsula Region, given the lesser amount of Federal public waters in the region.

Chairman Green

4

Budget guidelines were designed to equitably support subsistence fisheries management among regions that substantially differ in quantity and intensity of subsistence fisheries issues, as well as the amount of Federal public lands. The formula for allocation across regions was developed based on consideration of six criteria that included the following:

1. Level of risk to the viability of species and populations that support subsistence fisheries and conservation unit purposes.
2. Level of threat to conservation unit purposes.
3. Amount of subsistence harvest needs not being met (or where anticipated demand for resources will exceed supply in the near future).
4. Amount of information available to support subsistence management (higher priority given where a lack of information exists).
5. Importance of a species to a subsistence harvest (for example, number of villages affected, pounds of fish harvested, miles of river) and qualitative significance (for example, cultural value, unique seasonal role).
6. Level of community concerns over subsistence harvests (for example, allocation, fisheries upstream and downstream of each other, recreational use concerns, changes in size of fish).

Budget guidelines by region have varied somewhat over time in response to changing issues and budget levels. It was clearly the intent at the FRMP's inception that some reallocation may occur among regions as issues are addressed, new issues emerge, and funding levels change. Therefore, regional budget guidelines represent an initial target for planning rather than rigid allocations. Ultimately, project selection should be based on addressing the highest priority projects for Federal subsistence fishery management, even if the resulting allocation of funding does not conform to regional budget guidelines. Initial guidelines for funding by region are (Seward Peninsula is within the Northern Alaska Region):

Region	Percent of Totals	
	Dept of the Interior	Dept of Agriculture
Northern Alaska	17.0%	
Yukon River	29.0%	
Kuskokwim River	29.0%	
Southwest Alaska	15.0%	
Southcentral Alaska	5.0%	32.5%
Southeast Alaska	0.0%	62.5%
Multiregional	5.0%	5.0%
Totals	100.0%	100.0%

Chairman Green

5

However, it is the intention of the Fisheries Division in OSM to review these allocation guidelines once the division is fully staffed and perhaps revise them.

But, as this Council has noted before, the limited amount of Federal public lands and waters minimizes the amount of FRMP funds that can be dedicated to projects in your Region. There are, however, other potential funding sources available without the FRMP restrictions would not apply, such as through the Arctic-Yukon-Kuskokwim (AYK)-Sustainable Salmon Initiative and the Western Alaska Landscape Conservation Cooperative. Your Council Coordinator and other OSM support staff can assist you in making contact with these other funding sources. It may be helpful to arrange for representatives from one of these organizations to attend a Council meeting, provide a presentation, and engage in a discussion with the Council on funding possibilities.

3. Fisheries Management

Seward Peninsula and Norton Sound region salmon stocks important to Federally qualified subsistence users are taken as by-catch in Federally managed trawl fisheries and intercepted in targeted mixed-stock commercial and subsistence salmon fisheries managed by the State of Alaska at locations many miles from their spawning grounds. This situation is not unique to this region and is thought to have a major negative impact on salmon returning to all streams in western Alaska, including the Yukon and Kuskokwim Rivers.

Recommendation: The Council recommends the Board increase its involvement with the North Pacific Fisheries Management Council and the Alaska Board of Fisheries and allocate staff resources sufficient to amend fisheries management plans as necessary to preserve and sustain salmon harvest opportunities for Federally qualified subsistence users in the region. The Board has monitored this situation long enough and must take a more proactive approach to protect the continuation of subsistence uses of salmon throughout western Alaska.

Response:

The Board lacks jurisdiction in these areas but, through staff at OSM, has remained engaged and taken on an appropriate role of monitoring the work and decisions of the North Pacific Fisheries Management Council (NPFMC) with respect to salmon bycatch in the Bering Sea/Aleutian Islands commercial Pollock fishery. Since 2007, the Board has weighed in when appropriate through several letters, with recommendations, to the NPFMC, as well as the Board Chair providing testimony to the NPFMC in person.

Chairman Green

6

It is not the role of the Board, nor the staff of the Federal Subsistence Program, to amend, or attempt to amend, any commercial fisheries management plans under the Magnuson-Stevens Act.

