Federal Subsistence Board Public Meeting

April 12-14, 2016
William A. Egan Civic & Convention Center
Anchorage, Alaska

What's inside...

Page	
1	Agenda
9	WP16-02
16	WP16-03
32	WP16-04
39	WP16-05
51	WP16-06
57	WP16-08
67	WP16-12
78	WP16-14
87	WP16-16
109	WP16-17
122	WP16-18
140	WP16-23
149	WP16-24
166	WP16-27/28
176	WP16-29/30
197	WP16-33
205	WP16-34
228	WP16-36
239	WP16-38
257	WP16-39
282	WP16-43
301	WP16-47
310	WP16-50
322	WP16-55
330	WP16-56
342	WP16-57
354	WP16-60
371	WP16-65
390	WP16-66
405	WP16-67

Page	
418	WP16-68
427	WP16-69
436	WP16-70
449	WP16-01
466	WP16-07
473	WP16-09
485	WP16-10a
494	WP16-10b
502	WP16-11
514	WP16-13
523	WP16-19
537	WP16-20
555	WP16-22
567	WP16-25/26
582	WP16-31/32
594	WP16-35
613	WP16-37
692	WP16-40
705	WP16-41
718	WP16-42
731	WP16-44
742	WP16-45
758	WP16-46
766	WP16-48
788	WP16-49/52
814	WP16-51
826	WP16-53/54
850	WP16-58
862	WP16-61/62/63/64
916	ADF&G Comments

FEDERAL SUBSISTENCE BOARD
PUBLIC MEETING AGENDA
April 12-14, 2016

April 12, 2016: 1:30pm to 5:00pm
April 13-14, 2016: 8:30am to 5:00pm Daily
Egan Center, 555 West 5th Avenue
Anchorage, Alaska

On April 12th, prior to start of the Public Meeting, the Federal Subsistence Board will meet at 8:30am to conduct Tribal and ANCSA Corporation consultations on wildlife regulatory proposals. The Public Meeting will begin at 1:30pm.

Public Meeting

***Asterisk identifies action item**

1. **Call to Order and Introductions**
2. **Review and Adopt Agenda***
3. **Information Sharing**
4. **Board Discussion of Council Topics with Regional Advisory Council Chairs or their Designees**
5. **Public Comment Period on Non-Agenda Items** *(This opportunity is available at the beginning of each day)*
6. **2016–2018 Subparts C&D Proposals*** *(Wildlife Regulations)*
   a. Tribal and ANCSA Corporation Consultation Summary
   b. Announcement of Consensus Agenda *(see detailed agenda that follows)*
   c. Public Comment Period on Consensus Agenda Items (*This opportunity is available at the beginning of each subsequent day prior to the final action*)
   d. Board deliberation and action on Non-Consensus Agenda items* *(see detailed agenda that follows)* .....
   e. Adoption of Consensus Agenda*
7. **Schedule of Next FSB meetings***
   a. Summer 2016 Work session (*Draft Nonrural Policy*)
   b. Winter 2017 Public meeting (*Fisheries Regulations*)

Other Business

a. Vote and select winning artwork for Subsistence Management Student Art Contest*

Adjourn

Note: *The meeting will be held daily from 8:30 a.m. to 5:00 p.m. or until the Board calls a recess for the day, or completes its work. The teleconference number and the link to connect to the meeting through internet streaming will be posted to the Federal Subsistence Management Program's website (http://alaska.fws.gov/asm/board.cfml) approximately one week prior to the meeting. Updates on the Board's progress through the agenda can be obtained on the internet stream or by calling 1-800-478-1456, or in Anchorage at 786-3888.*

FEDERAL SUBSISTENCE BOARD
CONSENSUS AGENDA PROPOSALS

The following proposals have been included on the consensus agenda. These are proposals for which there is agreement among Federal Subsistence Regional Advisory Councils, the Federal Interagency Staff Committee, and the Alaska Department of Fish and Game concerning Board action. Anyone may request that the Board remove a proposal from the consensus agenda and place it on the regular agenda. The Board retains final authority for removal of proposals from the consensus agenda. The Board will take final action on the consensus agenda after deliberation and decisions on all other proposals.

Proposal	**Region/Unit/Species**	**Recommendation**	**Page**
WP16-02 Extend season dates	Southeast/Unit 1C/Deer	Oppose	9
WP16-03 Revise designated hunter possession limit	Southeast/Units 1-5/Goat	Oppose	16
WP16-04 Change harvest limit by removing the term “antlered”	Southeast/Units 1C, 5B/Moose	Support	32
WP16-05 Change delegation of authority	Southeast/Unit 2/Deer	Support	39
WP16-06 Define the boundaries of the Nunatak Bench hunting area	Southeast/Unit 5	Support	51
WP16-08 Revise the reporting requirements for the take of female deer	Southeast/Unit 2/Deer	Support	57
WP16-12 Revise the harvest limit	Southcentral/Unit 6/Deer	Support	67
WP16-14 Extend season	Southcentral/Unit 6D/Goat	Support	78
WP16-15 Increase the harvest quota	Southcentral/Unit 7/Caribou	Oppose	Supple ple-ment
WP16-16 Close Federal public lands within Paxson Closed Area to hunting big game species	Southcentral, Eastern Interior/Unit 13/Big Game Species	Oppose	87

Proposal	Region/Unit/Species	Recommendation	Page
WP16-17 Remove restrictions to hunt within the Trans-Alaska Pipeline Right-of-way	Southcentral, Eastern Interior/Unit 13/ Caribou	Support	109
WP16-18 Allow hunting over bait and establish a new brown bear season	Southcentral, Eastern Interior/Unit 11 and 12/Brown Bear	Support	122
WP16-23 Increase number of available harvest permits	Bristol Bay/Unit 9B/Brown Bear	Support	140
WP16-24 Close Federal public lands to non-Federally qualified subsistence users	Bristol Bay/Units 9B, 9C, 9C remainder/Moose	Oppose	149
WP16-27/28 Revise moose season dates and permit restrictions	Bristol Bay, YK Delta/Unit 17A/Moose	Support WP16-27 with modification, No Action on WP16-28	166
WP16-29/30 Extend caribou seasons	Bristol Bay, YK Delta/Units 9B, 17A, 17B, 17C/Caribou	Support WP16-29 with modification, No Action on WP16-30	176
WP16-33 Revise customary and traditional determination	YK Delta, Western Interior/Unit 18/Caribou, Moose	Support	197
WP16-34 Closure to non-Federally qualified subsistence users	YK Delta, Western Interior, Seward Peninsula, Bristol Bay/Portion of Unit 18/Big Game Species	Oppose	205
WP16-36 Revise Unit boundary descriptions	YK Delta, Western Interior/Units 18,19, 21, 21E	Support	228
WP16-38 Remove one-half mile closure along the Innoko and Yukon Rivers during the winter season	Western Interior, YK Delta/Unit 21E/Moose	Oppose	239
WP16-39 Revise the hunt area descriptor	Western Interior/Unit 21B/Moose	Support with modification	257

Proposal	Region/Unit/Species	Recommendation	Page
WP16-43 Revise hunt area descriptor and establish closure	Seward Peninsula, YK Delta, Western Interior, Northwest Arctic/Unit 18, 22A/Caribou	Oppose	282
WP16-47 Create an antlerless moose season	Seward Peninsula/Unit 22E/Moose	Oppose	301
WP16-50 Change in resident zone community eligibility	Northwest Arctic/Unit 23/Muskox	Support with modification	310
WP16-55 Extend coyote trapping season	Eastern Interior/Unit 25/Coyote	Support	322
WP16-56 Revise harvest limits and beaver hunting seasons	Eastern Interior/Units 25A, 25B, 25D/Beaver	Support	330
WP16-57 Extend Lynx trapping season	Eastern Interior/Unit 25/Lynx	Support	342
WP16-60 Rescind closure	Eastern Interior, Southcentral/Unit 12/Caribou	Support with modification	354
WP16-65 Create delegated authority	North Slope/Units 26B remainder, 26C/Moose	Support with modification	371
WP16-66 Create delegation of authority, close sheep harvest season	North Slope, Western Interior/Unit 26A/Sheep	Support with modification	390
WP16-67 Change in trapping dates, methods and means	Eastern Interior, Southcentral/Units 12, 20E/Beaver	Support	405
WP16-68 Revise harvest limits and extend lynx trapping season	Eastern Interior, Southcentral/Units 12, 20E/Lynx	Support	418
WP16-69 Extend moose season	Eastern Interior/Unit 20E remainder/Moose	Support	427
WP16-70 Rescind regulation to hunt brown bears over bait	Eastern Interior/Unit 25D/Brown Bear	Oppose	436

FEDERAL SUBSISTENCE BOARD

NON-CONSENSUS AGENDA PROPOSALS

Procedure for considering proposals:

Analysis *(Lead author)*
Summary of public comments *(Regional Council Coordinator)*
Open floor to public testimony
Regional Council recommendation *(Chair or designee)*
Tribal/Alaska Native Corporation comments *(Native Liaison)*
Alaska Department of Fish and Game comments *(State Liaison)*
Interagency Staff Committee comments (*ISC Chair*)
Board discussion with Council Chairs and State Liaison
Federal Subsistence Board action

Proposal	**Region/Unit/ Species**	**Page**
WP16-01 Extend season dates	Southeast/Unit 2/Deer	449
WP16-07 Allow the use of firearms	Southeast/Units1-5/Beaver	466
WP16-09 Close trapping season on Kuiu Island	Southeast/Unit 3/Marten	473
WP16-10a Revise the customary and traditional use determination	Southcentral/Unit 6D/Moose	485
WP16-10b Establish a new moose season	Southcentral/Unit 6D/Moose	494
WP16-11 Establish a buck-only season	Southcentral/Unit 6/Deer	502
WP16-13 Revise the season and permit requirements	Southcentral/Unit 6D/Black Bear	514
WP16-19 Revise Ahtna permit for culture camp	Southcentral & Eastern Interior/Unit 13/Moose	523
WP16-20 Modify the harvest restrictions	Southcentral & Eastern Interior/Unit 11/Sheep	537
WP16-21 Rescind closure and create a “To-be-announced” season	Bristol Bay & Kodiak-Aleutians/Units 9C, 9E/Caribou	Supplement

Proposal	Region/Unit/ Species	Page
WP16-22 Revise permit requirements	Bristol Bay/Unit 9C/Moose	555
WP16-25/26 Increase harvest limit and extend the caribou season	Bristol Bay & Western Interior/Portion of 17A and 17C/Caribou	567
WP16-31/32 Allow for same day airborne harvest during the winter hunt (Jan. 1-Mar. 31)	Bristol Bay & YK Delta/Portions of 17A and 17C/Ungulate, Bear, Wolf, Wolverine	582
WP16-35 Revise the method and means – allow the use of artificial light at den sites	YK Delta, Western Interior, Seward Peninsula, Bristol Bay/Unit 18/Black Bear, Brown Bear	594
WP16-37 Change in harvest limits, caribou season dates, and harvest restrictions	Western Interior, Seward Peninsula, Northwest Arctic, Eastern Interior, North Slope/Units 21D, 22, 23, 24, 25, 26A, 26B/Caribou	613
WP16-40 Revise the method and means – allow the use of artificial light at den sites	Western Interior/Units 24A, 24B, 24C/Black Bear	692
WP16-41 Revise harvest limits and sealing restrictions	Western Interior/Units 24A, 24B/Sheep	705
WP16-42 Establish a winter moose season	Western Interior/Unit 24B remainder/Moose	718
WP16-44 Extend the brown bear season and establish a new hunt area, season, and harvest limit in southwest Unit 22D	Seward Peninsula/Portion of Units 22C and 22D/Brown Bear	731
WP16-45 Establish a new boundary for Unit 22E	Seward Peninsula, Western Interior, Northwest Arctic/Unit 22E/Caribou	742

WP16-46 Rescind closure	Seward Peninsula/Unit 22E/Moose	758
WP16-48 Allow use of snowmachines to position animals	Northwest Arctic/Unit 23/Caribou, Wolf, Wolverine	766
WP16-49/52 Change in harvest limits, caribou season dates, and harvest restrictions	Northwest Arctic, Western Interior, Seward Peninsula, North Slope/Unit 23/Caribou	788
WP16-51 Establish a muskox season	Northwest Arctic/Portion of Unit 23/Muskox	814
WP16-53/54 Revise harvest quotas and sheep seasons	Northwest Arctic, North Slope/Unit 23/Sheep	826
WP16-58 Extend wolverine trapping season	Easter Interior/Unit 25C/Wolverine	850
WP16-61/62/63/64 Change in harvest limits, caribou season dates, hunt areas, and harvest restrictions	North Slope, Western Interior, Northwest Arctic, Eastern Interior/ Units 23, 24A, 24B, 26A, 26B/Caribou	862

WP16-02 Executive Summary	
General Description	Proposal WP16–02 requests that the Federal season for deer in Unit 1C be extended from Aug. 1–Dec. 31 to Aug. 1–Jan. 31, adding an additional 31 days to the season. *Submitted by Monte Mitchell of Gustavus.*
Proposed Regulation	**Unit 1C — Deer** *4 deer; however, female deer may be taken only from Sept. 15-~~Dec. 31~~* ***Jan. 31*** *Aug. 1-~~Dec. 31~~* ***Jan. 31***
OSM Conclusion	**Oppose**
Southeast Regional Council Recommendation	**Oppose**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Board action on the proposal.
ADF&G Comments	**Oppose**
Written Public Comments	**None**

STAFF ANALYSIS
WP16-02

ISSUES

Proposal WP16–02, submitted by Monte Mitchell of Gustavus, requests that the Federal season for deer in Unit 1C be extended from Aug. 1–Dec. 31 to Aug. 1–Jan. 31, adding an additional 31 days to the season.

DISCUSSION

The proponent believes many people in the northern portion of the Southeast Region could make use of the deer in their vicinity, but because of weather cannot get the full season benefit of harvesting their deer from bordering open units. He believes adoption of this proposal will increase available Federal lands for use meeting the intent and spirit of subsistence and will not impede or change use by non-subsistence users.

Existing Federal Regulation

Unit 1C — Deer

4 deer; however, female deer may be taken only from Sept. 15-Dec. 31 *Aug. 1–Dec. 31*

Proposed Federal Regulation

Unit 1C — Deer

4 deer; however, female deer may be taken only from Sept. 15-~~Dec. 31~~ ***Jan. 31*** *Aug. 1–~~Dec. 31~~* ***Jan. 31***

Existing State Regulation

Unit 1C Douglas, Lincoln, Shelter and Sullivan Islands — Deer

Residents and Nonresidents: 4 deer; female deer may be taken only from Sept. 15-Dec.31 *Aug. 1–Dec. 31*

Unit 1C remainder — Deer

Residents and Nonresidents: 2 bucks *Aug. 1–Dec. 31*

Extent of Federal Public Lands

Federal public lands comprise approximately 95% of Unit 1C and consists of 63% U.S. Forest Service

managed lands and 32% National Park Service managed lands (**Unit 1C Map**).

Customary and Traditional Use Determinations

Residents of Units 1C, 1D, Hoonah, Kake, and Petersburg have a positive customary and traditional use determination to harvest deer in Unit 1C.

Regulatory History

Since its inception in 1990, the Federal subsistence deer season in Unit 1C has been from Aug. 1 – Dec. 31 with a four deer harvest limit. Female deer may be taken only from Sept. 15–Dec. 31. The State season has been Aug. 1–Dec. 31 since 1982. The State harvest limit has varied from one to four deer, but has been four deer for all or part of the unit since statehood in 1959. Since 1991, the State has had a two buck harvest limit on the mainland portions of the unit, with a four deer limit on the major islands of the unit (Douglas, Shelter, Lincoln, and Sullivan).

Biological Background

Sitka Black-tailed deer spend the winter and early spring at low elevation where less snow accumulates and forests provide increased foraging opportunities. Fawning occurs in late May and early June as vegetation greens-up, providing abundant forage to meet energetic needs of the lactating doe. Migratory deer follow the greening vegetation up to alpine for the summer, whereas resident deer remain at lower elevations. Summer and fall are periods of active foraging as deer accumulate fat reserves to help them through the winter and early spring. The breeding season, or rut, generally occurs in October through November and peaks in late November (ADF&G 2009). All major predators of deer (wolves, brown bears, and black bears) are present in portions of Unit 1C, and may affect deer populations. However, deer population fluctuations in the Southeast Region are primarily influenced by winter snow depths (Olson 1979).

Deer on the mainland in the Southeast Region, such as in Unit 1C, tend to be at lower densities than on adjacent islands, likely due to the deep snow and presence of additional predators such as wolves and coyotes not found on the islands (Scott 2013). Most deer in Unit 1C occur on Douglas, Shelter, and Lincoln islands; locations that do not generally support wolves (Scott 2013).

<u>Habitat</u>

Old-growth forests are considered primary deer winter range, in part because the complex canopy cover allows sufficient sunlight through for forage plants to grow but intercepts snow, making it easier for deer to move and forage during winters when deep snow hinders access to other habitats. Deer habitat in the mainland portions of Unit 1C is generally of lower quality than on the islands. Steep terrain, high snow levels, and limited low elevation winter habitat are limiting factors for deer in Unit 1C (Logan 2015). A recent habitat model developed by the U.S. Forest Service (USFS 2015) shows a theoretical deer density of 3 deer/mi^2 in Unit 1C, which has not changed since the same value calculated for conditions in 1954,

but is much lower than any other unit with the exception of Unit 1D. For comparison, theoretical deer densities throughout the southeast region range from a low of 2 deer/mi^2 in Unit 1D to a high of 21 deer/mi^2 in Unit 2 (USFS 2015).

Recent population indices

There are no population estimates for deer in Unit 1C; however, general population trends are monitored using deer pellet and harvest report data (Scott 2013). Relating pellet group data to population levels is difficult because factors other than changes in deer population size can affect deer pellet-group density. Snowfall patterns influence the distribution and density of deer pellets from year to year, and snow persisting late into the spring at elevations below 1,500 feet limits the ability to consistently survey the same elevation zones among years. In mild winters, deer can access forage in a greater variety of habitats, not all of which are surveyed. Conversely, in severe winters deep snow concentrates deer (McCoy 2010).

Deer pellet survey data on North Douglas Island in Unit 1C indicate a cyclical pattern ranging from a recent high of 2.84 mean pellet groups per plot in 2008 to 0.83 mean pellet groups per plot in 2014 (McCoy 2015a). Counts on Shelter Island have ranged from 1.05 mean pellet groups per plot in 2008 to 2.14 mean pellet groups per plot in 2013. On Inner Point on the southwest side of Douglas Island, pellet counts have remained relatively stable in the past 5 years, ranging from 1.59 mean pellet groups per plot in 2008 to 1.55 mean pellet groups per plot in 2014 (McCoy 2015a). Of these, only the most recent count from Shelter Island meets the State management objective of a mean pellet density of 2.0 pellet groups per plot (Scott 2013).

Furthermore, most of these data are from islands, that lack wolves. Pellet counts are generally not conducted on the mainland areas of Unit 1C; however, transects conducted in the 1990s demonstrated lower numbers than those on the islands of Unit 1C (McCoy 2015a and Scott 2013). This is consistent with the expectation that mainland deer populations are generally lower than island populations due to lower habitat quality, higher snow loads, and the presence of all three major predators (ADF&G 2009). However, population trends are expected to be similar on the mainland and islands.

Harvest History

In Unit 1C, Federally qualified subsistence users (based on community of residence) accounted for approximately 8% of the total deer harvest between 2009 and 2013 (McCoy 2015b), with non-Federally qualified Alaska residents accounting for the majority (90%) of the harvest. Average total annual harvest (by all hunters) was 398 deer from 2009-2013, with an average annual harvest of 33 of deer by Federally qualified subsistence users. The majority of the effort (hunter days) and harvest by Federally qualified subsistence users has occurred in November (31% and 38%, respectively), and September (22% and 20% respectively-**Table 1**). The mainland areas of Unit 1C (Unit 1C-remainder) accounted for only a small percentage of the total Unit 1C harvest; low harvest and a high number of hunter days compared to harvest suggest a low population density (Scott 2013).

Table 1. Average total days hunted, percent effort for the season, total harvest, and percent of total harvest for the season among federally qualified subsistence users for deer in Unit 1C 2009-2013 (McCoy 2015b)

Month	Total Days Hunted	% Effort	Total Harvest	% Total Harvest
August	18.2	12	2.8	8
September	32.6	22	6.8	20
October	26.2	18	5.8	17
November	45.6	31	12.6	38
December	24.6	17	5.2	16

For comparative purposes, Unit 4 is the only area of Southeast Alaska with a January harvest season for deer. In contrast to Unit 1C, Federally qualified subsistence users account for the majority of the harvest (93%) in this unit (McCoy 2015b). Among subsistence users, approximately 5% of the hunter effort occurs in January, accounting for 6% of the total season harvest (McCoy 2015b).

Effects of the Proposal

If this proposal is adopted, it would increase opportunity for Federally qualified subsistence users to harvest deer by adding a month to the Federal subsistence season. Some Federally qualified subsistence users in Unit 1C have access to Unit 4 with higher deer densities (see **Unit 4 Map**); however, the intent of the proponent is to be able to harvest deer closer to home late in the season when access to more plentiful deer in adjacent open Unit 4 is hindered by weather.

Adopting this proposal would likely increase harvest in the affected area. The level of increase is unknown, although it seems unlikely that very many hunters would travel from outside of the immediate area (Unit 1C) to harvest deer due to the low deer population density. Any additional harvest would likely be attributable to residents of Unit 1C or possibly Unit 1D or Hoonah. Currently, most hunting effort occurs in November, with a decline by December. If patterns are similar to Unit 4, hunter effort and harvest in January may be minimal (5-6% of total effort and harvest); however, a season extending through January could result in more of an increase in harvest because deer would be mostly concentrated along beaches and susceptible to harvest, as well as a higher proportion of does due to energy reserves and lack of antlers on males.

The impact of increased harvest on the deer population in this area is hard to quantify. Deer populations on the mainland portion of the unit are considered to be at a low density and additional harvest could lead to a conservation concern in localized areas.

OSM CONCLUSION

Oppose Proposal WP16-02.

Justification

Extending the season is not consistent with other units of southeast Alaska encompassing the mainland,

and may result in a conservation concern, particularly for the low-density mainland deer population within this unit. Sufficient harvest opportunities are provided during the five month season, and a Federal subsistence priority is maintained by allowing the harvest of 4 deer of either sex throughout the unit including the mainland areas, whereas harvest in Unit 1C remainder is limited to 2 bucks under State regulations.

LITERATURE CITED

ADF&G. 2009. Deer Trails. 12 pages.

Logan, B. Tongass National Forest Wildlife Biologist. 2015. Personal communication: e-mail. Juneau, AK
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Olson, S.T. 1979. The life and times of the black-tailed deer in southeast Alaska. Pages 160–168 in O.C. Wallmo and J.W. Schoen, editors. Sitka black-tailed deer: Proceedings of a conference in Juneau, Alaska. USFS, Alaska Region, in cooperation with the ADF&G. Series No. R10-48, May 1979.

Scott, R. 2013. Unit 1C deer. Pages 21-32 in P. Harper, editor. Deer management report of survey and inventory activities 1 July 2010-30 June 2012. ADF&G Species Management Report ADF&G/DWC/SMR-2013-1, Juneau, AK.

U.S. Forest Service. 2015. Unpublished deer habitat model. Juneau, AK.

SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Southeast Alaska Subsistence Regional Advisory Council

Oppose WP16-02. The Council determined that a January season in Unit 1C would be inappropriate as it may result in a conservation concern with excessive harvest during severe winters on a population with generally low densities. This regulatory change is not beneficial to subsistence users as Pleasant Island is immediately available to residents of Gustavus, has a higher deer density, a six deer harvest limit, and a January season.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

WP16-03 Executive Summary	
General Description	Proposal WP16–03 requests an increase to the limit of mountain goats a designated hunter may have in possession from one to three in Southeast Alaska (Units 1-5). *Submitted by Monte Mitchell.*
Proposed Regulation	**Units 1-5—Designated Hunter** *If you are a Federally qualified subsistence user (recipient), you may designate another Federally qualified subsistence user (designated hunter) to take deer, moose and caribou, (and goat in Units 1-5 and muskox in Unit 22) on your behalf. Designated hunters may hunt for any number of recipients, but have no more than two harvest limits in possession at any one time except for goats, where designated hunters may not have more than ~~one harvest limit~~* ***three mountain goats*** *in possession at any one time, and unless otherwise specified in Unit-specific provisions. Any designated hunter taking wildlife on behalf of another rural Alaska resident shall deliver the wildlife promptly to that rural Alaska resident.*
OSM Conclusion	**Oppose**
Southeast Regional Council Recommendation	**Oppose**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Board action on the proposal.
ADF&G Comments	**Oppose**
Written Public Comments	**None**

STAFF ANALYSIS
WP16-03

ISSUES

Proposal WP16-03, submitted by Monte Mitchell, requests an increase to the limit of mountain goats a designated hunter may have in possession from one to three in Southeast Alaska (Units 1-5).

DISCUSSION

The proponent states that adoption of this proposal will allow designated hunters to efficiently harvest goats, thus being able to fulfill the intention of the Federal designated hunter program which is important for the less able-bodied hunters like children and elders. The proponent states that adoption of this proposal will not prevent other recreational, commercial, and sport hunters from pursuing animals within the quota and season. The proponent also states that the previous concern from the Alaska Department of Fish and Game (ADF&G) that the harvest would not be controllable within the point management system should not impede the subsistence hunters' ability to fulfill their harvest.

Existing Federal Regulation

Units 1-5—Designated Hunter

_.25(e)If you are a Federally qualified subsistence user (recipient), you may designate another Federally qualified subsistence user (designated hunter) to take deer, moose and caribou, (and goat in Units 1-5and muskox in Unit 22) on your behalf. Designated hunters may hunt for any number of recipients, but have no more than two harvest limits in possession at any one time except for goats, where designated hunters may not have more than one harvest limit in possession at any one time, and unless otherwise specified in Unit-specific provisions. Any designated hunter taking wildlife on behalf of another rural Alaska resident shall deliver the wildlife promptly to that rural Alaska resident.

Proposed Federal Regulation

Units 1-5—Designated Hunter

If you are a Federally qualified subsistence user (recipient), you may designate another Federally qualified subsistence user (designated hunter) to take deer, moose and caribou, (and goat in Units 1-5 and muskox in Unit 22) on your behalf. Designated hunters may hunt for any number of recipients, but have no more than two harvest limits in possession at any one time except for goats, where designated hunters may not have more than ~~one harvest limit~~ ***three mountain goats*** *in possession at any one time, and unless otherwise specified in Unit-specific provisions. Any*

designated hunter taking wildlife on behalf of another rural Alaska resident shall deliver the wildlife promptly to that rural Alaska resident.

Existing State Regulation

Units 1-5

N/A (there is no designated hunter system under the State, and currently goats are not allowed under the proxy hunting authority)

Extent of Federal Public Lands

Federal public lands comprise approximately 88% of the Southeast Region which includes Units 1-5. In Unit 1, the U.S. Forest Service manages 80% of those lands as part of the Tongass National Forest, and the remaining 20% of those lands are managed by the National Park Service as part of Glacier Bay National Park. In Unit 2, 99% of the Federal public lands are Tongass National Forest, with the remaining 1% managed by the U.S. Fish and Wildlife Service as part of the Alaska Maritime National Wildlife Refuge (Forrester Island). All Federal public lands in Unit 3 (100%) are part of the Tongass National Forest. In Unit 4, 99% of the Federal public lands are Tongass National Forest, with less than 1% each managed by the National Park Service as the Sitka National Historical Park and the U.S. Fish and Wildlife Service as part of the Alaska Maritime National Wildlife Refuge (St. Lazaria Island). In Unit 5, 33% of the Federal public lands are part of the Tongass National Forest, 66% of those lands are managed by the National Park Service as parts of the Wrangell-St. Elias National Park and Preserve and the Glacier Bay National Park and Preserve, and The Bureau of Land Management manages 1% of the Federal public lands near Icy Bay.

There is no hunting allowed on Federal public lands in Glacier Bay National Park, Sitka National Historical Park or Klondike Gold Rush National Historical Park. In order to engage in Federal subsistence activities in Wrangell-St. Elias National Park, the National Park Service requires that subsistence users either live within the park's resident zone (36 CFR 13.430, 36 CFR 13.1902) or have a subsistence permit (36 CFR 13.440) issued by the park superintendent.

Customary and Traditional Use Determinations

The Federal Subsistence Board (Board) has not made a customary and traditional use determination for goat in Units 1A and 1D; therefore, all Federally qualified subsistence users may harvest this species in these units.

Rural residents of Units 1B and 3 have a customary and traditional use determination to harvest goats in Unit 1B; and residents of Haines, Kake, Klukwan, Petersburg, and Hoonah have a customary and traditional use determination to harvest goats in Unit 1C.

Residents of Sitka, Hoonah, Tenakee, Pelican, Funter Bay, Angoon, Port Alexander, and Elfin Cove have a customary and traditional use determination to harvest goats in Unit 4.

All rural residents of Unit 5A have a customary and traditional use determination to harvest goats in Unit 5. In order to engage in subsistence in Wrangell-St. Elias National Park, the National Park Service requires that subsistence users either live within the park's resident zone (36 CFR 13.430, 36 CFR 13.1902) or have a subsistence permit (36 CFR 13.440) issued by the park superintendent. Yakutat, in Unit 5A, is a resident zone community for Wrangell-St. Elias National Park.

Regulatory History

In Units 1-5, ADF&G uses a weighted point system whereby males=1 point and females=2 points. General management guidelines for Units 1-5 (1A, 1B, 1C, 1D, 4 and 5) are to maintain a guideline harvest not to exceed 6 points per 100 goats observed (ADF&G 2012). Hunters are encouraged to harvest males rather than females, and are prohibited from harvesting nannies with kids. Guideline harvest levels (GHLs) include harvest by Federally qualified subsistence and State users. Each hunt area is delineated into discreet geographic management areas and the GHL is established for each area. GHLs for each management area are generally low, ranging from 1-30. Recent GHLs, for example, range from 2-5 in Unit 4, 5-6 in Unit 5, and 1-10 in Unit 1D (Scott 2011). Once the GHL for an area is met, an Emergency Order and Special Action are issued to close the season in these small geographical areas while allowing for additional harvest in areas still open with points available. Most goat hunts in Units 1-5 are managed under a State registration permit open to all hunters; however, a Federal subsistence registration permit is required for the taking of a second goat in Units 1A and 1B remainder, and Federal subsistence registration permits are available for Units 5A remainder and 5B.

In 2011, Proposal WP12-11 requested that mountain goats be added to the Federal designated hunter permit. The Board adopted the proposal with modification to limit designated hunters to one mountain goat in possession, with concurrence from the Southeast Alaska Subsistence Regional Advisory Council, in order to minimize over-harvest and potential waste, as well as maintain opportunities for other subsistence and non-Federally qualified subsistence users. Mountain goats were subsequently added to the Federal designated hunter permit for Units 1-5 starting in the 2012 regulatory year. The only other unit where goats are allowed under the designated hunter permit is Unit 6D, where a designated hunter may harvest a goat for another user who is blind, 65 years of age or older, at least 70% disabled, or temporary disabled; the designated hunter may hunt for any number of recipients, but may have no more than one harvest limit in their possession at any one time.

An indication of how closely goat harvest is managed is indicated by numerous Emergency Orders (State season) and Special Actions (Federal season) that have been issued in recent years, generally for early closure to seasons once the GHL (quota) has been met, and for areas of declining populations where any harvest may cause a conservation concern. **Table 1** in the appendix summarizes EOs issued by the State during 2013 and 2014. Special Actions for the Federal seasons since 2011 are shown in **Table 2** of the appendix. Additionally, the Alaska Board of Game expanded archery in Unit 1C-RG014 to include the

area from south side of Blackerby Ridge to the north side of Salmon Creek Reservoir above 1,000 foot contour and east to Observation Peak in addition to the previously designated area, starting in the 2015-16 regulatory season. The Alaska Board of Game also established a new drawing permit for goats in Unit 1C (DG 011) with a season running from Oct. 1- Nov. 30; however, this season has been closed for 2 years because of high female harvest and a decline in goat numbers in the area.

Biological Background

Goats occupy steep and rugged terrain, and occur in Alaska throughout Southeast and along the coastal mountains to Cook Inlet. In the Southeast Region, goats have been introduced to non-native range on Baranof Island (Unit 4) where the population expanded, to Chichagof Island (Unit 4) where the transplant apparently failed, and most recently on Revillagigedo Island (Unit 1A) where they have become established (ADF&G 2011). Recent genetic investigations, however, suggest that a residual population may have existed in seclusion on Baranof Island prior to the 1923 transplants from Tracy Arm (Paul 2009). Goats in coastal areas typically migrate from alpine summer ranges to winter ranges at lower elevations, typically in old-growth forest habitats (ADF&G 2011).

Males (billies) and females (nannies) are similar in appearance, except that males are ~ 40% larger than females and have differently shaped horns (ADF&G 2011). Nannies usually do not reproduce until around the age of 5 (see Festa-Bianchet and Côte 2008 for review). White et al. (2008) did not document any case where females less than four years of age had kids at heel during the summer in a Southeast Region goat population. Female goats appear to have a very conservative reproductive strategy, generally exhibiting a low reproductive effort and favoring strategies to ensure their long-term survival over any one reproductive event (Festa-Bianchet and Côte 2008). Females generally produce single kids, although twinning may be more common in introduced and rapidly growing populations than in native or established and stable populations (Côte and Festa-Bianchet 2003). Productivity varies between populations and annually. White et al. (2007), for example, observed that 57-64% of females in a Southeast Region goat population were seen with kids during the summer; however, this study did not directly monitor the initial parturition rate. White and Barten (2008) reported that younger and older females were less likely to have a kid at heel than prime-aged females (i.e. 7-9 years old).

Goat populations are extremely sensitive to adult female mortality (Gaillard et al 2000); therefore harvesting billies is generally recommended to maintain population productivity (Hebert and Turnbull 1977, Youds et al. 1980, Festa-Bianchet and Côte 2008). Indeed, harvest of nannies has led to declines in native populations (see Festa-Bianchet and Côte 2008 for reviews). Harvest of males only is not without problems, however, which could include further skewing the sex ratio and increasing the risk of inbreeding (Festa-Bianchet and Côte 2008). Either-sex harvest is generally implemented because of the difficulty of sexing animals in the field (Voyer et al. 2003, Festa-Bianchet and Côte 2008).

Population Trends

The current population estimate is 3,000-4,000 goats on the mainland in Unit 1A (Porter 2014). The current population on the Cleveland Peninsula portion of Unit 1A is 50 animals, with no noted increasing

trend (Porter 2014). Mountain goat populations appear to be stable throughout most of this Unit (Porter 2014).

Although data specific to goats in Unit 1B are scarce, available information indicates that with the exception of the Cleveland Peninsula, where populations have declined, and the Thunder Mountain area where populations have recently increased, most Unit 1B goat populations have remained relatively stable since 2000 (Lowell 2014). In Unit 1C, goat populations seem to be at medium to high densities when compared to historical data over most of the range, and generally healthy overall throughout the unit (Scott 2014a). Recent information, however, suggests that this is not necessarily the case for all of Unit 1C. Goat numbers are low in areas of Lynn Canal, and goat populations have declined in Tracy/Endicott Arm to the point where the GHLs were decreased to reduce the amount of points available for harvest (Sell 2015). White et al. (2012) documented decreased survival in mountain goats in Units 1C and 1D. Aerial surveys in Unit 1D generally target areas of greatest concern due to human use and/or disturbance, so it is difficult to evaluate the population of the entire unit. However, mountain goat populations appear to be at medium to high densities in those areas routinely surveyed (Sell 2014).

The 2004 population estimate for Unit 4 (Baranof Island) was approximately 1,529 goats (Mooney 2014). Record winter snowpack during the winters of 2006 through 2008, along with 3 consecutive late and cold springs, have reduced the goat population (Mooney 2014). Survey and harvest data from 2009-2010 indicated a continuing decline with an estimated population of 700-850 goats (Mooney 2014). Surveys in 2011–2012 indicated a further decline with an estimated population of 650-750 goats and a decrease in the number of kids per 100 adults to from 23% in 2011 to 10% in 2012 (Mooney 2014). Past high harvest rates of nannies in Unit 4 have impacted recruitment of the population, and recent aging of harvested females indicates the age structure of this component is increasing, which raised conservation concerns for managers (Mooney 2011).

Within Unit 5, the goat population in the Nunatak Bench area started to decline in 2000 and remains at a low density. Thirty-three goats were observed during fall aerial surveys in both 2008 and 2009 (Oehlers 2008, 2009), and only 18 goats were observed during a survey in 2011 (Scott 2014); this area has been closed under both State and Federal regulations since 2000. Recent surveys indicated a decline in mountain goat numbers within the Western Brabazon range between Harlequin Lake and Nunatak Fjord. Forty-eight and 32 goats were observed during aerial surveys in 2009 (Oehlers 2009) and 2011 (Scott 2014b), respectively, as compared to an estimated 154 goats in 2006 (Barten 2006). Goat populations in the area of Unit 5 from Harlequin Lake to the Alsek River have not been surveyed since 157 and 126 goats were observed during two separate fall surveys in 2010 (Oehlers 2010, Scott 2014b).

Harvest History

Between 2010 and 2014, a total of 593 goats were harvested in Unit 1-5 (**Table 3**, Sell 2015). Of this total, 224 (38%) were harvested by Federally qualified subsistence users. This figure is based on the harvester's community of residence, but does not necessarily reflect the regulations (State or Federal) under which the harvest took place.

Table 3. Reported harvest of goats (total and % of harvest) in Units 1-5, 2010-2014 (Sell 2015). Designation of Federally qualified subsistence user is based on harvester's community of residence.

Unit	Non-federally qualified resident user	Federally qualified subsistence user	Non-resident	Total
1A	37 (51%)	16 (22%)	20 (27%)	73
1B	17 (22%)	26 (33%)	35 (45%)	78
1C	63 (33%)	1 (1%)	126 (66%)	190
1D	11 (8%)	108 (76%)	24 (17%)	143
4	12 (12%)	70 (70%)	18 (18%)	101
5A	1 (20%)	3 (60%)	1 (20%)	5
Unknown	3 100%)	0	0	3

Since goats were added to the designated hunter permit for Units 1-5 in 2012, a total of 4 goats have been harvested by designated hunters: 2 billies were harvested in Unit 4 in 2012, 1 billy was harvested in Unit 4 in 2013, and 1 billy was harvested in Unit 1C in 2014.

Traditional harvest

The subsistence way of life is very much a part of the social fabric of Alaskan rural communities. Within Alaska Native cultures, harvesting of subsistence foods is inextricably intertwined with social interactions. Social interactions may be in the form of extended families spending time at fish camps during the summer, young hunters learning harvesting skills from their older relatives, or individuals sharing their harvest successes with community members. Subsistence includes a cultural value system of sharing, which Alaska Natives have maintained since before contact with Russians and Europeans (Wolfe and Ellana 1983).

The hunting of ungulates in the Southeast Region is a physically demanding task which not every household in a given community is able to undertake. It is common for able-bodied, younger individuals to take on the responsibility of harvesting meat for families and individuals outside of their household (i.e., the elderly and single mothers). Deer and moose are vital food staples and an important protein source for many rural Alaskans.

In 1997, the ADF&G, Division of Subsistence conducted key respondent interviews in Prince of Wales (POW) Island communities and Ketchikan regarding subsistence deer hunting on POW Island. Hunting and sharing practices are similar throughout most POW Island communities, and it was noted that some hunters regularly supply deer to other households as well as their own (Turek et. al 2004). Several individuals mentioned this pattern specifically in their responses. Regardless of the demographics and cultural histories of communities throughout POW Island, residents gave very similar answers to the questions regarding sharing and hunting practices.

Other Alternatives Considered

Several alternatives are available to mitigate any potential negative side effects of this proposal, such as over-harvest or harvesting of nannies, if designated hunters are allowed to have more than one animal in possession.

One alternative would be to allow two harvest limits in possession at any one time. Mountain goats inhabit rugged terrain, and the harvest and transport of more than one animal is challenging (the dressed weight of a 250 pound goat, for example, is approximately 150 pounds). Harvesting and transporting three animals at a time would be difficult, and may lead to unintended waste if the designated hunter is unable to remove several animals from the field. This alternative would also reduce but not eliminate some of the potentially negative effects of the initial proposal such as over-harvest or the harvesting of nannies. While adoption of this alternative would reduce some of the potential effects of the original proposal, unintended waste, exceeding the GHL, and harvesting of nannies could still occur, resulting in a conservation concern; therefore, this alternative is not recommended.

Another alternative would be to allow two or three animals in possession, but shorten the required harvest reporting time period (for example, from 5 days to 2 days), to allow for possession of more than one animal only in units with higher quotas, or to limit the number of persons for which a designated hunter may harvest goats. Shortening the required harvesting report period could be effective in units with higher quotas; however, over-harvesting could still occur in units with low quotas and is not recommended. Similarly, restricting the number of persons for which a designated hunter may harvest goats but still allowing 2 in possession would not fully address the potential issue of over-harvesting in areas with low quotas and is not recommended. Allowing for more than one animal only in units with higher quotas may address the issue of over-harvesting; however, because quotas are not static, administration of this regulation would be cumbersome and potentially confusing to the user, unintended waste and harvesting of nannies may still occur, and is therefore this alternative is not recommended.

Effects of the Proposal

It is difficult to predict the effects of the proposal; however, harvest of goats by designated hunters has been minimal and it is likely that this pattern would continue. Because the State manages mountain goat harvest in a combined State and Federal quota, the total harvest of goats is not expected to change. If, however, designated hunters are allowed to have three harvest limits in their possession at any one time they may harvest two to three animals out of one herd, potentially resulting in the harvest quota being met sooner or being exceeded in areas of low quotas before in-season closures can be implemented.

Designated hunters targeting two or three animals out of one herd may also be less selective in the sex of animals taken. A higher female harvest by designated hunters would result in the harvest quota being reached sooner, and may negatively affect the reproductive rate of that population. Mountain goats are at low densities and/or on the decline in several portions of Units 1-5, as evidenced by lowered quotas and multiple Federal subsistence and State season closures in recent years; consequently, harvesting several animals out of one of these herds may cause a conservation concern in localized areas.

While the option for designated hunters to have three goats in possession at any one time will benefit the recipients and allow for more effective/efficient harvest, supporting the traditional practice of hunting for others and opportunity for other users to harvest goats may be reduced

OSM CONCLUSION

Oppose Proposal WP16-03.