A recent example of the Board's appropriate level of involvement is the March 31, 2015, letter the Board wrote to the NPFMC, in which the Board reiterated its past recommendations that Chinook Salmon bycatch levels be further reduced and encouraged the NPFMC to continue developing meaningful tools to achieve reduced salmon bycatch totals. In that same letter, the Board also conveyed the concerns and recommendations of the Yukon-Kuskokwim Delta, Western Interior Alaska, and Eastern Interior Alaska Subsistence Regional Advisory Councils.

In April 2015, the NPFMC took significant action to reduce bycatch of salmon in the Bering Sea Pollock fishery. Most of the discussion and actions were in regards to Chinook Salmon; however, there was also positive action for Chum Salmon, as well. Major portions of the action include:

- Incorporating chum avoidance measures into the Incentive Plan Agreements (IPA) to get comprehensive measures for both Chinook and chum salmon.
- Additional IPA requirements for Chinook Salmon, including penalties to vessels with significantly higher Chinook Salmon Bycatch, required use of salmon excluder trawls, implementation of the Rolling Hotspot Program throughout the entire fishery, reduction of salmon savings credits to 3 years, and performance criteria to ensure that Bycatch rates at the end of season in October are not significantly higher than preceding months.
- Implementation of a new abundance based Hard Cap and Performance Standard in years of low Western Alaska Chinook Salmon abundance. The Alaska Department of Fish and Game will annually assess Chinook Salmon returns to the Kuskokwim, upper Yukon, and Unalakleet rivers and, if at very low levels (less than 250,000 fish), will trigger 25% reduction in Hard Cap to 45,000 fish and 33% reduction in Performance Standard to 33,000 fish. This was the most controversial action. While most subsistence users were seeking larger reductions, this was still a significant reduction, and passed unanimously by the NPFMC (10-0).

For details, go to

http://legistar2.granicus.com/npfmc/meetings/2015/4/923_A_North_Pacific_Council_15-04-06_Meeting_Agenda.pdf and click on FINAL MOTION: C4 final salmon motion_4-11-15.pdf

Chairman Green

7

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

Sincerely,



Tim Towarak
Chair

cc: Seward Peninsula Subsistence Regional Advisory Council
Federal Subsistence Board
Eugene R. Peltola, Jr., Assistant Regional Director, OSM
Chuck Ardizzone, Deputy Assistant Regional Director, OSM
Carl Johnson, Council Coordination Division Chief, OSM
Karen Deatherage, Subsistence Council Coordinator, OSM
Interagency Staff Committee
Administrative Record

Office of Subsistence Management

Fall 2015 Regional Advisory Council Report

Staffing Update

Robbin La Vine joined the Office of Subsistence Management (OSM) in October 2014. She is an anthropologist with extensive experience conducting subsistence research and building collaborative partnerships with Alaska Tribal, State, and Federal entities since 2002. Before joining OSM, she worked as a researcher for the Togiak National Wildlife Refuge, served as Social Scientist for the Bristol Bay Native Association Partners Program in Dillingham, and was a Subsistence Resource Specialist for the Alaska Department of Fish and Game, Division of Subsistence. Robbin is delighted to serve rural Alaskans while strengthening partnerships to ensure the continuation of the subsistence way of life.

Amee Howard joined OSM as the new Subsistence Policy Coordinator in July 2015. Prior to OSM, she worked as an Environmental Protection Specialist for the Pacific West Region of the National Park Service in Boulder City, Nevada. Previously, she worked for the Alaska Department of Fish and Game, Division of Commercial Fisheries, as a Fish and Game Program Technician in Sitka. Ameen also spent time working as the Coastal Monitoring Coordinator for the Sitka Tribe of Alaska. She earned her Bachelors of Science in Natural Sciences, with minors in Environmental Studies and Geology, from the University of Alaska, Anchorage. Ameen possesses a well-rounded background gained from previous work experience and is a valuable addition to the OSM team.

Efforts are currently underway to hire the following positions: Council Coordinator, Anthropologist, Anthropologist (Pathways), Fisheries Biometrician, Fisheries Biologist (2), Fisheries (Pathways) Grants Management Specialist, IT Specialist, and Administrative Assistant.

The North Pacific Fishery Management Council adopts measures to reduce Chinook Salmon bycatch in the Bering Sea Pollock fishery

At its April 2015 meeting in Anchorage, the North Pacific Fishery Management Council (NPFMC) took action to reduce bycatch of both Chinook and Chum Salmon in the Bering Sea commercial Pollock fishery. Recognizing the precarious state of Western Alaska's Chinook Salmon stocks, the NPFMC took a combination of actions which lower the caps in times of low abundance, combine Chinook and Chum Salmon bycatch management, place additional requirements on industry incentive plans and reapportion the Pollock catch between seasons. Taken together, these actions are anticipated to reduce bycatch of both Chinook and Chum Salmon, and ensure that additional measures, including lower caps, are in place in years of low Chinook Salmon abundance.

Much of the attention from stakeholders from both Western Alaska and the Pollock fishery focused on the option of lowering the Chinook Salmon bycatch hard cap and the performance standard, currently 60,000 and 47,591 fish, respectively. Western Alaskan stakeholders asked for a 60% reduction in both the hard cap and performance standard during testimony at the meeting and in several hundred letters and resolutions submitted prior to the meeting. The

Pollock industry advocated that no reductions be enacted. The State of Alaska led the effort to provide protections for Western Alaska Salmon stocks. Newly-appointed Alaska Department of Fish and Game Commissioner Sam Cotten introduced a motion calling for a 35% reduction in the performance standard and a 33% reduction in the hard cap. Commissioner Cotten's motion was amended by the Bill Tweit, NPFMC representative from Washington State, to a 25% reduction in the hard cap and a 30% reduction in the performance standard. This lesser reduction was passed by the NPFMC unanimously (10-0).

The results of the NPFMC action are as follows: In years of low Chinook Salmon abundance (defined as years in which the cumulative total Chinook Salmon runs of the Kuskokwim, Upper Yukon and Unalakleet Rivers is at or below 250,000 fish), the hard cap will be 45,000 and the performance standard will be 33,318 Chinook Salmon. The Pollock fishery manages to the performance standard, so the reduction in this number is important. The Council also made it very clear that they expect bycatch to remain well below the caps, and would take additional action if warranted. It should be noted that, in recent years, bycatch has averaged around 15,000 Chinook Salmon.

In addition to the reductions in the cap levels, the NPFMC's action contains several other, important measures. The other pieces of the motion apply in all years – not just when Salmon abundance is low. Alternative 2 combines Chinook and Chum Salmon bycatch management programs, ensuring a coordinated approach. It also requires information sharing with Western Alaska groups. Alternative 3 adds five new requirements for the industry Incentive Plan Agreements (IPA) to meet, including requiring Salmon excluders, restrictions on bycatch rates in October (a time of historically high bycatch) and significant penalties (no fishing) for boats with repeatedly bad bycatch performance. The options the Council selected under Alternative 4 provide the Pollock fishery with the flexibility to catch more of its harvest in the late A season, potentially shifting harvest effort away from the high bycatch times later in the year.

In summary, the NPFMC's action puts in place measures to further reduce bycatch in all times of abundance, and to ensure that in periods of low Chinook Salmon abundance the Pollock fishery would be limited to a lower level of bycatch.

Bridging the Gap between Native Communities, Conservation, and Natural Resource Management: Grant Update

The U.S. Fish and Wildlife Service and the Alaska Native Science and Engineering Program (ANSEP) were awarded a National Fish and Wildlife Foundation grant to help re-establish a lost connection between Federal resource managers and rural communities in the Yukon-Kuskokwim and Doyon Regions. Members of these communities rely on subsistence resources within six National Wildlife Refuges for both cultural and nutritional needs. Continued resource declines in both the Yukon and Kuskokwim River drainages have led to immense hardships for local residents as well as numerous challenges for resource managers to provide sufficient subsistence harvest opportunities, while ensuring adequate conservation efforts.