Justification

Conservation concerns over goats in this region warrant rejection of this proposal. Many subunit areas in the Southeast Region have low quotas (some as low as 1 point). Mountain goats are at low densities and/or on the decline in several portions of Units 1-5, as evidenced by lowered quotas and multiple Federal and State season closures in recent years, and available survey data. Allowing designated hunters to have 3 goats in possession may concentrate harvests in localized areas, which may not be sustainable in some populations.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Southeast Alaska Subsistence Regional Advisory Council

Oppose WP16-03. Adopting this proposal will likely result in a conservation concern with goats in some small hunt areas. Many hunt areas have low quotas and the potential for one person to harvest three goats is a significant management risk. Mountain goats are at generally at low densities and populations are in decline in several portions of Units 1-5. Allowing designated hunters to have 3 goats in possession may decrease the selection of only male goats and result in the serial depletion of goats in local areas. The council is also concerned about wastage of goats as the proper care and transportation from the field of three goats is problematic.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

Appendix

Table 1. Summary of State Emergency Orders for Mountain Goats in Units 1-5, 2013-2014

Emergency Order Number	Area	Summary of Action
01-01-13	Unit 4	Closure of the resident and nonresident mountain goat hunting season in the following portions of hunt area RG150; 1) that portion including Blue Lake, Glacier Lake drainages, 2) that portion including Medvejie Lake, Bear Lake, Indigo Lake drainages, and drainages into the east side of Silver Bay between Bear Cove and Manit Point, and 3) that portion of the south Katlian River drainage including the drainage south of the south bank of the Katlian River, and that portion south of the south bank of the main stream draining into and out of Hogan Lake on Baranof Island, effective 1159PM July 24, 2013
01-02-13	Unit 5A	Closure of the portion of the mountain goat hunting season under the state registration permit RG170 in Unit 5A: closed area begins on the west shore of Harlequin Lake and the western edge of the Yakutat Glacier; then west of Harlequin Lake and Yakutat Glacier to Yakutat Bay and Disenchantment Bay; and south of Russell and Nunatak Fiords, effective 1159PM July 31 2013
01-03-13	Unit 4	Closure of the Nakwasina River drainage portion of the Unit 4 registration goat hunt (RG150), effective 1159PM August 23, 2013
01-04-13	Unit 4	Closure of the Redoubt Bay/Necker Bay Zone of RG150 in Unit 4 to mountain goat hunting season, effective 1159PM September 11, 2013
01-05-13	Unit 1D	Closure of the 7-mile ridge/Tukgahgo Mt. area of the Takshanuk Mountains in GMU 1D mountain goat hunting season in Tukgahgo Mountain area effective 1159PM September 17, 2013
01-06-13	Unit 1C	Closure of that portion of Unit 1C mountain goat hunting season under the state registration permit hunt RG012, for that portion of Unit 1C from Eagle Glacier and Eagle River to Sawmill Creek, effective 1159pm September 30, 2013
01-08-13	Unit 1D	Early closure to mountain goat hunting season (RG023) in the Takshanuk Mountain Range, east of the Haines Highway and Chilkat River, west of Chilkoot Lake and River, and north to Goat Hollow, effective 1159PM October 4, 2013
01-09-13	Unit 1D	Closure of the mountain goat hunting season in the areas bounded by the White Pass and Yukon Railroad on the west side, the East Fork of the Skagway River on the south side, and the Canadian border to the north and east side, effective 1159PM October 5, 2013
01-11-13	Unit 1D	Closure of the mountain goat hunting season in the area bounded by the East Fork of the Skagway River on the north side, Kasidaya Creek on the south side, Taiya Inlet, and the White Pass and Yukon Railroad on the

		west, and the Canadian border on the east at 1159PM, November 21, 2013
01-12-13	Unit 4	Closure of the mountain goat hunting season in the North Fork of the Katalian River Area portion of the Unit 4 registration goat hunt (RG150), effective 1159PM December 24, 2013
01-02-14	Unit 4	Closure of the mountain goat hunting season in the South Katlian and blue/Medvejie Lakes Drainages, effective 1159PM July 31, 2014
01-03-14	Unit 5	Closure to a portion of the mountain goat hunting season under the state registration permit hunt RG170 in Unit 5A. The closed area begins on the west shore of Harlequin Lake and the western edge of the Yakutat Glacier; then west of Harlequin Lake and Yakutat Glacier to Yakutat Bay and Disenchantment Bay; and south of Russell and Nunatak Fiords, effective 1159PM July 31, 2014
01-04-14	Unit 4	Closure of the mountain goat hunting season in the N. Fork of the Katlian River Area portion of the Unit 4 registration goat hunt (RG150), effective 1159PM August 29, 2014
01-05-14	Unit 1D	Closure of the mountain goat hunting season between Kicking Horse River and Sullivan River (RG026) in Unit 1D, effective 1159PM September 9, 2014
01-06-14	Unit 1D	Closure of the mountain goat hunting season in Tukgahgo Mountain area of Unit 1D, effective 1159PM September 18, 2014
01-07-14	Unit 1D	Closure of the mountain goat hunting season (RG024) in the area bounded by the East Fork of the Skagway River on the north side, Kasidaya Creek on the south side, Taiya Inlet, and the White Pass and Yukon Railroad on the west, and the Canadian border on the east, effective 1159pm September 24, 2014
01-08-14	Unit 1D	Closure of the mountain goat hunting season (RG024) in the areas bounded by the White Pass and Yukon Railroad on the west side, the East Fork of the Skagway River on the south side, and the Canadian border to the north and east side, effective 1159PM September 27, 2014
01-09-14	Unit 1D	Closure of the mountain goat hunting season (RG023) in the Takshanuk Mountain Range, east of the Haines Highway and Chilkat River, west of Chilkoot Lake and River, and north to Goat Hollow, effective 1159PM October 10, 2014
01-10-14	Unit 1C	Closure of the mountain goat hunting season (RG012) for that portion of unit 1C from Sawmill Creek north to the Gilkey River
01-12-14	Unit 1D	Closure of the mountain goat hunting season (RG023) along Chilkoot Lake and Lutak Inlet, from Taiyasanka Harbor to the northern end of Chilkoot Lake, effective 1159PM October 17, 2014
01-13-14	Unit 1D	Closure of the mountain goat hunting season (RG024) in the area bounded by West Creek on the north side, Taiyasanka Harbor on the south side, Ferebee River/Glacier on the west, and the Taiya Inlet and River on the east, effective 1159pm November 7, 2014
01-14-14	Unit 1D	Closure of the mountain goat hunting season (RG024) along the eastern

		shore of Taiya Inlet, from Dayebas Creek north to Kasidaya Creek, and east to the Canadian border, effective 1159PM November 29, 2014

Table 2. Summary of Special Actions for Mountain Goats in Units 1-5, 2011-2014

Special Action Number	Area & Species Affected	Summary of Action
WSA-13-MG-04-11	Unit 4 Baranof Island mountain goat	Closed the watersheds of Blue Lake, Medvejie Lake and the southern half of the Katlian River watershed on Baranof Island to the harvest of mountain goats from August 1 through December 31, 2011.
WSA-13-MG-08-11	Unit 4 Baranof Island mountain goat	Closed the Nakwasina River watershed on Baranof Island to the harvest of mountain goats from Aug. 12 through Dec. 31, 2011.
WSA-13-MG-10-11	Unit 4 Baranof Island mountain goat	Closed the Green Lake and Vodopad watersheds on Baranof Island to the harvest of mountain goats from Sept. 29 through Dec. 31, 2011.
WSA-13-MG-11-11	Unit 4 Baranof Island mountain goat	Closed the Redoubt Bay-Necker Bay Zone on Baranof Island to the harvest of mountain goats from Sept. 30 through Dec. 31, 2011.
WSA-13-MG-12-11	Unit 4 Baranof Island mountain goat	Closed the north fork of the Katlian River and Coxe River drainages and that portion of the unnamed drainage west of Coxe River and north of Cedar Cove that drains into Nakwasina Sound on Baranof Island to the harvest of mountain goats from Oct. 15 through Dec. 31, 2011.
WSA-13-MG-13-11	Unit 4 Baranof Island mountain goat	Closed all drainages into Baranof Warm Springs Bay, Cascade Bay, Nelson Bay, Red Bluff Bay, Falls Lake, Hoggatt Bay, Gut Bay, Yermak Lake, Patterson Bay, Deep Cove, and all un-named drainages from Baranof Warm Springs Bay south to Deep Cove that enter Chatham Strait (known as the Mt. Furuhelm - Mt. Ada Zone) on Baranof Island to the harvest of mountain goats from Dec. 15 through Dec. 31, 2011.
WSA 13-MG-04-12	Unit 4 Baranof Island mountain goat	Closed the watersheds of Blue Lake, Medvejie Lake and the southern half of the Katlian River watershed on Baranof Island to the harvest of mountain goats from August 1 through December 31, 2012.
WSA 13-MG-07-13	Unit 4 Baranof Island mountain goat	Closed the watersheds of Blue Lake, Medvejie Lake and the South Fork Katlian River watershed on Baranof Island to the harvest of mountain goats from August 1 through December 31, 2013.
WSA 13-MG-08-13	Unit 4 Baranof Island	Closed the Federal goat hunting season within the Nakwasina River watershed on Baranof Island

	mountain goat	August 28 through October 26, 2013.
WSA 13-MG-09-13	Unit 4 Baranof Island mountain goat	Closed the Federal goat hunting season within the Redoubt-Necker Bay zone on Baranof Island September 12 through November 10, 2013.
WSA 13-MG-10-13	Unit 4 Baranof Island mountain goat	Extended previous Federal goat hunting closures in the watersheds of Blue Lake, Medvejie Lake, South Fork Katlian River and Nakwasina River watersheds and the Redoubt-Necker Bay zone on Baranof Island in Unit 4 from September 19 through the remainder of the 2013 season.
WSA 13-MG-13-13	Unit 4 Baranof Island mountain goat	Closed the Federal goat hunting season within the North Fork Katlian River zone on Baranof Island December 27 through December 31, 2013.
WSA 13-MG-04-14	Unit 4 Baranof Island mountain goat	Closed the Blue Lake, Medvejie Lake and the South Fork Katlian River watersheds on Baranof Island to the harvest of mountain goats from August 1 through December 31, 2014.
WSA 13-MG-05-14	Unit 4 Baranof Island mountain goat	Closed the Federal goat hunting season within the North Fork Katlian River zone on Baranof Island August 30 through December 31, 2014.

WP16-04 Executive Summary	
General Description	Proposal WP16–04 requests that the term "antlered" be removed from the moose harvest regulations in Unit 5B, and Unit 1C remainder. *Submitted by the Southeast Alaska Subsistence Regional Advisory Council.*
Proposed Regulation	**Unit 1C remainder—Moose** *1 ~~antlered~~ bull by State registration permit only* — *Sept. 15–Oct. 15* **Unit 5B — Moose** *1 ~~antlered~~ bull by State registration permit only. The season will be closed when 25 ~~antlered~~ bulls have been taken from Unit 5B* — *Sept. 1–Dec. 15*
OSM Conclusion	**Support**
Southeast Regional Council Recommendation	**Support**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Board action on the proposal.
ADF&G Comments	**Support**
Written Public Comments	**None**

STAFF ANALYSIS
WP16-04

ISSUES

Proposal WP16–04, submitted by the Southeast Alaska Subsistence Regional Advisory Council, requests that the term "antlered" be removed from the moose harvest regulations in Unit 5B, and Unit 1C remainder.

DISCUSSION

The proponent states that the term "antlered bull" is not effective since Federal regulations requires Federally qualified subsistence users to obtain a State registration permit and the State regulations allow any bull (less restrictive) to be taken. The proponent states that with this regulatory change, State and Federal regulations would be consistent and have no effect on the moose population because the hunt is already managed as any-bull.

Existing Federal Regulation

Unit 1C remainder—Moose *Sept. 15–Oct. 15*

1 antlered bull by State registration permit only

Unit 5B - Moose

1 antlered bull by State registration permit only. The season will be closed when 25 antlered bulls have been taken from the entirety of Unit 5B *Sept. 1–Dec. 15*

Proposed Federal Regulation

Unit 1C remainder—Moose

1 ~~antlered~~ bull by State registration permit only *Sept. 15–Oct. 15*

Unit 5B — Moose

1 ~~antlered~~ bull by State registration permit only. The season will be closed when 25 ~~antlered~~ bulls have been taken from Unit 5B *Sept. 1–Dec. 15*

Existing State Regulation

Unit 1C remainder — Moose

One bull by permit available in Douglas, Ketchikan, Petersburg, Sitka, or by mail from Douglas or online at http://hunt.alaska.gov beginning Aug. 18	*Sept. 15–Oct. 15*

Unit 5B — Moose

One bull by permit, available in Douglas or Yakutat or by mail from Douglas or online at http://hunt.alaska.gov beginning Aug. 28	*Sept. 1–Dec. 15*

Extent of Federal Public Lands

Federal public lands comprise approximately 95% of Unit 1C and consists of 63% U.S. Forest Service (USFS) managed lands and 32% National Park Service (NPS) lands (**Unit 1C Map**).

Federal public lands comprise approximately 96% of Unit 5B and consists of 93% NPS managed lands, 2% Bureau of Land Management (BLM) managed lands, and 1% USFS managed lands (**Unit 5 Map**).

Customary and Traditional Use Determinations

Residents of Units 1-5 have a positive customary and traditional use determination to harvest moose harvest in Unit 1C. In order to engage in subsistence in Wrangell-St. Elias National Park, the National Park Service requires that Federally qualified subsistence users either live within the park's resident zone (36 CFR 13.430, 36 CFR 13.1902) or have a subsistence permit (36 CFR 13.440) issued by the park superintendent. Yakutat, in Unit 5A, is a resident zone community for Wrangell-St. Elias National Park.

Regulatory History

Since 1978, moose hunting in Unit 5B has been managed under a State registration permit system (Scott 2012). Currently, moose harvest in Unit 5B is managed using a State registration permit (RM062).

In Unit 1C, moose harvest is managed under State drawing and registration permits. Unit 1C remainder, including the Chilkat Peninsula and Taku River, is managed under a State registration permit (RM046) with an any bull harvest limit.

In 1993, the Federal Subsistence Board adopted Proposal P93-31 with modification to establish a 25 bull moose harvest quota and extend the season from Sept. 1 – Nov. 15 to Sept. 1 – Dec. 15. in Unit 5B.

Current Events Involving Species

In 2014, the Alaska Department of Fish and Game (ADF&G) issued five draw permits for any bull hunt in Berners Bay, based on the Berners Bay moose population estimate. Four moose were harvested during the season. Five permits have also been issued for the fall 2015 season.

Biological Background

Moose were first documented along the lower Alsek River in eastern Unit 5 in the late 1920s or early 1930s. Range expansion to the west followed slowly, with animals not documented in the Malaspina Forelands (Unit 5B) west of Yakutat Bay until the 1950s (Scott 2012). It is believed that the glaciers and waters of Icy Bay curtailed westward movement of this moose population (Scott 2012).

Moose are relative newcomers to many parts of the Southeast Region, with many of the populations becoming established in the early to mid-1900s. Some areas, such as the Gustavus Forelands in Unit 1C, did not have moose until the 1960s. It is likely that coastal mountains inhibited the movement of moose into these areas. Once moose discovered these unexploited areas, the presence of high quality habitat led to rapid expansions of new populations. In Unit 1C, moose expanded their range into 3 of the 4 moose management areas naturally, while in Berner's Bay they were introduced (Scott 2014).

During a survey in Unit 5B in 2007, 82 moose were observed (Scott 2010). Portions of Unit 5B consist of dense coniferous forests that make it difficult to detect moose. Generally, it is estimated that 70% of moose present are detected during aerial surveys (Scott 2010), which needs to be considered relative to the survey results. Although 82 moose is lower than the long-term average of 105 moose (1995-2006), survey conditions and timing likely played a role in this difference (Scott 2010).

Moose surveys have not been conducted in the Chilkat Range portion of Unit 1C in recent years; however, harvest records and anecdotal observations indicate that the moose population may be stable in the Endicott River and St. James Bay areas and increasing near Homeshore and Pt. Couverdon (Scott 2012b). Similarly, there is little information regarding the moose population in the Taku River drainage; however, harvest records and anecdotal information from hunters indicates the moose population in the area may be stable (Scott 2012b).

Harvest History

The mean age of moose harvested in Unit 5B has ranged between 3.0 and 7.5 years from 1999-2009 (Scott 2010). During the State regulatory years of 2007-2008, the harvest in Unit 5B averaged 10 moose annually, with an annual average of 33 hunters, 168 hunter-days of effort, and a hunter success rate of 29% (**Table 1**, Scott 2010). Reported harvest in Unit 5B increased from previous years during the 2007-2008 reporting period, along with increased number of hunters and number of hunter days (Scott 2010). Harvest in Unit 5B decreased slightly during the latest reporting period of 2009-2011 (**Table 1**). Total harvest for this report period (15 moose) is similar to harvests in the 1990s (Scott 2012a). The number of hunters and days hunted decreased in 2010, which was reflected in a decline in the number of moose taken (**Table 1**.). Access to Unit 5B is often limited by weather, and once on the ground, hunters tend to

remain close to the beach. This suggests hunters may not be using much of the available moose habitat and the overall harvest may be less than it could be (Scott 2012a).

Table 1. Total harvest, number of hunters, hunter days, and percent success of all users for moose in Unit 5B, 2007-2010 (Scott 2010, 2012a)

Year	Harvest	Number of Hunters	Hunter Days	Percent success
2007	10	35	175	29
2008	9	31	161	29
2009	11	30	120	37
2010	4	12	33	33

During the 2007-2008 reporting period, Unit 5 residents took 47% of the Unit 5B moose harvest, nonresidents took 32%, and other Alaska residents accounted for the remaining 21% of the harvest (Scott 2010). During the 2009-2010 reporting period, Unit 5 residents took 33% of the Unit 5B moose harvest, nonresidents took 20%, and other Alaska residents took the remaining 47% of the harvest (Scott 2012a).

Mean annual harvest in both the Chilkat Range and Taku River portion of Unit 1C averaged 15 moose, ranging from 18 in 2009 to 11 in 2010, during the 2009-2011 reporting period (Scott 2012b).

Effects of the Proposal

If this proposal is adopted it would reduce regulatory complexity by having a harvest limit of one bull moose in State and Federal subsistence regulations for moose in Units 5B and 1C remainder. Federally qualified subsistence users are required to obtain a State registration permit which allows the harvest of any bull. Removing the term “antlered bull” from the Federal subsistence regulations improves consistency between the State and Federal regulations for moose in these units and decreases regulatory complexity for users. Adoption of this proposal is not expected to affect the moose harvest since it is already managed as an any-bull hunt and there is a harvest quota in place for Unit 5B.

OSM CONCLUSION

Support Proposal WP16-04.

Justification

Adoption of this proposal will reduce regulatory complexity moose in Units 5B and 1C remainder without resulting in any conservation concern for moose in these units.

LITERATURE CITED

Scott, R. 2010. Unit 5 moose management report. Pages 77-92 in P. Harper, editor. Moose management report of survey and inventory activities 1 July 2007-30 June 2009. ADF&G. Project 1.0. Juneau, AK.

Scott, R. 2012a. Unit 5 moose management report (pre-press). Pages 77–92 in P. Harper, editor. Moose management report of survey and inventory activities 1 July 2009–30 June 2011. ADF&G Species Management Report ADF&G/DWC/SMR-2012-4, Juneau, AK.

Scott, R. 2012b. Unit 1C moose management report (pre-press). Pages 26–52 [In] P. Harper, editor. Moose management report of survey and inventory activities 1 July 2009–30 June 2011. ADF&G. Species Management Report ADF&G/DWC-2012-5, Juneau, AK

SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Southeast Alaska Subsistence Regional Advisory Council

Support WP16-04. This regulatory change will align Federal and State regulations, reduce regulatory complexity, decrease confusion by users regarding the definition of a legal moose, and reduce enforcement concerns without any detrimental effects on subsistence users.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

WP16-05 Executive Summary	
General Description	Proposal WP16-05 requests removing language stating the Unit 2 deer harvest limit may be reduced to four deer in times of conservation. *Submitted by the Southeast Alaska Subsistence Regional Advisory Council.*
Proposed Regulation	**Unit 2—Deer** *5 deer; however, no more than one may be a female deer. Female deer may be taken only during the period Oct. 15–Dec. 31. ~~The harvest limit may be reduced to 4 deer based on conservation concerns~~. The Federal public lands on Prince of Wales Island, excluding the southeastern portion (lands south of the West Arm of Cholmondeley Sound draining into Cholmondeley Sound or draining eastward into Clarence Strait), are closed to hunting of deer from Aug. 1 to Aug. 15, except by Federally qualified subsistence users hunting under these regulations.* — *July 24–Dec. 31*
OSM Conclusion	**Support**
Southeast Regional Council Recommendation	**Support**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Board action on the proposal.
ADF&G Comments	**Support**
Written Public Comments	**None**

STAFF ANALYSIS
WP16-05

ISSUES

Proposal WP16-05, submitted by Southeast Alaska Subsistence Regional Advisory Council (Council), requests the language stating the Unit 2 deer harvest limit may be reduced to four deer in times of conservation be removed.

DISCUSSION

This proponent seeks to remove unnecessary regulatory language created in 2006 when the harvest limit for Federally qualified subsistence users was increased from four to five deer. The proponent believes is the following language is unnecessary: *The harvest limit may be reduced to 4 deer based on conservation concerns*. This language was intended to act as a "safe guard" in case the Unit 2 deer population declined in the future.

In 2010, the Federal Subsistence Board (Board) delegated management authority to the two US Forest Service District Rangers in Unit 2. For deer, their scope of delegation allows them to set harvest quotas; to close, reopen or adjust Federal subsistence deer seasons; and to adjust harvest and possession limits. With authority delegated to the Federal In-season Mangers, the "safe guard" language is no longer necessary. Removing this language gives the in-season managers more flexibility to provide subsistence opportunity and conservation of Unit 2 deer.

Existing Federal Regulation

Unit 2—Deer

5 deer; however, no more than one may be a female deer. Female deer may be taken only during the period Oct. 15–Dec. 31. The harvest limit may be reduced to 4 deer based on conservation concerns. The Federal public lands on Prince of Wales Island, excluding the southeastern portion (lands south of the West Arm of Cholmondeley Sound draining into Cholmondeley Sound or draining eastward into Clarence Strait), are closed to hunting of deer from Aug. 1 to Aug. 15, except by Federally qualified subsistence users hunting under these regulations.	*July 24–Dec. 31*

Proposed Federal Regulation

Unit 2—Deer

5 deer; however, no more than one may be a female deer. Female deer may be taken only during the period Oct. 15–Dec. 31. ~~The harvest limit may be reduced to 4 deer based on conservation concerns~~. The Federal public lands on Prince of Wales Island, excluding the southeastern portion (lands south of the West Arm of Cholmondeley Sound draining into Cholmondeley Sound or draining eastward into Clarence Strait), are closed to hunting of deer from Aug. 1 to Aug. 15, except by Federally qualified subsistence users hunting under these regulations.	*July 24–Dec. 31*

Existing State Regulation

Unit 2 - Deer

Residents and non-residents: Four bucks	*Aug. 1 – Dec. 31*
Harvest tickets must be validated in sequential order, and unused tickets must be carried when you hunt.	

Extent of Federal Public Lands

Federal public lands comprise approximately 74% of Unit 2, and consists of 73% U.S. Forest Service managed lands and <1% U.S. Fish and Wildlife Service managed lands (**see Unit 2 Map**).

Customary and Traditional Use Determinations

Rural residents of Units 1A, 2, and 3 have a customary and traditional use determination to harvest deer in Unit 2.

Regulatory History

Hunting regulations have permitted the harvest of deer in Unit 2 since 1925 (**Table 1**). During this period, season closing dates have varied between November and December, with December 31 being the common closing date since 1988. Seasons and harvest limits for subsistence users in Unit 2 are as liberal as they have been since 1925. Federal regulation has allowed the harvest of one female deer in Unit 2 since 1995.

During 2006, the Board identified the Forest Supervisor of the Tongass National Forest in regulation as the delegated authority for deer in Unit 2 by adopting WP06-09 with modification. The modified proposal also established the current five deer harvest limit. Although the deer population was deemed stable at the time, there was concern that the overall harvest trend was in decline. As a result, Board allowed the Forest Supervisor the ability, after consultation with both the Council Chair and the Alaska

Department of Fish and Game (ADF&G), to reduce the harvest limit for conservation quickly without having to require notice and public hearing (FSB 2006).

Table 1 - Regulatory history for Unit 2 deer.

Year	Type of Season	Season	Limit	Conditions and Limitations
1925	Open	Sep. 15–Dec. 16	3	Bucks, 3" antlers or longer
1925–1929	Open	Sep. 1–Nov. 30	3	Bucks, 3" antlers or longer
1930–1941	Open	Aug. 20–Nov. 15	2	Bucks, 3" antlers or longer
1942–1943	Resident	Sep. 16–Nov. 15	2	Bucks, 3" antlers or longer
1942–1943	Non-resident	Sep. 16–Nov. 15	1	Bucks, 3" antlers or longer
1944–1948	Resident	Sep. 1–Nov. 7	2	Bucks, 3" antlers or longer
1944–1948	Non-resident	Sep. 1–Nov. 7	1	Bucks, 3" antlers or longer
1949	Resident	Sep. 1–Nov. 15	2	Bucks, 3" antlers or longer
1949	Non-resident	Sep. 1–Nov. 15	1	Bucks, 3" antlers or longer
1950–1951	Resident	Aug. 20–Nov. 15	2	Bucks, 3" antlers or longer
1950–1951	Non-resident	Aug. 20–Nov. 15	1	Bucks, 3" antlers or longer
1952	Open	Aug. 20–Nov. 22	2	Bucks, 3" antlers or longer
1953–1954	Open	Aug. 20–Nov. 22	3	Bucks, 3" antlers or longer
1955	Open	Aug. 20–Nov. 22	3	3 bucks or 2 bucks and one antlerless, bucks 3" antlers or longer, antlerless may be taken Nov. 15–Nov. 22
1956	Open	Aug. 20–Nov. 26	4	3 bucks or 2 bucks and one antlerless, bucks 3" antlers or longer, antlerless may be taken Nov. 13–Nov. 26
1957–1959	Open	Aug. 20–Nov. 30	4	4 deer, does may be taken Oct. 15–Nov. 30
1960	Open	Aug. 20–Dec. 15	4	4 deer, does may be taken Oct. 1–Dec. 15
1961	Open	Aug. 1–Nov. 30	4	4 deer, antlerless deer may be taken Sep. 15–Nov. 30
1962	Open	Aug. 1–Dec. 15	4	4 deer, antlerless deer may be taken Sep. 15–Dec. 15
1963–1967	Open	Aug. 1–Dec. 31	4	4 deer, antlerless deer may be taken Sep. 15–Dec. 31
1968	Open	Aug. 1–Dec. 15	4	4 deer, antlerless deer may be taken Sep. 15–Dec. 15
1969–1971	Open	Aug. 1–Dec. 31	4	4 deer, antlerless deer may be taken Sep. 15–Dec. 31
1972	Open	Aug. 1–Dec. 31	3	3 deer, antlerless deer may be taken Nov. 1–Nov. 30
1973–1977	Open	Aug. 1–Nov. 30	3	1 antlerless deer may be taken Nov. 1–Nov. 30
1978–1984	Open	Aug. 1–Nov. 30	3	Antlered deer
1985–1986	State Subsistence/General	Aug. 1–Nov. 30	3	Antlered deer
1987	State Subsistence/General	Aug. 1–Nov. 30	3	1 antlerless deer may be taken Oct. 10–Oct. 31
1988–2013	State Subsistence/General	Aug. 1–Dec. 31	4	Antlered deer/bucks
1991–1994	Federal Subsistence	Aug. 1–Dec. 31	4	Antlered deer
1995–1997	Federal Subsistence	Aug. 1–Dec. 31	4	No more than one may be an antlerless deer, antlerless deer may be taken only during Oct. 15–Dec. 31
1998–2002	Federal Subsistence	Aug. 1–Dec. 31	4	No more than one may be an antlerless deer, antlerless deer may be taken Oct. 15–Dec. 31 by Federal registration permit only
2003–2005	Federal Subsistence	July 24–Dec. 31	4	No more than one may be an antlerless deer, antlerless deer may be taken Oct. 15–Dec. 31 by Federal registration permit only
2006–2009	Federal Subsistence	July 24–Dec. 31	5	No more than one may be an antlerless deer, antlerless deer may be taken Oct. 15–Dec. 31
2010–2014	Federal Subsistence	July 24–Dec. 31	5	No more than one may be a female deer, female deer may be taken Oct. 15–Dec. 31

In 2010, the Board adopted WP10-22 with modification delegating management authority for wildlife by letter to the ten District Rangers located in Units 1-5. As a result, the delegated authority in Unit 2 changed from the Forest Supervisor to the District Rangers of both the Craig and Thorne Bay Ranger Districts. Action on the proposal also removed the requirement for consultation with the both Council Chair and ADF&G, as this was already defined protocol within the Special Action process (FSB 2010).

The Craig and Thorne Bay District Rangers have been delegated by letter management authority by the Board regarding deer and wolf in Unit 2 (Towarak 2015). For deer, their scope of delegation allows them to set harvest quotas; to close, reopen or adjust Federal subsistence deer seasons; and to adjust harvest and possession limits for that species. Most likely, this type of action would occur prior to the season. Any action greater than 60 days in length requires a public hearing before implementation. They may also close Federal Public lands to the take of this species to all users. This type of action would most likely take place during the season.

Biological Background

Sitka black-tailed deer spend the winter and early spring at low elevation where there is less snow accumulation and forests provide increased foraging opportunities. Fawning occurs in late May and early June as vegetation greens-up, providing abundant forage to meet energetic needs of the lactating doe. Some deer migrate and follow the greening vegetation up to alpine for the summer while others remain at lower elevations. The breeding season, or rut, generally occurs October through November and peaks in late November (ADF&G 2009). Wolves and black bears are the primary predators present in Unit 2 and may reduce deer populations.

Deer populations in southeast Alaska fluctuate and are primarily influenced by winter snow depths (Olson 1979). Deer typically have trouble meeting their energy needs in winter (Hanley and McKendrick 1985, Parker et al. 1999) and winters with long periods of deep snow that restrict the availability of forage can result in deer depleting their energy reserves to the point of starvation (Olson 1979).

Summer nutrition is important for building body reserves for sustaining deer through the winter (Stewart et al. 2005). Few studies have been conducted on summer habitat conditions because winter habitat carrying capacity is generally considered to be the limiting factor for deer in southeast Alaska. However, deer populations at or above habitat carrying capacity are affected by intra-specific competition for food and may enter winter in reduced condition compared to deer populations below carrying capacity (Kie et al. 2003, Stewart et al. 2005). This can result in higher susceptibility to severe winters and lower productivity (Kie et al. 2003, Stewart et al. 2005). In addition, nutritionally stressed does produce smaller and fewer fawns (Olson 1979).

<u>Habitat</u>

Old-growth forests are considered primary deer winter range, in part because the complex canopy cover allows sufficient sunlight through for forage plants to grow but intercepts snow, making it easier for deer to move and forage during winters when deep snow hinders access to other habitats. Some areas of Unit 2 have been impacted by large scale changes in habitat due to timber harvest, while the habitat is largely intact in other areas. Areas with substantial timber harvest are expected to have lower long-term carrying capacity compared to pre-harvest conditions.

Recent population indices

There are no methods to directly count deer in southeast Alaska, so the Alaska Department of Fish and Game (ADF&G) conducts deer pellet surveys as an index to the relative abundance of the deer population. Relating pellet group data to population levels is difficult, however, because factors other than changes in deer population size can affect deer pellet-group density. Snowfall patterns influence the distribution and density of deer pellets from year to year, and snow persisting late into the spring at elevations below 1,500 feet limits the ability to consistently survey the same elevation zones among years. In mild winters, deer can access forage in a greater variety of habitats, not all of which are surveyed. Conversely, in severe winters deep snow concentrates deer (McCoy 2011). Brinkman et al. (2013) questioned the value of pellet-group surveys for monitoring population trends due to the variability in the data compared to DNA based counts. Although pellet-group surveys remain the only widely available deer population data, the results should be interpreted with caution. **Figure 1** shows pellet-group survey results for Unit 2. The pellet-group data suggests a generally increasing population trend since a low during the late 1990s and early 2000s. This contrasts with Brinkman et al. (2011) who used a DNA based technique and estimated a 30% population decrease from 2006–2008 which they attributed to three consecutive deep snow winters. Brinkman's study was limited to three watersheds and the population changes during the study varied by watershed. It appears that populations increased after those severe winters and Bethune (2011) felt that by 2010 the Unit 2 deer population was healthy, stable to increasing, and at a 12 to 15 year high. No pellet surveys were completed during 2013 or 2014 (Bethune 2015).

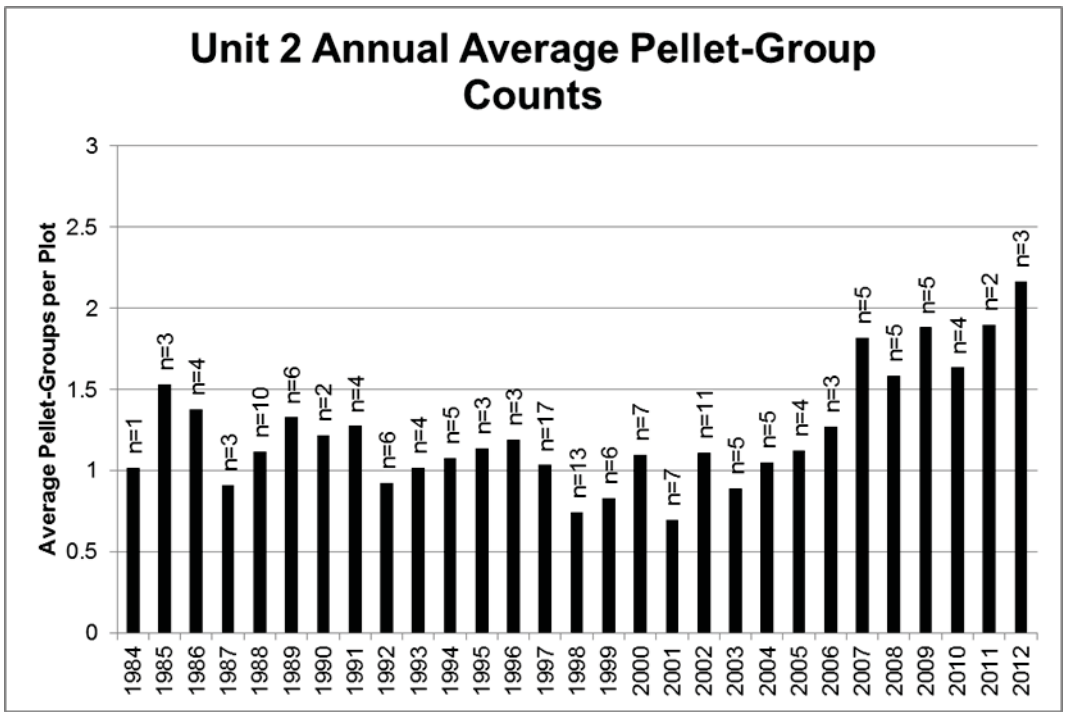

Figure 1 – Average pellet-group counts for all of Unit 2 since transects began in 1984 (McCoy 2011). Data labels represent the number of watersheds surveyed that year.

Harvest History

Harvest data reported below are provided by ADF&G (Bethune 2015) and are gathered by several reporting systems including the Region 1 deer survey, Unit 2 deer harvest report, and the State-wide deer harvest report. The Region 1 deer survey is the most consistent report, covering the years 1997–2010 and is based on a sample of hunters. In general, 35% of hunters from each community were sampled each year and while response rates vary by community, the overall response rate across communities was approximately 60% each year. Harvest numbers were extrapolated using expansion factors that are calculated as the total number of harvest tickets issued to a community divided by the total number of survey responses for that community. If response was low from a community, an individual hunter may have a disproportionate effect on the data. As confidence intervals are not available for these data, exact numbers should be considered estimates and used with caution. Trends, however, especially at larger scales, should be fairly accurate. The Unit 2 deer report was in place from 2005–2010 and was instituted specifically for reporting deer harvest in Unit 2. in 2011, the Statewide deer report replaced the other deer harvest reporting systems and requires reporting of harvest by all deer hunters. Different expansion factors are used for the various data sets so that total harvest estimates between years are comparable (McCoy 2011).

Action taken by the Alaska Board of Game in fall 2000 established a harvest objective of 2700 deer for Unit 2 as they identified the population as important for satisfying high levels of human consumptive use (Bethune 2013). Estimated deer harvest in Unit 2 from 1997–2013 can be found in **Figure 2**, with harvest by month being found in **Table 2**. The estimated total harvest averages 2,850 deer during this period. Harvests have been increasing since 1997 and at or above ADF&G's Unit 2 harvest objective of 2,700 deer since 2005 (Bethune 2011). Estimated female deer harvest (**Figure 3**) averages 4.2% of the total harvest. The average number of deer harvested per hunter has risen since the late 1990s and has remained stable since 2004 (**Figure 4**). The average number of days it takes to harvest a deer also appears to have been stable since 2007 and is lower than the late 1990s (**Figure 4**). The harvest data support the pellet-group data which indicate that the deer population in Unit 2 is healthy and stable to increasing.

The majority of the hunters harvesting deer in Unit 2 between 2010-2012 were residents of Unit 2. Hunters from Unit 2 communities have a higher success rate than other hunters with an average success rate of 84% during this period. Hunters residing in Unit 1A have averaged a 70% success rate during this same period, accounting for an average of 30% of the total Unit 2 harvest (**Figure 5**). Non-resident activity in the unit has been on a slight increase, which may be related to changes in black bear hunting opportunity in Unit 2. The Craig ADF&G office has noted an increase in non-resident inquiries related to deer hunting (Bethune 2013).

Despite current abundant populations, historically high harvest, liberalized seasons and harvest limits, there are continued concerns within membersof the subsistence community regarding their inability to meet their subsistence needs. The biggest concern is the perception of increased hunting pressure, which may be a result of the Access Travel Management Plan (ATM) enacted by the Forest Service in 2009. The ATM reduced access for hunters by reducing miles of roads in Unit 2. The ATM may have resulted in pushing a similar "pre-ATM" number of hunters into smaller areas affirming the perception of

increasingly crowded hunting conditions. In addition, as clear-cuts advance past the early seral stages, deer are less visible from the road which may also be leading to the misperception that fewer deer are available (Bethune 2013).

Table 2 – Deer harvest by month in Unit 2, 2003-2013 (Bethune 2015).

	July	August	September	October	November	December	Totals
2003	78	284	287	357	566	49	1621
2004	68	310	240	481	811	61	1971
2005	210	485	393	503	895	76	2562
2006	192	501	459	541	1333	152	3178
2007	128	428	300	450	1217	121	2644
2008	116	494	362	522	1525	167	3186
2009	122	488	263	510	1655	183	3221
2010	156	471	281	595	1669	178	3350
2011	230	632	295	595	1932	197	3881
2012	143	460	302	556	1878	315	3654
2013	163	484	282	460	2105	174	3668

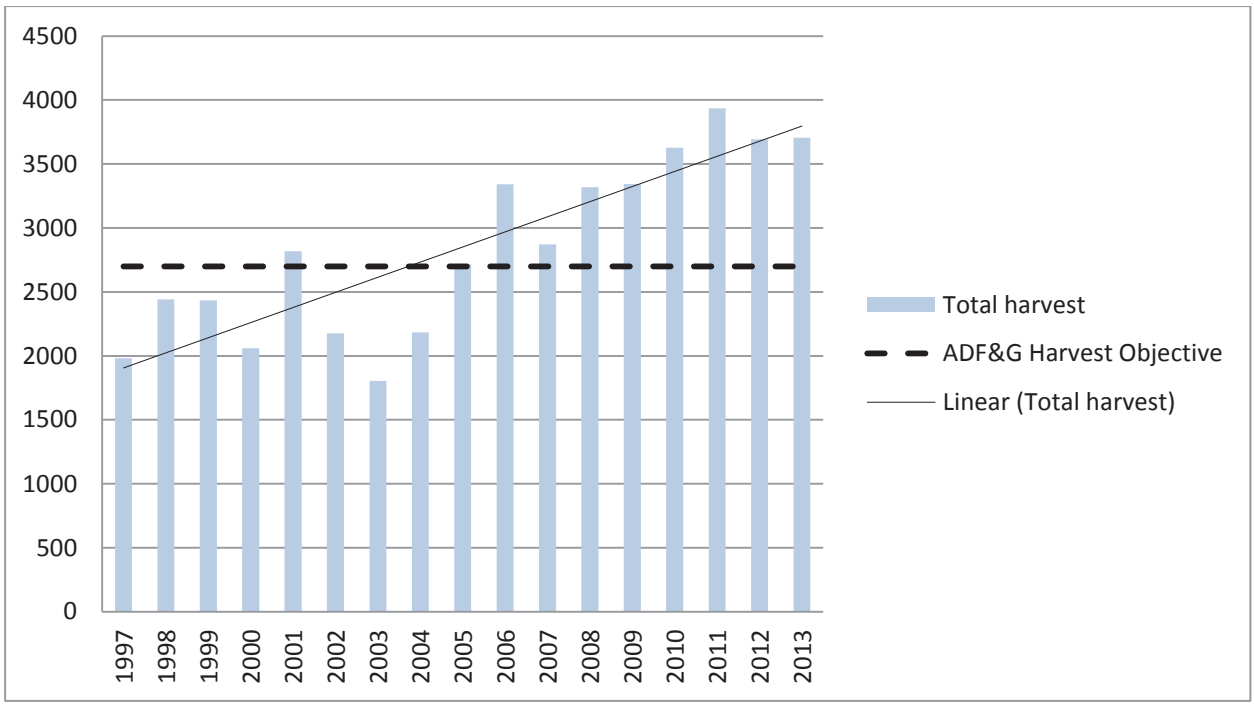

Figure 2 – Estimated deer harvest in Unit 2 from 1997-2013 (Bethune, 2015).

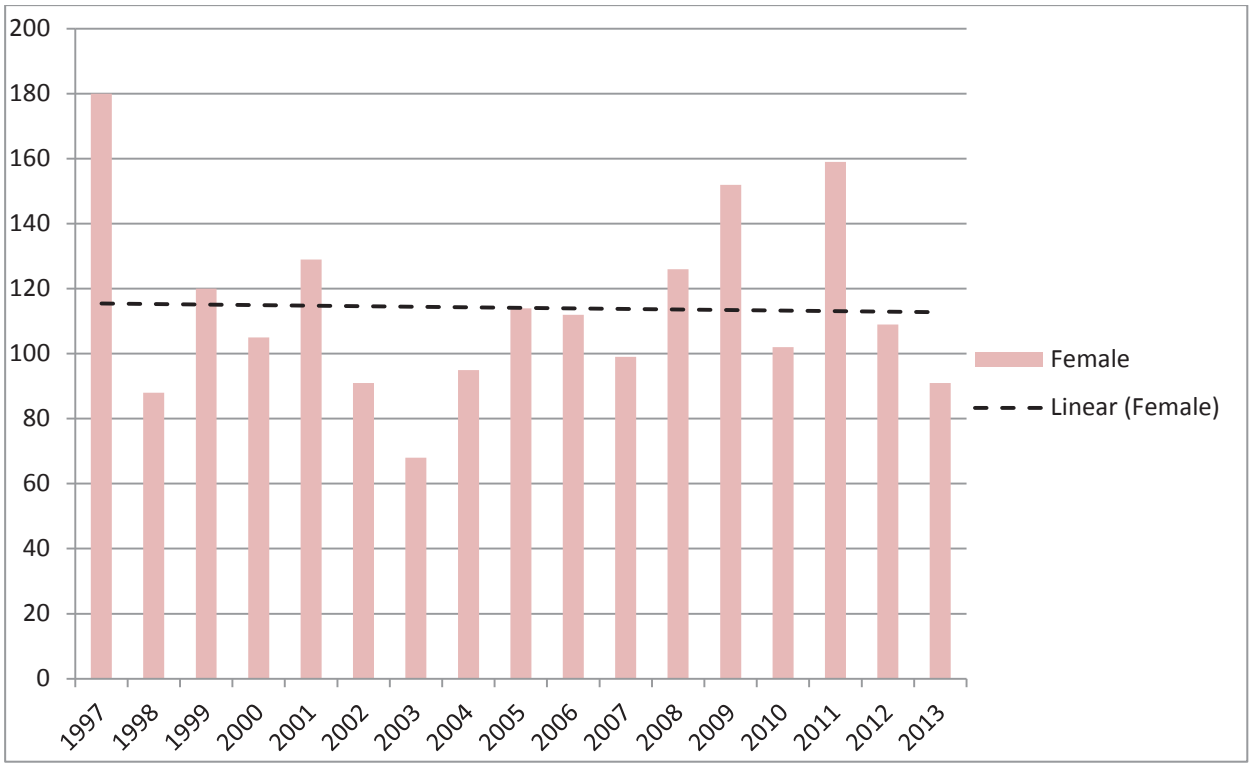

Figure 3 – Estimated female deer harvest in Unit 2 from 1997-2013 (Bethune, 2015).

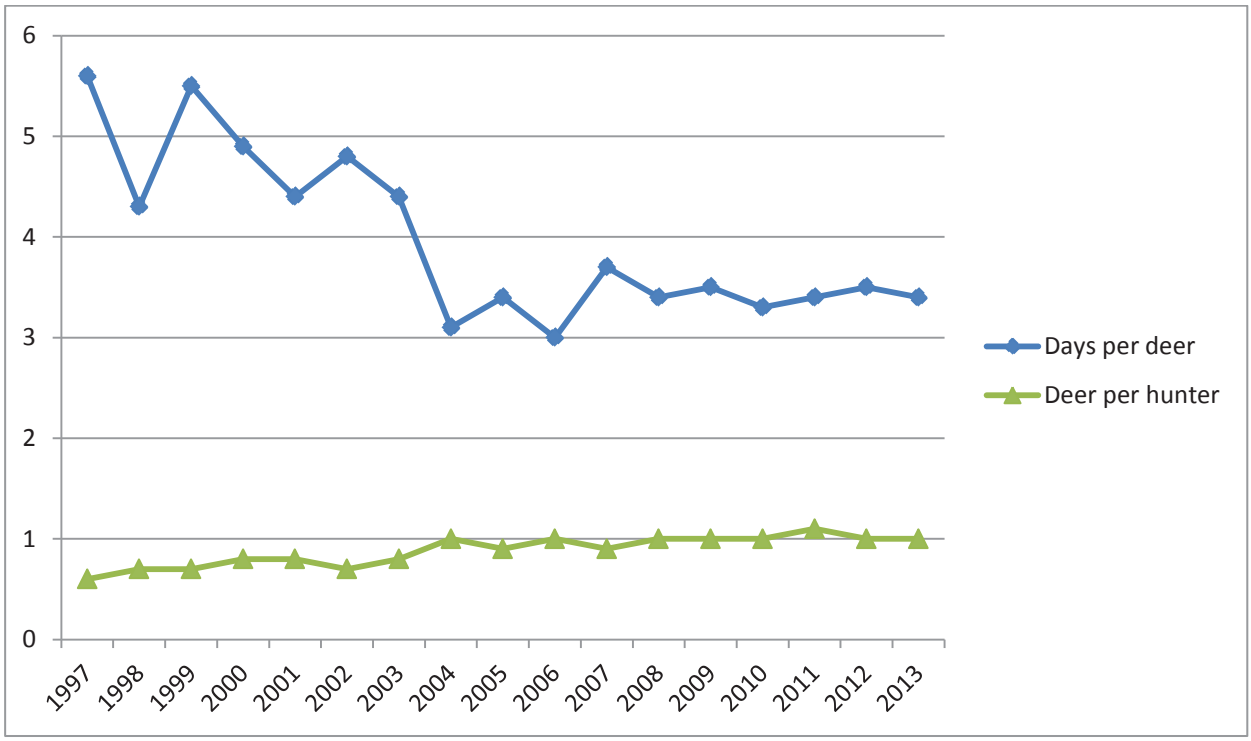

Figure 4 – Average number of days for successful hunters to harvest a deer and the average number of deer harvested per successful hunter in Unit 2 from 1997-2013 (Bethune, 2015).

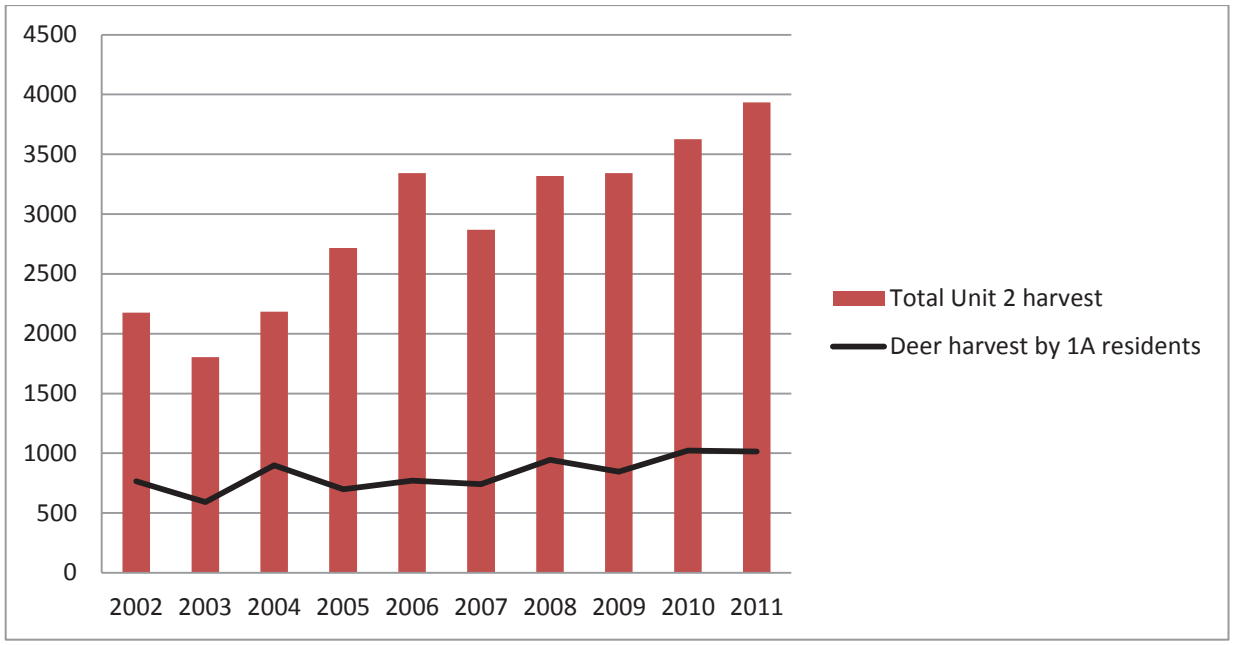

Figure 5 – Deer harvest by hunters residing in Unit 1A compared to total Unit 2 harvest from 2002-2011 (Bethune, 2013).

Effects of the Proposal

The current Unit 2 deer regulation only allows Federal managers to reduce the deer harvest limit from five deer to either four or zero in times of conservation. Adopting the proposal would increase flexibility and options for Federal managers in selecting appropriate harvest limits for conservation of Unit 2 deer should a need arise. The proposal would eliminate confusion in management during times of conservation for the Unit 2 in-season managers and removes unnecessary regulatory language. The proposal would have no effect on non-Federally qualified subsistence users.

OSM CONCLUSION

Support Proposal WP16-05.

Justification

Adopting the proposal is consistent with the flexibility intended in the 2010 delegation of authority from the Board, eliminates any confusion in conservation management of Unit 2 deer and removes regulatory language not needed in Federal regulation.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Southeast Alaska Subsistence Regional Advisory Council

Support WP16-18. The Council supports providing the Federal in-season manager the same management flexibility as the State in-season manager. Adopting the proposal is consistent with the program's obligations as described in ANILCA and retaining the regulation is unnecessary. Removing the only option to restrict deer harvest in Unit 2 for Federal in-season managers is consistent with Board direction as specified in the recent delegation of authority letter and is consistent with management authority for deer provided to the other in-season managers in the Region.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

WP16-06 Executive Summary	
General Description	Proposal WP16–06 requests adding a definition of "Nunatak Bench" to the Unit 5 unit specific regulations. *Submitted by the Southeast Alaska Subsistence Regional Advisory Council.*
Proposed Regulation	**Unit 5** *Unit 5A consists of all drainages east of Yakutat Bay, Disenchantment Bay, and the eastern edge of Hubbard Glacier; and includes the islands of Yakutat and Disenchantment Bays.* ***In Unit 5A, Nunatak Bench is defined as that area east of the Hubbard Glacier, north of Nunatak fiord, and north and east of the East Nunatak Glacier to the Canadian Border.***
OSM Conclusion	**Support**
Southeast Regional Council Recommendation	**Support**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Board action on the proposal.
ADF&G Comments	**Support**
Written Public Comments	**None**

STAFF ANALYSIS
WP16-06

ISSUES

Proposal WP16-06, submitted by the Southeast Alaska Subsistence Regional Advisory Council, requests adding a definition of "Nunatak Bench" to the Unit 5 Federal subsistence regulations.

DISCUSSION

The proponent states that there are 2 regulations in Unit 5 that refer to the Nunatak Bench, but that area is not defined. The definition would read: In unit 5A, Nunatak Bench is defined as that area east of the Hubbard Glacier, north of Nunatak fiord, and north and east of the East Nunatak Glacier to the Canadian Border (Map 1). This definition would be added to the unit descriptor for Unit 5A.

This is a purely administrative proposal and not related to any particular wildlife population. As such, this analysis will not present any biological or harvest analysis.

Existing Federal Regulation

Unit 5

Unit 5A consists of all drainages east of Yakutat Bay, Disenchantment Bay, and the eastern edge of Hubbard Glacier; and includes the islands of Yakutat and Disenchantment Bays.

Proposed Federal Regulation

Unit 5

Unit 5A consists of all drainages east of Yakutat Bay, Disenchantment Bay, and the eastern edge of Hubbard Glacier; and includes the islands of Yakutat and Disenchantment Bays. ***In Unit 5A, Nunatak Bench is defined as that area east of the Hubbard Glacier, north of Nunatak fiord, and north and east of the East Nunatak Glacier to the Canadian Border.***

Existing State Regulation

Unit 5

Unit 5A: all drainages east of Yakutat Bay, Disenchantment Bay, and eastern edge of Hubbard Glacier, and includes the islands of Yakutat and Disenchantment Bays.

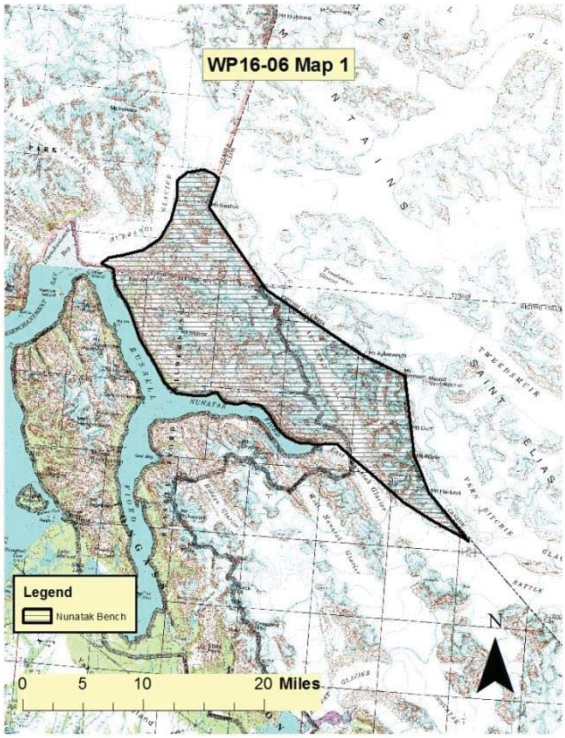
The Nunatak Bench area is referenced and described under the Unit 5A moose regulations as follows:

That portion south of Wrangell-St. Elias National Park, north and east of Russell and Nunatak Fiords, and east of the east side of East Nunatak Glacier to the Canadian border (Nunatak Bench)

Extent of Federal Public Lands

The Nunatak Bench area is contained within Unit 5A. Federal public lands comprise approximately 96% of Unit 5A and consist of 67% U.S. Forest Service (USFS) managed lands and 33% National Park Service (NPS) managed lands.

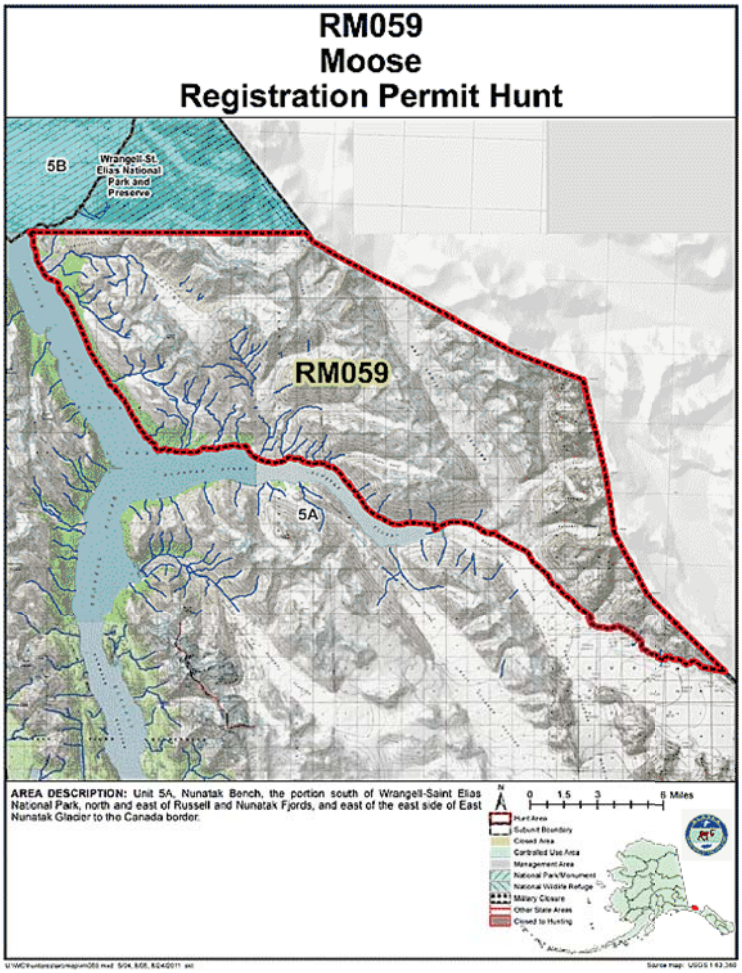
Map 1. The Nunatak Bench area proposed for definition.



Regulatory History

Moose are managed within the proposed area under State registration permits RM059 **(Map 2)**.

Map 2. RM059 Moose registration permit hunt (Nunatak Bench).



Effects of the Proposal

If this proposal is adopted it will define Nunatak Bench, an area currently included in the regulations but without a corresponding description. Including a definition of the Nunatak Bench clarifies the boundaries of the area and eliminates regulatory complexity for Federally qualified subsistence users while providing clarity to law enforcement. The proposed Federal definition would be slightly different than the current State definition , since hunting under State regulation is not allowed in the Wrangell-St Elias National Park. There should not be any effects on harvest of any species in this area; therefore there should be no

conservation concerns associated with adoption of this proposal.

OSM CONCLUSION

Support Proposal WP16-06.

Justification

Adoption of this proposal will provide a definition of an area currently included in regulations but without a corresponding description, allowing Federally qualified subsistence users to better understand harvest area boundaries. Thus, it will enhance regulatory compliance by Federally qualified subsistence users and provide clarity to law enforcement. The purely administrative nature of this proposal in addition to the lack of conservation concerns associated with this proposal further supports its adoption.

SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Southeast Alaska Subsistence Regional Advisory Council

Support WP16-06. The area referenced as "Nunatak Bench" is included in Federal subsistence regulations but there is no definition of that area. Defining the area will provide subsistence users with area boundaries and reduce enforcement concerns. The council considers this housekeeping without any conservation issues. The council recommended the Unit 5 map in the new regulatory booklet clearly depict the boundaries of Nunatak Bench.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

WP16-08 Executive Summary	
General Description	Requests deer harvest ticket #5 be validated out of sequence to record female deer taken in Unit 2. *Submitted by the Southeast Alaska Subsistence Regional Advisory Council*.
Proposed Regulation	**Unit 2 - Deer** *5 deer; however, no more than one may be a female deer. Female deer may be taken only during the period Oct. 15–Dec. 31.* ***Harvest ticket number five must be used when recording the harvest of a female deer, but may be used for recording the harvest of a male deer. Harvest tickets must be used in order except when recording a female deer on tag number five.*** *The harvest limit may be reduced to 4 deer based on conservation concerns. The Federal public lands on Prince of Wales Island, excluding the southeastern portion (lands south of the West Arm of Cholmondeley Sound draining into Cholmondeley Sound or draining eastward into Clarence Strait), are closed to hunting of deer from Aug. 1 to Aug. 15, except by Federally qualified subsistence users hunting under these regulations.* — *July 24–Dec. 31*
OSM Conclusion	**Support**
Southeast Regional Council Recommendation	**Support**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Board action on the proposal.
ADF&G Comments	**Support**
Written Public Comments	**None**

STAFF ANALYSIS
WP16-08

ISSUES

Proposal WP16-08, submitted by the Southeast Alaska Subsistence Regional Advisory Council (Council), requests deer harvest ticket #5 be validated out of sequence to record female deer taken in Unit 2.

DISCUSSION

The proposal was submitted following concerns brought forth to the Council identifying a perceived lack of "accountability" regarding the take of female deer in Unit 2. Federal regulation allows subsistence users to harvest one female deer from Federal public lands after October 15. Concern exists that some subsistence users are harvesting more than one female deer since deer harvest tickets only require that the month and day of harvest be recorded, but not the sex of the deer.

Existing Federal Regulation

§242.6 Licenses, permits, harvest tickets, tags, and reports.

(a) If you wish to take fish and wildlife on public lands for subsistence uses, you must be an eligible rural Alaska resident and:

(1) Possess the pertinent valid Alaska resident hunting and trapping licenses (no license required to take fish or shellfish, but you must be an Alaska resident) unless Federal licenses are required or unless otherwise provided for in subpart D of this part;

(2) Possess and comply with the provisions of any pertinent Federal permits (Federal Subsistence Registration Permit or Federal Designated Harvester Permit) required by subpart D of this part; and

(3) Possess and comply with the provisions of any pertinent permits, harvest tickets, or tags required by the State unless any of these documents or individual provisions in them are superseded by the requirements in subpart D of this part.

Unit 2 - Deer

5 deer; however, no more than one may be a female deer. Female deer may be taken only during the period Oct. 15–Dec. 31. The harvest limit may be reduced to 4 deer based on conservation concerns. The Federal public lands on Prince of Wales Island, excluding the southeastern portion (lands south of the West Arm of Cholmondeley Sound draining into Cholmondeley Sound or draining eastward into	*July 24–Dec. 31*

Clarence Strait), are closed to hunting of deer from Aug. 1 to Aug. 15, except by Federally qualified subsistence users hunting under these regulations

Proposed Federal Regulation

§242.6 Licenses, permits, harvest tickets, tags, and reports.

(a) If you wish to take fish and wildlife on public lands for subsistence uses, you must be an eligible rural Alaska resident and:

(1) Possess the pertinent valid Alaska resident hunting and trapping licenses (no license required to take fish or shellfish, but you must be an Alaska resident) unless Federal licenses are required or unless otherwise provided for in subpart D of this part;

(2) Possess and comply with the provisions of any pertinent Federal permits (Federal Subsistence Registration Permit or Federal Designated Harvester Permit) required by subpart D of this part; and

(3) Possess and comply with the provisions of any pertinent permits, harvest tickets, or tags required by the State unless any of these documents or individual provisions in them are superseded by the requirements in subpart D of this part.

Unit 2 - Deer

5 deer; however, no more than one may be a female deer. Female deer may be taken only during the period Oct. 15–Dec. 31. ***Harvest ticket number five must be used when recording the harvest of a female deer, but may be used for recording the harvest of a male deer. Harvest tickets must be used in order except when recording a female deer on tag number five.*** *The harvest limit may be reduced to 4 deer based on conservation concerns. The Federal public lands on Prince of Wales Island, excluding the southeastern portion (lands south of the West Arm of Cholmondeley Sound draining into Cholmondeley Sound or draining eastward into Clarence Strait), are closed to hunting of deer from Aug. 1 to Aug. 15, except by Federally qualified subsistence users hunting under these regulations.*	*July 24–Dec. 31*

Existing State Regulation

Unit 2 - Deer

Residents and non-residents: Four bucks *Aug. 1 – Dec. 31*

Harvest tickets must be validated in sequential order, and unused tickets must be carried when you hunt.

Extent of Federal Public Lands

Federal public lands comprise approximately 74% of Unit 2, and consists of 73% U.S. Forest Service managed lands and <1% U.S. Fish and Wildlife Service managed lands (**see Unit 2 Map**).

Customary and Traditional Use Determinations

Rural residents of Units 1A, 2, and 3 have a customary and traditional use determination to harvest deer in Unit 2.

Regulatory History

Federal harvest of antlerless deer in Unit 2 began in 1995. Between 1995 and 2002, a Federal permit was required to harvest an antlerless deer. To better quantify subsistence deer harvest during the 2003 & 2004 seasons, four Federal permits were issued to subsistence users (one deer per permit) hunting Federal lands in Unit 2, where one of the four permits could be used for an antlerless deer.

In 2005, the Council submitted WP05-04 requesting that all deer hunters obtain Federal registration permits to hunt in Unit 2 to better track Unit 2 harvest between user groups. Since the Council desired one harvest reporting means, they also submitted a proposal to the Alaska Board of Game to require State issued registration permits for all Unit 2 deer hunters. The Council intended that the Federal Subsistence Board (Board) would only act on WP05-04 should the Alaska Board of Game choose to not act on the proposal before them. With the Alaska Board of Game choosing to not take action, the Council supported the WP05-04 with modification changing the requirements for Unit 2 hunters from a registration permit to using State harvest tickets and the joint State/Federal Unit 2 harvest report as recommended by the Unit 2 Deer Planning Subcommittee (SEASRAC 2005). The Board adopted this proposal as modified under its consensus agenda (FSB 2005).

During 2006, the Craig Community Association submitted WP06-06 to remove the requirement that deer harvest tickets must be used in sequential order and that all unused harvest tickets must be in the hunter's possession while hunting. The Council opposed the proposal to protect deer populations and subsistence hunting opportunity in areas where harvest limits were lower than Unit 2 (SEASRAC 2006a).
Also in 2006, Ernest Stiller submitted WP06-10 requesting validation of harvest ticket #1 when an antlerless deer was taken. The Council opposed this proposal as female deer harvest would be accounted for on the joint harvest report. Although the proponent suggested as an alternative that any other harvest

ticket could be used, the Council commented that requiring tag #1 would force hunters choosing to harvest a female deer to not be able to start hunting until October 15 (SEASRAC 2006b). Prior to final Council action in opposition, one member stated on the record:

> *I'm not in favor of this proposal, but it does identify a loophole which has been there for two or three years now. We have another system that does not address it, so at some point somebody is going to have to address this so we can adequately deal with it so the loophole is closed and everybody is happy. I'm not convinced that there's a high number of people using this loophole, but it's evident that some are. I've had a couple people come to me and pointed this out and it's a concern of theirs. But how to fix it, I don't know.*

The Board rejected both WP06-06 and WP06-10 as a consensus agenda items (FSB 2006).

In 2011, when the Alaska Board of Game adopted Proposal 41 replacing the State mail-out deer survey with a deer harvest report card for Units 1-5, the joint harvest report for Unit 2 was no longer necessary. As a result, the Council submitted WP12-08 to rescinding the requirement that Federally qualified subsistence users complete the joint State/Federal harvest report for Unit 2. The Council unanimously supported the proposal (SEASRAC 2011). The Board adopted this proposal as recommended by the Council (FSB 2012).

Biological Background

Sitka black-tailed deer spend the winter and early spring at low elevation where there is less snow accumulation and forests provide increased foraging opportunities. Fawning occurs in late May and early June as vegetation greens-up, providing abundant forage to meet energetic needs of the lactating doe. Some deer migrate and follow the greening vegetation up to alpine for the summer while others remain at lower elevations. The breeding season, or rut, generally occurs October through November and peaks in late November (ADF&G 2009). Wolves and black bears are the primary predators present in Unit 2 and may reduce deer populations.

Deer populations in southeast Alaska fluctuate and are primarily influenced by winter snow depths (Olson 1979). Deer typically have trouble meeting their energy needs in winter (Hanley and McKendrick 1985, Parker et al. 1999) and winters with long periods of deep snow that restrict the availability of forage can result in deer depleting their energy reserves to the point of starvation (Olson 1979).

Summer nutrition is important for building body reserves for sustaining deer through the winter (Stewart et al. 2005). Few studies have been conducted on summer habitat conditions because winter habitat carrying capacity is generally considered to be the limiting factor for deer in southeast Alaska. However, deer populations at or above habitat carrying capacity are affected by intra-specific competition for food and may enter winter in reduced condition compared to deer populations below carrying capacity (Kie et al. 2003, Stewart et al. 2005). This can result in higher susceptibility to severe winters and lower productivity (Kie et al. 2003, Stewart et al. 2005). In addition, nutritionally stressed does produce smaller and fewer fawns (Olson 1979).

Habitat

Old-growth forests are considered primary deer winter range, in part because the complex canopy cover allows sufficient sunlight through for forage plants to grow but intercepts snow, making it easier for deer to move and forage during winters when deep snow hinders access to other habitats. Some areas of Unit 2 have been impacted by large scale changes in habitat due to timber harvest, while the habitat is largely intact in other areas. Areas with substantial timber harvest are expected to have lower long-term carrying capacity compared to pre-harvest conditions.

Recent population indices

There are no methods to directly count deer in southeast Alaska, so the Alaska Department of Fish and Game (ADF&G) conducts deer pellet surveys as an index to the relative abundance of the deer population. Relating pellet group data to population levels is difficult, however, because factors other than changes in deer population size can affect deer pellet-group density. Snowfall patterns influence the distribution and density of deer pellets from year to year, and snow persisting late into the spring at elevations below 1500 feet limits the ability to consistently survey the same elevation zones among years. In mild winters, deer can access forage in a greater variety of habitats, not all of which are surveyed. Conversely, in severe winters deep snow concentrates deer (McCoy 2011). Brinkman et al. (2013) questioned the value of pellet-group surveys for monitoring population trends due to the variability in the data compared to DNA based counts. Although pellet-group surveys remain the only widely available deer population data, the results should be interpreted with caution. **Figure 2** shows pellet-group survey results for Unit 2. The pellet-group data suggests a generally increasing population trend since a low during the late 1990s and early 2000s. This contrasts with Brinkman et al. (2011) who used a DNA based technique and estimated a 30% population decrease from 2006–2008 which they attributed to three consecutive deep snow winters. Brinkman's study was limited to three watersheds and the population changes during the study varied by watershed. It appears that populations increased after those severe winters and Bethune (2011) felt that by 2010 the Unit 2 deer population was healthy, stable to increasing, and at a 12 to 15 year high. No pellet surveys were completed during 2013 or 2014 (Bethune 2015).

Harvest History

Harvest data reported below are provided by ADF&G (Bethune 2015) and are gathered by several reporting systems including the Region 1 deer survey, Unit 2 deer harvest report, and the State-wide deer harvest report. The Region 1 deer survey is the most consistent report, covering the years 1997–2010 and is based on a sample of hunters. In general, 35% of hunters from each community were sampled each year and while response rates vary by community, the overall response rate across communities was approximately 60% each year. Harvest numbers were extrapolated using expansion factors that are calculated as the total number of harvest tickets issued to a community divided by the total number of survey responses for that community. If response was low from a community, an individual hunter may have a disproportionate effect on the data. As confidence intervals are not available for these data, exact numbers should be considered estimates and used with caution. Trends, however, especially at larger scales, should be fairly accurate. The Unit 2 deer report was in place from 2005–2010 and was instituted

specifically for reporting deer harvest in Unit 2. in 2011, the Statewide deer report replaced the other deer harvest reporting systems and requires reporting of harvest by all deer hunters. Different expansion factors are used for the various data sets so that total harvest estimates between years are comparable (McCoy 2011). Estimated female deer harvest (**Figure 3**) averages 4.2% of the total estimated harvest for Unit 2 (**Figure 4**).

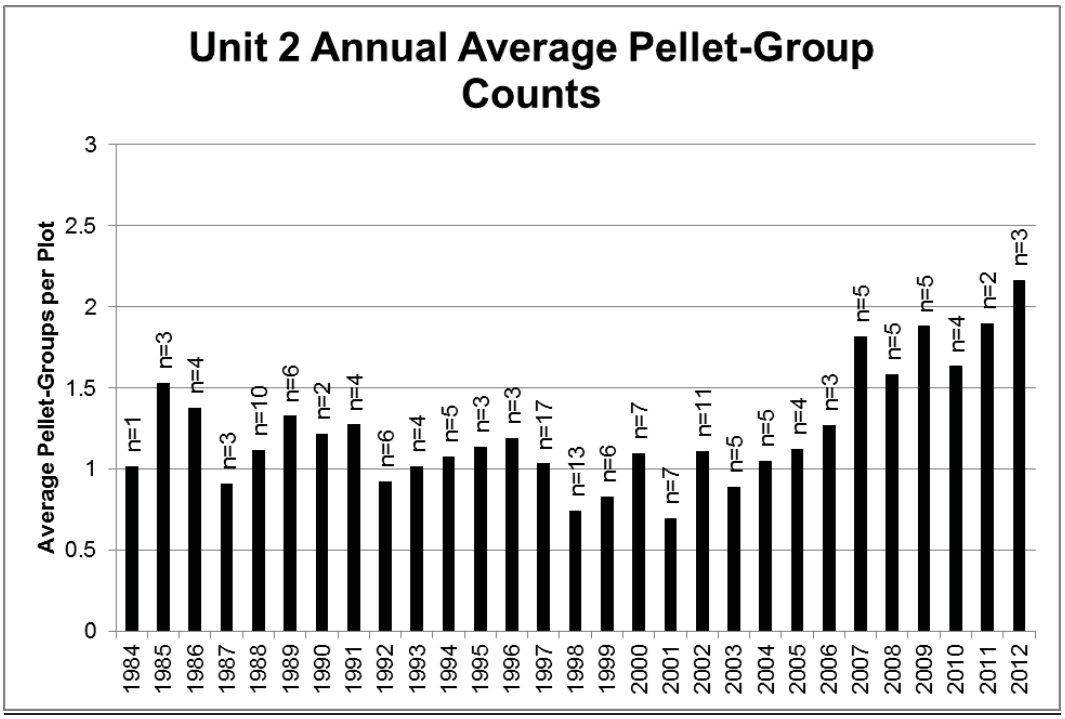


Figure 2 – Average pellet-group counts for all of Unit 2 since transects began in 1984 (McCoy 2011). Data labels represent the number of watersheds surveyed that year.

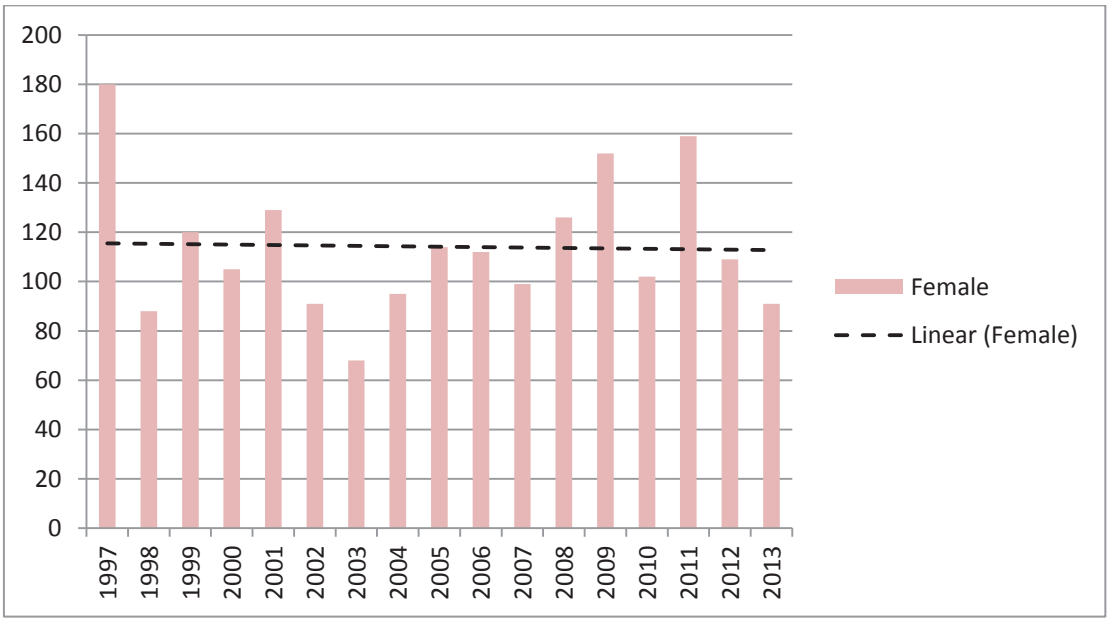


Figure 3 – Estimated female deer harvest in Unit 2 from 1997-2013 (Bethune, 2015).

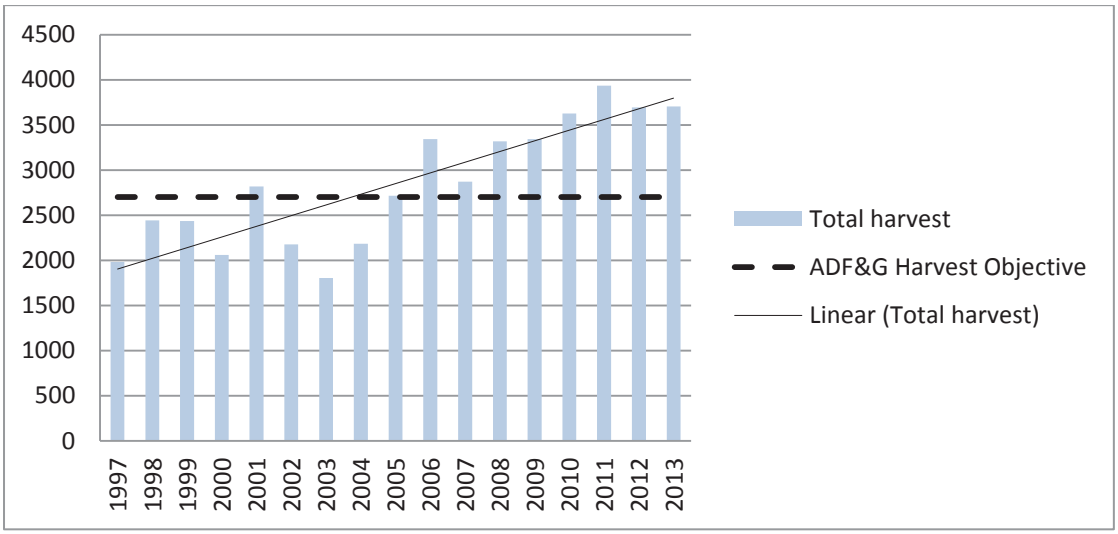


Figure 4 – Estimated deer harvest in Unit 2 from 1997-2013 (Bethune, 2015).

Effects of the Proposal

State regulation requires that harvest tickets for deer be used in sequence and Federal hunters are bound by State harvest recording requirements unless otherwise specified in Federal regulation. This proposal would provide that exception for Federally qualified subsistence users recording the harvest of female deer out of sequence in Unit 2 and provide better control of the female deer harvest. Requiring the use of a specific harvest ticket for the harvest of a female deer should not cause undue burden for Federally qualified subsistence users and may assist law enforcement in monitoring the female deer harvest.

OSM CONCLUSION

Support Proposal WP16-08.

Justification

This proposal may provide for better tracking of female deer harvested in Unit 2. Requiring the use of a specific harvest ticket for the harvest of a female deer should not cause undue burden for Federally qualified subsistence users and may assist law enforcement in monitoring the female deer harvest.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Southeast Alaska Subsistence Regional Advisory Council

Support WP16-08. There was not a unanimous opinion regarding this proposal. The minority reminded the Council there was no real evidence that there is misuse of the current deer tagging system, there is no evidence that this regulation will be effective, and residents of Unit 2 that hunt in other units will be subject to unnecessary enforcement actions. The majority concluded this regulatory change was necessary to improve enforcement of the female deer harvest regulations as it allows the harvest of female deer to be validated. The regulation will not restrict subsistence use of deer and will not contribute to a conservation concern. The council is confident that hunters will not be subject to enforcement action when hunting in other units if tag number 5 has been used in Unit 2.

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INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

WP16–12 Executive Summary	
General Description	Proposal WP16–12, requests an increase in the harvest limit for deer in Unit 6 from 4 to 5. *Submitted by Milo Burcham, Cordova Ranger District, Chugach National Forest.*
Proposed Regulation	**Unit 6—Deer** ***5*** ~~*4*~~*-deer; however antlerless deer may be taken only from Oct. 1–Dec. 31.* *Aug. 1–Dec. 31*
OSM Conclusion	**Support**
Southcentral Regional Advisory Council Recommendation	**Support**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Support**
Written Public Comments	**None**

STAFF ANALYSIS
WP16–12

ISSUES

Proposal WP16–12, submitted by Milo Burcham, Cordova Ranger District, Chugach National Forest requests an increase in the harvest limit in Unit 6 from 4 to 5 deer.

DISCUSSION

The proponent states that increasing the harvest limit from 4 to 5 deer in Unit 6 will reduce regulatory complexity for Federally qualified subsistence users. Additionally, the proponent believes that the lower Federal harvest limit has not resulted in decreased opportunity because rural residents have been able to harvest up to 5 deer under State regulations.

Proposal WP16-11, which requests a buck only season in Unit 6D from Jan. 1–Jan. 31 with a limit of 1 buck was also submitted for this regulatory cycle.

Existing Federal Regulation

Unit 6—Deer

4 deer; however, antlerless deer may be taken only from Oct. 1–Dec. 31	*Aug. 1–Dec. 31*

Proposed Federal Regulation

Unit 6—Deer

5 *~~4~~ deer; however antlerless deer may be taken only from Oct. 1–Dec. 31.*	*Aug. 1–Dec. 31*

Existing State Regulation

Unit 6 – Deer

Residents–5 deer total	*Bucks*	*Aug. 1–Sept. 30*
	Any deer	*Oct.1–Dec. 31*
Nonresidents–4 deer total	*Bucks*	*Aug. 1–Sept. 30*

Any deer	*Oct. 1–Dec. 31*

Extent of Federal Public Lands

Federal public lands comprise approximately 71% of Unit 6 and consist of 49.2% U.S. Forest Service managed lands, 13.8% Bureau of Land Management managed lands, and 7.6% National Park Service managed lands (See **Unit 6 Map**).

Customary and Traditional Use Determinations

The Federal Subsistence Board (Board) has not made a customary and traditional use determination for deer in Unit 6; therefore, all rural residents of Alaska may harvest deer in this Unit.

Regulatory History

In 1990, the Board adopted subsistence regulations for deer hunting in Unit 6. The initial Federal deer season was Aug. 1–Dec. 31 with a limit of 5 deer, but antlerless deer could only be taken from Sept. 15–Dec. 31.

In 1991, Proposal 118 was submitted by the Chugach National Forest, Forest Supervisor to reduce the harvest limit from 5 to 4 deer and shorten the antlerless deer season from Sept. 15–Dec. 31 to Nov. 1–Dec. 31 in Units 6C and 6D. The proposal was submitted due to concerns of population declines following heavy snow years. The Board adopted the proposal with modification to extend the regulatory changes to all of Unit 6 to match recent changes to State regulations (FWS 1991).

In 1996, the Board adopted Proposal 21, which extended the antlerless season from Nov. 1–Dec. 31 to Oct. 1–Dec. 31 in Unit 6 to increase opportunity for Federally qualified subsistence users (FWS 1996).

In 2008, the Board adopted Proposals WP08–08 and WP08–09 to allow for the take of five additional deer in Unit 6D by Chenega and Tatitlik to be used during annual memorial event at Old Chenega village site and during Cultural Heritage Week, respectively (FWS 2008a, 2008b).

The State closed the deer season to residents and nonresidents on Dec. 7, 2012 via Emergency Order. The closure was due to heavy snowfall that concentrated deer on and near beaches, which likely increased the population's vulnerability to harvest. The Copper River/Prince William Sound Fish and Game Advisory Committee (Advisory Committee) and Alaska Department of Fish and Game (ADF&G) agreed the deer population in Unit 6 should be protected from overharvest following the winter of 2011/2012, when the population experienced an estimated overwinter mortality of 50%–70% (Westing 2013). The Advisory Committee recommended that both the State and Federal deer seasons be closed on December 7 and that the Cordova District Ranger be delegated the authority to close the season when there are conservation concerns (Copper River/Prince William Sound Fish and Game Advisory Committee, 2012).

In 2012, the Board approved Emergency Special Action WSA12-10 which shortened the antlerless deer season from Oct. 1–Dec. 31 to Oct. 1–Dec. 7 with modification (OSM 2012). The modification gave the

Cordova District Ranger the ability to close the season if further conservation concerns arose. Federally qualified subsistence users were still able to harvest antlered deer until December 31, 2012.

In 2013, the State issued an Emergency Order to close the resident and nonresident antlerless season in Unit 6 at 11:59 p.m. on October 31, 2013. Subsequently, the Board closed Federal public lands in Unit 6 (WSA13-07) to the harvest of antlerless deer by Federally qualified subsistence users, effective at 11:59 p.m. on Nov. 1, 2013 (FWS 2013). Both these actions were taken to reduce hunting mortality of female deer and aid in population recovery following the severe winter of 2011/2012.

The Cordova District Ranger of the Chugach National Forest has delegated authority to set Federal subsistence harvest quotas, close, reopen or adjust seasons and adjust harvest and possession limits for moose and deer, to include the sex that may be harvested in Unit 6. In addition, the Cordova District Ranger may close Federal public lands to the take of moose and deer by all users.

Biological Background

Sitka black-tailed deer were introduced to Unit 6 between 1916 and 1923 (Paul 2009). The deer population rapidly increased and expanded throughout Prince William Sound (Reynolds 1979). Deer are at the extreme northern limit of their range in Unit 6; however, the population has persisted due to the mild, maritime climate conditions in Prince William Sound (Shishido 1986 *referenced in* Crowley 2011).

Sitka black-tailed deer occupy a variety of habitats throughout the year, from low elevation forests and beaches to alpine habitats (Schoen and Kirchhoff 2007). Deer are more dispersed during summer, but snow depth restricts their winter distribution to lower elevations (Schoen and Kirchhoff 2007). The breeding season begins in late October and peaks in late November (Schoen and Kirchhoff 2007). Throughout the species' range, bucks generally shed their antlers between mid-December and mid-April (Anderson and Wallmo 1984), but in British Columbia most antlers were dropped between January and March (British Columbia Ministry of Environment, Lands and Parks 2000).

The deer population in Prince William Sound is limited by snow depth and duration. Heavy snow events have caused multiple major winter mortality events in the area (Reynolds 1979, Crowley 2011). Populations typically increase and then disperse after a series of mild winters, but decline following severe winters (Reynolds 1979, Crowley 2011). Deep snow and high harvest during the winter of 2011/2012 resulted in an estimated mortality of 50%–70% of the deer population in Prince William Sound (Westing 2013, Westing 2015, pers. comm.). Deep snow concentrates deer along beach fringes, which can be overgrazed if deer are forced to remain there for an extended period of time, and can result in starvation (Reynolds 1979). Deer are also more vulnerable to harvest while concentrated on the beaches, and harvesting under these circumstances could have a significant impact on the population. For example, the high harvest during 2011/2012 coincided with the severe winter conditions (Westing 2015, pers. comm.) However, deep snow events concentrating deer on beaches during the hunting season are not common (Reynolds 1979, Crowley 2011). Predation is not considered significant for deer in Prince William Sound (Reynolds 1979).