Funds from this grant are used to increase outreach opportunities and foster collaborative solutions by expanding the Refuge Information Technician (RIT) Program. Outreach and education contribute significantly to the overall success of resource management. Language barriers and cultural obstacles often stand in the way of achieving effective communication. The RIT program employs Alaska Native residents to serve as liaisons between the Yukon Delta National Wildlife Refuge and local communities. The RITs' regional experience, traditional ecological knowledge, Yup'ik language skills, and cultural sensitivity enhance their role as intermediaries. Expanding the capabilities of the RIT program will significantly increase and improve important connections between the Yukon Delta National Wildlife Refuge and local communities. These relationships are fundamental for local residents to become more involved in the management and conservation of the resources on which they depend.

Funds from this grant are also supporting ANSEP students participating in biological internships within the Yukon-Kuskokwim and Doyon Regions. ANSEP strives to increase the number of Alaska Natives employed in the fields of science, technology, engineering and mathematics (STEM) by increasing the number of individuals on a career path to leadership in STEM fields. The U.S. Fish and Wildlife Service is partnering with ANSEP to provide meaningful summer internships that expose students to careers in resources management. These internships provide an opportunity for students to experience resource monitoring and management while developing knowledge and skills allowing them to succeed in professional resource management positions.

Changes to Appointment Process

The Office of Subsistence Management has submitted requests to the Secretary of the Interior to make the following changes to the appointment process: shift from 3-year to 4-year appointment terms, allow for appointment of alternates, and provide for a 120-day carryover term for incumbents in the event that appointment letters are not timely issued. Dan Ashe, Director, U.S. Fish and Wildlife Service, has provided his support of these changes. As of the writing of this report, OSM is waiting to hear back from the Secretary's office to initiate the direct final rule making that would be necessary to change the appointment terms to 4 years. The new Senior Advisor for Alaska Affairs, Michael Johnson, will be assisting in moving this through the Secretary's office. OSM is moving ahead with plans to implement all changes for the current appointment cycle.

In order to switch from 3-year to 4-year appointment terms, as well as switch from having one-third of Council seats up for appointment each year to one-fourth of the seats being up for appointment, appointment terms will be staggered in order to complete the transition by the 2019 appointment cycle. This means that some Council members, even incumbents, may receive 2, 3 or 4-year appointments in the next few years. By 2019, however, all Council appointments will be for 4-year terms. If you have any questions, contact Carl Johnson, Council Coordination Division Chief, at (907) 786-3676 or carl_johnson@fws.gov.

All-Council Meeting
Anchorage, Alaska – Location TBD
March 7-11, 2016

Meeting Committee: RAC Chairs, Council Coordinators, Orville Lind (Native Liaison), Deborah Coble (Subsistence Outreach Specialist)

Joint Session

Monday, March 7, 2015

Invocation

Keynote Speaker:

Joint Agenda Items: Common issues from annual reports (i.e., bycatch, budget, other agency actions that impact subsistence, food security, climate change)

Concurrent Sessions

One full day for each of the Councils to address their regional issues

Tuesday – three Councils

Wednesday – three Councils

Thursday – three Councils

Friday – one Council

Training

Sessions repeat throughout the week to allow all Council members opportunity to attend.

- Title VIII of ANILCA
- Robert's Rules of Order
- Federal Indian Law (with ANCSA implications)
- Cross-Cultural communication
- C&T versus 804
- Regulatory Process (State and Federal)

Reports and Panels

- Western Arctic Caribou Herd
- Yukon River salmon
- Kuskokwim River salmon
- Public Processes for Fish & Wildlife Management (RAC, SRC, AC, AMBCC)
- Holistic management – discussion and explanation of how agencies manage resources (BLM, USFWS, NPS, USFS)
- Tribal Consultation
- Different Federal Subsistence Programs (Migratory Birds, Marine Mammals, Halibut)
- Understanding Dual Management

Important to note: this one meeting will encompass the entire meeting cycle for winter 2016

JOINT FEDERAL SUBSISTENCE REGIONAL ADVISORY COUNCILS

Venue TBD
Anchorage, Alaska
March 7, 2016
8:30 a.m.