The State has set a population objective of 24,000–28,000 deer with an annual harvest objective of 2,200–3,000 deer in Unit 6; however, currently there are no means of estimating the abundance of deer in the unit (Crowley 2011, Westing 2013). Instead, ADF&G and the Chugach National Forest use deer-pellet surveys as an index of the relative density of deer. The mean number of deer pellet groups observed declined from 2010to 2013 (**Figure 1**), consistent with a decline in deer density (Westing 2013). However, deer pellet surveys are not sensitive to previous years' winter mortality events, because deer deposit pellets through most of the winter until succumbing to starvation in the spring (Burcham 2013, pers. comm.; Crowley 2012, pers. comm.). Thus, there is a one year lag between mortality events and decrease in deer pellet density. Deer pellet counts conducted in 2012 and 2013 by ADF&G and the U.S. Forest

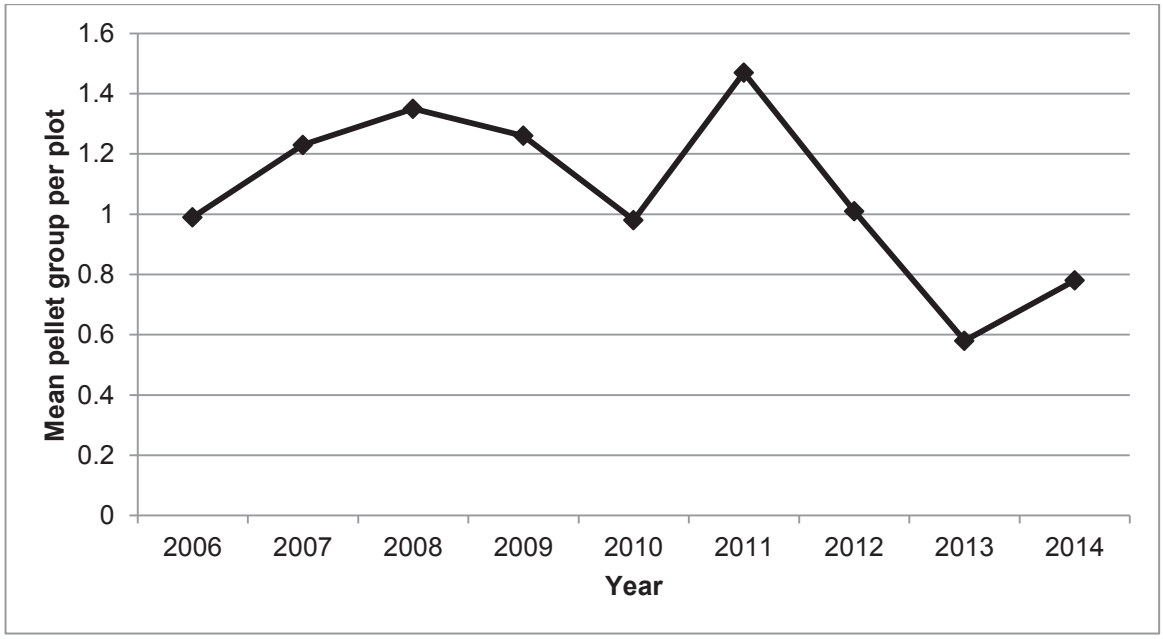

Figure 1. Deer pellet density observed along transects in Unit 6. Deer pellet density provides an index of the relative density of deer in the unit (Crowley 2011; Crowley 2012, pers. comm., Westing 2013, 2014, Westing pers. comm. 2015).

Service corroborated the 50-70% mortality during the severe winter in 2011/2012 (Crowley 2011, Westing 2013). The 2012/2013 mean number of pellet groups per plot (0.58) was the lowest on recorded by ADF&G since 1995 and represented a 61% decline from 2010/2011. Biologists also found evidence of the mortality event during the deer pellet surveys conducted in June 2012. Ten deer carcasses were encountered during transects, whereas zero or one are encountered during normal years (Burcham 2013, pers. comm.). Although differences in topography and snow retention among the islands can result in local variation in deer densities, declines in deer pellet densities were observed on all islands and in nearly every location during the 2013 survey (Figures 1-3 and Table 1, Westing 2013).

The mean number of pellet groups per plot in 2014 (0.78) increased slightly from 2013, but was still low suggesting the deer population still remains at relatively low levels despite two relatively mild winters (Westing 2014). The most recent deer pellet counts may have been influenced by a relatively warm winter which may have allowed the deer to remain dispersed at higher elevations, with fewer deer concentrated at

lower elevations where pellet transects are conducted. No carcasses were found in 2013 and hunters reported that deer were in good condition (Westing 2014).

Harvest History

Deer are an important subsistence resource for residents of Unit 6. A community survey in 2003 showed that deer were used by more households in Chenega Bay, Cordova, and Tatitlek than any other large mammal species, with a minimum of 65% of households estimated using deer in each community (**Table 1**). In addition, deer were the primary large mammal harvested by households in each community, whereas other large mammal resources were more likely shared from individuals within or outside of the communities (Fall 2006) (**Table 1**). Moose and other large mammals are also an important source of food for the three communities. For example, despite the much higher number of deer than moose harvested by Cordova residents, the estimated amount of moose meat harvested (59,723 pounds) was higher than that of deer (58,501 pounds) in 2003 (Fall 2006). A large proportion of the yearly take of deer by the residents of Cordova, the largest of the three communities, occurs on Hawkins Island, which is in relatively close proximity to town.

Prior to 2011, deer harvest in Unit 6 was estimated from harvest questionnaires mailed to a sample of hunters who were issued State harvest tickets. It is difficult to identify deer harvested by Federally qualified subsistence users, as results are categorized by residents of Unit 6 (local residents), residents outside of Unit 6 (nonlocal residents), and nonresidents. Thus, the local and nonlocal resident categories include both Federally qualified subsistence users and non-Federally qualified subsistence users. However, beginning in 2011/2012, harvest reports were given to each user issued a State harvest ticket, which should improve reporting and relates each user to a community. The interim harvest report shows that approximately 45% of the reported resident harvest was by local Federally qualified subsistence users (residents of Cordova, Chenega Bay, Tatitlek, and Whittier), with 50% of the harvest by non-Federally qualified Alaska residents, and 5% by nonlocal Federally qualified subsistence users (ADF&G 2012). Approximately 98% of the reported harvest by local Federally qualified subsistence users was by Cordova residents (ADF&G 2012), which was similar to the results of the household survey conducted in 2003 (95% of reported harvest) (**Table 1**). The majority of harvest by non-Federally qualified subsistence users was by Anchorage residents (approximately 38% of reported harvest), and 5% of the reported harvest was associated with Valdez residents, which is a nonrural community in Unit 6 (ADF&G 2012). Local and nonlocal residents were the primary users (79%–97% of the estimated hunters) and accounted for 82%–98% of the estimated harvest between 2006/2007 and 2013/2014 (**Table 2**). Local residents of Unit 6, including Valdez residents, represented an estimated 24% to 30% of deer hunters in Unit 6 between 2006/2007 and 2010/2011, but accounted for 35% to 54% of the reported harvest (**Table 2**). In most years, rural residents are able to harvest up to 5 deer under the State regulations (Burcham 2015, pers. comm.).

From 2006 to 2012, the sex ratio of the harvest was approximately 62% male and 38% female (Crowley 2011, Westing 2013). Harvest reports between 2005/2006 and 2009/2010 showed that the majority of the annual deer harvest occurred during October (19%–35%), November (25%–35%), and December (18%–24%) (Crowley 2011, Westing 2013). Harvest chronology is similar to previous years, as users often prefer hunting after snow has moved deer to lower elevations and because the rut, which occurs in

November, increases the harvest vulnerability of bucks (Crowley 2011, Westing 2013). Deer were primarily harvested by hunters using boats (76%–86%) as their primary transportation method (Crowley 2011, Westing 2013).

Table 1. Household harvest survey data from communities in Prince William Sound, Alaska in 2003. Households were classified as having used, attempted to harvest, or harvested resources if any member of that household participated in that category. The percentage of households that used a resource included those that harvested and gave it away, acquired the resource from another user, and included all non-commercial uses of the resource (Fall 2006).

		Percentage (%) of households			
Community	**Species**	**Used**	**Attempted**	**Harvested**	**Total animals harvested**
Chenega Bay	Deer	81	75	56	50
	Moose	44	6	6	1
	Goat	25	13	6	1
	Sheep	13	6	0	0
	Black bear	13	0	0	0
Cordova	Deer	65	44	39	1354
	Moose	51	14	12	111
	Goat	11	3	1	16
	Sheep	1	1	1	8
	Black bear	10	8	3	35
Tatitlek	Deer	100	56	28	30
	Moose	32	0	0	0
	Goat	40	12	4	1
	Sheep	4	0	0	0
	Black bear	20	8	4	1

Table 2. Unit 6 deer harvest 2006-2010 (Crowley 2012, pers. comm., Westing 2013, OSM 2015, Westing 2015, pers. comm.). Harvest data was recorded via the State's deer hunter questionnaire survey until 2010/2011 and via harvest ticket beginning in 2011/2012 (Westing 2015, pers. comm.).

	Local resident			Nonlocal resident			Nonresident	
Year	Hunters	Deer harvested		Hunters	Deer harvested		Hunters	Deer harvested
2006/2007	451	992		1,145	825		42	31
2007/2008	356	468		842	569		312	231
2008/2009	420	662		1,114	1,164		68	62
2009/2010	355	607		851	945		83	29
2010/2011	352	805		775	778		60	29
2011/2012[a]	455	1207		909	1,486		49	47
2012/2013	196	154		616	370		50	13
2013/2014	205	222		515	346		38	3

[a] Harvest data recorded via harvest ticket.

Effects of the Proposal

If this proposal is adopted, it would change the Federal harvest limit from 4 to 5 deer in Unit 6, providing additional harvest opportunity for Federally qualified subsistence users under Federal regulations. This proposal could reduce regulatory complexity for the Federally qualified subsistence users if special actions are implemented in times of shortage, as well as simplify monitoring and enforcement of regulations for Federal and State managers.

Although the deer population in Unit 6 seems to be increasing, it remains low and has not reached full recovery. Increasing the harvest limit from 4 to 5 deer is not expected to negatively affect the population as resident hunters, who constitute the vast majority of users, are already allowed 5 deer under State regulations.

OSM CONCLUSION

Support Proposal WP16–12.

Justification

It is desirable to reduce regulatory complexity for Federally qualified subsistence users when possible by paralleling Federal regulations with State regulations for the harvest of wildlife, so long as it does not contradict the mandates and objectives of Title VIII of ANILCA. In this case, modifying the Federal harvest limit from 4 to a 5 deer in Unit 6 to parallel State regulations will reduce regulatory complexity for Federally qualified subsistence users on Federal public lands. The proposed change is not expected to have an adverse effect on the deer population which, although low, is increasing at this time even when most resident hunters are taking up to 5 deer under the State regulations. .

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Southcentral Subsistence Regional Advisory Council

Support WP16-12. The proposal will parallel the State of Alaska hunting regulations to increase the harvest of deer in Unit 6 from 4 deer to 5.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

WP16–14 Executive Summary	
General Description	Proposal WP16–14 requests extending the Federal mountain goat season in Unit 6D from Aug.20–Jan. 31 to Aug. 20–Feb. 28. *Submitted by Andy McLaughlin of Chenega Bay.*
Proposed Regulation	**Unit 6D—Mountain goat** *Unit 6D (subareas RG242, RG243, RG244, RG245, RG249, RG266, and RG252 only) – 1 goat by Federal registration permit only. In each of the Unit 6D subareas, goat seasons will be closed by the Cordova District Ranger when harvest limits for that subarea are reached. Harvest quotas are as follows: RG242 – 2 goat, RG243 – 4 goats, RG244 and RG245 combined – 2 goats, RG249 – 4 goats, RG266 – 4 goats, RG252 – 1 goat.* — *Aug. 20 –* ***Feb. 28*** *~~Jan. 31~~*
OSM Conclusion	**Support**
Southcentral Regional Advisory Council Recommendation	**Support**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Neutral**
Written Public Comments	**None**

STAFF ANALYSIS
WP16-14

ISSUES

Proposal WP16-14, submitted by Andy McLaughlin, requests extending the Federal mountain goat season in Unit 6D from Aug.20–Jan. 31 to Aug. 20–Feb. 28.

DISCUSSION

The proponent requests extension of the Federal season for mountain goats in Unit 6D due to the lack of snow and rough seas, which makes hunting areas inaccessible to Federally qualified subsistence users. Mountain goats have remained at higher elevations during mild winters when there is little snowfall. In years with normal to heavy snowfall, mountain goats typically move down to lower elevations where they are more available for harvest.

Existing Federal Regulation

Unit 6D—Mountain goat

Unit 6D (subareas RG242, RG243, RG244, RG245, RG249, RG266, and RG252 only) – 1 goat by Federal registration permit only. In each of the Unit 6D subareas, goat seasons will be closed by the Cordova District Ranger when harvest limits for that subarea are reached. Harvest quotas are as follows: RG242 – 2 goat, RG243 – 4 goats, RG244 and RG245 combined – 2 goats, RG249 – 4 goats, RG266 – 4 goats, RG252 – 1 goat.	*Aug. 20 – Jan. 31*

Proposed Federal Regulation

Unit 6D—Mountain goat

Unit 6D (subareas RG242, RG243, RG244, RG245, RG249, RG266, and RG252 only) – 1 goat by Federal registration permit only. In each of the Unit 6D subareas, goat seasons will be closed by the Cordova District Ranger when harvest limits for that subarea are reached. Harvest quotas are as follows: RG242 – 2 goat, RG243 – 4 goats, RG244 and RG245 combined – 2 goats, RG249 – 4 goats, RG266 – 4	*Aug. 20 –* ***Feb. 28*** *~~Jan. 31~~*

goats, RG252 – 1 goat.

Existing State Regulation

Unit 6D—Mountain goat

Residents and Nonresidents: One goat by permit available online at http://hunt.alaska.gov or in person in Anchorage, Cordova, Fairbanks, Glennallen, Palmer, or Soldotna beginning Aug 6	*RG242-RG266*	*Sept. 15 – Jan. 31*
One goat by permit available in Cordova beginning Sept 18	*RG248*	*may be announced*

Extent of Federal Public Lands

Federal public lands comprise approximately 67% of Unit 6D and consist of 64.8% U.S. Forest Service managed lands and 1.8% Bureau of Land Management managed lands (**See Unit 6 Map**).

Customary and Traditional Use Determinations

Rural residents of Units 6C and 6D have a customary and traditional use determination to harvest mountain goats in Units 6C and 6D.

Regulatory History

Mountain goats in Unit 6D were managed solely by State until 1990. Long seasons with bag limits of 1 or 2 goats were in effect from statehood through 1975. The bag limit was reduced to one goat in 1976, and the first permit hunt was established in 1980. By 1986, the present system of registration hunts began (Crowley 2010). Management guidelines were clarified in 1993 when a harvest tracking strategy was fully implemented (Caughley 1977, Smith 1984). Implementation of the strategy provided the framework necessary to guide harvest decisions, such as setting harvest quotas for subareas within hunt units.

Federal subsistence management of mountain goats in Unit 6D began in 1990 with a Special Action approved by the Federal Subsistence Board (Board) (Crowley 2006). Hunting was open to 1 goat by Federal registration permit and restricted to subareas 822 (now RG242), 823 (now RG243), 824 (now RG244), 828 (now RG245), and 879 (now RG252) (**Map 1**). Federal public lands in 823 (now RG243) and 824 (now RG244) were closed to non-Federally qualified users. Federal subsistence season would close when the harvest level for each subarea was reached.

The Board passed modified Proposal P92-026 in 1992, which added subareas 829 (now RG249) and 830 (now RG266), and removed the Federal public land closures in in 823 (now RG243) and 824 (now RG244) (FWS 1992).

The Board adopted Proposal P93-33 in 1993, closing the Federal subsistence goat season in Subarea 828

(now RG245) and closing Federal public lands to non-Federally qualified subsistence users in the same subarea. In order to facilitate the closure of the season when harvest limits were met, the Board also established a harvest quotas for each of the subareas, resulting in a total harvest limit of 13 goats available exclusively to Federally qualified subsistence users within Unit 6D (FWS 1993).

In 1995, the Board adopted Proposal P95-12, closing the Federal goat season in RG243 due to conservation concerns, and reducing the total goat harvest limit in Unit 6D to 11 goats (FWS 1995).

In response to increasing mountain goat populations, the Board adopted Proposal P00-14 in 2000, lifting the closure in RG243 for Federally qualified subsistence users, and establishing larger harvest quotas in subareas RG243 and RG249, resulting in the current Federal subsistence harvest quota of 17 goats in Unit 6D (FWS 2000).

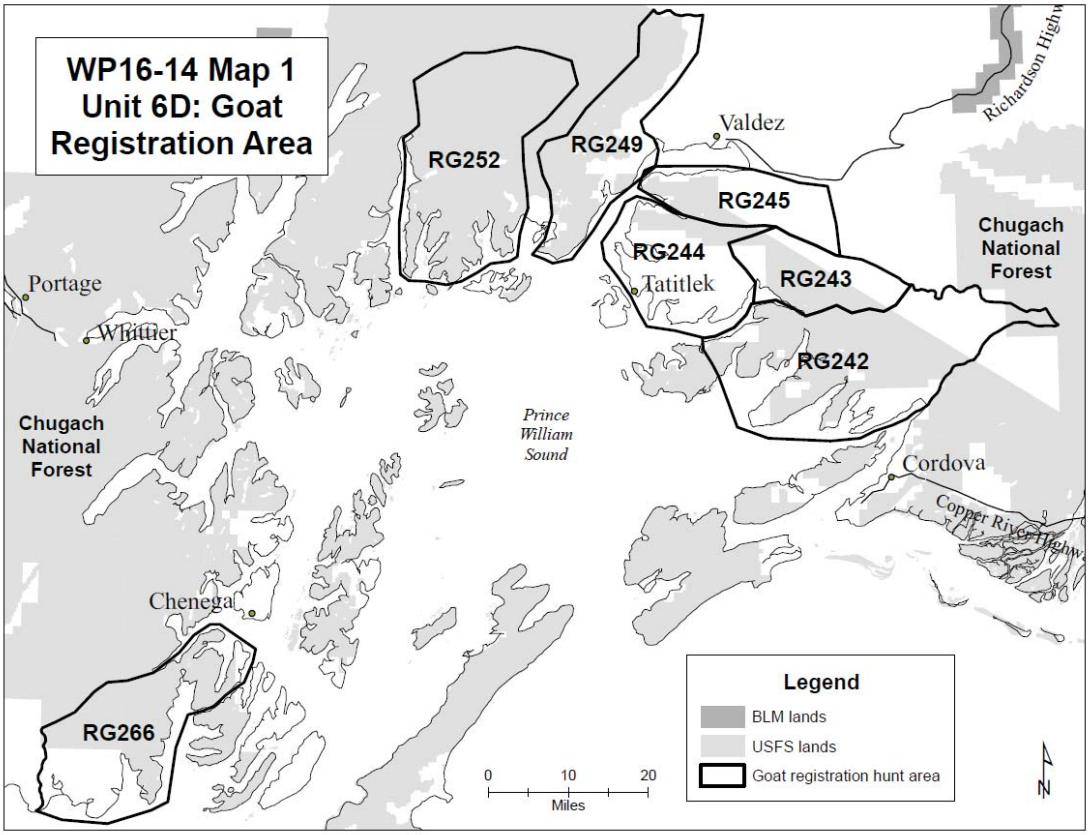
The Board adopted Proposal WP06-13 in 2006, opening Federal public lands within RG245 to non-Federally qualified users (FWS 2006) in response to increase in the goat populations within subarea RG245 (**Map 1**).

In 2014, the Board adopted WP14-06, which combined the harvest quota of 2 goats between subareas RG244 and RG245 (FWS 2014). Although the proponent requested the closure of the Federal mountain goat season in Unit 6D subarea RG244, where little Federal public land exists, and to lift the closure of Federal public land in subarea RG245, the Board decided to retain RG244 because land in RG244 are closer to the Village of Tatitlek (**Map 1**).

Biological Background

Mountain goats are endemic to the mainland in Unit 6 and to Bainbridge, Culross, and Knight Islands (Crowley 2010). Mountain goat populations in Unit 6 have fluctuated widely over the past 60 years. Populations in Unit 6D were reduced in Port Wells in the 1940s and Puget Bay in the 1950s by military personnel stationed in Whittier and Seward, respectively (Nowlin 1996, Crowley 2006).

Nowlin (1996), using count areas established by Griese (1988a), established a tracking harvest strategy which: 1) improved aerial surveys to obtain trend information; 2) established registration hunts to monitor distribution and harvest: and 3) developed a minimum population objective of 2,400 goats for Unit 6. Mountain goat populations and harvest have been actively monitored by Alaska Department of the Fish and Game (ADF&G) since the early 1970s (Reynolds 1981, Crowley 2012). Populations remained low in the 1970s and 1980s due to hunter harvest (Griese 1988a), predation (Griese 1988b) and significant natural mortality during severe winters in 1971 and 1975 (Crowley 2010). By 1987, the estimated population in Unit 6 declined to 3,400 goats and subsequently to 3,000 goats by 1994. In response to declining populations and low recruitment, harvest was reduced and hunting of small groups of goats (<60) was prohibited during the early to mid-1990s (Nowlin 1996). As a result of these conservation measures the population rebounded to approximately 4,000 goats by 1999 and has since remained between 3,800 and 4,200 goats.



Harvest History

Although mountain goats are distributed throughout Unit 6, the greatest numbers occur in Unit 6D. An average of 50 mountain goats were harvested annually per year between 2005-2013 from Unit 6D, which was about 2% of the estimated population (2005–2010) and approximately 70% of the total annual harvest in Unit 6 (Crowley 2012) (**Table 1**). Although the State sets harvest rates for specific hunts at 3-5%, of the estimated population some areas receive very little hunting pressure. Local residents from Unit 6D harvested approximately 3% of the mountain goats annually, compared to nonlocal residents, who accounted for approximately 43% of harvest (**Table 1**). A majority of the mountain goats harvested between 2006 and 2013 were taken in September and October (Crowley 2012, Westing 2015). In Tatitlek and Chenega Bay, goat hunting is considered a subsistence activity and is well integrated into the local culture. In these villages there is prestige associated with a successful goat hunt, and the meat is widely shared in a systematic manner (Simeone 2008).

Table 1. Mountain goat harvest, residency, and population estimates in Unit 6D, 2005/2006 to 2013/2014 (Crowley 2006, 2010, 2012, Westing 2015, FWS 2015).

Regulatory Year	M	F	Unk	Total	Local Resident (%)[a]	Nonlocal Resident (%)	Nonresident (%)	Population Estimate
2005/2006	48	9	1	58	2 (3)	25 (43)	31 (53)	2,476
2006/2007	35	13	0	48	3 (6)	18 (38)	27 (56)	2,479
2007/2008	42	9	1	52	1 (2)	27 (52)	24 (46)	2,479
2008/2009	31	8	2	41	3 (7)	14 (34)	24 (59)	2,411
2009/2010	40	11	2	53	0	25 (47)	28 (53)	_
2010/2011	39	9	0	48	2 (4)	22 (46)	24 (50)	2,228
2011/2012	49	11	0	60	5 (8)	25 (42)	30 (50)	
2012/2013	29	9	1	39	0	16 (41)	23 (59)	
2013/2014	41	9	0	50	0	20 (40)	30 (60)	
Mean	39	10	1	50	2 (3)	21 (43)	27 (54)	

[a] Local means residents of Unit 6D from Cordova, Tatitlek, Chenega Bay, and Main Bay Hatchery

Effects of the Proposal

If this proposal is adopted, it would add 28 days to the Federal harvest season for mountain goats in Unit 6D, which would increase the hunting opportunity for Federally qualified subsistence users. Since the historic harvest by local residents in Unit 6D (**Table 1**) is small, the effect on mountain goat populations from an extended harvest season by local residents is likely to be minimal. The harvest is still controlled by the quota so assuming accurate reporting of the total harvest the number of goats taken should not exceed the small Federal quota.

OSM CONCLUSION

Support Proposal WP16-14.

Justification

Adopting this proposal would provide more opportunity for Federally qualified subsistence users to harvest mountain goats. It is unlikely that an overharvest of the mountain goat population will occur

given that there is quota and the likelihood of many mountain goats being taken in February is small.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Southcentral Subsistence Regional Advisory Council

Support WP16-14. Extending the season will benefit subsistence users and no conservation concern exists on the current goat population.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

WP16–16 Executive Summary	
General Description	Proposal WP16–16 requests that Federal public lands within the Paxson Closed Area in Unit 13 be closed to hunting big game by Federally qualified subsistence users. *Submitted by the Paxson Fish and Game Advisory Committee.*
Proposed Regulation	**Unit 13** *__.26(n)(v) In the following areas, the taking of wildlife for subsistence uses is prohibited or restricted on public lands:* **** *__. 26(n)(v)**(E) Unit 13-- the Paxson Closed Area, the eastern drainage of the Gulkana River lying west of the Richardson Highway and the western drainage of the Gulkana River between the Denali Highway and the north end of Paxson Lake where the Gulkana River enters Paxson lake is closed to the taking of big game.***
OSM Conclusion	**Oppose**
Southcentral Regional Advisory Council Recommendation	**Oppose**
Eastern Interior Regional Advisory Council Recommendation	**Oppose**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

WP16–16 Executive Summary	
ADF&G Comments	**Neutral**
Written Public Comments	**11 Oppose**

STAFF ANALYSIS
WP16–16

ISSUES

Proposal WP16–16, submitted by the Paxson Fish and Game Advisory Committee, requests that Federal public lands within the Paxson Closed Area in Unit 13 be closed to hunting big game by Federally qualified subsistence users.

DISCUSSION

The proponent requests closing Federal public lands to hunting big game within the Paxson Closed Area in Unit 13 for biological and esthetic reasons. Additionally, the proponent states that the Paxson Closed Area provides readily available viewing areas for moose, caribou, and brown bears which regularly access the small section of the Gulkana River in search of salmon.

Existing Federal Regulation

Unit 13

__.26(n)(v) In the following areas, the taking of wildlife for subsistence uses is prohibited or restricted on public lands:

Proposed Federal Regulation

Unit 13

__.26(n)(v) In the following areas, the taking of wildlife for subsistence uses is prohibited or restricted on public lands:

****

*__. 26(n)(v)**(E) Unit 13-- the Paxson Closed Area, the eastern drainage of the Gulkana River lying west of the Richardson Highway and the western drainage of the Gulkana River between the Denali Highway and the north end of Paxson Lake where the Gulkana River enters Paxson lake is closed to the taking of big game.***

Existing State Regulation

Unit 13

Paxson Closed Area: *the eastern drainage of the Gulkana River lying west of the Richardson Highway (between MP 182 and MP185.5) and the western drainage of the Gulkana River between the Denali Hwy (between MP0 and MP4.7) and the north end of Paxson Lake where the Gulkana River enters Paxson Lake is closed to the taking of any big game.*

Extent of Federal Public Lands

Federal public lands comprise approximately 16% of Unit 13B and consist entirely of Bureau of Land Management (BLM) managed lands. Approximately 1,500 acres of land managed by BLM fall within the Paxson Closed Area and would be affected by this request (**Map1**).

Customary and Traditional Use Determinations

Residents that have a positive customary and traditional use determination for brown and black bears, caribou, Goat, Dall sheep, moose, wolf, and wolverines in Units 6,9,10,11,12,13, 20D and 16–26 are presented in **Table 1**.

Table 1. Unit specific customary and traditional use determinations.

SPECIES	CUSTOMARY AND TRADITIONAL DETERMINATION IN UNIT 13B
Moose	*Residents of Units 13, 20D (except for Fort Greely), Chickaloon, and Slana.*
Caribou	*Residents of Units 11, 12, (along the Nabesna Road and Tok Cutoff Road, mileposts 79-110). 13,20D (except for Fort Greely), and Chickaloon*
Black Bear, Goat, Sheep, Wolverine	*All rural residents.*
Brown Bear	*Residents of Unit 13 and Slana.*

Wolf	*Residents of Units 6, 9, 10 (Unimak Island only), 11, 12, 13, 16-26, and Chickaloon*

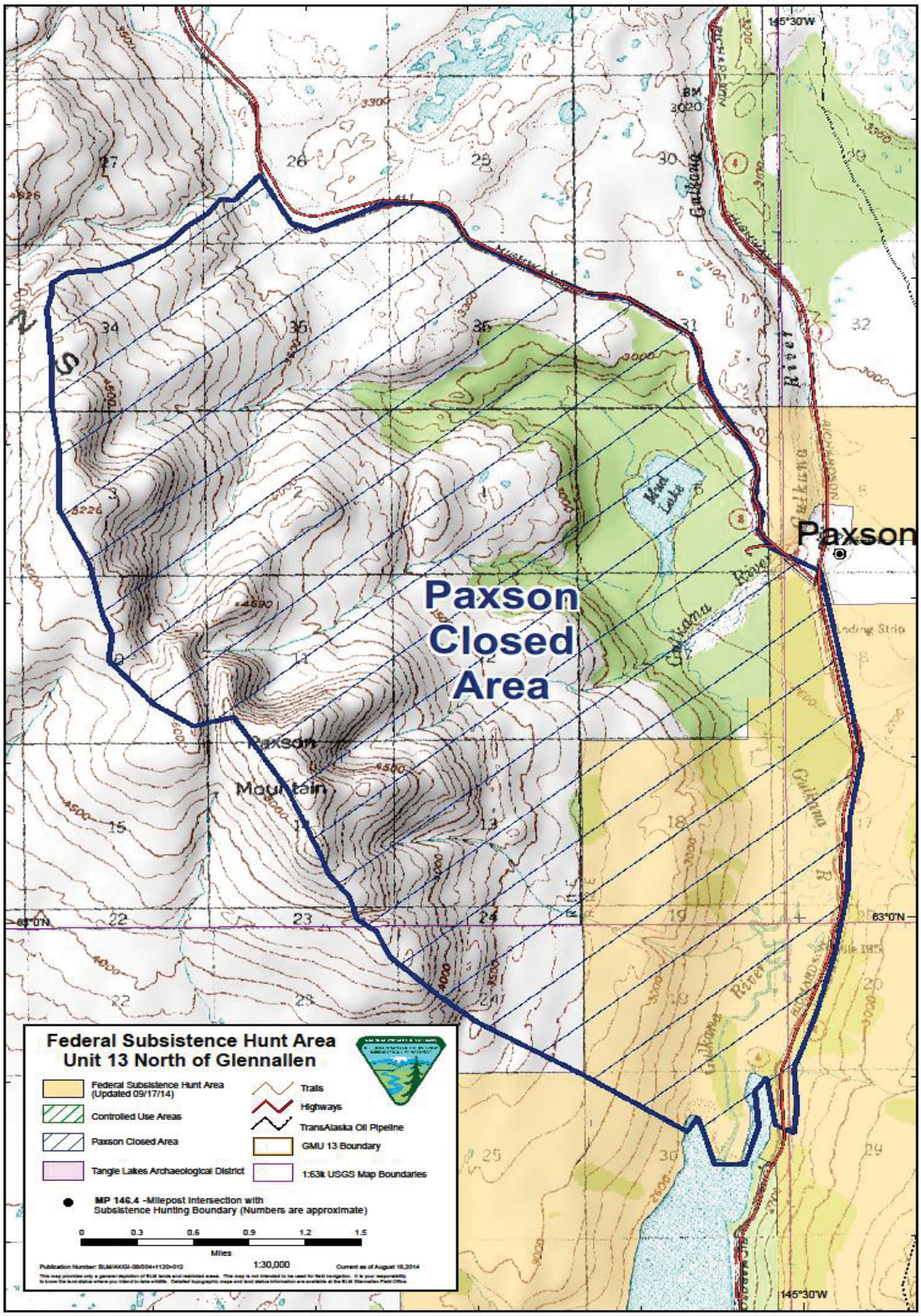
Regulatory History

The Paxson Closed Area in Unit 13B (**Map 1**) was established by the State in 1958 to provide a viewing area adjacent to the junction of the Richardson and Denali Highways (ADF&G 2015). During 1991/1992 and 1992/1993 regulatory years, Federal public lands within the Paxson Closed Area were closed to the hunting of big game under the Special Provisions section for Unit 13 in the Federal Subsistence Management Regulations for Federal public lands in Alaska. However, the hunting for small game was still allowed in the Paxson Closed Area. In 1992, the Federal Subsistence Board (Board) closed the Paxson Closed Area in Unit 13B to the taking of big game (57 Fed. Reg. 181. 43085 (C) [September 17. 1992] Proposed Rule).

However, in the Final Rule (58 Fed. Reg. 103. 31252-31295 [June 1, 1993]) references to several management areas or controlled use areas, including the Paxson Closed Area, that were identified in the 1992-1993 Subpart D of the Federal Subsistence Regulations were removed. This change coincided with the major conveyances/selections of BLM lands in Unit 13. Through Title IX of the Alaska National Interest Lands Conservation Act (ANILCA), the State of Alaska was allowed to overselect (by 25%) lands it wanted conveyed from the Federal Government. Once the State's selections have been established, prioritized, and finalized, any remaining overselected lands are returned to the BLM management authority. The State top filed, which refers to the case where lands are dual selected (e.g Native and State) – the Native selection is attached to the land and the State selection would be over the top of that selection, thus *top filed*) the Federal public lands within the Paxson Closed Area in 1993 and 1994 and BLM made a "no effect" finding in 1994, 1995, and 2008. In June 2014, the Glennallen Field Office of BLM became aware of the unencumbered Federal public lands within the Paxson Closed Area and they were subsequently removed from State selection. As a result, Federal public lands in the Paxson Closed Area were determined to be opened to the taking of big game by Federally qualified subsistence users under Federal subsistence regulations.

Current Events

BLM has been working to convey selected lands throughout the State. In August 2014, it was determined that approximately 30,000 acres of BLM-managed lands near Paxson were not encumbered with selections from the State or Native-Select and thus met the Alaska National Interest Lands Conservation Act definition of public lands. Approximately 1,500 acres fell within the State's Paxson Closed Area. Consequently, once the land within the Paxson Closed Area returned to BLM control, it was open hunting of big game by default. In the absence of a closure enacted pursuant to the Federal Subsistence Board's *Policy on Closures to Hunting, Trapping and Fishing on Federal Public Lands and Waters in Alaska* (adopted Aug. 29, 2007), Federal public lands are open for hunting to both Federally qualified and non-Federally qualified users where



Map 1. Location of Federal public lands (Federal Subsistence hunt Area) within the Paxson Closed Area (BLM 2014).

Federal and State hunting regulations are in place. Thus, the Paxson Closed Area became open to both State and Federal users.

The Southcentral Subsistence Regional Advisory Council expressed support at its winter 2015 meeting (SCRAC 2015) for keeping Federal public lands open to subsistence hunting of big game.

Biological Background

Big game as defined in the Federal Subsistence Regulations includes black bear, brown bear, bison, caribou, Sitka black –tailed deer, elk, mountain goat, moose, muskox, Dall sheep, wolf, and wolverine (§__.25(a)). Currently there are open seasons on black bear, brown bear, caribou, goat, moose, sheep, wolf and wolverine on Federal public lands in Unit 13. Mountain goats and Dall sheep do not occur in the Paxson Closed Area so will not be considered in this analysis. Although wolverines occur in the Paxson Closed Area within Unit 13B, there is only limited density information in the moderate to high elevation areas for Units 13A and 13D and harvest information is only available unit–wide for Unit 13. Thus the available data may not be applicable to the forested habitats at lower elevations. Most of the wolverine harvest in Unit 13B, which averages about 12 animals per year, occurs north of Denali Highway outside of Paxson Closed Area (Robbins 2015, pers. comm.) Therefore, wolverine will not considered further in this analysis.

Caribou

The Nelchina Caribou Herd (NCH) population has fluctuated widely since the 1940s. The population was estimated to be between 5,000 –15,000 in the1940s, 70,000 in the mid–1960s, 7,000–10,000 in 1972, and 50,000 in 1995.

State management goals and objectives since the late 1990s for NCH are as follows (Schwanke 2011):

- Maintain a fall population of 35,000–40,000 caribou, with a minimum of 40 bulls:100 cows and 40 calves:100 cows.
- Provide for the annual harvest of 3,000–6000 caribou.

From 2001 to 2010, fall population estimates for the NCH have remained relatively stable with an estimated herd size between 30,000-44,000 animals (**Table 2**). In June 2007, a post-calving census estimated the NCH to be approximately 32,569 caribou (ADF&G 2008). The population was estimated at 33,146 and 44,954 caribou in 2009 and 2010, respectively (ADF&G 2009, ADF&G 2010).

The productivity and recruitment for the NCH between 1985 and 1996 was high with an average of 52 calves:100 cows. The annual harvestable surplus of Nelchina caribou is dependent on productivity and survival of calves, which is determined from the June and October surveys conducted by ADF&G (ADF&G 2010). From 2001–2010 there was an average of 42 calves:100 cows, which is above State management goals (Toby and Kellyhouse 2007, ADF&G 2008,

Schwanke 2011). During 2010, an average of 55 calves:100 cows were counted during the fall composition surveys (Schwanke 2011) .

Between 2001 and 2008, the bull:cow ratio was below the State management objective with an average of 32 bulls:100 cows. The lowest ratio of 23 bulls:100 cows was in 2006-2007. From 2008 to 2010, the average bull:cow ratio increased to 38 bulls:100 cows (**Table 2**).

Winter habitat for the NCH ranges from northern Unit 13 to Unit 20E. Winter range in Unit 20E is generally considered high quality due to high lichen biomass as a result of old burns (>50 years) (Dale 2000, Joly et al. 2003). In 2004, a large proportion of NCH winter range in Unit 20E burned. Many caribou still winter in Unit 20E, although caribou now utilize adjacent unburned areas. Winter distribution for the NCH in 2006 extended into Unit 13E, across Units 13A and 13B, and northeast into Units 11, 12 and 20E (Tobey and Kelleyhouse 2007). In some years, a small number of caribou winter in Unit 13D and have been observed as far south as the Edgerton Highway. The eastern Talkeetna Mountains, from the Fog Lakes southeast to the Little Nelchina River, is the typical calving area for the NCH with the core calving area extending from the Little Nelchina River north to Kosina Creek (Tobey and Kelleyhouse 2007).

Moose

In the early 1900s, moose densities in Unit 13 were low but increased gradually until peaking in the mid-1960s. The population then declined due to a combination of factors including overhunting, severe winters, and predation. The population reached a low in 1975 and then started to increase by 1978, reaching a second peak in 1987. From 1987-2001 the moose population declined by an estimated 47% (Tobey and Schwanke 2008, 2010).

State management goals and objectives for moose in Unit 13 are as follows (Tobey and Schwanke 2010):

- Increase the Unit 13 moose population to 20,000 to 30,000 moose with a minimum of:
  - 25–30 calves:100 cows.
  - 25 bulls:100 cows
  - 10 yearling bulls:100 cows
- Provide for an annual harvest of 1,200–2000 moose and a subsistence harvest of 300–600 moose per year.

Alaska Department of the Fish and Game (ADF&G) conducts fall counts to determine the sex and age composition and population trends in large count areas distributed throughout Unit 13. From 2001–2009 the number of moose observed in Unit 13 during the fall increased from 3,466 in 2001 to 4,481 in 2008 (**Table 3**). Although the bull:cow and yearling bull:cow ratios increased with the population increases between 2001–2008, the calf:cow ratios were below the management objective.

Table 2. Nelchina caribou fall composition counts and estimated herd size, regulatory years 2001 – 2010 (Tobey and Kelleyhouse 2007, ADF&G 2008, Schwanke 2011, Robbins 2015, pers.comm.).

Regulatory Year	Total bulls: 100 cows	Calves: 100 cows	Calves (%)	Cows (%)	Total bulls (%)	Composition Sample size	Total Adults	Estimate of herd size	Post calving count[a]
2001-2002	37	40	22	57	21	3,949	26,159	33,745	35,106
2002-2003	31	48	27	56	17	1,710	25,161	34,380	35,939
2003-2004	31	35	21	60	19	3,140	23,786	30,141	31,114
2004-2005	31	45	26	57	17	1,640	27,299	36,677	38,961
2005-2006	36	41	23	57	20	3,263	28,071	36,428	36,993
2006-2007	24[b]	48[b]	25	61	14	3,300	NA	34,699[b]	N/A
2007-2008	34	35	21	59	20	3,027	26,124	32,569	33,744
2008-2009	39	40	22	56	22	3,378	NA	33,288[b]	N/A
2009-2010	42	29	17	58	25	3,076	28,198	33,837	33,146
2010-2011	64	55	25	46	29	5,474	33,646	44,985	44,954
2011-2012	58	45	22	49	29	3907	32,404	41,394	
2012-2013	57	31	16	54	30	5249	43,386	50,646	

[a] Spring census
[b] Modeled estimate

Table 3. Unit 13 fall aerial moose composition counts (Tobey and Schwanke 2008, Tobey and Schwanke 2010, Robbins 2015, pers.comm.).

Year	Bulls:100 cows	Yearling bulls: 100 cows	Calves: 100 cows	% Calves	Adults observed	Total moose observed	Moose/ hour	Density moose/mi^2 (observed range)
2001	23	3	15	11	3,086	3,466	37	1.0 (0.6 – 1.4)
2002[a]	24	6	22	15	2,918	3,428	36	1.0 (0.5 – 1.2)
2003	24	8	18	12	3,707	4,230	47	1.2 (0.5 – 1.7)
2004	28	6	22	15	3,215	3,768	40	1.1 (0.5 – 1.7)
2005	27	7	18	13	3,500	4,009	45	1.1 (0.4 – 1.4)
2006	30	8	23	15	3,416	4,028	49	1.1 (0.5 – 1.5)
2007[b]	32	10	22	14	3,875	4,517	40	1.3 (0.5 – 1.8)
2008[c]	35	12	19	13	3,918	4,481	54	1.3 (0.5 - 1.9)
2009[b]	34	9	23	15	4,315	5,046	50	1.7 (0.5-2.0)
2010	30	10	21	14	4,558	5,313	53	1.5 (0.6-2.2 0
2011	33	10	23	15	4,777	5,604	53	1.6 (0.5-2.2)

[a] Two of eight count areas were not flown in 2002, therefore data was estimated for those areas

[b] One of eight count areas was not flown in 2007, therefore data was estimated

[c] (Schwanke 2009, pers. comm..)

Moose are most abundant along the southern slopes of the Alaska Range and within the Alphabet Hills portion of Unit 13B (**Table 4**). Moose typically congregate in subalpine habitats during fall rutting and move down to lower elevations as the snow increases. Historically, moose numbers in Unit 13B tend to fluctuate more than in lower density areas (Tobey and Schwanke 2008). From 2001–2009, the bull:cow ratio was close to or exceeded management objectives, whereas the yearling:cow and calf:cow ratios were below management objectives. In 2009, the bull:cow and calf:cow ratios for Unit 13B met the management objectives but the yearling bull:cow ratio did not (**Table 4**) (Tobey and Schwanke 2010).

Winter distribution depends mainly on snow depth and to a lesser extent, wolf distribution (Tobey and Schwanke 2010). Severe winters with deep snow are known to cause winter mortality by increasing nutritional stress through restriction of movements. This prevents access to adequate and/or quality food (Coady 1974, Testa 2004, Bubenik 2007, Innes 2010), and increases the risk of predation, primarily by

Table 4. **Unit 13B** fall aerial moose composition counts (2001-2007) (Tobey 2002, Tobey 2004, Tobey and Kelleyhouse 2006, Tobey and Schwanke 2008, Tobey and Schwanke 2010, Robbins 2015, pers. comm.)