TELECONFERENCE: call the toll free number: 1-866-[number], then when prompted enter the passcode: [number]

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

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

AGENDA

*Asterisk identifies action item.

- 1. Invocation**
- 2. Keynote Address**
- 3. Roll Call and Establish Quorum** *(Council Coordination Division Chief)*.....
- 4. Call to Order** *(Chair)*
- 5. Welcome and Introductions** *(Chair)*
- 6. Review and Adopt Agenda*** *(Chair)*
- 7. Regional Reports**
- 8. Business** *(Chair)*
 - a. Climate Change
 - b. Food Security
 - c. Federal Subsistence Budget.....
 - d. Revisions to FRMP
 - e. Hunter Education.....
 - f. Youth Engagement.....
- 9. Agency Reports**

- a. **NPFMC** – Pollock Bycatch Update.....
- b. Status on Magnuson-Stevens Act Renewal.....
- c. Fisheries Management Overview
- d. **OSM** – Processes

Closing Comments

10. Adjourn (Chair)

To teleconference into the meeting, call the toll free number: 1-866-[number], then when prompted enter the passcode: [number]

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 [name], 907-786-XXXX, [email], or 800-877-8339 (TTY), by close of business on [date].



All-Council Meeting Schedule

	Monday 3/7	All day Joint Session of the Councils				
Main Room	Tuesday 3/8	Morning Training: Title VIII of ANILCA Afternoon Training: Cross-cultural communication	Wednesday 3/9	Morning Training: Regulatory Process Afternoon: Training: Federal Indian Law	Thursday 3/10	Morning Report: Yukon River Salmon Afternoon Panel: Tribal Consultation
Small Room 1	All day RAC 1 – Concurrent Session YKDRAC	All day RAC 4 – Concurrent Session EIRAC	All day RAC 7 – Concurrent Session SERAC	All day RAC 8 – Concurrent Session BBRAC	All day RAC 10 – Concurrent Session KARAC	Morning Training: Robert's Rules of Order Afternoon Panel: Understanding Dual Management
Small Room 2	All day RAC 2 – Concurrent Session WIRAC	All day RAC 5 – Concurrent Session SCRAC	All day RAC 9 – Concurrent Session NSRAC	All day RAC 6 – Concurrent Session NWARAC	Morning RAC 9 – Concurrent Session NSRAC	Morning Afternoon Panel: Tribal Consultation
Small Room 3	All day RAC 3 – Concurrent Session SPRAC	All day RAC 6 – Concurrent Session NWARAC	All day RAC 9 – Concurrent Session NSRAC	All day RAC 6 – Concurrent Session NWARAC	All day RAC 9 – Concurrent Session NSRAC	All day SERAC Day 2 (if needed)
Small Room 4	Morning Training: Robert's Rules of Order Afternoon Panel: Public Processes for Fish & Wildlife Management	Morning Training: C&T versus Section 804 Afternoon Training: Cross-Cultural Communication	Morning Panel: Understanding Dual Management Afternoon Training: C&T versus Section 804	Morning Panel: Understanding Dual Management Afternoon Training: C&T versus Section 804	Morning Panel: Understanding Dual Management Afternoon Training: C&T versus Section 804	Morning Training: C&T versus Section 804 Afternoon Panel: Public Processes for Fish & Wildlife Management
Small Room 5	Morning Afternoon Panel: Holistic management	Morning Training: Title VIII of ANILCA Afternoon Panel: Public Processes for Fish & Wildlife Management	Morning Training: Cross-Cultural Communication Afternoon Panel: Holistic management	Morning Training: Cross-Cultural Communication Afternoon Panel: Holistic management	Morning Report: WACH Afternoon Training: Title VIII of ANILCA	Morning Report: WACH Afternoon Training: Title VIII of ANILCA
Small Room 6	Morning Training: Regulatory Process Afternoon Panel: Different Federal Subsistence Programs	Morning Training: Robert's Rules of Order Afternoon Panel: Different Federal Subsistence Programs	Morning Training: Robert's Rules of Order Afternoon Panel: Different Federal Subsistence Programs	Morning Training: Federal Indian Law Afternoon Report: Kuskokwim Salmon	Morning Training: Federal Indian Law Afternoon Report: Kuskokwim Salmon	Morning Training: Regulatory Process Afternoon