Year	Bulls:100 cows	Yearling bulls: 100 cows	Calves: 100 cows	% Calves	Total moose observed	Density moose/mi^2
2001	22	3	16	11	1,833	1.2
2003	22	6	17	12	1,943	1.3
2005	27	7	23	15	1,891	1.3
2007	35	12	20	13	2,265	1.5
2009	36	7	29	18	2,230	1.5
2011	36	10	25	15	2,677	1.8

wolves (Bishop and Rausch 1974, Peterson 1984). Snow depths greater than 35 inches represent a critical depth for adults (Coady 1974) with calves, older adults (≥8 yrs old), and adult males more susceptible to nutritional stress and death (Coady 1982).

In 2004–2005, despite the severe snowpack conditions compared to the previous 11 years (Testa 2004), moose numbers remained fairly stable in Unit 13B (Tobey and Schwanke 2008).

Brown and Black Bear

Information concerning the management of brown and black bears in Unit 13B is sparse, with most of the information coming from what is known unit wide. The State's management objective is to have a population of 350 brown bears in Unit 13. Most of the information on population size, composition, reproductive and survival rates for brown bears in Unit 13 come from studies conducted between 1980-1988 (Schwanke 2011b). All the available population estimates are based on anecdotal information and/or extrapolation. The most recent population estimate, based on density estimates from studies conducted in the Upper Susitna River from 1979-1987 (Ballard et al. 1982, Miller 1987, 1988) was 1,456 brown bears in 1997 (Miller 1997).

From 2005 to 2009, 120 brown bears per year were harvested by residents in Unit 13B with an average of 140 bears harvested per year unit wide (Schwanke 2011b). Although the first Federal subsistence season for brown bears in Unit 13 was established in 1999 (FWS 1999) there is no harvest data available for brown bears taken on Federal public lands in Unit 13B.

Black bears in Unit 13 typically inhabit forested areas during the winter and summer and move into the shrub zones to feed on berries in the fall and occasionally during the spring (Miller 1987). In 1985, based on a study conducted in the Upper Susitna River, there were an estimated 90 black bears/1,000 km^2 (Robbins 2011). No population estimates were made for Unit 13 because the area studied by Miller (1987) was considered marginal habitat compared to more favorable areas of Unit 13 (Robbins 2011). From 2005 to 2009, 17 black bears per year were harvested in Unit 13B and an average 145 bears/yr. were harvested unit wide (Robbins 2011). Due primarily to the status of the Paxson Closed Area, there is no data available for black bear harvest by Federally qualified subsistence users on Federal public lands in Unit 13B.

Wolf

Wolf populations in Unit 13 have fluctuated since the 1930s due to prey densities, hunting and trapping, and predator control efforts by the U.S. Fish and Wildlife Service between 1948 and 1953 and ADF&G since 2000 (Skoog 1968, Ballard et al. 1987). Population size and trends are monitored through information obtained from a variety of sources including trapper surveys, sightings from Federal and State employees, and the public. This information is combined with the sealing data to develop pre–harvest (fall) and post–harvest (spring) population estimates for Units 13A, 13B, 13C and a portion of 13E (Schwanke 2102).

State management goals and objectives for wolves are as follows (Schwanke 2012):

- Determine wolf population estimates yearly
- Achieve and maintain a post–hunting and trapping season population of 135-163 wolves (3.2-3.9 wolves/1,000 km^2) in the available habitat unit wide.

The spring wolf population in Unit 13 was approximately 230 wolves between 2000 and 2005 and within the population objective between 2006–2008 and 2010 (**Table 5**, Schwanke 2012). In 2010-2011 the spring population estimate for Unit 13B was 29 wolves (7.3/1,000 km^2). The average spring density was 3.6 wolves/1,000 km^2 for the entire unit from 2010-2011. Information on the distribution and movements of radio–collared wolves has shown that immigration into Unit 13 from the Kenai Peninsula, Denali National Park, Unit 12, and Unit 20 is relatively common (Schwanke 2012). Approximately 80% of wolf mortality in Unit 13 is due to human harvest, 11% to intraspecific strife, and 9% to accidents, injuries, starvation, and drowning (Ballard 1987).

Harvest History

Although there has been no *legal* harvest of big game species in the Paxson Closed Area within Unit 13B since 1992, hunting has occurred in Unit 13B outside of the closed area. (**Table 6, Table 7, Table 8, Table 9**). It is not anticipated that the harvest of big game species on Federal public lands within the Paxson Closed Area would negatively impact populations of big game species as the area in question is only 1,500 acres.

Table 5. Wolf spring and fall population estimates in Unit 13 from 2006-2010 (Schwanke 2012, Robbins 2015, pers. comm.).

Regulatory Year	Fall[a]		Spring[b]		Packs
	Pop	Range	Pop	Range	
2006-2007	280	(265–295)	160	(145–175)	54
2007-2008	254	(240–270)	153	(145–175)	46
2008-2009	273	(260–280)	144	(135–160)	49
2009-2010	272	(260–280)	180	(165–190)	54
2010-2011	314	(290–315)	146	(145-175)	55
2011-2012	204	-	104	-	-
2012-2013	266	-	191	-	-
2013–2014	320	-	-	-	-

[a] Fall estimate – Pre–trapping season population
[b] Spring estimate – Post–trapping season population

Table 6. Number of Federal harvest permits, sex composition, and caribou harvest in Unit 13B between 2003-2013 (FWS 2015, Robbins 2015, pers. comm.).

Year	Number of Permits Issued	Number of Permits Hunted	Caribou Harvest	Bulls	Cows	Unknown
2003/04	152	152	79	79	0	0
2004/05	1,095	1,091	298	219	78	1
2005/06	1,160	1,160	582	344	231	7
2006/07	1,160	1,160	550	303	233	14
2007/08	24,893	893	357	235	116	6
2008/09	904	904	257	169	84	4
2009/10	1,072	1,066	338	332	6	0
2010/11	1,079	1,073	411	293	114	4
2011/12	699	699	86	54	31	0
2012/13	769	769	361	226	132	2
2013/14	641	640	147	112	35	0
Total	9,624	9,607	3,466	2,366	1,060	38
Mean	875	873	315	215	96	3

Table 7. State and Federal caribou harvest in Unit 13B.

Year	State Harvest	Federal Harvest
2009/10	546	338
2010/11	1,183	411
2011/12	988	86
2012/13	1,714	361
2013/14	775	147

Table 8. Harvest quota, harvest estimate, and estimates of the fall population for the Nelchina Caribou Herd in Unit 13 (Robbins 2015, pers. comm.)

Year	Harvest Quota	Reported Harvest	Fall Population[a]
2010	2,300	2,439	48,000
2011	2,400	2,515	41,000
2012	5,500	4,429	50,000
2013	2,500	2,640	37,000
2014	3,000	28,18[b]	

[a] General estimate for comparison

[b] Preliminary results hunt closed March 31

Table 9. Unit 13B big game harvest 2009-2013 (FWS 2015, Robbins 2015, pers. comm.)

Year	Moose	Brown Bear	Black Bear	Wolf	Wolverine
2009/10	244	26	5	17	12
2010/11	304	18	3	14	11
2011/12	267	18	7	20	8
2012/13	201	20	4	10	12
2013/14	201	22	7	24	16
Total	1,217	104	26	85	59
Mean	243	21	5	17	12

Effects of the Proposal

If Federal public lands within the Paxson Closed Area remains open to Federally qualified subsistence users, there is the potential of increased conflict with others that use the area for recreational purposes such as viewing moose, caribou, and brown bears, which regularly access the small section of the Gulkana River in search of salmon. Local community members stated that the area provides a critical sanctuary for moose during the winter, and that there could be potential disruption to the caribou herd migration if it remains open to Federally qualified subsistence users. In addition, there may be safety concerns and the potential loss of tourism. Safety concerns may be somewhat diminished since the hunting of small game has occurred in the Paxson Closed Area since it was established.

Currently, there are no conservation concerns for any of the big game species in the Paxson Closed Area if Federal public lands remain open to Federally qualified subsistence users. Opening these lands to Federally qualified subsistence users does not prevent non–Federally qualified users from accessing this area.

OSM CONCLUSION

Oppose Proposal WP16–16.

Justification

Section 816 of ANILCA provides that an area may be closed "for reasons of public safety, administration, or to assure the continued viability of a particular fish or wildlife population." Such closure authority has been delegated to the Federal Subsistence Board at §__.10(d)(4)(vii). Since the three reasons for enacting a closure as stated in Section 816 of ANILCA do not exist, there is no justification for closing the Paxson Closed area to the harvest of big game species by Federally qualified subsistence users.

Populations of big game species that occur within Unit 13B are stable or increasing and thus there are no conservation concerns. Current levels of harvest have not had a negative impact on big game species in Unit 13B. Sustainable harvest levels for big game species are evaluated by ADF&G, with regulations and permit numbers adjusted as needed. The Paxson Closed Area is approximately 29,000 acres and the size of the area open to Federally qualified subsistence users is a very small portion, approximately 1,500 acres, and thus the impacts to viewing opportunities will be minimal.

Moreover, opposition is supported by the Federal Subsistence Board's *Policy on Closures to Hunting, Trapping and Fishing on Federal Public Lands and Waters in Alaska*. There, the Board established a hierarchy that would be followed in closures: (1) closure first to non-Federally qualified users, (2) allocation among Federally qualified subsistence users under Section 804, and (3) complete closure. This proposal skips the first step and seeks closure to Federally qualified subsistence users without first closing to non-Federally qualified users. Federally qualified subsistence users should be allowed the opportunity to harvest big game species on Federal public lands within Paxson Closed Area in Unit 13B.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Southcentral Subsistence Regional Advisory Council

Oppose WP16-16. There is no biological reason to close the Federal public lands within the Paxson Closed Area in Unit 13. The Council supports subsistence opportunity and is not in favor of losing additional opportunities through closures. The proposal does not meet the criteria on *Policy on Closures to Hunting, Trapping and Fishing on Federal Public Lands and Waters in Alaska.* Safety issues can be addressed through additional law enforcement to ensure public safety within the Paxson Closed Area in Unit 13.

Eastern Interior Subsistence Regional Advisory Council

Oppose WP16-16. The Council noted that the increased opportunity for Federally qualified users was seen as a good thing if the area were to remain open and they noted the number of public written comments received opposed to closing the federal subsistence hunt in this area despite the proposal being submitted by the local AC. The Council noted that there does not appear to be any conservation concern to warrant closing this area and that the area is likely an important food source close to home for subsistence. The Council did wish to hear from the community or Southcentral RAC since this proposal would most affect people in Unit 12 along the road to Nabesna.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

WRITTEN PUBLIC COMMENTS

PAGE 1

To: Office of Subsistence Management
In regards to Wildlife Proposal WP16-16
Paxson Closed Area.
Comments:

My name is Bill Novotney Live mile 150 (Sourdough) I AM NOT in FAVOR of closing the PAXSON moose, caribou, Bear Bill Novotney 5-6-2015

My Name is Jim Murray I Live at Meiers Lk MI 170 Richardson Hwy There is No biological Reason to close this Area To Subsistence Hunting

Jim Murray 5-6-2015

Please leave this hunting area open for Federal hunting. There are very few areas for us to hunt as it is. Thank you for your help and consideration in this matter.

Sharla Huckabay 5-7-2015

Leave it open

Patty Denton - I live at Sourdough, AK,
We want the WP16-16 left open
Patty Denton 5-6-15

I Todd Denton feel that there is NO Reason for the Paxson closed area opened to Federal hunting. Should be left alone
5-6-15

There's not many places to hunt anymore
Page 2
I've lived in this area for over 50 years.
And have seen things get worse every
year. Leave this area open.
P.O Box 122
Glennallen, AK.
99588
H.A. (Tony) Unsdorfer

Request that this area be left open as it's getting more
difficult to obtain hunting areas
Dale Unsda
P.O. Box 616
Glennallen, AK 99588
Dale Unsda

James Cooper
P.O. Box 257
Glennallen, AK 99588
Petition for current Federal hunt areas
to remain open on Richardson Hwy
mile points 175.1 to 183

Jeremich Jones
Keep area open

Rocky Oliver
PO Box 803 Glennallen
Keep area Open

Roman K. Foltz
po. Box 375
Keep open

WP16-16 Closure of the Paxson Hunting Areas

Comments:

We oppose WP 16-16 which proposes the closure of the Paxson Area which is unencumbered federal public lands. Federally qualified subsistence users will not have an opportunity to hunt for large and small game near or off the highway system within the Paxson hunting areas.

Closure of this significant customary and traditionally use area for hunting, gathering and fishing will disenfranchise federally qualified subsistence users. Federally qualified subsistence users will have to hunt elsewhere on federal public lands, other federal public lands are largely inaccessible.

Hunting areas on Federal public lands in Unit 13 is minimal. Closing this additional acreage in which to hunt for large and small game would be disadvantageous to the local federally qualified subsistence users. Paxson areas are the ideal place to hunt, fish and pick berries. Closure ofthe Paxson Areas will adversely affect hunters that combine hunting with other subsistence activities, such as picking berries or fishing.

Paxson Lake area, as described above, were/are Ahtna People's customary and traditionally use areas for hunting, gathering and other subsistence purposes. Ahtna people have used these areas for thousands of years, to hunt, fish and gather plants. Please refer to the report entitled, Some Ethnographic and Historical Information on the Use of Large Land Mammals in the Copper Basin by William E. Simeone: page 38, August 2006, it states, "in some areas places, such as Paxson Lake, Tanada Lake, or Tazlina Lake, caribou were stampeded into the water and speared from canoes". Other documentation, in this report by the late Ahtna Chief Ben Neeley, states that he and his family hunted up the Gulkana River and into the Tangle Lakes area: page 28, August 2006.

Ahtna Tene Nene' Customary& Traditional Use Committee

WP16–17 Executive Summary	
General Description	Proposal WP16–17 requests that the restriction prohibiting Federally qualified subsistence users from hunting caribou within the Trans-Alaska Oil Pipeline right–of–way in Unit 13 remainder be rescinded. *Submitted by the Southcentral Alaska Subsistence Regional Advisory Council.*
Proposed Regulation	**Unit 13 remainder – Caribou** *2 bulls by Federal registration permit only* — *Aug. 1–Sept. 30* ~~*You may not hunt within the Trans-Alaska oil Pipeline right-of-way. The* right-of-way is *the area occupied by the pipeline (buried or above ground) and the cleared area 25 feet on either side of the pipeline.*~~ — *Oct. 21–Mar. 31*
OSM Conclusion	**Support**
Southcentral Regional Advisory Council Recommendation	**Support**
Eastern Interior Regional Advisory Council Recommendation	**Support**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Support**
Written Public Comments	**1 Support**

STAFF ANALYSIS
WP16–17

ISSUES

Proposal WP16–17, submitted by the Southcentral Alaska Subsistence Regional Advisory Council, requests that the restriction prohibiting Federally qualified subsistence users from hunting caribou within the Trans-Alaska Oil Pipeline right–of–way in Unit 13 remainder be rescinded.

DISCUSSION

The proponent states that the current restriction in Unit 13 remainder is an undue burden on Federally qualified subsistence users and is not related to any conservation concerns for the Nelchina Caribou Herd. The proponent also states that rural residents are subject to citations, while there are no restrictions to hunting within the pipeline corridor under current regulations.

Existing Federal Regulation

Unit 13 remainder – Caribou

2 bulls by Federal registration permit only	*Aug. 1–Sept. 30* *Oct. 21–Mar. 31*
You may not hunt within the Trans–Alaska Oil Pipeline right–of–way. The right-of-way is the area occupied by the pipeline (buried or above ground) and the cleared area 25 feet on either side of the pipeline.	

Proposed Federal Regulation

Unit 13 remainder – Caribou

2 bulls by Federal registration permit only	*Aug. 1–Sept. 30* *Oct. 21–Mar. 31*
~~*You may not hunt within the Trans–Alaska oil Pipeline right–of–way. The* right-of-way is *the area occupied by the pipeline (buried or above ground) and the cleared area 25 feet on either side of the pipeline.*~~	

Existing State Regulation

Unit 13 – Caribou

Unit 13	*Resident: One caribou by permit per household, available only by application. See the Subsistence Permit Hunt Supplement for details*	*RC566*	*Aug. 10–Sept.20* *Oct.21–Mar. 31*
	OR		
	Resident: One by permit per household, available only by application. See the Subsistence Permit Hunt Supplement for details	*CC001*	*Aug. 10–Sept.20* *Oct.21–Mar. 31*
	OR		
	Resident: One caribou by permit	*DC480–DC483*	*Aug. 10–Sept.20* *Oct.21–Mar. 31*
	Nonresident:		*No open season*

Extent of Federal Public Lands

Federal public lands comprise approximately 15% of Unit 13 and consist of 7.1% Bureau of Land Management (BLM) managed lands, 6.1% National Park Service (NPS) managed lands, and 1.8% U.S. Forest Service managed lands (**See Unit 13 Map**).

Customary and Traditional Use Determinations

Currently there is no designated customary and traditional use determination for caribou in the hunt area, Unit 13 remainder, which includes Units 13C, 13D, and 13E. Customary and traditional determinations for Units 13C, 13D, and 13E are as follows:

Residents of Units 11, 12 (along the Nabesna Road and Tok Cutoff Road, mileposts 79-110), 13, Chickaloon, Dot Lake, and Healy Lake have a customary and traditional use determination to harvest caribou in Unit 13C.

Residents of Units 11, 12 (along the Nabesna Road),13, and Chickaloon have a customary and traditional use determination to harvest caribou in Unit 13D.

Residents of Units 11, 12 (along the Nabesna Road), 13, Chickaloon, McKinley Village, and the area along the Parks Highway between mileposts 216-239 (excluding the residents of Denali National Park Headquarters) have a customary and traditional use determination to harvest caribou in Unit 13E.

Regulatory History

The Nelchina Caribou Herd (NCH) is an important resource for many rural and non-rural users due to its proximity to Anchorage and Fairbanks and its distribution within Units 11, 12, 13, and 20E (Tobey 2003). A State Tier II system for NCH harvest was established in 1990 for Unit 13. A State Tier I permit was added for the 1996/97 and 1997/98 seasons to allow any Alaskan resident to harvest cows or young bulls, in order to reduce the herd to the management objective. In 1998, the Tier I hunt was closed, as the herd was brought within management objectives due to increased harvest and lower calf recruitment.

The two Federal registration hunts in Unit 13 are for residents of Units 11, 13, and residents along the Nabesna Road in Unit 12 and Delta Junction in Unit 20. In 1998 the Federal Subsistence Board (Board) adopted Proposal P98-036 to extend the winter caribou season from Jan. 5–Mar. 31 to Oct. 21–Mar. 31 (FWS 1998a). This gave Federally qualified subsistence users the same opportunity to harvest an animal as those hunting under the State regulations. In 1998, the Board adopted Proposal P98-034, which opened the Federal registration hunt to residents of Unit 12, Dot Lake, Healy Lake and Mentasta between November and April when the NCH migrate through the Tetlin National Wildlife Refuge (FWS 1998b).

In 2001, the Board adopted Proposal WP01-07, which changed the harvest limit of 2 caribou to 2 bulls by Federal registration permit only, for all of Unit 13 (FWS 2001).

In 2003, the Board adopted Proposal WP03-14, which changed the harvest limit for Unit 13A and 13B back to 2 caribou from 2 bulls, with the harvest of bulls being allowed only during the Aug. 10 – Sept. 30 season. For the Oct. 21 – Mar. 31 winter season, the BLM's Glennallen Field Office Manager was delegated authority to determine the sex of animals taken in consultation with the Alaska Department of Fish and Game (ADF&G) area biologist and the Chairs of the Eastern Interior Alaska and Southcentral Alaska Regional Subsistence Advisory Councils. For the remainder of Unit 13, the harvest limit remained 2 bulls for the Aug. 10 – Sept. 30 and Oct. 21 – Mar. 31 season (FWS 2003).

In 2005, the Board adopted Proposal WP05-08 for Unit 13A and 13B to allow the sex of caribou harvested to be determined for both seasons by the BLM Glennallen Field Office Manager in consultation with the ADF&G area biologist and Chairs of the Eastern Interior Alaska and Southcentral Alaska Regional Subsistence Advisory Councils. This was in effect for the entire season (Aug. 10 – Sept. 30 and Oct. 21 – Mar. 31), not just the winter season (FWS 2005).

Emergency Order 02-01-07 closed the remainder of the 2006/2007 State season for the NCH on February 4, 2007 due to high State hunter success in the State Tier II hunt. Likewise, Emergency

Order 02-08-07 closed the 2007/2008 Tier II hunt on September 20, 2007 and was scheduled to re-open on October 21, 2007. However concerns about unreported harvest in the State and Federal hunt resulted in a closure for the remainder of the season.

For the 2009/2010 season, the State Tier II hunt was eliminated. Two hunts were added: a Tier I hunt and a Community Harvest hunt for residents of Gulkana, Cantwell, Chistochina, Gakona, Mentasta, Tazlina, Chitina, and Copper Center. The harvest limit for each was one caribou (sex to be announced annually) with season dates of Aug. 10 – Sept. 20 and Oct. 21 – Mar. 31 with a harvest quota of 300 caribou. A Federally qualified subsistence user could opt into the State community harvest system or use a State registration permit to harvest one caribou and then get a Federal permit to harvest an additional caribou since the Federal harvest limit was two caribou.

In July 2010, the Alaska Superior Court found that elimination of the Tier II hunt was arbitrary and unreasonable (ADF&G 2010a). In response, the Board of Game held an emergency teleconference in July 2010, and opened a Tier II hunt from Oct. 21 – Mar. 31, maintained the existing Tier I season, awarded up to 500 additional Tier I permits (ADF&G 2010a).

Emergency Order 04-1-10 closed the remainder of the winter Nelchina Tier II season due to harvest reports indicating that approximately 1,404 bulls and 547 cows were harvested and the unreported harvest was expected to raise the total harvest above the harvest objective (ADF&G 2010b, FWS 2102).

In 2012, the Board adopted Proposal WP12-25, which added an additional 9 days to the beginning of the fall caribou season to provide more opportunity for Federally qualified subsistence users. The season was extended from Aug. 10–Sept. 30 to Aug. 1 –Sept. 30 (FWS 2012).

Biological Background

The NCH calving occurs in the eastern Talkeetna Mountains from the Little Nelchina River north to Fog Lakes, with the core calving area from the Little Nelchina River to Kosina Creek. Core calving areas are also used during post calving and early summer (Schwanke 2011). The NCH disperses during the summer and early fall. Their fall distribution can extend from the Denali Highway near Butte Lake, across the Alphabet Hills and Lake Louise flats, and as far east as the Gulkana River (Schwanke 2011).

The NCH typically leaves Unit 13 in October for wintering areas in Units 11, 12, and 20E and typically does not return until April. Some caribou remain in the northern portion of Unit 13 and are an important food source for Federally qualified subsistence users during the winter season. Winter range in Unit 20E is generally considered high quality due to high lichen biomass as a result of old burns (>50 years) (Dale 2000, Joly et al. 2003). In 2004, a large proportion of NCH winter range in Unit 20E burned. Many caribou (60-95%) still winter in Unit 20E, although caribou now utilize adjacent unburned areas (Schwanke 2011). In addition to winter habitat loss in Unit 20E, competition with the Fortymile herd, which also uses Unit 20E year round (Boertje and Gardner 1998) and is increasing, could impact the NCH. Winter distribution for the NCH in 2006 extended

into Unit 13E, across 13A and 13B, and northeast into Units 11, 12 and 20E (Tobey and Kelleyhouse 2007). In some years, a small number of caribou winter in Unit 13D and have been observed as far south as the Edgerton Highway.

The NCH population has fluctuated widely since the 1940s. The caribou population was estimated to be between 5,000 –15,000 in the1940s, 70,000 in the mid–1960s, 7,000–10,000 in 1972, and 50,000 in 1995.

State management goals and objectives for the NCH are as follows (Schwanke 2011):

- Maintain a fall population of 35,000–40,000 caribou, with a minimum of 40 bulls:100 cows and 40 calves:100 cows.

- Provide for the annual harvest of 3,000–6000 caribou.

In June 2007, NCH was estimated to be approximately 32,569 caribou (ADF&G 2008) from a post-calving survey. The population was estimated at 33,000 and 44,000 caribou in 2009 and 2010 respectively (ADF&G 2009, ADF&G 2010c). From 2001 to 2013 fall population estimates for the NCH have remained relatively stable, with an estimated herd size between 30,000-50,000 animals (**Table 1**).

Historically, the productivity and recruitment of the NCH has been high, with an average of 52 calves:100 cows (1985-1996). The annual harvestable surplus of Nelchina caribou is dependent on productivity and survival of calves, which is determined from surveys in June and October conducted by ADF&G (ADF&G 2010c). From 2001–2010, there was an average of 42 calves:100 cows, which is above State management objectives (Toby and Kellyhouse 2007, ADF&G 2008, Schwanke 2011). During 2010, an average of 55 calves:100 cows were counted during the fall composition surveys (Schwanke 2011) .

Between 2001 and 2008, the bull:cow ratio was below the State management objective with an average of 32 bulls:100 cows. The lowest bull:cow ratio was in 2006/2007 with 23 bulls:100 cows. The average bull:cow ratio increased significantly from to 38 bulls:100 cows from 2008 to 2010, to 80 bulls:100 cows from 2011–13 (**Table 1**). Relatively mild winters combined with fewer predators are factors that may have contributed to this increase (Robbins 2015, pers. comm.).

Table1. Nelchina caribou fall composition counts and estimated herd size, regulatory years 2001 – 2010 (Tobey and Kelleyhouse 2007, ADF&G 2008, 2010c, Schwanke 2011, Robbins 2015, pers.comm.).

Regulatory Year	Total bulls: 100 cows	Calves: 100 cows	Calves (%)	Cows (%)	Total bulls (%)	Composition Sample size	Total Adults	Estimate of herd size	Post calving count[a]
2001-2002	37	40	22	57	21	3,949	26,159	33,745	35,106
2002-2003	31	48	27	56	17	1,710	25,161	34,380	35,939
2003-2004	31	35	21	60	19	3,140	23,786	30,141	31,114
2004-2005	31	45	26	57	17	1,640	27,299	36,677	38,961
2005-2006	36	41	23	57	20	3,263	28,071	36,428	36,993
2006-2007	24[b]	48[b]	25	61	14	3,300	NA	34,699[b]	N/A
2007-2008	34	35	21	59	20	3,027	26,124	32,569	33,744
2008-2009	39	40	22	56	22	3,378	NA	33,288[b]	N/A
2009-2010	42	29	17	58	25	3,076	28,198	33,837	33,146
2010-2011	64	55	25	46	29	5,474	33,646	44,985	44,954
2011-2012	58	45	22	49	29	3,907	32,404	41,394	-
2012-2013	57	31	16	54	30	5,249	43,386	50,646	-

[a] Spring census
[b] Modeled estimate

Harvest History

The NCH continues to be a popular hunt for many users because of its easy accessibility and proximity to Fairbanks and Anchorage. In 2013/2014, 279 caribou were harvested under the Federal Subsistence regulations, which was below the long term average 410 per year (range 273-610) from 2003–2013 (**Table 2**).

Between 2004 and 2009, State hunts (TC566/RC566) were the primary source of harvest of the NCH and accounted for 75% of the overall harvest (**Table 3**). Federal registration hunts (FC1302; formerly RC513/514), administered by the BLM comprised 24% of the harvest from 2004 to 2009. From 2004 to 2013, harvest under a Federal registration permit has averaged 410 caribou annually (range 273 to 610) (**Table 2**).

Table 2. Number of Federal harvest permits, sex composition, and caribou harvest in Unit 13 between 2003-2013 (Bullock 2015, FWS 2015, Robbins 2015, pers.comm.).

Year	Number of Permits Issued	Number of Permits Hunted	Caribou Harvest	Bulls	Cows	Unknown
2003/04	2,574	1,240	322	317	2	3
2004/05	2,555	1,337	335	248	85	2
2005/06	2,557	1,499	610	365	238	7
2006/07	2,631	1,317	570	318	238	14
2007/08	2,403	1,094	385	259	120	6
2008/09	2,532	1,229	273	180	89	4
2009/10	2,576	1,339	349	342	7	0
2010/11	2,852	1,535	451	316	129	6
2011/12	2,980	1,425	395	281	113	0
2012/13	2,953	1,518	537	326	203	6
2013/14	2,789	1,305	279	210	68	0
Mean	2,673	1,349	410	287	117	4

Table 3. State and Federal caribou harvest in Unit 13.

Year	State Harvest	Federal Harvest
2009/10	754	349
2010/11	1,905	451
2011/2012	2,033	395
2012-2013	3,718	537
2013-2014	2,301	279

A majority of the caribou harvested in Unit 13 are taken under State regulations (**Table 3**), which is expected given that Federal lands account for only about 15% of the total lands in Unit 13. Much of the Federal harvest occurs when caribou cross along the Richardson Highway between Paxson and Sourdough during the fall migration. Additional caribou are available to Federally qualified subsistence users throughout the entire season in small areas of Unit 13E near Broad Pass in Denali National Park and on BLM lands along the Denali Highway near Tangle Lakes (Tobey 2005). The mean yearly caribou harvest from 2010/2011 to 2014/2015 was 2,968 caribou, (**Table 4**) which is greater than the long-term annual average harvest of approximately 2,500 caribou between 1989 and 2010 (Schwanke 2011).

Most of the caribou harvest each year in Unit 13 occurs during the fall (August and September) versus the winter season. Federally qualified subsistence users currently have an additional 10 days at the end of September. The harvest within the first week of August is minimal compared to the State harvest during the

same time period. Success in the winter season is largely dependent upon the number of caribou that remain within Unit 13 and the success of the fall hunt. Successful harvests in the fall make the winter season more susceptible to emergency closures when the harvest quota is reached before the end of the season on March 31. The winter hunt can be important to Federally qualified subsistence users because snow machines often make caribou more accessible during a period when there is typically less competition with other hunters (Tobey and Kelleyhouse 2007).

Table 4. Harvest quota, harvest estimate, and estimates of the fall population for the Nelchina Caribou Herd in Unit 13 (Robbins 2015, pers. comm.)

Year	Harvest Quota	Reported Harvest	Fall Population[b]
2010/2011	2,300	2,439	48,000
2011/2012	2,400	2,515	41,000
2012/2013	5,500	4,429	50,000
2013/2014	2,500	2,640	37,000
2014/2015	3,000	2,818[a]	
Mean		2,968	

[a] Preliminary results hunt closed March 31
[b] General estimate for comparison

Effects of the Proposal

If adopted, this proposal would remove restrictions on Federally qualified subsistence users hunting under Federal regulations within the Trans-Alaska Oil Pipeline right–of–way and will give them the same opportunity as hunters hunting under State regulations. Currently there are no conservation concerns for the NCH population.

One of the justifications for maintaining a closure under the Board's closure policy, which references Section 816 of ANILCA, is for public safety. While there is a concern that the use of high–powered rifles in the vicinity of the Trans-Alaska Oil Pipeline right–of–way, there is no reason to deny Federally qualified subsistence users hunting under State regulations the same opportunity as those hunters hunting under State regulations. There have been no incidents since 2001, when an individual shot a hole in the Trans-Alaska Oil Pipeline, spilling 285,000 gallons of crude oil and shutting down the pipeline for three days.

OSM CONCLUSION

Support Proposal WP16–17.

Justification

The NCH within Unit 13 is stable or increasing, and there are currently no conservation concerns for the herd. Current harvest levels are sustainable and there is no indication that removal of the pipeline right-of-way restrictions for Federally qualified subsistence users is going to substantially increase harvest. Removal of restrictions for hunting in the Trans–Alaska Pipeline right–of–way will allow the Federally

qualified subsistence users to use the Pipeline corridor without fear of incurring hunting violations, and will provide the same opportunity provided under State regulations.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Southcentral Subsistence Regional Advisory Council

Support WP16-17. No conservation concerns exist for the Caribou Herd in Unit 13. The proposal will parallel the State of Alaska hunting regulations and reduces confusion.

Eastern Interior Subsistence Regional Advisory Council

Support WP16-17. The Council felt this was more of a housekeeping proposal - It is already allowed under state regulations, there is no conservation concern, no objections submitted by any entity and removal of the restriction would provide additional subsistence opportunity for rural residents.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

WRITTEN PUBLIC COMMENTS

WP16-17 Trans-Alaska Oil Pipeline Right-of-way Is Prohibited

Comments:

We support Proposal WP 17-16 to remove regulatory language that hunting within the Alaska Oil Pipeline right-of-way is illegal.

As the proposal states, hunting in the Alaska Oil Pipeline right-of-way under federal regulation is more restrictive than state regulations. Federal regulations should allow more liberal hunting opportunities than state regulations. Hunting for moose under state regulations in the Alaska Oil Pipeline right-of-way is not regulated.

Ahtna Tene Nene' Customary& Traditional Use Committee

WP16–18 Executive Summary	
General Description	Proposal WP16-18 requests that brown bears be allowed to be hunted over bait in Units 11 and 12 with seasons from Apr. 15-June 15 and Apr. 15-June 30, respectively. *Submitted by the Wrangell-St. Elias National Park Subsistence Resource Commission.*
Proposed Regulation	*§__.26 (b) Except for special provision found at paragraph (n)(1) through (26) of this section, the following methods and means of taking wildlife for subsistence uses are prohibited:* * * * * *(14) Using bait for taking ungulates, bear, wolf, or wolverine; except you may use bait to take wolves and wolverine with a trapping license, and you may use bait to take black bears and brown bears with a hunting license as authorized in Unit-specific regulations at paragraphs (n)(1) through (26) of this section.* **Unit 11—Brown Bears** *1 bear* *Aug. 10-June 15.* *(i) Unit specific regulations:* *(A) You may use bait to hunt black* ***and brown*** *bear between April 15 and June 15.* **Unit 12—Brown Bears** *1 bear* *Aug. 10-June 30.* *(i) Unit specific regulations:* *(A) You may use bait to hunt black* ***and brown*** *bear between April 15 and June 30; you may use bait to hunt wolves on FWS and BLM lands.*
OSM Conclusion	**Support**
Southcentral Regional Advisory Council Recommendation	**Support**

WP16–18 Executive Summary	
Eastern Interior Regional Advisory Council Recommendation	**Support**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Support**
Written Public Comments	**1 Support, 2 Oppose**

STAFF ANALYSIS
WP16-18

ISSUES

Proposal WP16-18, submitted by the Wrangell-St. Elias National Park Subsistence Resource Commission, requests that brown bears be allowed to be hunted over bait in Units 11 and 12 with a season from Apr. 15-June 15 and Apr. 15-June 30, respectively.

DISCUSSION

The proponent claims that the proposed changes would increase harvest opportunity for rural residents in the spring, particularly in heavily forested areas where brown bears do not concentrate.

Existing Federal Regulation

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

* * * *

(14) Using bait for taking ungulates, bear, wolf, or wolverine; except you may use bait to take wolves and wolverine with a trapping license, and you may use bait to take black bears and brown bears with a hunting license as authorized in Unit-specific regulations at paragraphs (n)(1) through (26) of this section.

Unit 11—Brown Bears

1 bear *Aug. 10-June 15.*

(i) Unit specific regulations:

(A) You may use bait to hunt black bear between April 15 and June 15.

Unit 12—Brown Bears

1 bear *Aug. 10-June 30.*

(i) Unit specific regulations:

(A) You may use bait to hunt black bear between April 15 and June 30; you may use bait to hunt wolves on FWS and BLM lands.

Proposed Federal Regulation

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

* * * *

(14) Using bait for taking ungulates, bear, wolf, or wolverine; except you may use bait to take wolves and wolverine with a trapping license, and you may use bait to take black bears and brown bears with a hunting license as authorized in Unit-specific regulations at paragraphs (n)(1) through (26) of this section.

Unit 11—Brown Bears

1 bear	*Aug. 10-June 15.*

(i) Unit specific regulations:

(A) You may use bait to hunt black ***and brown*** *bear between April 15 and June 15.*

Unit 12—Brown Bears

1 bear	*Aug. 10-June 30.*

(i) Unit specific regulations:

(A) You may use bait to hunt black ***and brown*** *bear between April 15 and June 30; you may use bait to hunt wolves on FWS and BLM lands.*

Existing State Regulation

In Units 7, 11, 12, 13*, 14B*, 15, 16, 20A, 20B, 20C, 20E, 21D, 24C, 24D, and 25D brown/grizzly bears may be taken at a black bear bait station subject to the same restrictions as black bear. Hunters who take brown bears over bait in these areas are required to salvage the edible meat in addition to the hide and skull. Hunters must comply with seasons, bag limits, and sealing requirements for brown/grizzly bears (registration permits and locking tags may be required in some areas, contact ADF&G for details).*	*Apr. 15 – June 30*
**Units 11, 13, and 14B were opened to brown bear baiting by the Board of Game in 2015, effective July 1, 2015.*	

Unit 11—Brown Bears

Residents and Nonresidents—1 bear every regulatory year.	*Aug. 10-Jun 15*

Unit 12—Brown Bears

Residents and Nonresidents—1 bear every regulatory year.	*Aug. 10-Jun 30*

Extent of Federal Public Lands

Federal public lands comprise approximately 88% of Unit 11 and consist of 84.5% National Park Service (NPS) managed lands, 3.3% U.S. Forest Service (USFS) managed lands, and 0.1% Bureau of Land Management (BLM) managed lands (**see Unit Map 11**).

Federal public lands comprise approximately 61% of Unit 12 and consist of 48.2% NPS managed lands, 10.9% U.S. Fish and Wildlife Service (USFWS) managed lands, and 1.8% BLM managed lands (**see Unit Map 12**).

Customary and Traditional Use Determinations

Rural residents of Chistochina, Chitina, Copper Center, Gakona, Glennallen, Gulkana, Kenny Lake, Mentasta Lake, Slana, Tazlina, Tonsina, and Units 11 and 12 have a customary and traditional use determination for brown bear in Unit 11, north of the Sanford River.

Rural residents of Chistochina, Chitina, Copper Center, Gakona, Glennallen, Gulkana, Kenny Lake, Mentasta Lake, Nabesna Road (mileposts 25-46), Slana, Tazlina, Tok Cutoff Road (mileposts 79-110), Tonsina, and Unit 11 have a customary and traditional use determination for brown bear in Unit 11, remainder.

Rural residents of Unit 12, Dot Lake, Chistochina, Gakona, Mentasta Lake, and Slana have a customary and traditional use determination for brown bear in Unit 12.

Regulatory History

In 1990, the Federal Subsistence Board (Board) did not adopt State brown bear regulations for Units 11 and 12 as brown bears were not considered a subsistence resource. As a result, there were no Federal seasons for brown bears in Units 11 and 12 until the late 1990s.

In 1997, the Board adopted Proposal P97-23 with modification, giving residents of Unit 12 and Dot Lake a customary and traditional use determination for brown bear in Unit 12 and recognizing brown bears as a subsistence resource.

In 1998, the Board adopted Proposal P98-96 with modification, adding residents of Chistochina, Gakona, Mentasta Lake, and Slana to the customary and traditional use determination for brown bear in Unit 12.

In 1998, the Board also adopted Proposal P98-097, creating an Aug. 10 – June 30 brown bear season in Unit 12 with a harvest limit of 1 bear. This was done to allow communities in Unit 12 with a customary and traditional use determination to hunt brown bear under Federal regulations and to align Federal and State regulations as users could already hunt brown bear on most (non-National Park) Federal lands under State regulations. The Federal harvest limit and season for brown bear in Unit 12 has not been changed since.

Also in 1998, the Board adopted Proposal P98-22, which made a customary and traditional use determination for brown bears in Unit 11. Residents in Chistochina, Chitina, Copper Center, Gakona, Glennallen, Gulkana, Kenny Lake, Mentasta Lake, Tazlina, Tonsina, and Units 11 and 12 received a positive customary and traditional use determination in Unit 11, north of the Sanford River. Residents of Chistochina, Chitina, Copper Center, Gakona, Glennallen, Gulkana, Kenny Lake, Mentasta Lake, Tazlina, Tonsina, and Unit 11 received a positive customary and traditional use determination in Unit 11 remainder.

In 1999, the Board adopted Proposal P99-004, which requested a brown bear season in Unit 11 of Sept. 1 – May 31 with a harvest limit of 1 bear. Brown bear populations appeared healthy and the Proposal intended to provide harvest opportunity of a customary and traditional resource to Federally qualified subsistence users, and because users could already hunt portions of the unit under State regulations.

In 2003, the Board adopted Proposal WP03-13, which extended the brown bear season in Unit 11 from Sept. 1–May 31 to Aug. 10-June 15. This was done to align Federal and State regulations, to provide additional harvest opportunity for Federally qualified subsistence users, and because there were no conservation concerns.

In 2012, the Alaska Board of Game adopted Proposal 196, allowing brown bears to be taken at bait stations in Unit 12. This was done to allow more opportunity to harvest brown bear as take of brown bears in Unit 12 was consistently below sustainable harvest levels (ADF&G 2012).

In 2013, the NPS adopted temporary restrictions under the Wrangell-St. Elias National Park and Preserve (NPP) compendium on taking brown bears over bait in National Preserves under the new State regulations to avoid public safety issues and to avoid food conditioning bears. These temporary restrictions were adopted again in 2014 and 2015. Consequently, the State provision allowing the take of brown bears over bait in Unit 12 has not gone into effect on National Preserve lands (Wrangell-St. Elias National Preserve, NPS 2015).

In 2015, the State adopted Proposal 93, allowing brown bears to be taken at bait stations in Unit 11, effective July 1, 2015. This was done to provide users additional opportunity and because there are no biological concerns for brown bears in Unit 11 (ADF&G 2015a).

The NPS temporary restrictions implemented in 2015 also apply to Unit 11. Therefore, National Preserve lands in Unit 11 (Wrangell-St. Elias National Preserve) are not open to the take of brown bears over bait under State regulations.

Current Events

The National Park Service published its final rule on October 23, 2015 to permanently restrict the take of brown bears over bait on National Preserves under State regulations.

The National Wildlife Refuge System (NWRS) published its proposed rule to revise NWRS regulations on January 8, 2016. Proposed revisions include the prohibition of the take of brown bears over bait under State general hunting and trapping regulations. The public comment period closed April 7, 2016. These changes would not affect Federal subsistence regulations (USFWS 2015).

Biological Background

State management objectives for Unit 11 brown bears are as follows (Schwanke 2011).

- Provide maximum opportunity to hunt brown bears in Unit 11.

State management goals and objectives for Unit 12 brown bears are as follows (Bentzen 2011):

- Maintain the brown/grizzly bear population and its habitat in concert with other components of the ecosystem.
- Provide the greatest sustained opportunity to hunt brown/grizzly bears in Unit 12.
- Manage harvests so 3-year mean harvest does not exceed 28 bears and includes at least 55% males in the harvest.

No formal brown bear population estimates have been conducted for Unit 11, although frequent observations by Alaska Department of Fish and Game (ADF&G) staff and the public suggest an abundant

and well-distributed population (Schwanke 2011). Frequent sightings of sows with cubs suggest good productivity in this unit as well.

In 2000, the brown bear population in Unit 12 was estimated at 350-425 bears and has likely remained unchanged since then. Based on harvest, productivity appears adequate (Bentzen 2011).

Habitat

Unit 11 is generally considered good brown bear habitat due to the variety of habitats, prevalence of salmon streams and ungulates, and large tracts of undeveloped land (Schwanke 2011). Brown bears inhabit all of Unit 11, except the high-elevation glaciers.

Habitat in Unit 12 is considered of moderate quality for brown bears. Habitat is relatively undisturbed, but streams do not contain reliable seasonal salmon runs. Wildfires and timber harvest projects in Unit 12 are expected to enhance brown bear habitat over the long-term (Bentzen 2011).