TRAINING	PANELS	REPORTS (ONCE EACH)
<p>Title VIII of ANILCA (x3) Provide an overview of Title VIII and key provisions that govern Federal subsistence management.</p>	<p>Public Process for Fish & Wildlife Management (AC, RAC, SRC, AMBCC) (x3) Panel consisting of one member of an AC, RAC, SRC and AMBCC to explain how each of their processes work and how public can participate.</p>	<p>Western Arctic Caribou Herd Report from State and Federal managers on status of herd and current management objectives and approaches.</p>
<p>Cross-Cultural Communication (x3) Training to help State and Federal staff improve communication with Alaska Natives.</p>	<p>Holistic Management (x2) Conceptual panel to discuss how fish and wildlife among various agencies can be managed in a more holistic way.</p>	<p>Yukon Salmon Report from State and Federal managers on status of salmon stocks and current management objectives and approaches.</p>
<p>Robert's Rules of Order (x3) Training to benefit RAC members in the conduct of their meetings under Robert's Rules.</p>	<p>Tribal Consultation (x2) Panel consisting of Native Liaisons from R7 and OSM and Tribal leaders to discuss current consultation process and how it should work. Emphasis on what consultation means from Tribal perspective.</p>	<p>Kuskokwim Salmon Report from State and Federal managers on status of salmon stocks and current management objectives and approaches.</p>
<p>Regulatory Process (x3) Explain the regulatory process under both State and Federal systems and provide information on how to submit proposals.</p>	<p>Different Federal Subsistence Programs (Halibut, Marine Mammals, Mig Birds, OSM) (x2) Panel consisting of representatives from the various Federal programs that regulate certain subsistence activities to discuss their jurisdiction, legal authority, and approach to management.</p>	
<p>Federal Indian Law (x2) Basic principles of Federal Indian law including how it is affected by the Alaska Native Claims Settlement Act and related case law in State and Federal courts.</p>	<p>Understanding Dual Management (x2) State and Federal managers explain their jurisdictional role in managing fish and wildlife resources, how the two sometimes work together and sometimes separately.</p>	
<p>C&T versus Section 804 (x3) Provide instruction on how C&T determinations and Section 804 determinations are made, how applied, where they differ.</p>		

Winter 2016 Regional Advisory Council Meeting Calendar

March 2016 current as of 3/24/2015

Meeting dates and locations are subject to change.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<i>Feb. 7</i>	<i>Feb. 8</i> <i>Window Opens</i>	<i>Feb. 9</i>	<i>Feb. 10</i>	<i>Feb. 11</i>	<i>Feb. 12</i>	<i>Feb. 13</i>
<i>Feb. 14</i>	<i>Feb. 15</i> PRESIDENT'S DAY HOLIDAY	<i>Feb. 16</i>	<i>Feb. 17</i>	<i>Feb. 18</i>	<i>Feb. 19</i>	<i>Feb. 20</i>
<i>Feb. 21</i>	<i>Feb. 22</i>	<i>Feb. 23</i>	<i>Feb. 24</i>	<i>Feb. 25</i>	<i>Feb. 26</i>	<i>Feb. 27</i>
<i>Feb. 28</i>	<i>Feb. 29</i>	<i>Mar. 1</i>	<i>Mar. 2</i>	<i>Mar. 3</i>	<i>Mar. 4</i>	<i>Mar. 5</i>
<i>Mar. 6</i>	<i>Mar. 7</i>	<i>Mar. 8</i>	<i>Mar. 9</i>	<i>Mar. 10</i>	<i>Mar. 11</i>	<i>Mar. 12</i>
All Council Meeting - Anchorage						
<i>Mar. 13</i>	<i>Mar. 14</i>	<i>Mar. 15</i>	<i>Mar. 16</i>	<i>Mar. 17</i>	<i>Mar. 18</i> <i>Window Closes</i>	<i>Mar. 20</i>