Harvest History

Brown bear harvest in Unit 11 averaged 16 bears annually through the 1960s and 1970s, but declined substantially after 1980 when Wrangell-St. Elias National Park and Preserve was established, closing much of the unit to brown bear harvest. Harvest increased after 1999, when a Federal brown bear season was established for Unit 11, opening the park to subsistence brown bear hunting. However, overall harvest remains low compared to adjacent areas with similar habitat (i.e. Unit 13, Schwanke 2011). Between 2005 and 2014, harvest ranged from 7-26 bears/year, with an average annual harvest of 16 bears (Schwanke 2011, Faulise 2015, ADF&G 2015b, **Figure 1**).

Brown bear harvest rates for Unit 12 are within State management objectives. Between 1996 and 2014, harvest of brown bears in Unit 12 ranged from 8-33 bears/year, with an average annual harvest of 19 bears (Bentzen 2011, Faulise 2015, **Figure 2**). The 3-year mean harvest of male bears in Unit 12 was within State management objectives for 14 out of 17 years (1998-2014), and ranged from 53-69%, with an average annual harvest of 61% males (Bentzen 2011, Faulise 2015, **Figure 3**).

In 2012, the State legalized take of brown bear over bait in Unit 12. The following spring (2013), the number of bear bait stations in Unit 12 increased to 89 stations from an 11-year average of 50 bait stations/year between regulatory years 2000/01 and 2011/12 (ADF&G 2014). Brown bear harvest in 2012/13-2014/15 was above the 19-year average, but down from 2011/12 harvests (Faulise 2015, **Figure 2**). Research, defense of life or property, and other human-related, non-hunting accidents comprised a small percentage of brown bear mortalities in this unit (0-3 bears per year) (Bentzen 2011).

Non-locals and non-residents have historically harvested most of the brown bears in Units 11 and 12. From 2005/06 to 2009/10, local residents accounted for 6-31% of the annual brown bear harvest (1-5

bears/year) in Unit 11 (Schwanke 2011). From 2005/06 to 2010/11, local residents accounted for 6-36% of the annual brown bear harvest (1-4 bears/year) in Unit 12 (Bentzen 2011).

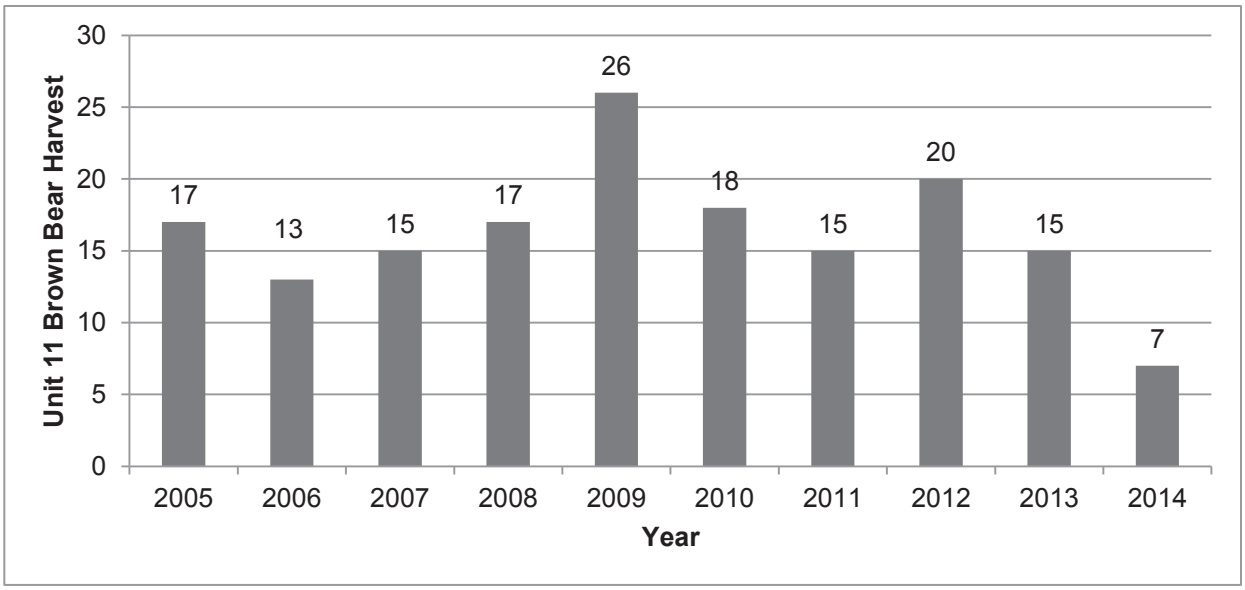

Figure 1. Unit 11 brown bear harvest, 2005-2014. (2005-2009 data is from Schwanke 2011. 2010-2014 data is from Faulise 2015, pers. comm.)

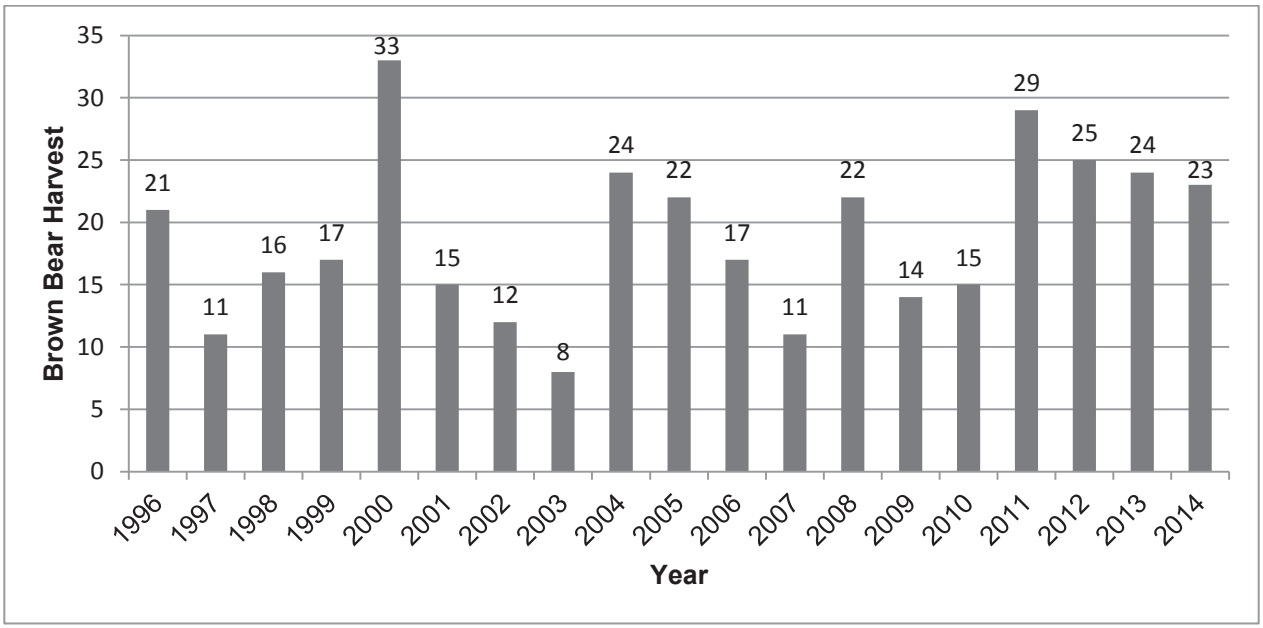

Figure 2. Unit 12 brown bear harvest, 1996-2014. (1996-2009 data is from Bentzen 2011. 2010-2014 data is from Faulise 2015, pers. comm.)

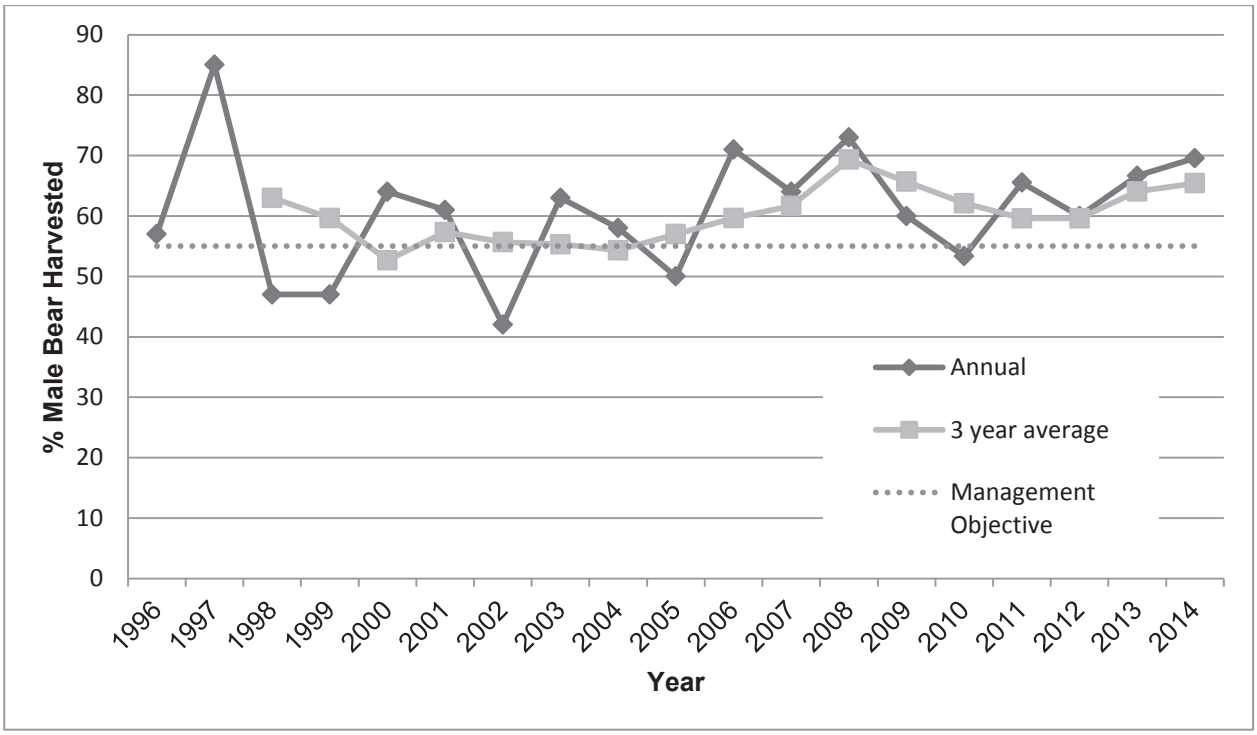

Figure 3. Percent of male bears harvested in Unit 12, 1996-2014 (1996-2009 data is from Bentzen 2011. 2010-2014 data is from Faulise 2015, pers. comm.)

Effects of the Proposal

Adopting this proposal would enable Federally qualified subsistence users to take brown bears over bait in Unit 11 from Apr. 15-June 15 and in Unit 12 from Apr. 15-June 30, providing additional harvest opportunities.

Adoption of this proposal may affect brown bear populations in both units. Baiting is considered a more efficient harvest strategy than the traditional "spot and stalk" method, particularly in forested areas where brown bears do not concentrate (Dunkley and Cattet 2003, OSM 2014). While brown bears can already be harvested over bait on BLM, USFS and FWS managed lands under State regulations, adopting this proposal would open Wrangell-St. Elias National Park and Preserve (NPP) lands to brown bear baiting by Federally qualified subsistence users, which may increase the brown bear harvest in Units 11and 12.

Local residents comprise a minority of the brown bear harvests in Units 11 and 12. Additionally, brown bear harvest data indicate that the number of bears harvested in Unit 12 did not increase substantially following the allowance of brown bear baiting under State regulations. Due to these reasons, any increase in harvest resulting from opening Wrangell-St. Elias NPP to take of brown bears over bait is expected to be small.

Baiting may also result in food conditioned bears, raising concerns about public safety (Dunkley and Cattet 2003, NPS 2015). However, as brown bears have been feeding at black bear baiting stations for years, no increased threat to public safety is expected.

OSM CONCLUSION

Support Proposal WP16-18.

Justification

Adopting this proposal provides Federally qualified subsistence users additional opportunity to harvest brown bears in Units 11 and 12. While limited, all available biological information suggests no conservation concerns for brown bears in either unit. Any increase in harvest is expected to be small with no impact to the brown bear population.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Southcentral Subsistence Regional Advisory Council

Support WP16-18. No conservation concern exists for the brown bear population in Units 11 and 12 and the current harvest is low. No increase in brown bears is anticipated and this will allow for additional subsistence opportunity.

Eastern Interior Alaska Subsistence Regional Advisory Council

Support WP16-18. The Council supports the hunting of brown bear over bait in Units 11 and 12 because this would increase harvest opportunity for federally qualified users in this heavily forested region where "spot and stalk" is not an option for hunting in this area where the trees are too thick to see or move quietly. This proposal would provide an efficient method to hunt bears for the allotted subsistence harvest quota. The Council discussed that this is a customary and traditional practice used by rural users and that based on the information they were presented there does not appear to be a conservation concern for the species. Council members relayed that grizzly bear meat is very good and good subsistence food.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

WRITTEN PUBLIC COMMENTS

May 27, 2015

Office of Subsistence Management
Attn: Regulations Specialist
1011 East Tudor Road, Mail Stop 121
Anchorage, Alaska 99503

Reference: WP16-18

To whom it may concern:

An ongoing issue of concern and public education in Alaska has been conditioning bears to "attractants" like fish waste, unsecured garbage and freezers that might attract bears to homes, businesses, and recreation areas which could result in bear-human conflicts.

The public safety concerns posed by food conditioned bears are universally recognized by natural resource agencies throughout the range of the species. Food conditioned bears are more likely to be a danger to humans then those that are not food conditioned. Further, food conditioning of bears tends to increase the likelihood of a bear being killed in defense of life or property. Baiting is incongruent with best management practices and standard public educational messaging on the issue of food and bears.

Conservation concerns must be given a priority over the simplification of hunting regulations, listed below some of these concerns:

1. I was unable to locate any current brown bear population data for the GMUs in the Proposal.

2. Brown bears have a very low reproductive rate, warranting scientific concern for potential over harvest, particularly when baseline data is unknown or anecdotal.

3. The Board of Game liberalized brown bear regulations in 2003 to increase the harvest of bears in GMU 11 to benefit ungulate populations.

4. The State of Alaska already allows brown bear baiting in GMU 12 largely to benefit ungulate populations. To align with the state in this regard is in violation of the Federal Subsistence Board predator management policy.

This regulation is also inconsistent with the NPS and USFWS current and proposed rules prohibiting the taking of brown bears over bait on federal lands.

Passing this proposal will not affect subsistence use, as there is ample opportunity to hunt brown bears on federal lands in these GMUs.

I ask that you to oppose WP16-18.

Thank you for considering my comments.

Sincerely,

Dave Bachrach
Homer, AK

Matuskowitz, Theo <theo_matuskowitz@fws.gov>

Fwd: Letter supporting FSB proposal WP 16-70

1 message

AK Subsistence, FW7 <subsistence@fws.gov> Tue, Jun 9, 2015 at 12:21 PM
To: Theo Matuskowitz <theo_matuskowitz@fws.gov>, Kayla Mckinney <kayla_mckinney@fws.gov>

——— Forwarded message ———
From: **Derek Stonorov** <dstonorov@gmail.com>
Date: Tue, Jun 9, 2015 at 12:18 PM
Subject: Letter supporting FSB proposal WP 16-70
To: subsistence@fws.gov

To: Federal Subsistence Board

From: Derek Stonorov P.O. Box 15005, Fritz Creek, Alaska 99603

Subject: Letter of support for FSB proposal WP 16-70.

Please do support WP 16-70 to change the brown bear baiting regulations in YFNWR.
Please do not support WP 16-18 to allow brown bear baiting in GMU Units 10 and 11.

Brown bear baiting--or any bear baiting for that matter--sets a dangerous precedent for wildlife management, especially on federal lands. Bear baiting increases hunter efficiency and can most certainly can lead to over harvest.

A discussion of brown bear baiting in any context other than predator control is a waste of the FSB time.

Brown bear populations in GMUs 10 and 11 as well as the YFNWR are certainly not known and what little data available is 20-30 years old and it is very doubtful that the methods used by ADF&G for making these estimates would stand up to peer review.

I have lived and hunted in Alaska for more than 50 years. I am a wildlife biologist and served on the Homer Fish and Game Advisory Committee for many years.

Thank you for your time,

Derek Stonorov

May 27, 2015

Federal Subsistence Board
ATTN: Theo Matuskowitz
Office of Subsistence Management
1011 E. Tudor Road, MS-121
Anchorage, Alaska 99503-6199

RE: 2016-2018 Wildlife Proposals

Dear Mr. Matuskowitz:

Enclosed is Ahtna Tene Nene' Customary & Traditional Use Committee's comments on the 2016-2018 wildlife proposals.

Sincerely,

Gloria Stickwan
for Roy S. Ewan

Roy S. Ewan,
Chair

WP16-18 Allowing Bait To Hunt Brown Bear In Unit 11 And Unit 12

Comments:

We support WP16-18 to allow federally qualified hunters to use bait in Unit 11 and Unit 12 to hunt brown bear. In Unit 11 allow bait to hunt brown bear between April 15 and June 15, and in Unit 12 allow bait to hunt brown bear from April 15 and June 30.

Taking bears over bait has been and still is a method to harvest black and brown bears in the Copper Basin communities. Ahtna People customarily and traditionally used snares to kill bears to protect drying salmon on fish racks. Opportunistically harvesting brown and black bears occurred to feed families. Some Ahtna people ate brown bears and others did not. Brown bears' meat was consumed, meat was boiled or fried, hides were used for clothing, such as gloves, mattresses in tents, mukluks, claws were used as jewelry or neck laces, bladder was used as windows, fat was used as heating source and for lighting in dwellings.

There isn't a conservation concern for black or brown bears in Unit 11 and Unit 12. Harvesting a few bears in areas across the Copper River, in forested areas, will help to keep the natural abundance and diversity of wildlife in population within balance.

WP16–23 Executive Summary	
General Description	Proposal WP16-23 requests an increase in the number of permits available for harvest of brown bear in Unit 9B within Lake Clark National Park and Preserve. *Submitted by Leon Alsworth of Port Alsworth.*
Proposed Regulation	**Unit 9—Brown Bear** *Unit 9B—Lake Clark National Park and Preserve—Rural residents of Iliamna, Newhalen, Nondalton, Pedro Bay, Port Alsworth, residents of that portion of the park resident zone in Unit 9B; and 13.440 permit holders—1 bear by Federal registration permit only. The season will be closed by the Lake Clark National Park and Preserve Superintendent when four females or ten bear have been taken, whichever occurs first.* — *July 1–June 30* *§__.26(n)(9)(iii)(C) In Unit 9B, Lake Clark National Park and Preserve, residents of Iliamna, Newhalen, Nondalton, Pedro Bay, Port Alsworth, and that portion of the park resident zone in Unit 9B and 13.440 permit holders may hunt brown bear by Federal registration permit in lieu of a resident tag. ~~Ten permits will be available with at least one permit issued in each community; however, no more than five permits will be issued in a single community.~~ The season will be closed when four females or ten bears have been taken, whichever occurs first. The permits will be issued and closure announcements made by the Superintendent Lake Clark National Park and Preserve.*
OSM Conclusion	**Support**
Bristol Bay Regional Advisory Council Recommendation	**Support with modification** to require a reporting within 10 days.
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

WP16–23 Executive Summary	
ADF&G Comments	**Neutral**
Written Public Comments	**None**

STAFF ANALYSIS
WP16-23

ISSUES

Proposal WP16-23, submitted by Leon Alsworth of Port Alsworth, requests an increase in the number of permits available for harvest of brown bear in Unit 9B within Lake Clark National Park and Preserve.

DISCUSSION

The proponent requests a change in the number of harvest permits that are available for brown bears in Lake Clark National Park and Preserve. Currently, the annual harvest quota is ten bears, and a maximum of ten permits are issued each year. The proponent states that this limits opportunity for Federally qualified subsistence users, because some individuals hold permits but do not hunt. He suggests that all Federally qualified subsistence users would have the opportunity to hunt bears if the permitting process mirrored the sheep permitting process. For sheep, the season is closed when the seasonal quota is reached, but there is no limit to the number of permits that are issued. Conversation with the proponent confirmed that the only change requested is an increase in the number of permits issued.

Existing Federal Regulation

Unit 9—Brown Bear

Unit 9B—Lake Clark National Park and Preserve—Rural residents of Iliamna, Newhalen, Nondalton, Pedro Bay, Port Alsworth, residents of that portion of the park resident zone in Unit 9B; and 13.440 permit holders—1 bear by Federal registration permit only. The season will be closed by the Lake Clark National Park and Preserve Superintendent when four females or ten bear have been taken, whichever occurs first.	*July 1–June 30*

§__.26(n)(9)(iii)(C) In Unit 9B, Lake Clark National Park and Preserve, residents of Iliamna, Newhalen, Nondalton, Pedro Bay, Port Alsworth, and that portion of the park resident zone in Unit 9B and 13.440 permit holders may hunt brown bear by Federal registration permit in lieu of a resident tag. Ten permits will be available with at least one permit issued in each community; however, no more than five permits will be issued in a single community. The season will be closed when four females or ten bears have been taken, whichever occurs first. The permits will be issued and closure announcements made by the Superintendent Lake Clark National Park and Preserve.

Proposed Federal Regulation

Unit 9—Brown Bear

Unit 9B—Lake Clark National Park and Preserve—Rural residents of Iliamna, Newhalen, Nondalton, Pedro Bay, Port Alsworth, residents of that portion of the park resident zone in Unit 9B; and 13.440 permit holders—1 bear by Federal registration permit only. The season will be closed by the Lake Clark National Park and Preserve Superintendent when four females or ten bear have been taken, whichever occurs first.	*July 1–June 30*

§__.26(n)(9)(iii)(C) In Unit 9B, Lake Clark National Park and Preserve, residents of Iliamna, Newhalen, Nondalton, Pedro Bay, Port Alsworth, and that portion of the park resident zone in Unit 9B and 13.440 permit holders may hunt brown bear by Federal registration permit in lieu of a resident tag. ~~Ten permits will be available with at least one permit issued in each community; however, no more than five permits will be issued in a single community.~~ The season will be closed when four females or ten bears have been taken, whichever occurs first. The permits will be issued and closure announcements made by the Superintendent Lake Clark National Park and Preserve.

Existing State Regulation

Unit 9—Brown Bear

Unit 9 near villages

Residents: One bear every regulatory year by permit available online at http://hunt.alaska.gov and in person in King Salmon beginning June 26	*No closed season*

Unit 9B

Residents: One bear, contact King Salmon for permit availability	*Sep. 1 – May 31*
Residents and nonresidents: One bear every four regulatory years	*No open season. Hunts open in fall of odd-numbered years and spring of even-numbered years.*

Extent of Federal Public Lands

The portion of Unit 9B within Lake Clark National Park and Preserve is 100% Federal public lands, managed by National Park Service (**Unit 9 map**).

Customary and Traditional Use Determinations

Residents of Unit 9B have a positive customary and traditional use determination for brown bear in Unit 9B.

In Unit 9B, Lake Clark National Park and Preserve, residents of Iliamna, Newhalen, Nondalton, Pedro Bay, Port Alsworth, and that portion of the park resident zone in Unit 9B and 13.440 permit holders may hunt brown bear by Federal registration permit in lieu of a resident tag.

Regulatory History

The Federal Subsistence Management Program adopted the State's positive customary and traditional use determination for brown bear in Unit 9B when it assumed management of wildlife on Federal public lands in 1990. The State harvest limit of one brown bear every four years was also adopted at that time.

The Federal Subsistence Board (Board) made changes in the brown bear seasons for the resident zone communities of Lake Clark National Park and Preserve—Iliamna, Newhalen, Nondalton, Pedro Bay and Port Alsworth —over a four year period. Adoption of Proposal P94-34 changed the harvest limit to one bear every year by Federal registration permit and provided annual spring and fall seasons to residents of Nondalton (FSB 1994). Adoption of proposals P96-30 and P96-31 made the same changes for residents of Iliamna, Newhalen, Pedro Bay, and Port Alsworth. The Board's actions on these proposals also set the current harvest quota (FSB 1996).

Adoption of Proposal P97-40 by the Board in 1997 changed the existing split season to the current year-round season for all five communities. This action also established the current system for allocating permits among communities (FSB 1997).

Prior to 2008, Federal subsistence regulations did not overtly acknowledge the eligibility of those living outside of resident zone communities but within Lake Clark National Park. That year, the Board adopted Proposal WP08-21, which clarified that individuals living within Park boundaries, not just those living in resident zone communities, were eligible to harvest brown bear within Lake Clark National Park and Preserve (FWS 2008).

Biological Background

Unit 9, which covers the Alaska Peninsula, is a prime area for brown bears. It has supported an active guiding industry since the 1960s, and serves both hunting and viewing clientele. A combination of high harvest and low salmon escapement during the late 1960s and early 1970s resulted in widespread decline of bears in the area. Subsequent hunting closures and increased law enforcement presence facilitated recovery of the brown bear population by the 1980s (Riley and Butler 2011).

Although there have been no recent surveys, the brown bear population is currently believed to be stable at high densities throughout most of the Unit 9. Line transect surveys, conducted periodically by the State between 1995 and 2005, estimated overall bear density to be approximately 28 bears/100 mi^2, or 8,000 – 9,300 bears unit-wide (Riley and Butler 2011). Lake Clark National Park was last surveyed in 2000, when overall bear density was estimated to be 10 bears/100 mi^2. Bear density was higher in coastal regions of the park and was estimated to be 38 bears/100 mi^2. Recent observations indicate that the bear numbers in the park haven't changed significantly since this survey was conducted (Mangipane 2015, pers. comm.).

Because hunting regulations generally protect family groups, the proportion of single bears can be used to assess harvest pressure in a population. Surveys conducted between 1999 and 2007 showed that the brown bear population in Unit 9 consisted of 32 – 42% single bears, suggesting that the population has been productive and exposed to low to moderate harvest rates (Riley and Butler 2011). In this population, temporal and spatial variability in bear abundance is expected to be associated with changes in resource availability rather than human harvest (Riley and Butler 2011).

Harvest History

Demand for brown bear permits for Lake Clark National Park and Preserve appears to be modest overall. Since 2005, the maximum number of permits has been issued only twice—in 2007 and 2010. On average, fewer than 6 permits are issued each year. However, 81% of permits issued between 2005 and 2014 have been to residents of Port Alsworth. In eight of the last ten years, five permits, the maximum allowed per community, have been issued to Port Alsworth residents (**Figure 1**).

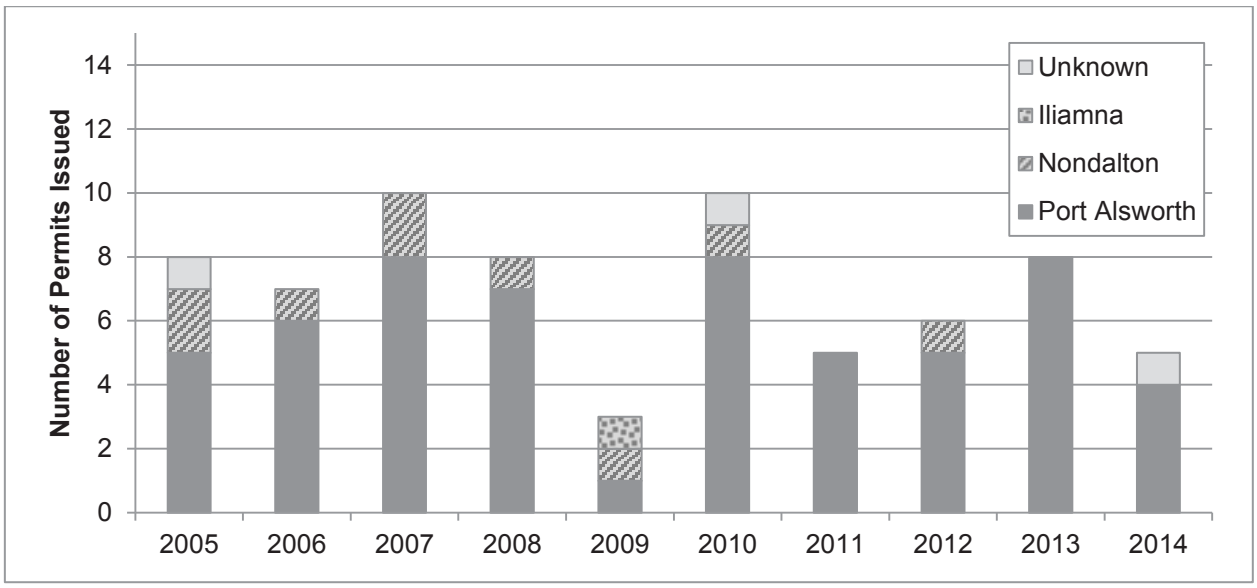

Figure 1. Federal permits issued for brown bear subsistence harvest within Lake Clark National Park and Preserve (OSM 2015).

Brown bear harvest within Lake Clark National Park and Preserve is low. Of the 71 individuals issued Federal permits to hunt in the Park and Preserve between 2005 and 2014, only 23 reported hunting. Seven bears were harvested by Federal permit during this time period, four of which were female. All were taken

by residents of Port Alsworth. In 2010, the only year in which more than one bear was harvested by Federal permit, four bears, including three females, were harvested. Harvest reports indicate that no bears have been harvested by Federal permit since 2010. Permit holders reported a total of 168 hunt days between 2005 and 2014. Of these hunt days, 164 were by Port Alsworth residents (OSM 2015).

Under State regulation, only 3 bears were reported harvested Unit 9B between 2005 and 2013 (OSM 2015). It is unknown what proportion was harvested within Lake Clark National Preserve.

Effects of the Proposal

If adopted, this proposal would remove the limit on the number of permits issued for brown bear harvest within Lake Clark National Park and Preserve. Instead, permits would continue to be issued until the harvest quota was met. This would allow all Federally qualified subsistence users access to permits, regardless of how many community members had already acquired permits. There are no conservation concerns for brown bears associated with this action, as the harvest has been very low and the quota will limit total harvest. An expedited reporting period could be included as a permit condition to address any concern that the quota might be exceeded.

OSM CONCLUSION

Support Proposal WP16-23.

Justification

The maximum number of brown bear permits for Lake Clark National Park and Preserve are frequently issued to Port Alsworth residents. However, many permit holders never use their permit, and reported hunting effort remains low. Total harvest of brown bears, which is attributed exclusively to residents of Port Alsworth, is very low and has consistently remained below the quota established in the 1990s. This suggests that there is little risk of overharvest associated with increasing the number of permits issued. Issuing additional permits will ensure that all residents of resident zone communities have the opportunity to obtain permits, particularly given the disproportionate harvest effort and success of Port Alsworth residents.

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Mangipane, B. 2015. Wildlife biologist. Personal communication: phone. NPS. Port Alsworth, AK.

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Riley, M.D. and L. Butler. 2011. Unit 9 brown bear management report. Pages 109-117 *in* P. Harper, editor. Brown bear management report of survey and inventory activities 1 July 2008 – 30 July 2010. Alaska Department of Fish and Game. Juneau, AK.

SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Bristol Bay Subsistence Regional Advisory Council

Support WP16-23 **with modification** to provide for reporting within 10 days instead of 3 days as proposed. A three to five day reporting requirement is not sufficient. Hunters may encounter inclement weather, which may be a factor for hunting violations. The reporting requirement within 10 days will ease compliance for the hunters. No conservation concerns exist for brown bears in Unit 9B.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

WP16–24 Executive Summary	
General Description	Proposal WP16–24 requests that Federal lands in Units 9B and 9C be closed to the hunting of moose, except by Federally qualified subsistence users. *Submitted by Richard Wilson, Naknek.*
Proposed Regulation	**Unit 9—Moose** *Unit 9B – 1 bull by State registration permit* — *Aug. 20 – Sep. 20*, *Dec. 1 – Jan. 15* ***Public lands are closed for the hunting of moose, except by Federally qualified subsistence users hunting under these regulations.*** *Unit 9C – that portion draining into the Naknek River from the north – 1 bull by State registration permit* — *Aug. 20 – Sep. 20*, *Dec. 1 – Dec. 31* ***Public lands are closed for the hunting of moose, except by Federally qualified subsistence users hunting under these regulations.*** *Unit 9C – that portion draining into the Naknek River from the south – 1 bull. A State registration permit is required during the Aug. 20 – Sep. 20 season; a Federal registration permit is required during the Dec. 1 – 31 season.* — *Aug. 20 – Sep. 20*, *Dec. 1 – Dec. 31* *Public lands are closed ~~during December~~ for the hunting of moose, except by Federally qualified subsistence users hunting under these regulations.* *Unit 9C remainder – 1 bull by State registration permit* — *Sep. 1 – 20*, *Dec. 15 – Jan. 15* ***Public lands are closed for the hunting of moose, except by Federally qualified subsistence users hunting under these regulations.***

WP16–24 Executive Summary	
OSM Conclusion	**Oppose**
Bristol Bay Regional Advisory Council Recommendation	**Oppose**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Oppose**
Written Public Comments	**None**

STAFF ANALYSIS
WP16-24

ISSUES

Proposal WP16-24, submitted by the Richard Wilson of Naknek, requests that Federal lands in Units 9B and 9C be closed to the hunting of moose, except by Federally qualified subsistence users.

DISCUSSION

Both the Alaska Board of Game and the Federal Subsistence Board (Board) have passed regulations aimed at minimizing user conflict among moose hunters in Unit 9, including requiring the use of a State registration permit throughout the unit. The proponent states the proposed change will give greater opportunity to Federally qualified subsistence users by reducing competition for a low density moose population. The proponent also states that moose in Unit 9 have become much more important to local hunters since the decline of caribou populations in the area. The proponent notes that due to poor snow conditions for moose surveys in Units 9B and 9C, current moose population estimates have been difficult to obtain. He believes that limiting the hunt to local residents would be a more conservative management approach because of the lack of recent moose population estimates.

Existing Federal Regulation

Unit 9— Moose

Unit 9B – 1 bull by State registration permit	*Aug. 20 – Sep. 20* *Dec. 1 – Jan. 15*
Unit 9C – that portion draining into the Naknek River from the north – 1 bull by State registration permit	*Aug. 20 – Sep. 20* *Dec. 1 – Dec. 31*
Unit 9C – that portion draining into the Naknek River from the south – 1 bull. A State registration permit is required during the Aug. 20 – Sep. 20 season; a Federal registration permit is required during the Dec. 1 – 31 season.	*Aug. 20 – Sep. 20* *Dec. 1 – Dec. 31*
Public lands are closed during December for the hunting of moose, except by Federally qualified subsistence users hunting under these regulations.	
Unit 9C remainder – 1 bull by State registration permit	*Sep. 1 – 20* *Dec. 15 – Jan. 15*

Proposed Federal Regulation

Unit 9— Moose

Unit 9B – 1 bull by State registration permit	*Aug. 20 – Sep. 20* *Dec. 1 – Jan. 15*
Public lands are closed for the hunting of moose, except by Federally qualified subsistence users hunting under these regulations.	
Unit 9C – that portion draining into the Naknek River from the north – 1 bull by State registration permit	*Aug. 20 – Sep. 20* *Dec. 1 – Dec. 31*
Public lands are closed for the hunting of moose, except by Federally qualified subsistence users hunting under these regulations.	
Unit 9C – that portion draining into the Naknek River from the south – 1 bull. A State registration permit is required during the Aug. 20 – Sep. 20 season; a Federal registration permit is required during the Dec. 1 – 31 season. *Public lands are closed ~~during December~~ for the hunting of moose, except by Federally qualified subsistence users hunting under these regulations.*	*Aug. 20 – Sep. 20* *Dec. 1 – Dec. 31*
Unit 9C remainder – 1 bull by State registration permit	*Sep. 1 – 20* *Dec. 15 – Jan. 15*
Public lands are closed for the hunting of moose, except by Federally qualified subsistence users hunting under these regulations.	

Existing State Regulation

Unit 9B – Moose

Residents: one bull by permit available in person in Unit 9B villages or in King Salmon beginning Aug. 14, contact King Salmon for additional information	*RM272*	*Sep. 1 – Sep. 15*
Residents: one antlered bull by permit available in person in Unit 9B villages or in King Salmon beginning Nov. 13, contact King Salmon for additional information	*RM272*	*Dec. 15 – Jan. 15*
Nonresidents: one bull with 50-inch or antlers with 4 or more brow tines on at least one side by permit available in person in	*RM282*	*Sep. 5 – Sep. 15*

Unit 9B villages or in King Salmon beginning Aug. 14, contact King Salmon for additional information		
Unit 9C – that portion draining into the Naknek River		
Residents: one bull by permit in person in King Salmon beginning Aug. 14	*RM272*	*Sep. 1 – Sep. 15*
Residents: one antlered bull by permit in person in King Salmon beginning Nov. 13	*RM272*	*Dec. 1 – Dec. 31*
Nonresidents: one bull with 50-inch antlers or antlers with 3 or more brow tines on at least one side by permit in person in King Salmon beginning Aug. 14	*RM282*	*Sep. 5 – Sep. 15*
Unit 9C remainder		
Residents: one bull by permit available in person in King Salmon beginning Aug. 14	*RM272*	*Sep. 1 – Sep. 15*
Residents: one antlered bull by permit available in person in King Salmon beginning Nov. 13	*RM272*	*Dec. 15 – Jan. 15*
Nonresidents: one bull with 50-inch antlers or antlers with 3 or more brow tines on at least one side by permit in person in King Salmon beginning Aug. 14 bull by permit available in person in King Salmon beginning Nov. 13	*RM282*	*Sep. 5 – Sep. 15*

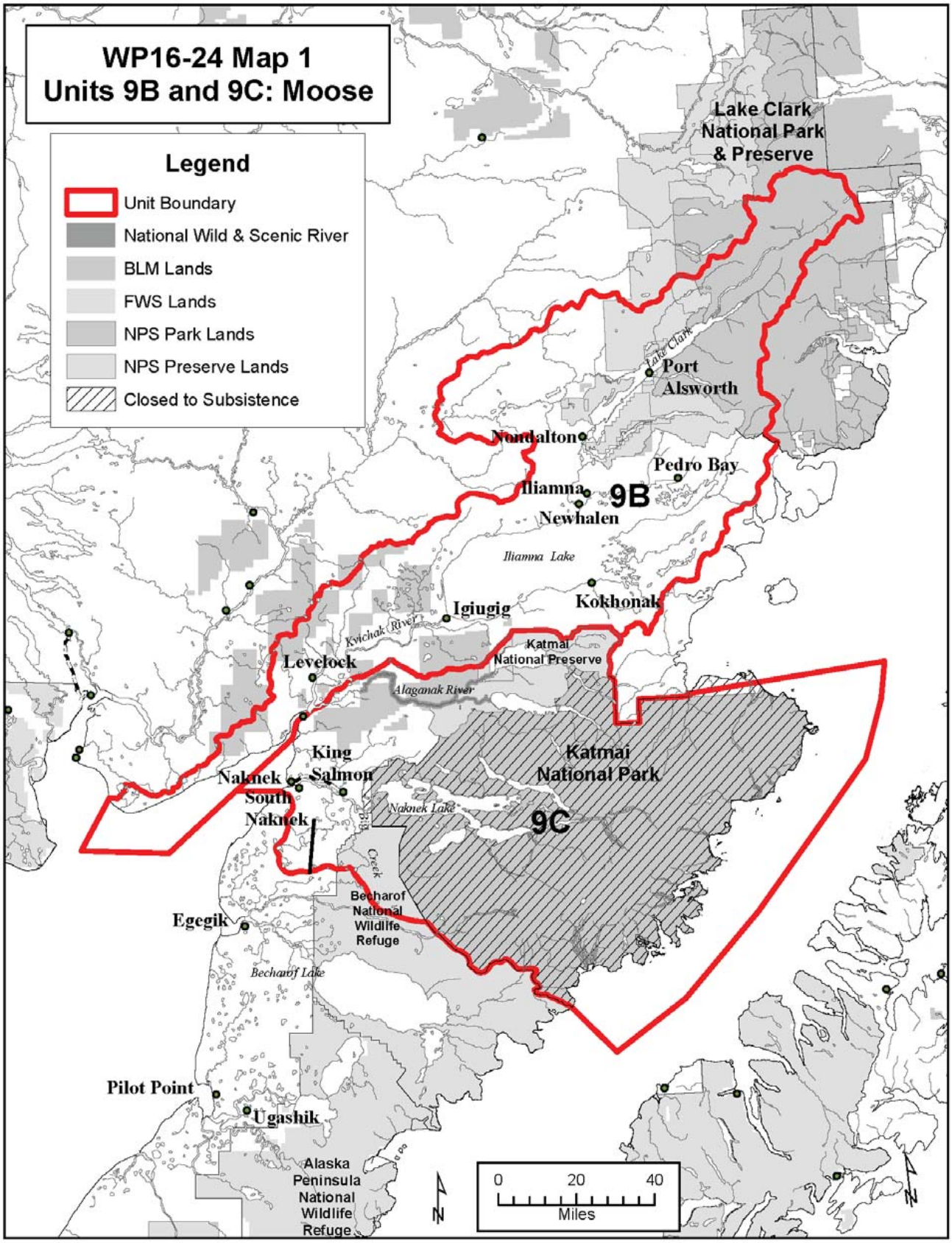
Extent of Federal Public Lands

Federal public lands comprise approximately 56% of Unit 9B and consist of 26% National Park Service (NPS) managed lands and 18% Bureau of Land Management (BLM) managed lands.

Federal public lands comprise approximately 86% of Unit 9C and consist of 78% NPS managed lands, 4% U.S. Fish and Wildlife Service managed lands, and 4% BLM managed lands. Hunting is not authorized within the Katmai National Park boundaries, which comprises approximately 71% of Unit 9C (**Map 1**).

Customary and Traditional Use Determinations

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


WP16-24 Map 1
Units 9B and 9C: Moose
Legend
Unit Boundary
National Wild & Scenic River
BLM Lands
FWS Lands
NPS Park Lands
NPS Preserve Lands
Closed to Subsistence
Lake Clark National Park & Preserve
Lake Clark
Port Alsworth
Nondalton
Pedro Bay
Iliamna
9B
Newhalen
Iliamna Lake
Kokhonak
Igiugig
Kvichak River
Katmai National Preserve
Levelock
Alaganak River
King Salmon
Naknek
South Naknek
Katmai National Park
Naknek Lake
9C
Bear Creek
Becharof National Wildlife Refuge
Egegik
Becharof Lake
Pilot Point
Ugashik
Alaska Peninsula National Wildlife Refuge
0 20 40
Miles
N

Regulatory History

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

Based on the direction given by the Board, the Office of Subsistence Management provided funding for, and worked in cooperation with, the Alaska Department of Fish and Game (ADF&G) to initiate a Unit 9 Moose Working Group (Working Group). The Working Group was established to better understand the conflicts in the region and to develop management strategies and recommendations. The Council submitted a number of proposals (WP 10-47, -48, -49, -50, -52) to address user conflicts. In May 2010, the Board considered those proposals, as well as proposals WP10-45 (deferred WP08-30) and WP10-46 (deferred WP08-31). The Board deferred all of these proposals, consistent with the recommendations of the Council, until the Working Group could finish its work.

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

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

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

In March 2011, the Alaska Board of Game adopted Proposal 14, which was submitted by the Unit 9 Working Group. The proposal requested the establishment of registration permit hunts for moose in Unit 9. At this meeting the Alaska Board of Game also adopted Proposal 17, which extended the moose hunting season five days. In Unit 9C the end date changed from Sep. 15 to Sep. 20 and in Unit 9E the end date changed from Sep. 20 to Sep. 25. Based on the actions of the Alaska Board of Game, the Council supported aligning, to the maximum extent possible, Federal regulations for moose hunting in Unit 9 with the changes made in State regulation (BBSRAC 2011).