Fall 2016 Regional Advisory Council Meeting Calendar August–November 2016

Meeting dates and locations are subject to change.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<i>Aug. 21</i>	<i>Aug. 22</i> WINDOW OPENS	<i>Aug. 23</i>	<i>Aug. 24</i>	<i>Aug. 25</i>	<i>Aug. 26</i>	<i>Aug. 27</i>
<i>Aug. 28</i>	<i>Aug. 29</i>	<i>Aug. 30</i>	<i>Aug. 31</i>	<i>Sept. 1</i>	<i>Sept. 2</i>	<i>Sept. 3</i>
<i>Sept. 4</i>	<i>Sept. 5</i> HOLIDAY	<i>Sept. 6</i>	<i>Sept. 7</i>	<i>Sept. 8</i>	<i>Sept. 9</i>	<i>Sept. 10</i>
<i>Sept. 11</i>	<i>Sept. 12</i>	<i>Sept. 13</i>	<i>Sept. 14</i>	<i>Sept. 15</i>	<i>Sept. 16</i>	<i>Sept. 17</i>
<i>Sept. 18</i>	<i>Sept. 19</i>	<i>Sept. 20</i>	<i>Sept. 21</i>	<i>Sept. 22</i>	<i>Sept. 23</i>	<i>Sept. 24</i>
<i>Sept. 25</i>	<i>Sept. 26</i>	<i>Sept. 27</i>	<i>Sept. 28</i>	<i>Sept. 29</i>	<i>Sept. 30</i>	<i>Oct. 1</i>
<i>Oct. 2</i>	<i>Oct. 3</i>	<i>Oct. 4</i>	<i>Oct. 5</i>	<i>Oct. 6</i>	<i>Oct. 7</i>	<i>Oct. 8</i>
<i>Oct. 9</i>	<i>Oct. 10</i>	<i>Oct. 11</i>	<i>Oct. 12</i>	<i>Oct. 13</i>	<i>Oct. 14</i>	<i>Oct. 15</i>
<i>Oct. 16</i>	<i>Oct. 17</i>	<i>Oct. 18</i>	<i>Oct. 19</i>	<i>Oct. 20</i>	<i>Oct. 21</i>	<i>Oct. 22</i>
<i>Oct. 23</i>	<i>Oct. 24</i>	<i>Oct. 25</i>	<i>Oct. 26</i>	<i>Oct. 27</i>	<i>Oct. 28</i>	<i>Oct. 29</i>
<i>Oct. 30</i>	<i>Oct. 31</i>	<i>Nov. 1</i>	<i>Nov. 2</i>	<i>Nov. 3</i>	<i>Nov. 4</i> WINDOW CLOSSES	<i>Nov. 5</i>

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

Seward Peninsula Subsistence Regional Advisory Council

Charter

1. **Committee's Official Designation.** The Council's official designation is the Seward Peninsula Subsistence Regional Advisory (Council).
2. **Authority.** The Council is reestablished by virtue of the authority set out in the Alaska National Interest Lands Conservation Act (16 U.S.C. 3115 (1988)) Title VIII, and under the authority of the Secretary of the Interior, in furtherance of 16 U.S.C. 410hh-2. The Council is established in accordance with the provisions of the Federal Advisory Committee Act (FACA), as amended, 5 U.S.C. Appendix 2.
3. **Objectives and Scope of Activities.** The objective of the Council is to provide a forum for the residents of the Region with personal knowledge of local conditions and resource requirements to have a meaningful role in the subsistence management of fish and wildlife on Federal lands and waters in the Region.
4. **Description of Duties.** The Council possesses the authority to perform the following duties:
 - a. Recommend the initiation of, review, and evaluate proposals for regulations, policies, management plans, and other matters relating to subsistence uses of fish and wildlife on public lands within the Region.
 - b. Provide a forum for the expression of opinions and recommendations by persons interested in any matter related to the subsistence uses of fish and wildlife on public lands within the Region.
 - c. Encourage local and regional participation in the decisionmaking process affecting the taking of fish and wildlife on the public lands within the Region for subsistence uses.
 - d. Prepare an annual report to the Secretary containing the following:
 - (1) An identification of current and anticipated subsistence uses of fish and wildlife populations within the Region.
 - (2) An evaluation of current and anticipated subsistence needs for fish and wildlife populations within the Region.
 - (3) A recommended strategy for the management of fish and wildlife populations within the Region to accommodate such subsistence uses and needs.