In 2012, deferred Proposals WP10-45, -46, -47, -48, -50 and -52 were addressed by the Board. WP10-45 requested a change to the moose season dates in a portion of Unit 9. Proposals WP10-46, WP10-49 and

WP10-50 requested that portions of Unit 9 be closed to the taking of moose by non-Federally qualified subsistence users. Proposals WP10-47, WP10-48 and WP10-52 requested that non-Federally qualified subsistence users hunting moose in portions of Unit 9 be restricted from harvesting moose within a two mile wide corridor on either side of waterways within Federal public lands. All of the proposals were originally deferred by the Board during its May 2010 meeting pending the outcome of the Unit 9 Moose Working Group process. In 2012, the Board rejected Proposals WP10-46, -47, -48, -49, -50 and -52 and adopted Deferred Proposal WP10-45 with modification to require a State registration permit to harvest moose in Unit 9 and to add an additional 5 days to the fall seasons in Units 9C and 9E. In Unit 9C, the season end date changed from Sep. 15 to Sep. 20 and in Unit 9E the season end date changed from Sep. 20 to Sep. 25.

Emergency Special Action Request WSA15-01 submitted by the Alaska Peninsula/Becharof National Wildlife Refuge, was approved by the Board in March 2015, to require a Federal permit for the fall 2015 season on Federal public lands within the Refuge. Since there was already a Federal registration permit required for the December moose season in the affected portion of Unit 9C, the fall season dates could be added to that permit. The Refuge submitted Proposal WP16-22 as a follow-up to WSA15-01 that would requesting this change be made in regulation.

In 2007, the Board enacted a *Policy on Closures to Hunting, Trapping and Fishing on Federal Public Lands in Alaska* (Aug. 29, 2007) (**Appendix A**), which outlines the criteria for implementation of closures on Federal public land. A closure can only be justified if it meets the criteria set forth in that policy.

Biological Background

Since the early 20th century, moose on the Alaska Peninsula gradually expanded their range southwestward. This expansion was accompanied by a dramatic population increase until the 1960s, when the population peaked and then began to decline. Biologists believe that range damage from over-browsing lead to the decline (Butler 2010). Even after a series of hunting restrictions and improvements in range conditions, the moose population in some subunits, such as Unit 9E, had declined as much as 60% from the peak moose population in the 1960s. Brown bear predation on neonatal moose was thought to be the primary limiting factor of moose in Unit 9 (Butler 2010).

State population objectives for moose in Unit 9 (Butler 2004 and 2008) are to:

1) maintain existing densities in areas with moderate (0.5–1.5 moose/square mile) or high (1.5–2.5 moose/square mile) densities;
2) increase low-density populations (where habitat conditions are not limiting) to 0.5 moose/square mile; and,
3) maintain sex ratios of at least 25 bulls:100 cows in medium-to-high density populations and at least 40 bulls:100 cows in low-density areas

Overall, management objectives for bull:cow ratios and population are being maintained in both Unit 9B (low density area) and Unit 9C (moderate density area) (Butler 2009, pers. comm.). In Unit 9B, the past two composition surveys indicate that the bull:cow ratio at or just below the biological objective (**Table 1**). In Unit 9C, the bull:cow ratio has been well above management objective (**Table 1**), suggesting that there is a harvestable surplus of bulls in that area (Watts 2015, pers. comm.). In both Units 9B and 9C, the

bull:cow ratios also suggest that hunter harvest is not a primary factor limiting moose abundance, since the legal harvest in these units is limited to bulls and if human harvest was the primary cause of low abundance, the bull:cow ratios would be more negatively skewed (Watts 2015, pers. comm.). The moose populations in Unit 9 are considered stable albeit at low density, with the most recent population estimate for Unit 9B at approximately 2,000 moose and for Unit 9C outside of Katmai National Park at approximately 800 moose (Riley 2012).

Table 1. Moose composition survey results in Units 9B and 9C, 2003-2013 (Butler 2008 and 2010, Crowley 2014, pers. comm.).

	Unit 9B (low density population)		**Unit 9C** (medium density population)	
Year	**Bulls: 100 Cows**	**Calves: 100 Cows**	**Bulls: 100 Cows**	**Calves: 100 Cows**
2003	14	26	23	5
2004	-	-	-	-
2005	23	19	34	19
2006	-	-	-	-
2007	40	2	40	20
2008	-	-	46	13
2013	34	23	-	-

In the past decade, local residents have regularly expressed difficulty in harvesting sufficient moose, a situation they attribute to a decreasing moose population. The erratic calf:cow ratios within Unit 9 (Butler 2008) may have led to the perception that the population is declining. From 1998 to 2007, the calf:cow ratios in Unit 9B ranged as low as 2 calves:100 cows in 1999 and 2007 to as high as 26 calves:100 cows in 2003 (Butler 2006, 2008) In Unit 9C, the calf:cow ratio (**Table 1)** was as low as 5 calves: 100 cows in 2003 and as high as 20 calves:100 cows in 2007 (Butler 2006, 2008). Recent composition surveys in 2013 showed an estimated calf:cow ratio of 25:100, and a bull:cow ratio of 38:100 in Unit 9 as a whole (Crowley 2014, pers. comm.). Lack of snow cover prevented completion of 2014 surveys (Klutsch 2015, pers. comm). Low calf:cow ratios suggest that calf recruitment and possibly calf production (depending on twinning rates) is a primary factor limiting moose abundance, and collectively, these data suggest that habitat and predation are probably key limiting factors to the moose population in Units 9B and 9C (Watts 2015, pers. comm.).

Harvest History

After remaining relatively stable for several decades, the reported moose harvest in Unit 9 has been declining since the 1990s (Riley 2012). In Unit 9B and 9C, total harvest averaged 60 moose annually between 2003 and 2014, but appears to have decreased over the past 12 years, from 66 moose annually for 2003 – 2008 to 54 moose annually for 2009 – 2014 (**Table 2**). Local harvest, defined as harvest by residents of Unit 9, averaged 30 moose per year and has remained relatively stable for the 2003 – 2014 time period (**Table 2**). Local harvest is heavily influenced by weather and travel conditions. For instance, reported harvest by local users in 2014 was one of the highest harvests in the past decade, and was

influenced by heavy snowfall that allowed better hunter access (BBSRAC 2015).

The percentage of the harvest in Units 9B and 9C that can be attributed to local users has increased in recent years, from 46% for 2003 – 2008 to 54% for 2009 – 2014, a trend attributable to a decrease in nonresident harvest (**Table 2**). Underreporting of moose harvest by local users is known to occur (Riley 2012), so local harvest likely accounts for a larger proportion of total harvest than these data suggest.

While reported harvest in Units 9B and 9C by local residents has not declined, the success rate of that user groups has declined in recent years, from 27% for 2003 – 2008, to 19% for 2009 – 2014. On the contrary, success rates have remained stable for nonlocal residents (26%) and nonresidents (33%) (ADF&G2015). Nonresidents typically had a higher success rate than residents, as most flew out to hunt, and many employed guides (Riley 2012).

Across Unit 9, the majority of reported moose harvest has occurred in September. Aircraft have been, and continue to be, the most common transport method for moose hunters. Boats are the second most common transport mode (Riley 2012).

In Units 9B and 9C, Federally qualified subsistence users have longer seasons and additional opportunity to harvest moose. In Unit 9B, the Federal fall season is 17 days longer than the State season and 14 days longer in the winter season. In Unit 9C, that portion draining into the Naknek River, the Federal fall season is 17 days longer than the State season; and in Unit 9C remainder, the Federal fall season is 5 days longer than the State season. In both units the nonresident moose season is 11 days and runs from Sep. 5-15.

Table 2. Reported moose hunter residency and success in Unit 9B and 9C, 2003-2013 (ADF&G 2015; OSM 2015). Local residents are defined as those residing in Unit 9.

Year	Local Resident	Nonlocal Resident	Nonresident	Unknown	Total
2003	36	15	26	2	78
2004	34	18	24	2	73
2005	33	22	13	1	69
2006	22	14	13	0	49
2007	27	20	20	1	65
2008	29	14	9	1	53
2009	16	17	11	1	45
2010	30	11	4	0	45
2011	45	12	4	2	63
2012	26	21	7	0	54
2013	23	14	10	0	47
2014	38	13	17	0	67

Effects of the Proposal

If this Proposal is adopted, it would close Federal public lands to the hunting of moose except by Federally qualified subsistence users. The moose population in Unit 9 appears to be stable, albeit at low densities, and can withstand the current hunting pressure. If this proposal is adopted, the bull:cow ratio may increase since bull harvest by non-Federally qualified subsistence users would be eliminated on Federal public lands. Limiting the number of bulls harvested may be contrary to management goals if the population is at or near carrying capacity. Fewer bulls being harvested could result in decreased forage availability and reproductive potential for the moose population on Federal public lands.

OSM CONCLUSION

Oppose Proposal WP16-24.

Justification

This proposal does not meet the criteria for closure, as outlined in the Board's *Policy on Closures to Hunting, Trapping and Fishing on Federal Public Lands in Alaska* (Appendix A). A closure is not warranted for the conservation of healthy wildlife populations. The Unit 9B and 9C moose population has been relatively stable, albeit at low densities, and local resident harvest has remained relatively steady over recent years. Limiting the number of bulls harvested by non-Federally qualified subsistence users may be contrary to management goals if the population is at or near carrying capacity. Fewer bulls being harvested could result in decreased forage availability and reproductive potential for the moose population on Federal public lands. High bull:cow ratios and low calf:cow ratios suggest that calf recruitment and possibly calf production is a primary factor limiting moose abundance, not hunter harvest. Collectively, these data suggest that habitat and predation are probably key limiting factors to the moose population in Units 9B and 9C. Thus, a more conservative management approach that limits bull harvest by non-Federally qualified subsistence users is not warranted in these units.

A closure is not necessary to ensure the continuation of subsistence uses by Federally qualified subsistence users. Currently, Federally qualified subsistence users have longer seasons than non-Federal users. Relative to nonlocal residents, Federally qualified users have an additional 17 days to harvest moose during the fall season in Units 9B and 9C, and an addition 5 days for the fall harvest in Unit 9C remainder. Additionally, the Federal winter season provides 14 additional days in Unit 9B, relative to nonlocal residents. Nonresident seasons are even shorter.

Since 2011, as recommended by the Unit 9 Moose Working Group, a registration permit has been required to provide improved harvest information needed to help address user conflicts. Recent data indicate that harvest levels have been fairly constant for several years, and in 2014 harvest by local residents was the second highest since the registration permit was instituted. Currently there are only 4 years of registration harvest reports and it will be beneficial to acquire a few more years of harvest information to help determine whether a closure is warranted.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Bristol Bay Subsistence Regional Advisory Council

Oppose WP16-24. The Council recognized that the proposal as stated did not meet the Closure policy standards and voted to oppose it (3-4), but wanted to recognize the efforts of Council member Wilson for drafting the proposal as a means of trying to force agencies to start counting moose populations. Due to recent lack of snow cover for adequate moose surveys and census, recent biological information is minimal to develop informed recommendation. The Council expressed frustration about moose management based on poor population data. The Council wants the managers to find some way to get the moose population counted, whether it is to be contracted out or to find new methods for counting moose if there is no snow. Both State and Federal managers need to do what is necessary to count the moose.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

Appendix A

POLICY ON CLOSURES TO HUNTING, TRAPPING AND FISHING ON FEDERAL PUBLIC LANDS AND WATERS 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-Federally 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

WP16–27/28 Executive Summary	
General Description	Proposal WP16–27/28 requests that the timeframe when the *up to a 31-day season* for moose can be announced in Unit 17A be changed from Dec. 1–Jan. 31 to Dec. 1–end of Feb. and that the harvest limit be changed from up to 2 moose with no antler restrictions, to up to 2 moose with a limit of one antlered bull and one antlerless moose. *Submitted by Togiak Fish and Game Advisory Committee and Nushagak Fish and Game Advisory Committee.*
Proposed Regulation	**Units 17A—Moose** *Unit 17A – up to 2 moose* ***(one antlered bull and one antlerless)*** *by State registration permit* — *Up to a 31-day season may be announced between Dec. 1–~~Jan. 31~~* ***end of Feb.***
OSM Conclusion	**Support** Proposal WP16-27 **with modification** to specify the antler restrictions and **Take no action** on Proposal WP16-28. The modified regulation should read: **Unit 17A—Moose** *Unit 17A – up to 2 moose****; one antlered bull by State registration permit, one antlerless moose*** *by State registration permit.* — *Up to a 31-day season may be announced between Dec. 1~~–Jan. 31~~* ***end of Feb.***
Bristol Bay Regional Advisory Council Recommendation	**Support** WP16-27 **as modified by OSM.** **No action taken** on WP16-28.
Yukon-Kuskokwim Delta Regional Advisory Council Recommendation	**Support** WP16-27 **as modified by OSM.** **No action taken** on WP16-28.
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

WP16–27/28 Executive Summary	
ADF&G Comments	**Support** WP16-27 **as modified by OSM. Take no action** on WP16-28.
Written Public Comments	**None**

STAFF ANALYSIS
WP16-27/28

ISSUES

Proposal WP16-27, submitted by the Togiak Fish and Game Advisory Committee, and Proposal WP16-28, submitted by the Nushagak Fish and Game Advisory Committee, request that the timeframe during which the *up to a 31-day season* for moose can be announced in Unit 17A be changed from Dec. 1–Jan. 31 to Dec. 1–end of Feb. and that the harvest limit be changed from up to 2 moose with no antler restrictions, to up to 2 moose with a limit of one antlered bull and one antlerless moose.

DISCUSSION

This change would mirror State regulations and provide a longer window during which the may-be-announced season could occur. With a longer window, the manager can be more adaptive by setting winter season dates in response to weather and travel conditions that can limit subsistence hunting opportunities. In addition, the proposed limit change is intended to keep the population healthy and productive by adjusting moose harvest restrictions.

Existing Federal Regulation

Unit 17A—Moose

Unit 17A – up to 2 moose by State registration permit	*Up to a 31-day season may be announced between Dec. 1–Jan. 31*

Proposed Federal Regulation

Unit 17A—Moose

Unit 17A – up to 2 moose ***(one antlered bull and one antlerless)*** *by State registration permit*	*Up to a 31-day season may be announced between Dec. 1–~~Jan. 31~~****end of Feb.***

Existing State Regulation

Unit 17A—Moose

Unit 17A – Two moose (one antlered bull and one antlerless) by permit available in person in Dillingham and Togiak, (up to a 31-day season may be announced Dec.-end of Feb.)	*May be announced*

Extent of Federal Public Lands

Federal public lands comprise approximately 87% of Unit 17A and consist entirely of U.S. Fish and Wildlife Service managed lands (**Unit 17 Map**).

Customary and Traditional Use Determinations

The Board has recognized the customary and traditional uses of moose by residents of Kwethluk in Unit 17A and Unit 17B, those portions north and west of a line beginning from the Unit 18 boundary at the northwestern end of Nenevok Lake, to the southern point of upper Togiak Lake, and northeast to the northern point of Nuyakuk Lake, northeast to the point where the Unit 17 boundary intersects the Shotgun Hills.

In Unit 17A, that portion north of Togiak Lake that includes Izavieknik River drainages, residents of Akiak and Akiachak have a positive customary and traditional use determination for moose.

In Unit 17A remainder, residents of Unit 17, Goodnews Bay and Platinum; excluding residents of Akiachak, Akiak, and Quinhagak, have a positive customary and traditional use determination for moose.

Regulatory History

The Federal Subsistence Board (Board) approved Special Action S97-03 in 1997 to open a temporary moose season from Aug. 20 – Sept. 15, due to a healthy and growing population.

Special Action SW00-05 was approved by the Board to temporarily change regulations from *No Federal Open Season* to a season Aug. 20 – Sept. 15, 2000, with a 1 bull harvest limit by State registration permit because of the continued moose population growth.

In 2001, the Board approved Proposal WP01-20 with modification to establish a season aligned with the State season from Aug. 25 – Sept. 15 and required a State registration permit for 1 bull.

Special Action WSA02-11, requesting a winter hunt, was approved by the Board with modification to require the use of a State registration permit for the Federal hunt. The Board adopted the request, due to the robust moose population.

In 2004, Proposal WP04-46 was adopted by the Board, establishing a winter season of up to 14 days, which could be announced Dec. 1 – Jan. 31, and required a State registration permit for the harvest of 1 bull in the portion of Unit 17A to the area east of the west shore of Nenevok Lake, west bank of the Kemuk River, and west bank of the Togiak River south from the confluence of the Togiak and Kemuk Rivers. The season could be opened or closed by the Togiak National Wildlife Refuge Manager after consultation with the Alaska Department of Fish and Game (ADF&G) and local users. The Board supported this action to minimize regulatory complexity and provide a greater opportunity for Federally qualified subsistence users to harvest moose in Unit 17A.

In 2012, the Board adopted Proposal WP12-40 to extend the winter season to include all of Unit 17A because it limited complexity between Federal and State regulations and provided greater opportunity to harvest from an expanding moose population. This action did not change the season or harvest limit.

Special Action Request WSA12-11, which was approved in early 2013, extended the winter moose season in Unit 17A by 14 days. The request was submitted in response to poor travel conditions that limited moose harvest during the regular 14 day season.

A similar request was submitted for the next year. Special Action Request WSA13-01 was approved by the Board in 2013 and changed the winter to-be-announced season from a 14-day season to a 31-day season. It also raised the harvest limit from 1 antlered bull to up to 2 moose, in response to the growing population.

These changes became regulation in 2014, when Proposal WP14-21 was adopted by the Board. This action increased the harvest limit from 1 antlered bull to up to 2 moose. It also lengthened the may be announced season from an *up to 14-day* season to an *up to 31-day* season.

In February 2015, the Alaska Board of Game adopted Proposal 49 to change the harvest limit for the winter registration hunt in Unit 17A. That action changed the harvest limit from 1 bull and 1 antlerless moose to 1 antlered bull and 1 antlerless moose, and added the month of February to the window during which the *up to 31 day* season could be announced. These changes in season were made in response to an increasing moose population and concerns over a potential population crash, in addition to unpredictable travel conditions that occur during the winter hunting seasons. The changes in harvest limit were intended to help keep the moose harvest sustainable by providing additional protection for both cow and bull moose and to better achieve the desired bull:cow objective. Specifically, these changes were intended to reduce mistaken harvest of cows after the cow quota had been met, as well as shift the harvest pressure away from large breeding bulls to younger bulls that carry antlers later into winter (ADF&G 2015).

Biological Background

Moose are relative newcomers to southwest Alaska and to Unit 17A, possibly migrating into the area from the middle Kuskokwim River drainages during the last century. Aerial surveys conducted in the 1980s and 1990s often resulted in less than 10 moose being observed in the unit (Woolington 2010). Local residents harvested moose opportunistically, but other species such as caribou, bears, and beaver were the main sources of wild meat in the area. ADF&G began collecting data on the moose population in 1971 and eventually established a minimum population objective of 300 moose and a target population of 1,100–

1,750 for moose (Woolington 2010). The target objective has since been adjusted, following refinement of the winter habitat estimate, which indicates a more realistic carrying capacity estimate of 900 to 1,350 moose (ADF&G, et. al. 2012).

Late-winter minimum counts for Unit 17A show an increase from 652 moose in 2002 to 1,166 moose in 2011 (**Table 1**). In the neighboring Goodnews River drainage (southern Unit 18), moose numbers increased from 2 in 2002 to 196 in 2011 (Aderman 2011, pers. comm.). Currently, the moose population in Unit 17A is meets the population objective but is growing (ADF&G 2015).

Table 1. Winter survey results for moose in Unit 17A, 1991 – 2011 (Aderman 2014).

Year	Minimum Count[a]
1991	4
1992	6
1993	-
1994	84
1995	136
1996	-
1997	234
1998	429
1999	511
2000	422
2001	471
2002	652
2003	-
2004	777
2005	-
2006	1,023
2007	-
2008	1,070
2009	-
2010	-
2011	1,166

[a]Surveys were not conducted in all years.

A cooperative research effort between the Togiak National Wildlife Refuge and ADF&G in Unit 17A resulted in 36 adult moose being collared in 1998. Aerial radio-tracking was conducted monthly for all moose and weekly for cows during the calving period. Annual calf production 1998 – 2003 averaged 136.5 calves per 100 cows with an average twinning rate of 64.6 percent. Calf survival from birth to November averaged 52.7 percent and annual adult survival during the same period averaged 85.6 percent (FWS 2004). More recent data shows similar patterns, with the average annual calf production for 1998 – 2013 at 127.5 calves per 100 cows and an average twinning rate of 64.4% over the same period. Calf survival from birth to November during this time averaged 47.8%, with an average recruitment of approximately 63 calves per 100 cows (Aderman 2014). A May 2015 radio-tracking survey showed that both calf survival and recruitment were higher than long term averages (Aderman 2015 pers. comm.).

Other composition data has not been collected recently, but bull:cow ratios have historically been high in all areas of Unit 17 (Woolington 2010).

Harvest History

Approximately two-thirds of the total moose harvest in Unit 17A occurs during the fall season. Between 2003 and 2014, fall harvest was 7 – 40 moose per year, with an average harvest of 25 moose. The average annual harvest during winter for this time period was 2 – 22 moose and averaged 11 moose (**Table 2**). Total harvest has averaged 36 moose annually.

The State winter hunt is managed using a registration permit for antlered bulls and a separate permit for antlerless moose, with a small quota (approximately 10 moose) for antlerless animals (ADF&G 2015). Marginal snow conditions in recent years have prevented hunters from accessing hunt areas with snowmachines, which are the main means of transport during the winter moose season (ADF&G 2015).

Table 2. Fall and winter moose harvest in Unit 17A, 1997 - 2014 (Aderman 2015, pers. comm.; Barten 2015, pers. comm.; Woolington 2010)

Year	Fall Harvest	Winter Harvest	Total Harvest
1997	15	-	15
1998	10	-	10
1999	10	-	10
2000	10	-	10
2001	7	-	7
2002	8	-	8
2003[a]	7	4	11
2004	10	10	20
2005	21	3	24
2006	24	12	36
2007[b]	32	9	41
2008	24	21	45
2009	29	2	31
2010	27	10	37
2011	28	22	50
2012	29	16	45
2013	22	12	34
2014[c]	40	17	57

[a] Winter hunt began in 2003. [b] Beginning in 2007, winter hunt included the western portion of Unit 17C. [c] Preliminary reported harvest for 2014.

Effects of the Proposal

If adopted, this proposal would add an extra month to the window during which the *up to 31 day* season could be announced; however, total season length would not exceed 31 days. Extending the possible season dates will provide greater flexibility to managers in determining seasons, particularly in response to changing travel conditions, and may allow increased hunting opportunity for Federally qualified

subsistence users. If adopted, this proposal would also change the harvest restrictions, from up to 2 moose with no antler restrictions, to up to 2 moose with a limit of 1 antlered bull and 1 antlerless moose. Adoption of these proposed restrictions will help managers maintain a sustainable harvest by providing additional protection for both cow and bull moose. Finally, adoption of this proposal will reduce regulatory complexity by aligning Federal and State moose regulations in Unit 17A.

OSM CONCLUSION

Support Proposal WP16-27 **with modification** to specify the antler restrictions and **Take no action** on Proposal WP16-28.

The modified regulation should read:

Unit 17A—Moose

*Unit 17A – up to 2 moose**; one antlered bull by State registration permit, one antlerless moose** by State registration permit.*	*Up to a 31-day season may be announced between Dec. 1–~~Jan. 31~~ **end of Feb.***

Justification

The moose population in Unit 17A continues to grow and is expanding westward into Unit 18. Despite abundant moose, poor winter travel conditions, like those observed in recent years, can limit harvest opportunity. The addition of an extra month to the window during which the *up to 31 day* season can be announced provides managers the flexibility to open the season when travel conditions are favorable, thereby maximizing harvest opportunity for Federally qualified subsistence users. Any subsequent increase in harvest is not expected to threaten this population, since it remains productive and is within the population objective.

The proposed changes in harvest restrictions, from up to 2 moose with no antler restrictions, to up to 2 moose with a limit of 1 antlered bull and 1 antlerless moose, provide protections for specific cohorts. First, they allow better management of cow harvest. The current practice of allowing harvest of any moose results in greater potential to exceed cow quotas, since many moose are antlerless during winter and inadvertent cow harvest is probable. Second, the proposed changes protect large breeding bulls by shifting harvest pressure to younger bulls, which typically retain their antlers through late winter. The modified regulatory language simply clarifies harvest restrictions.

Adoption of this proposal will reduce regulatory complexity by aligning Federal and State moose regulations in Unit 17A, which will benefit Federally qualified subsistence users, managers and law enforcement officers alike. The two proposals, WP16-27 and WP16-28 request the same regulatory changes. The recommendation is to take no action on WP16-28 because that request can be fully addressed through action on WP16-27.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Bristol Bay Subsistence Regional Advisory Council

Support WP16-27 **as modified by OSM**. **No action taken** on WP16-28. The Council supported WP16-27 with modification to specify antler restrictions. The moose population in Unit 17A is healthy and continues to grow and expanding. The modified proposed regulation will clarify the harvest limit set as two moose, but only one moose may be an antlered bull and the other would be an antlerless moose. The modified proposal will align with recent State BOG action that will reduce regulatory complexity for Federally qualified subsistence users.

Yukon-Kuskokwim Delta Subsistence Regional Advisory Council

Support WP16-27 **as modified by OSM**. **No action taken** on WP16-28. The local State Fish and Game Advisory Committees are composed of Federally qualified subsistence users and have the detailed local knowledge necessary to propose regulations that meet local subsistence needs. There is no conservation concern and the proposal will benefit subsistence users. Because of action on WP16-27, the Council took no action on WP16-28.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

WP16–29/30 Executive Summary	
General Description	Proposal WP16–29/30 requests that the caribou seasons in Unit 9B and portions of Unit 17 be extended from Aug. 1 – Mar. 15 to Aug. 1 – Mar. 31. *Submitted by Nushagak Fish and Game Advisory Committee and Togiak Fish and Game Advisory Committee.*
Proposed Regulation	**Unit 9—Caribou** *Unit 9B— 2 caribou by State registration permit; no more than 1 caribou may be a bull, and no more than 1 caribou may be taken Aug. 1-Jan. 31.* — *Aug. 1-Mar. ~~15~~31* **Unit 17—Caribou** *Unit 17A all drainages west of Right Hand Point— 2 caribou by State registration permit; no more than 1 caribou may be a bull, and no more than 1 caribou may be taken Aug. 1-Jan. 31. The season may be closed and harvest limit reduced for the drainages between the Togiak River and Right Hand Point by announcement of the Togiak National Wildlife Refuge Manager.* — *Aug. 1-Mar. ~~15~~31* *Unit 17A remainder and 17C remainder— selected drainages; a harvest limit of up to 2 caribou by State registration permit will be determined at the time the season is announced. Season, harvest limit, and hunt area to be announced by the Togiak National Wildlife Refuge Manager.* — *Season may be announced between Aug. 1-Mar. ~~15~~31* *Unit 17B and 17C— that portion of 17C east of the Wood River and Wood River Lakes— 2 caribou by State registration permit; no more than 1 caribou may be a bull, and no more than 1 caribou may be taken Aug. 1-Jan. 31.* — *Aug. 1-Mar. ~~15~~31*
OSM Conclusion	**Support** Proposal WP16-29 **with modification** to remove regulatory language referencing season openings and closures, harvest limits and hunt areas and delegate authority to the Togiak National Wildlife Refuge Manager to determine the season, harvest limits and hunt areas via a delegation of authority letter and **Take no action** on Proposal WP16-30. The modified regulation should read:

WP16–29/30 Executive Summary	
	Unit 9—Caribou *Unit 9B— 2 caribou by State registration permit; no more than 1 caribou may be a bull, and no more than 1 caribou may be taken Aug. 1-Jan. 31.* — *Aug. 1-Mar. ~~15~~31* **Unit 17—Caribou** *Unit 17A all drainages west of Right Hand Point— 2 caribou by State registration permit; no more than 1 caribou may be a bull, and no more than 1 caribou may be taken Aug. 1-Jan. 31. ~~The season may be closed and harvest limit reduced for the drainages between the Togiak River and Right Hand Point by announcement of the Togiak National Wildlife Refuge Manager.~~* — *Aug. 1-Mar. ~~15~~31* *Unit 17A remainder and 17C remainder— selected drainages; a harvest limit of up to 2 caribou by State registration permit will be determined at the time the season is announced. ~~Season, harvest limit, and hunt area to be announced by the Togiak National Wildlife Refuge Manager.~~* — *Season may be announced between Aug. 1-Mar. ~~15~~31* *Unit 17B and 17C— that portion of 17C east of the Wood River and Wood River Lakes— 2 caribou by State registration permit; no more than 1 caribou may be a bull, and no more than 1 caribou from Aug. 1-Jan. 31.* — *Aug. 1-Mar. ~~15~~31*
Bristol Bay Regional Advisory Council Recommendation	**Support** WP16-29 **as modified by OSM.** **No action taken** on WP16-30.
Yukon-Kuskokwim Delta Regional Advisory Council Recommendation	**Support** WP16-29 **as modified by OSM.** **No action taken** on WP16-30.
Western Interior Regional Advisory Council Recommendation	**Support** WP16-29. **No action taken** on WP16-30.

WP16–29/30 Executive Summary	
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Support** WP16-29 **as modified by OSM.** **Take no action** on WP16-30.
Written Public Comments	**None**

STAFF ANALYSIS
WP16-29/30

ISSUES

WP16-29, submitted by the Nushagak Fish and Game Advisory Committee, and WP16-30, submitted by the Togiak Fish and Game Advisory Committee, request that the caribou seasons in Unit 9B and portions of Unit 17 be extended from Aug. 1 – Mar. 15 to Aug. 1 – Mar. 31.

DISCUSSION

The proponent states that this change would allow Federally qualified subsistence hunters a slightly longer season in which to harvest the Mulchatna Caribou Herd (MCH) on Federal public lands within Unit 9B and in portions of Unit 17. In addition, the proponent states that this change would mirror State regulations and reduce regulatory complexity for subsistence users.

Existing Federal Regulation

Unit 9—Caribou

Unit 9B— 2 caribou by State registration permit; no more than 1 caribou may be a bull, and no more than 1 caribou may be taken Aug. 1-Jan. 31.	*Aug. 1-Mar. 15*

Unit 17—Caribou

Unit 17A all drainages west of Right Hand Point— 2 caribou by State registration permit; no more than 1 caribou may be a bull, and no more than 1 caribou may be taken Aug. 1-Jan. 31. The season may be closed and harvest limit reduced for the drainages between the Togiak River and Right Hand Point by announcement of the Togiak National Wildlife Refuge Manager.	*Aug. 1-Mar. 15*
Unit 17A remainder and 17C remainder— selected drainages; a harvest limit of up to 2 caribou by State registration permit will be determined at the time the season is announced. Season, harvest limit, and hunt area to be announced by the Togiak National Wildlife Refuge Manager.	*Season may be announced between Aug. 1-Mar. 15*
Unit 17B and 17C— that portion of 17C east of the Wood River and Wood River Lakes—2 caribou by State registration permit; no more than 1 caribou may be a bull, and no more than 1 caribou from Aug. 1-Jan. 31.	*Aug. 1-Mar. 15*

Proposed Federal Regulation

Unit 9—Caribou

Unit 9B— 2 caribou by State registration permit; no more than 1 caribou may be a bull, and no more than 1 caribou may be taken Aug. 1-Jan. 31.	*Aug. 1-Mar. ~~15~~31*

Unit 17—Caribou

Unit 17A all drainages west of Right Hand Point— 2 caribou by State registration permit; no more than 1 caribou may be a bull, and no more than 1 caribou may be taken Aug. 1-Jan. 31. The season may be closed and harvest limit reduced for the drainages between the Togiak River and Right Hand Point by announcement of the Togiak National Wildlife Refuge Manager.	*Aug. 1-Mar. ~~15~~31*
Unit 17A remainder and 17C remainder— selected drainages; a harvest limit of up to 2 caribou by State registration permit will be determined at the time the season is announced. Season, harvest limit, and hunt area to be announced by the Togiak National Wildlife Refuge Manager.	*Season may be announced between Aug. 1-Mar. ~~15~~31*
Unit 17B and 17C— that portion of 17C east of the Wood River and Wood River Lakes— 2 caribou by State registration permit; no more than 1 caribou may be a bull, and no more than 1 caribou may be taken Aug. 1-Jan. 31.	*Aug. 1-Mar. ~~15~~31*

Existing State Regulation

Unit 9—Caribou

Unit 9B— 2 caribou by permit. No more than one bull may be taken; no more than one caribou may be taken Aug. 1-Jan. 31.	*Aug. 1-Mar. 31*

Unit 17—Caribou

Unit 17A— all drainages that terminate east of Right Hand Point— 2 caribou by permit.	*May be announced*
Unit 17A remainder, 17B and 17C— east of the east banks of the	*Aug. 1-Mar. 31*

Wood River, Lake Aleknagik, Agulowak River, Lake Nerka and the Agulukpak River— 2 caribou by permit; no more than one bull may be taken; no more than one caribou may be taken from Aug. 1-Jan.31.

Unit 17C remainder— 2 caribou by permit. *May be announced*

Extent of Federal Public Lands

Federal public lands comprise approximately 44% of Unit 9B and consist of 26% National Park Service (NPS) managed lands and 18% Bureau of Land Management (BLM) managed lands (**Unit 9 Map**).

Federal public lands comprise approximately 28% of Unit 17 and consist of 21% U.S. Fish and Wildlife Service managed lands, 4% BLM managed lands and 3% NPS managed lands (**Unit 17 Map**).

Customary and Traditional Use Determinations

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

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

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

Residents of Kwethluk have a customary and traditional use determination for caribou in Units 17A and 17B— those portions north and west of a line beginning from the Unit 18 boundary at the northwestern end of Nenevok Lake to the southern point of upper Togiak Lake, and northeast to the northern point of Nuyakuk Lake, northeast to the point where the Unit 17 boundary intersects the Shotgun Hills.

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

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

Regulatory History

State and Federal regulations for the MCH were liberalized during the dramatic population increase that occurred in the 1990s. Numerous modifications were made to the Federal subsistence regulations for various management units as the MCH population increased and expanded into new range. In 1994, the Federal Subsistence Board (Board) adopted P94-35 which changed the limit from 4 to 5 caribou with no

more than 2 bulls allowed. In 1997, by adopting P97-45, the Board removed the no more than 2 bulls restriction.

Following a population decline, the seasons and harvest limits became more restrictive in 2006 and 2007. In March 2006, the Alaska Board of Game adopted new regulations to reduce harvest limits within the range of the MCH from 5 to 2 caribou. In March 2007, the Alaska Board of Game further restricted the caribou harvest to allow no more than 1 bull to be taken, and no more than 1 caribou to be taken from Aug. 1–Jan. 31.

Also in 2007, the Board adopted Proposal WP07-23 with modification to reduce the harvest limits in Unit 9B, a portion of Unit 17A, Unit 17B, a portion of Unit 17C, Unit 18, a portion of Unit 19A, and Unit 19B from 5 to 3 caribou, due to the large population decline.

In March 2009, the Alaska Board of Game adopted Proposal 57, which eliminated the nonresident harvest on the MCH to ensure subsistence opportunity was being provided.

In 2010, the Bristol Bay Subsistence Regional Advisory Council submitted two proposals, WP10-51 and WP10-53. Proposal WP10-51 requested that the Federal caribou seasons be aligned in Units 9A, 9B, 17B, a portion of 17C, 18, 19A, and 19B with an Aug. 1–Mar. 31 season. Proposal WP10-53 requested a harvest limit of 2 caribou, with no more than 1 bull to be taken and no more than 1 caribou to be taken Aug. 1–Jan. 31 in Units 9A, 9B, a portion of 9C, 17A, 17B, 17C, 18, 19A, and 19B (excluding Lime Village). The Board adopted Proposal WP10-51 with modification to make the season ending date March 15 for all units, including the remainder of Units 17A and 17C, and adopted Proposal WP10-53 as submitted. In addition, Proposal WP10-60, which requested the harvest limit for caribou in Unit 18 be reduced from 3 caribou to 2 caribou, was adopted by the Board with modification to include a harvest limit of 1 bull and extension of the 1 caribou restriction from Aug. 1–Nov. 30 to Aug. 1–Jan. 31, consistent with the actions taken on WP10-51 and WP10-53.

In 2012, the Board adopted Proposal WP12-42 with modification to maintain the 2 caribou harvest limit, but changed the harvest season to Aug. 1–Sept. 30 and Dec. 20–the last day of February in that portion of Unit 18 south of the Kuskokwim River (FSB 2012). The remainder of Unit 18 retained the Aug. 1–Mar. 15 harvest season. However, Federally qualified subsistence users were still able to harvest caribou from Aug. 1–Mar. 15 throughout Unit 18 under State regulations.

Wildlife Special Action WSA11-10/11 was submitted by the Yukon Delta National Wildlife Refuge in February 2012. WSA11-10 requested a two week season reduction for caribou in Unit 18, and WSA11-11 called for Federal public lands in Unit 18 south and east of the Kuskokwim River to be closed to the harvest of caribou to all users starting March 1, 2012. The Board rejected these Special Action requests because it felt current information did not indicate that there was an emergency situation with the MCH necessitating such an action.

In February 2013, the Alaska Board of Game adopted Proposal 45A, which changed the caribou hunt in Units 9A, 9B, portions of 9C, 17, 18, 19A and 19B from a general hunt to a registration hunt, with seasons and harvest limits aligned within the entire range of the MCH. These changes were made to better assess harvest and to better respond to in-season adjustments of season dates and harvest limits, while also helping to assess the response of the caribou population to ongoing intensive management programs.

In July 2013, Federal permit requirements and seasons dates were temporarily aligned with State regulations when the Board approved Temporary Special Action WSA13-02, which requested that a State registration permit be required for Federally qualified subsistence users to harvest caribou in Units 9A, 9B, 9C, 17A, 17B, 17C, 18, 19A and 19B, and shortened the to-be-announced season in Units 17A remainder and 17C remainder from Aug. 1–Mar. 31 to Aug. 1–Mar. 15.

The Association of Village Council Presidents submitted Temporary Special Action WSA13-03 in 2013 to close Federal public lands in Units 9A, 9B, 9C, 17A, 17B, 17C, 18, 19A, and 19B to the harvest of caribou, except by Federally qualified subsistence users. The Board rejected the temporary special action because the MCH population was still within State management objectives, and composition metrics were improving as well.

In 2014, the Board adopted Proposal WP14-22 with modification, requiring hunters in Units 9A, 9B, 9C, 17A, 17B, 17C, 18, 19A, and 19B to use a State registration permit to provide better and more timely harvest reporting. Unit specific regulatory language found in portions of Units 17A and 17C was removed and a delegation of authority letter was issued to the Togiak National Wildlife Refuge Manager for specific in-season management authorities that included: open and close the season and set the harvest limit, including any sex restrictions for caribou on Federal public lands in Unit 17A—all drainages west of Right Hand Point; and, open and close the season, set the harvest limit and identify the hunt area for the may-be-announced season in Units 17A remainder and 17C remainder.

In February 2015, the Alaska Board of Game adopted Proposal 47 to extend the caribou season by two weeks in Units 9B and 17, with a season end date of Mar. 31. The proponent stated that in some years, poor weather and difficult travel conditions prevented hunters from utilizing the full Aug. 1-Mar. 15 season and sometimes caribou were only available in the last few days of March. Caribou is a highly valued food source for Nushagak River villages and members of those villages have often requested season extensions.

Biological Background

The MCH ranges across approximately 60,000 square miles, primarily within Units 9B, 9C, 17, 18, and 19. Wintering areas during the 1980s and early 1990s were along the north and west side of Iliamna Lake, north of the Kvichak River, but telemetry data indicated the MCH had been moving to the south and west for wintering (Van Daele and Boudreau 1992 cited in Woolington 2007). Starting in the mid-1990s, caribou from the MCH began wintering in Unit 18 south of the Kuskokwim River and in southwestern Unit 19B in increasing numbers. During the winter of 2004/2005, much of the herd wintered in Unit 18, and another large part of the herd wintered in the middle Mulchatna River drainage. During 2005/2006, large numbers of caribou wintered near the lower Kvichak River (Woolington 2009).

The State's management objectives for the MCH have changed as population numbers have fluctuated. Prior to 2001, the management objective was to maintain a minimum population of 25,000 adults with a minimum of 35 bulls:100 cows, manage the herd for maximum opportunity to hunt caribou, and manage the herd in a manner that encouraged range expansion west and north of the Nushagak River (Woolington 2001). In 2001, the Alaska Board of Game modified the population objective to maintain a population of 100,000–150,000 caribou (Woolington 2003). In 2009, the population objective was reduced to 30,000–80,000 caribou, which was thought to be more realistic for the herd (ADF&G 2009). Harvest objectives were also reduced from 6,000–15,000 caribou to 2,400–8,000 caribou (ADF&G 2009). The bull:cow objective remains 35 bulls:100cows.

The MCH increased at an average annual rate of 17% between 1981 and 1996, and approximately 28% from 1992 to 1994. The population peaked in 1996, at approximately 200,000 animals and 42 bulls:100 cows (Woolington 2007). The dramatic population growth is attributed to mild winters, movements into new unexploited range, low predation, and an estimated annual harvest of less than 5% of the population since the late 1970s (Woolington 2007). Since 1996, the population has declined. The 2015 estimate indicates that the population is 30,736 animals (**Table 1**), which is at the low end of the State's population objective.

The estimated bull:cow ratio was below the management objective between 2001 and 2013. This ratio has been improving since 2011 and has met the objective for the past two years (**Table 1**). The proportion of bulls classified as large averaged 25% for 2011 – 2015, which is higher than the average of 19% for 1996 – 2015, and a considerably better than the lows observed in 2004 (7%) and 2006 (9%) (**Table 1**).

Calf:cow ratios have been at or above 29 calves:100 cows in three of the past four years (**Table 1**). Weights of 10.5 month old female calves obtained in 2011 and 2012 were 10 to 20 pounds heavier than calves weighed during the rapid population contraction (Woolington, 2013) and 2013 calf weights were reported to be good as well, suggesting that caribou are not nutritionally stressed (Butler 2013, pers. comm.).

While the MCH is managed as a single herd, some segments of the population appear to be faring better than others, and estimated bull:cow and calf:cow ratios are typically higher in the western portion of the MCH range (**Figures 1 and 2**). Data from 2011-2013 shows that calf survival is high (76% avg.) in the Kemuk Mountain area (western portion), which has an active intensive management program for wolves, but calf survival is lower (50% avg.) in the Tundra Lake area (eastern portion), which has no active intensive management (Barten 2015a). Wolf removal under intensive management continued through spring of 2015. Individuals from eastern and western portions of the MCH range appear to have readily mixed prior to 2007 and 2008, but there has recently been more isolation between caribou in the two areas (Woolington 2011a, 2012).