- (4) Recommendations concerning policies, standards, guidelines, and regulations to implement the strategy.
 - e. Make recommendations on determinations of customary and traditional use of subsistence resources.
 - f. Make recommendations on determinations of rural status.
 - g. Provide recommendations on the establishment and membership of Federal local advisory committees.
5. **Agency or Official to Whom the Council Reports.** The Council reports to the Federal Subsistence Board Chair, who is appointed by the Secretary of the Interior with the concurrence of the Secretary of Agriculture.
6. **Support.** The U.S. Fish and Wildlife Service will provide administrative support for the activities of the Council through the Office of Subsistence Management.
7. **Estimated Annual Operating Costs and Staff Years.** The annual operating costs associated with supporting the Council's functions are estimated to be \$120,000, including all direct and indirect expenses and 1.0 staff years.
8. **Designated Federal Officer.** The DFO is the Subsistence Council Coordinator for the Region or such other Federal employee as may be designated by the Assistant Regional Director – Subsistence, Region 7, U.S. Fish and Wildlife Service. The DFO is a full-time Federal employee appointed in accordance with Agency procedures. The DFO will:
 - Approve or call all of the advisory committee's and subcommittees' meetings,
 - Prepare and approve all meeting agendas,
 - Attend all committee and subcommittee meetings,
 - Adjourn any meeting when the DFO determines adjournment to be in the public interest, and
 - Chair meetings when directed to do so by the official to whom the advisory committee reports.
9. **Estimated Number and Frequency of Meetings.** The Council will meet 1-2 times per year, and at such times as designated by the Federal Subsistence Board Chair or the DFO.
10. **Duration.** Continuing.
11. **Termination.** The Council will terminate 2 years from the date the Charter is filed, unless, prior to that date, it is renewed in accordance with the provisions of Section 14 of the FACA. The Council will not meet or take any action without a valid current charter.

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

Ten members who are knowledgeable and experienced in matters relating to subsistence uses of fish and wildlife and who are residents of the Region represented by the Council. To ensure that each Council represents a diversity of interests, the Federal Subsistence Board in their nomination recommendations to the Secretary will strive to ensure that seven of the members (70 percent) represent subsistence interests within the Region and three of the members (30 percent) represent commercial and sport interests within the Region. The portion of membership representing commercial and sport interests must include, where possible, at least one representative from the sport community and one representative from the commercial community.

The Secretary of the Interior will appoint members based on the recommendations from the Federal Subsistence Board and with the concurrence of the Secretary of Agriculture.

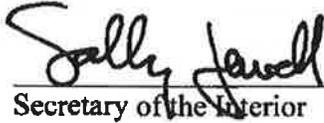
Members will be appointed for 3-year terms. A vacancy on the Council will be filled in the same manner in which the original appointment was made. Members serve at the discretion of the Secretary.

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

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

- 13. Ethics Responsibilities of Members.** No Council or subcommittee member will participate in any specific party matter in which the member has a direct financial interest in a lease, license, permit, contract, claim, agreement, or related litigation with the Department.
- 14. Subcommittees.** Subject to the DFO's approval, subcommittees may be formed for the purpose of compiling information and conducting research. However, such subcommittees must act only under the direction of the DFO and must report their recommendations to the full Council for consideration. Subcommittees must not provide advice or work products directly to the Agency. The Council Chair, with the approval of the DFO, will appoint subcommittee members. Subcommittees will meet as necessary to accomplish their assignments, subject to the approval of the DFO and the availability of resources.

15. **Recordkeeping.** Records of the Council, and formally and informally established subcommittees or other subgroups of the Council, shall be handled in accordance with General Records Schedule 26, Item 2, and other approved Agency records disposition schedule. These records shall be available for public inspection and copying, subject to the Freedom of Information Act, 5 U.S.C. 552.


Secretary of the Interior

NOV 25 2013

Date Signed

DEC 03 2013

Date Filed



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