Table 1. Mulchatna Caribou Herd composition counts and population estimates, 1975-2014 (Barten 2015b)

Year	Bulls: 100 cows	Calves: 100 cows	Calves (%)	Cows (%)	Small bulls (% of bulls)	Medium bulls (% of bulls)	Large bulls (% of bulls)	Total bulls (%)	Composition sample size	Estimate of herd size
1975	55	35	18	-	-	-	-	-	1,846	14,000
1978	50	65	27	-	-	-	-	-	758	7,500
1980	31	57	30	-	-	-	-	-	2,250	-
1981	53	45	23	-	-	-	-	-	1,235	20,600
1986	56	37	19	-	-	-	-	-	2,172	-
1987	68	60	26	-	-	-	-	-	1,858	52,500
1988	66	54	24	-	-	-	-	-	536	-
1993	42	44	24	54	-	-	-	22	5,907	150,000[a]
1996	42	34	19	57	49	29	22	24	1,727	200,000 [a]
1998	41	34	20	57	28	43	29	23	3,086	-
1999	30	14	10	69	60	26	14	21	4,731	175,000[b]
2000	38	24	15	62	47	33	20	23	3,894	-
2001	25	20	14	69	32	50	18	17	5,728	-
2002	26	28	18	65	57	30	13	17	5,734	147,000[b]
2003	17	26	18	70	36	45	19	12	7,821	-
2004	21	20	14	71	64	29	7	15	4,608	85,000[b]
2005	14	18	14	76	55	33	12	10	5,211	-
2006	15	26	18	71	57	34	9	11	2,971	45,000[b]
2007	23	16	11	72	53	36	11	17	3,943	-
2008	19	23	16	70	47	36	17	14	3,728	30,000[b]
2009	19	31	21	67	40	44	16	12	4,595	-
2010	17	20	14	74	30	44	26	12	4,592	-
2011	22	19	14	71	32	41	27	15	5,282	-
2012	23	30	20	65	38	38	24	15	4,853	-
2013	27	19	13	68	39	36	25	19	3,222	-
2014	35	30	18	61	44	31	25	21	4,793	26,275[c]
2015	35	29	18	61	35	43	22	21	5,414	30,736[c]

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

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

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

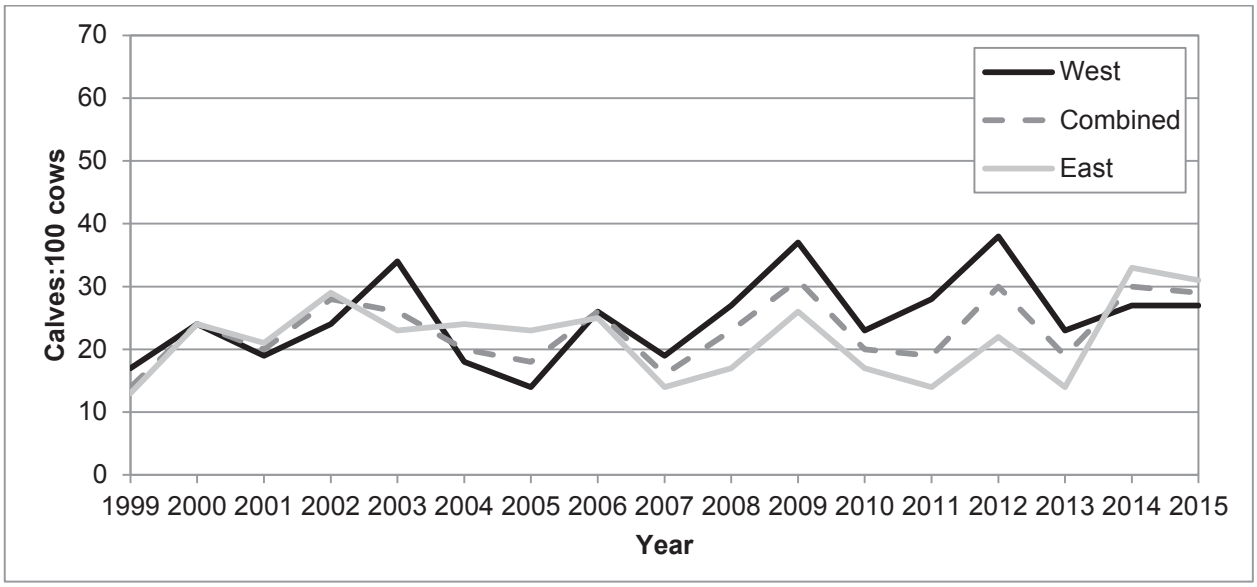

Figure 1. Calf:cow estimates for the Mulchatna Caribou Herd during fall (October) population composition surveys, 1999 - 2015 (Barten 2015b). The east and west population segments have distinct calving areas and seasonal ranges.

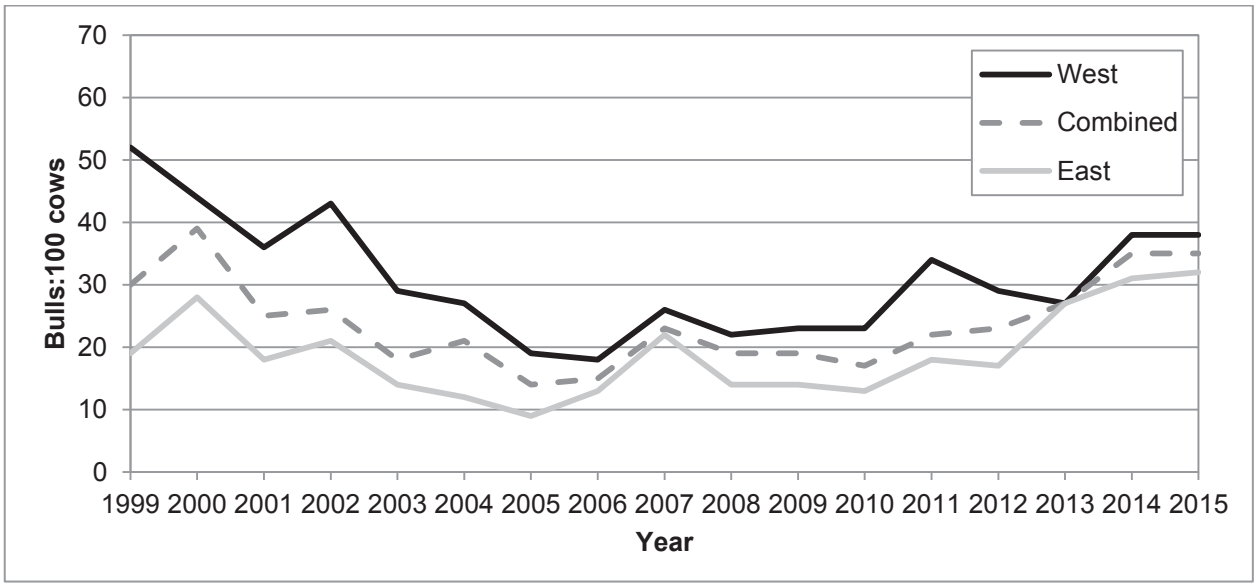

Figure 2. Bull:cow estimates for the Mulchatna Caribou Herd during fall (October) population composition surveys, 1999 - 2015 (Barten 2015b). The east and west population segments have distinct calving areas and seasonal ranges.

Habitat

Taylor (1989) reported that the carrying capacity of traditional winter areas of the herd had been exceeded by the mid to late 1980s and that the herd had to utilize other areas to continue its growth. It appears that the MCH has been using these non-traditional winter ranges at an ever increasing rate over the last 25 years. Portions of the herd's range showed signs of heavy use during periods of high caribou abundance, with extensive trailing evident along major travel routes. Woolington (2011b) reported that some of the summer and fall range of the MCH in the Nushagak Hills and elsewhere was trampled and showed signs of heavy grazing, while traditional winter ranges on the north and west sides of Iliamna Lake also showed signs of heavy use despite the fact that few caribou appear to continue to utilize these areas.

Harvest History

Reported caribou harvest by all users within the range of the MCH has declined from 4,025 caribou in 2000 to 117 caribou in 2014. Much of this decline can be attributed to reduced harvest by non-local residents and nonresidents. (**Table 2**). Nonresident seasons for MCH were closed in State regulation in 2009. A similar harvest trend exists among Federally qualified subsistence users, whose reported harvest has declined nearly every year since 2005 (**Table 2**). However underreporting is a known problem, and a significant amount of unreported harvest has likely occurred (Woolington 2011b).

Until recently, most of the harvest has occurred during fall but an increasing proportion of harvest now occurs during spring. Considering all users, an average of 66% of the harvest for 2000 – 2008 occurred in August and September. For 2009 – 2014, only 17% of the harvest has occurred during these months. Harvest during February and March averaged 19% of the total harvest 2000 – 2008 but increased to 54% for 2009 – 2014 (ADF&G 2015). This trend appears to be driven largely by the shift in user base from predominantly non-locals to predominately locals. However, a similar, though less dramatic, pattern exists among Federally qualified subsistence users. On average, Federally qualified users harvested 14% of their reported harvest in August and September for the years 2000 – 2008. For 2009 – 2014, harvest during these months averaged just 7%. Harvest in February and March was 52% for the early period, increasing to 61% for the later period (ADF&G 2015).

Harvest of the MCH is not evenly distributed across the herd's range (**Table 3**). Of reported harvest attributable to Federally qualified subsistence users between 2000 and 2014, 40% occurred in Units 9B, 17A, 17B, and 17C, the units affected by this proposal (ADF&G 2015). Recently, harvest in these units has declined to just 26% of total harvest reported by Federally qualified users. Unit 18 supports more harvest than any other single unit (**Table 3**).

Table 2. Total reported harvest from the Mulchatna Caribou Herd, 2000 – 2014, by user group (ADF&G 2015). Federally qualified subsistence users are residents of communities with a customary and traditional use determination.

	Federally qualified users			Non-local residents			Nonresidents			All Users		
Year	Harvest	% Cows	% Bulls	Harvest	% Cows	% Bulls	Harvest	% Cows	% Bulls	Harvest	% Cows	% Bulls
2000	434	37%	63%	1,532	32%	68%	2,059	6%	94%	4,025	19%	81%
2001	642	42%	58%	1,565	43%	57%	1,669	9%	91%	3,876	28%	72%
2002	314	37%	63%	1,014	40%	60%	1,205	10%	90%	2,533	26%	74%
2003	617	47%	53%	1,364	51%	49%	1,093	9%	91%	3,074	35%	65%
2004	564	42%	58%	961	65%	35%	772	21%	79%	2,297	44%	56%
2005	839	50%	50%	802	66%	34%	486	33%	67%	2,127	52%	48%
2006	391	40%	60%	294	55%	45%	277	37%	63%	962	44%	56%
2007	448	50%	50%	202	45%	55%	124	36%	64%	774	47%	53%
2008	330	55%	45%	146	42%	58%	61	38%	62%	537	50%	50%
2009	221	31%	69%	90	36%	64%	0	-	-	311	32%	68%
2010	352	47%	53%	97	47%	53%	0	-	-	449	47%	53%
2011	364	52%	48%	101	41%	59%	0	-	-	465	50%	50%
2012	274	54%	46%	65	46%	54%	3	33%	67%	342	52%	48%
2013	60	30%	70%	38	29%	71%	1	0%	100%	99	29%	71%
2014	64	33%	67%	48	38%	63%	5	0%	100%	117	33%	67%

Table 3. Reported harvest location of Mulchatna caribou, 2000 – 2014, by Federally qualified subsistence users (ADF&G 2015). Federally qualified subsistence users are defined as those who are residents of communities with a customary and traditional use determination.

	Unit											
Year	**9A**	**9B**	**9C**	**17A**	**17B**	**17C**	**17Z**	**18**	**19A**	**19B**	**19Z**	**Total**
2000		73	8	72	58	104	6	103		10		434
2001		98	34	95	56	85	6	256	4	7	1	642
2002		39	1	1	86	52	8	122	3	2		314
2003	6	76	18	7	42	147	10	305	6			617
2004		61	11	28	41	146	11	259	5	2		564
2005		71	97	33	42	273	21	300	2			839
2006	1	72	6	21	13	68	4	205		1		391
2007		9	162	17	6	2		252				448
2008		13	128	20	4	4		161				330
2009		7	1	1	10	33	7	162				221
2010		1	6	2	15	28	1	297		2		352
2011		27	181		7	59		90				364
2012		24	23	2	12	38		175				274
2013		8			25	7		18		2		60
2014		13	1	1	8	17		24				64
Total	**7**	**592**	**677**	**300**	**425**	**1063**	**74**	**2,729**	**20**	**26**	**1**	**5,914**

Effects of the Proposal

If adopted, the proposal will lengthen the caribou season in Unit 9B and Unit 17 by 16 days. This will provide additional subsistence opportunities to Federally qualified users during March, a time when poor weather and difficult winter travel conditions increasingly limit hunting. While the longer season may result in some additional harvest, this increase is not expected to jeopardize the conservation status of the MCH. The proposed regulatory change will reduce regulatory complexity by creating parallel State and Federal seasons and harvest limits for the MCH in Units 9B and 17.

OSM CONCLUSION

Support Proposal WP16-29 **with modification** to remove regulatory language referencing season openings and closures, harvest limits, and hunt areas, and delegate authority to the Togiak National Wildlife Refuge Manager to determine the season, harvest limits, and hunt areas via a delegation of authority letter (**Appendix 1**) and **Take no action** on WP16-30.

The modified regulation should read:

Unit 9—Caribou

Unit 9B— 2 caribou by State registration permit; no more than 1 caribou may be a bull, and no more than 1 caribou may be taken Aug. 1-Jan. 31.	*Aug. 1-Mar. ~~15~~**31***

Unit 17—Caribou

Unit 17A all drainages west of Right Hand Point— 2 caribou by State registration permit; no more than 1 caribou may be a bull, and no more than 1 caribou may be taken Aug. 1-Jan. 31. ~~The season may be closed and harvest limit reduced for the drainages between the Togiak River and Right Hand Point by announcement of the Togiak National Wildlife Refuge Manager.~~	*Aug. 1-Mar. ~~15~~**31***
Unit 17A remainder and 17C remainder— selected drainages; a harvest limit of up to 2 caribou by State registration permit will be determined at the time the season is announced. ~~Season, harvest limit, and hunt area to be announced by the Togiak National Wildlife Refuge Manager.~~	*Season may be announced between Aug. 1-Mar. ~~15~~**31***
Unit 17B and 17C— that portion of 17C east of the Wood River and Wood River Lakes— 2 caribou by State registration permit; no more than 1 caribou may be a bull, and no more than 1 caribou from Aug. 1-Jan. 31.	*Aug. 1-Mar. ~~15~~**31***

Justification

The most current population estimate for the MCH shows that the herd is near the minimum population objective of ~30,000 animals. However, surveys in recent years indicate that the herd is no longer experiencing the precipitous decline that began 20 years ago. In addition, the bull:cow ratio has been increasing for several years and currently meets the management objective. While dramatic liberalization of harvest is not warranted at this time, population and harvest data suggest that the proposed changes will not adversely affect this herd, yet will provide additional opportunity to subsistence users.

The additional opportunity isn't expected to result in a significant increase in harvest. In recent years, most of the harvest by Federally qualified subsistence users occurred outside of the units affected by this proposal. In addition, Federally qualified users are currently able to harvest caribou during the entire proposed season under State regulation. This proposal simply aligns Federal season and limits with the current State season and limits. This is a practical change, particularly given that harvest of the MCH occurs by State registration permit.

The two proposals, WP16-29 and WP16-30 request the same regulatory changes. The recommendation is to take no action on WP16-30 because that request can be fully addressed through action on WP16-29.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Bristol Bay Subsistence Regional Advisory Council

Support WP16-29 **as modified by OSM**. **No action taken** on WP16-30. The Council supported WP16-29 with modification to remove regulatory language referencing season openings and closures, harvest limits and hunt areas and delegate authority to the Togiak National Wildlife Refuge Manager. The proposed regulatory change will reduce complexity between State and Federal regulations and will provide extra opportunity to harvest caribou if they are near a village later in March.

Yukon-Kuskokwim Delta Subsistence Regional Advisory Council

Support WP16-29 **as modified by OSM**. **No action taken** on WP16-30. This proposal would provide for increased subsistence opportunity. The local State Fish and Game Advisory Committees are composed of Federally qualified subsistence users and have the detailed local knowledge necessary to propose regulations that meet local subsistence needs. There is no conservation concern and the proposal will benefit subsistence users. Because of action on WP16-29, the Council took no action on WP16-30.

Western Interior Alaska Subsistence Regional Advisory Council

Support WP16-29. **No action taken** on WP16-30. The bull/cow ratio is below management objectives, and the Council is concerned about the herd recovery rate with increasing harvest, especially the bull component. The Mulchatna caribou herd is reduced distance and changing migration patterns has resulted in fewer communities being able to harvest and rely on this resource. More recent biological data is needed and there is lack of a population estimate. The Council is supporting WP 16-29 with reservations to align state and federal regulations. The Council cannot support increasing season length when population is trending downward and better population estimates and bull: cow ratios are not available.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

Appendix 1.

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

Dear Refuge Manager:

This letter delegates specific regulatory authority from the Federal Subsistence Board (Board) to the manager of the Togiak National Wildlife Refuge to issue emergency or temporary special actions if necessary to ensure the conservation of a healthy wildlife population, to continue subsistence uses of wildlife, for reasons of public safety, or to assure the continued viability of the population. This delegation only applies to the Federal public lands subject to Alaska National Interest Lands Conservation Act (ANILCA) Title VIII jurisdiction within all drainages west of Right Hand Point in Unit 17A and Units 17A remainder and 17C remainder for the management of caribou on these lands.

It is the intent of the Board that actions related to management of caribou by Federal officials be coordinated, prior to implementation, with the Alaska Department of Fish and Game (ADF&G), the Bureau of Land Management, and the Chair of the Bristol Bay 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 Togiak National Wildlife Refuge Manager is hereby delegated authority to issue emergency or temporary special actions affecting caribou on Federal lands as outlined under the **Scope of Delegation** below. Any action greater than 60 days in length (temporary special action) requires a public hearing before implementation. Special actions are governed by Federal regulation at 36 CFR 242.19 and 50 CFR 100.19.

2. 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:

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- To open and close the season and set the harvest limit, including any sex restrictions, for caribou on Federal public lands in Unit 17A—all drainages west of Right Hand Point.

- To open and close the season, set the harvest limit and identify the hunt area for the may-be-announced season in Unit 17A remainder and 17C remainder.

This delegation may be exercised only when it is necessary to conserve caribou populations, to continue subsistence uses, for reasons of public safety, or to assure the continued viability of the population.

All other proposed changes to codified regulations, such as customary and traditional use determinations, adjustments to methods and means of take, customary trade, or closures and restrictions 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 17A—all drainages west of Right Hand Point, and those portions within Units 17A remainder and 17C remainder.

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

5. Guidelines for Delegation: You will become familiar with the management history of the wildlife species relevant to this delegation in the region, with current State and Federal regulations and management plans, and be up-to-date on population and harvest status information. You will 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, the Bureau of Land Management, and the Chair of the Bristol Bay 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 actions must be provided to the coordinator of the appropriate

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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.

6. Support Services: Administrative support for regulatory actions will be provided by the Office of Subsistence Management, U.S. Fish & Wildlife Service, and the Department of the Interior.

Sincerely,

Tim Towarak
Chair, Federal Subsistence Board

cc: Commissioner, Alaska Department of Fish and Game
Assistant Regional Director, Office of Subsistence Management
Deputy Assistant Regional Director, Office of Subsistence Management
Chair, Bristol Bay Subsistence Regional Advisory Council
Subsistence Council Coordinator, Office of Subsistence Management
Federal Subsistence Liaison Team Leader, Alaska Department of Fish and Game
Federal Subsistence Board
Interagency Staff Committee
Administrative Record

DRAFT

WP16–33 Executive Summary	
General Description	Proposal WP16-33 requests that Lower Kalskag be added to the current customary and traditional use determination for caribou and moose in Unit 18. *Submitted by the Village of Lower Kalskag*.
Proposed 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 Kuskokwim 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*
OSM Conclusion	**Support**
Yukon-Kuskokwim Delta Regional Advisory Council Recommendation	**Support**
Western Interior Regional Advisory Council Recommendation	**Support**

WP16–33 Executive Summary	
Seward Peninsula	**Support**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Support**
Written Public Comments	**None**

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

Unit 18	*Residents of Unit 18, Manokotak, Stebbins, St. Michael, Togiak, Twin Hills, 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 Kuskokwim River drainage upstream of, but not including, the Tuluksak River drainage	*Residents of Unit 18, Upper Kalskag, Aniak and Chuathbaluk*
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	*Residents of Unit 18, St. Michael, Stebbins, and Upper Kalskag*

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 Kuskokwim 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 (FWS) 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. According to Jackie Levi, 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 61º 30' North Latitude and 160 º 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 harvest 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 an 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, and Federal Unit boundaries are changed through the adoption of Proposal WP 16-36, the residents of Lower Kalskag will no longer be able to hunt caribou or moose in areas where they have traditionally hunted.

OSM 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 Proposal WP 16-33 is 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. Residents of Lower Kalskag 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.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Yukon-Kuskokwim Delta Subsistence Regional Advisory Council

Support WP16-33. There is clearly a long term and consistence pattern of use of caribou and moose in Unit 18 by residents of this community. The community of Lower Kalskag is closely associated with the community of Kalskag, which has a positive customary and traditional use determination for harvest of caribou and moose in Unit 18.

Western Interior Alaska Subsistence Regional Advisory Council

Support WP16-33. The Council agrees with the justification provided by the YKDRAC and feels boundaries more clearly identifiable in the field and more aligned with geological features is beneficial fur users.

Seward Peninsula Subsistence Regional Advisory Council

Support WP16-33. Recent boundary change did not include customary and traditional use determination for Lower Kalskag which had traditionally hunted in this area.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

WP16–34 Executive Summary	
General Description	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. *Submitted by Leonard Landlord of Mountain Village.*
Proposed 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**

WP16–34 Executive Summary		
	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. Antlered bulls may not be harvested from Oct. 1 through Nov. 30.	*Aug. 1 – Mar. 31*
	Unit 18—Wolf	
	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*	***Aug. 10 – Apr. 30***
	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*
OSM Conclusion	**Oppose**	
Bristol Bay Regional Advisory Council Recommendation	**Oppose**	

WP16–34 Executive Summary	
Yukon-Kuskokwim Delta Regional Advisory Council Recommendation	**Oppose**
Western Interior Regional Advisory Council Recommendation	**Oppose**
Seward Peninsula Regional Advisory Council Recommendation	**Oppose**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Oppose**
Written Public Comments	**None**

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 were 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.	***Aug. 1 – Mar. 31***

1 through Nov. 30.

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. Antlered bulls may not be harvested from Oct. 1 through Nov. 30.	*Aug. 1 – Mar. 31*

Unit 18—Wolf

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*	***Aug. 10 – Apr. 30***

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 available in Bethel, and Unit 18 license vendors beginning July 1	*Sep. 1 – May 31*

Unit 18—Moose

Unit 18, remainder

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

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.

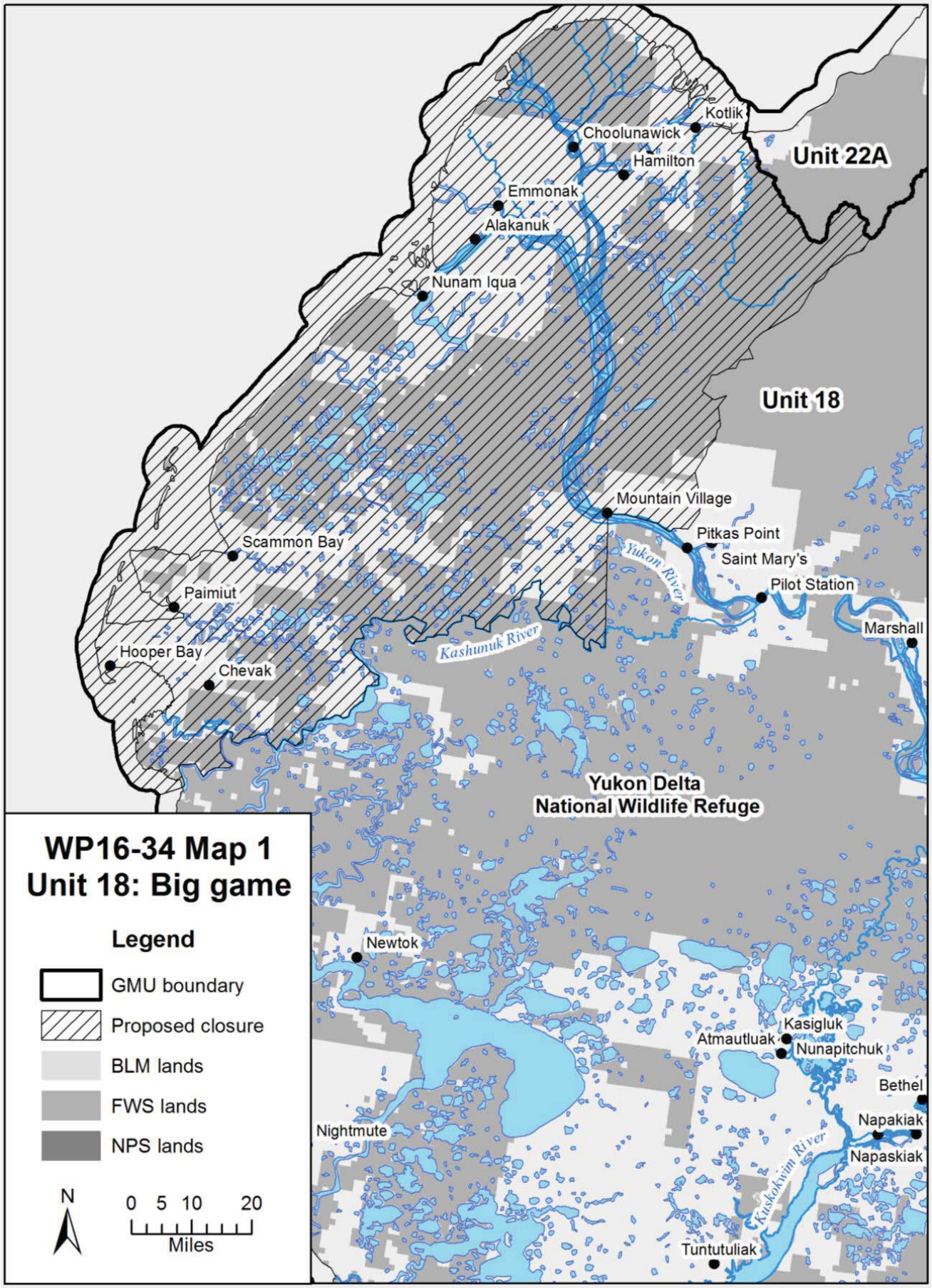
Residents of Unit 18 and Upper Kalskag have a positive customary and traditional use determination for moose in Unit 18 remainder.

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

<u>Black Bear</u>

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.


WP16-34 Map 1
Unit 18: Big game
Legend
GMU boundary
Proposed closure
BLM lands
FWS lands
NPS lands
N
0 5 10 20
Miles
Kotlik
Choolunawick
Hamilton
Unit 22A
Emmonak
Alakanuk
Nunam Iqua
Unit 18
Mountain Village
Pitkas Point
Saint Mary's
Pilot Station
Marshall
Yukon River
Scammon Bay
Paimiut
Hooper Bay
Chevak
Kashunuk River
Yukon Delta
National Wildlife Refuge
Newtok
Kasigluk
Atmautluak
Nunapitchuk
Bethel
Napakiak
Napaskiak
Nightmute
Kuskokwim River
Tuntutuliak

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 one antlered bull or one 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. to the last day of February, to Aug. 1 – 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 moose ± 16% (95% CI), or 2.8 moose/mi^2 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 moose ± 24.3% (95% CI) or 2 moose/mi^2 (**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 mi^2 of moose habitat within Unit 18. Approximately 4,500 mi^2 of this habitat occurs along riparian zones of the Yukon River. While Unit 18 does contains 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).

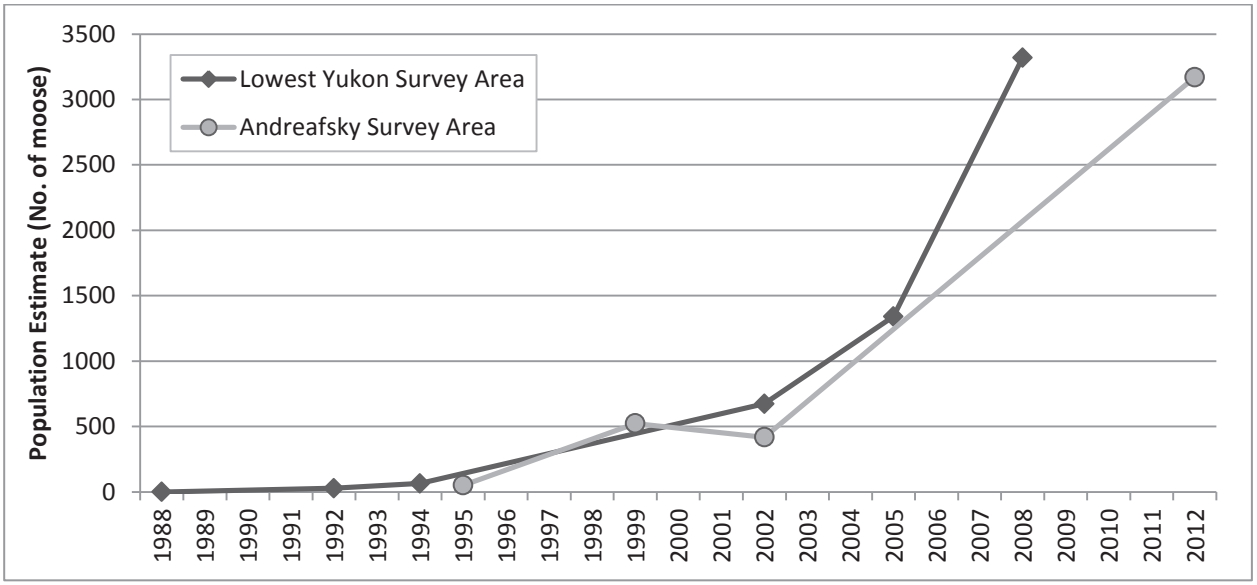


Figure 1. Moose population estimates for the Lowest Yukon and Adreafsky survey areas of Unit 18, 1988-2012 (Rearden 2015b).

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 moose for 2004 – 2008 to 316 moose for 2009 – 2013, though local harvest has declined somewhat since peaking in 2010 (**Figure 3**). Harvest by locals is a 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**).

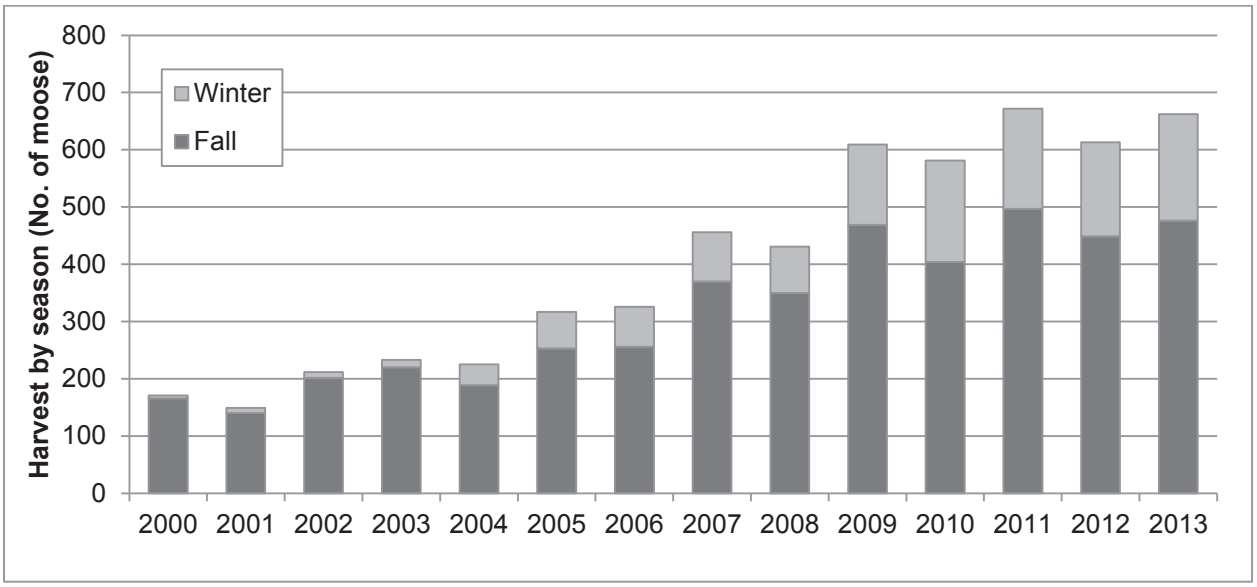


Figure 2. Unit 18 moose harvest by season, 2000-2013 (Perry 2010; ADF&G 2015).

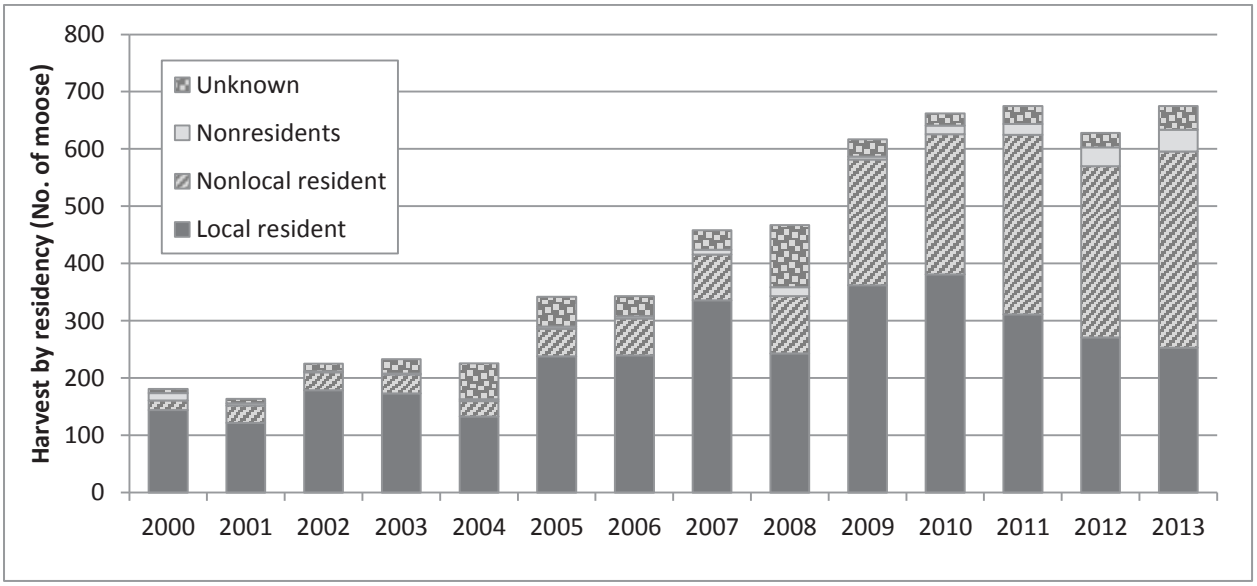


Figure 3. Unit 18 moose harvest by residency, 2000-2013 (ADF&G 2015).

Wolf

Reported wolf harvest has been variable, ranging from 19 to 109 wolves 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 River 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 Un-known
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

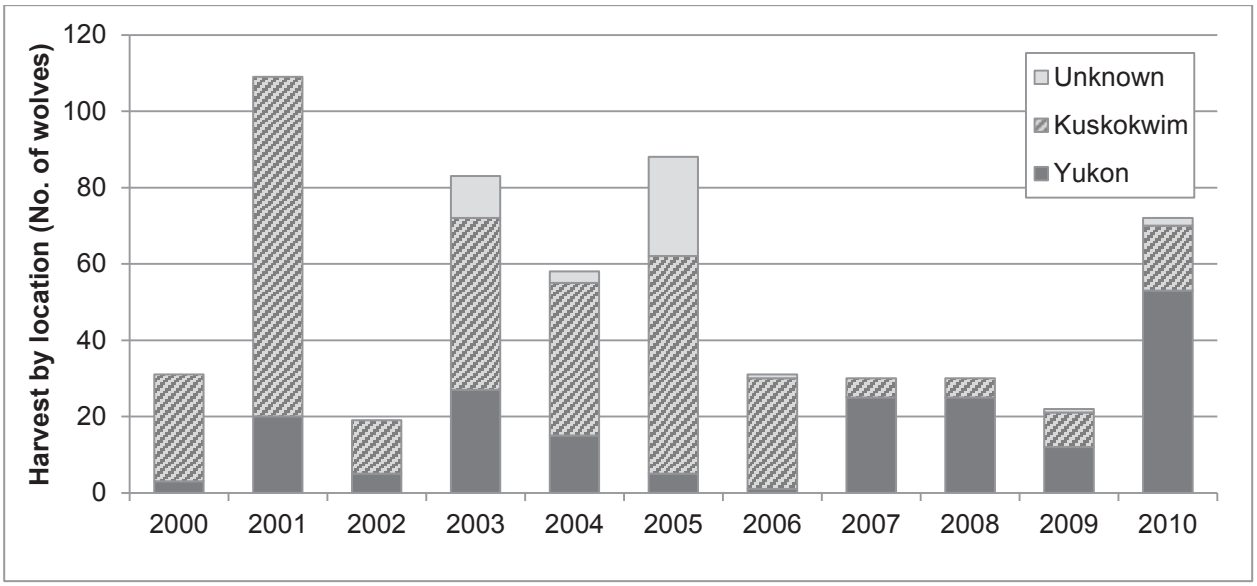


Figure 4. Unit 18 wolf harvest by drainage, 2000-2010 (Jones 2012).

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	0	4	4	27	43	19	0	12
2002	0	0	1	5	10	2	0	1
2003	0	0	9	15	31	27	0	4
2004	0	0	13	20	15	8	1	8
2005	0	3	7	13	14	11	1	39
2006	1	0	8	4	2	6	1	9
2007	0	0	6	7	18	30	2	13
2008	0	3	6	4	1	11	3	2
2009	0	1	3	2	7	8	0	0
2010	2	2	12	16	13	18	1	1
2011	0	1	6	2	8	7	0	0

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 River 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 public 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 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.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Yukon-Kuskokwim Delta Subsistence Regional Advisory Council

Oppose WP16-34. There is no conservation concern with moose in this area and unless there is increased harvest there could be significant habitat degradation due to exceeding carrying capacity. Subsistence users are satisfying their subsistence needs. There is a concern regarding the continuation of subsistence uses if the moose population is allowed to increase to the point where habitat is impacted and productivity of moose is decreased.

Western Interior Alaska Subsistence Regional Advisory Council

Oppose WP16-34. The Council agrees with the YKDRAC and OSM conclusion. The need to harvest the moose population in the area is imperative to prevent habitat degradation and a possible population crash as was seen in the 60s and 70s.

Seward Peninsula Subsistence Regional Advisory Council

Oppose WP16-34. The Council noted that there are no conservation concerns for big game in this area.

Bristol Bay Subsistence Regional Advisory Council

Oppose WP16-34. The Council opposed the proposal to close Federal lands in portion of Unit 18 for harvest of all big game by non-Federally qualified subsistence users. Currently no conservation concerns exist for the moose population in Unit 18. The Council expressed concerns that lack of harvest would lead to over browsing of habitat by moose, that it would place a huge burden on the capacity of the habitat to support an ever-increasing moose population. It was the overgrowth of the moose population specifically that prompted the Council's decision. It was also noted that the proposal did not satisfy the closure policy.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

APPENDIX

POLICY ON CLOSURES TO HUNTING, TRAPPING AND FISHING ON FEDERAL PUBLIC LANDS AND WATERS 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-Federally 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

WP16–36 Executive Summary	
General Description	Proposal WP16–36 requests changes to the existing boundaries for Unit 18, Unit 19, and Unit 21. *Submitted by the Office of Subsistence Management.*
Proposed Regulation	(18) *Unit 18.* (i) ~~Unit 18 consists of that area draining into the Yukon and Kuskokwim Rivers downstream from a straight line drawn between Lower Kalskag and Paimiut and the drainages flowing into the Bering Sea from Cape Newenham on the south to and including the Pastolik River drainage on the north; Nunivak, St. Matthew, and adjacent islands between Cape Newenham and the Pastolik River.~~ ***Unit 18 consists of that area draining into the Yukon and Kuskokwim Rivers westerly and downstream from a line starting at the downriver boundary of Paimiut on the north bank of the Yukon River then south across the Yukon River to the northern terminus of the Paimiut Portage, then south along the Paimiut Portage to its intersection with Arhymot Lake, then south along the northern and western bank of Arhymot Lake to the outlet at Crooked Creek (locally known as Johnson River), then along the south bank of Crooked Creek downstream to the northern terminus of Crooked Creek to the Yukon-Kuskokwim Portage (locally known as the Mud Creek Tramway), then along the west side of the tramway to Mud Creek, then along the westerly bank of Mud Creek downstream to an unnamed slough of the Kuskokwim River (locally known as First Slough or Kalskag Slough), then along the west bank of this unnamed slough downstream to its confluence with the Kuskokwim River, then southeast across the Kuskokwim River to its southerly bank, then along the south bank of the Kuskokwim River upriver to the confluence of a Kuskokwim River slough locally known as Old River, then across Old River to the downriver terminus of the island formed by Old River and the Kuskokwim River, then along the north bank of the main channel of Old River to Igyalleq Creek (Whitefish Creek), then along the south and west bank of Igyalleq Creek to Whitefish Lake, then directly across Whitefish Lake to Ophir Creek, then along the west bank of Ophir Creek to its headwaters at 61ø 10.22' N. lat., 159ø 46.05' W. long., and the drainages flowing into the Bering Sea from Cape Newenham on the south to and including the Pastolik***

WP16–36 Executive Summary	
	River drainage on the north; Nunivak, St. Matthews, and adjacent islands between Cape Newenham and the Pastolik River, and all seaward waters and lands within three miles of these coastlines. *(19) Unit 19. (i)* ~~*Unit 19 consists of the Kuskokwim River drainage upstream from a straight line drawn between Lower Kalskag and Paimiut:*~~ ***Unit 19 consists of the Kuskokwim River drainage upstream, excluding the drainages of Arhymot Lake, from a line starting at the outlet of Arhymot Lake at Crooked Creek (locally known as Johnson River), then along the south bank of Crooked Creek downstream to the northern terminus of Crooked Creek to the Yukon- Kuskokwim Portage (locally known as the Mud Creek Tramway), then along the west side of the tramway to Mud Creek, then along the westerly bank of Mud Creek downstream to an unnamed slough of the Kuskokwim River (locally known as First Slough or Kalskag Slough), then along the west bank of this unnamed slough downstream to its confluence with the Kuskokwim River, then southeast across the Kuskokwim River to its southerly bank, then along the south bank of the Kuskokwim River upriver to the confluence of a Kuskokwim River slough locally known as Old River, then across Old River to the downriver terminus of the island formed by Old River and the Kuskokwim River, then along the north bank of the main channel of Old River to Igyalleq Creek (Whitefish Creek), then along the south and west bank of Igyalleq Creek to Whitefish Lake, then directly across Whitefish Lake to Ophir Creek then along the west bank of Ophir Creek to its headwaters at 61° 10.22' N. lat., 159° 46.05' W. long.;*** (A) ~~Unit 19A consists of the Kuskokwim River drainage downstream from and including the Moose Creek drainage on the north bank and downstream from and including the Stony River drainage on the south bank, excluding Unit 19B.~~ ***Unit 19(A) consists of the Kuskokwim River drainage downstream from and including the Moose Creek drainage on the north bank and downstream from and including the Stony River drainage on the south bank, excluding Unit 19(B);*** (21) *Unit 21.* (i) ~~Unit 21 consists of drainages into the Yukon~~

WP16–36 Executive Summary	
	~~River upstream from Paimiut to, but not including, the Tozitna River drainage on the north bank, and to, but not including, the Tanana River drainage on the south bank; and excluding the Koyukuk River drainage upstream from the Dulbi River drainage:~~ ***Unit 21 consists of drainages into the Yukon River and Arhymot Lake upstream from a line starting at the downriver boundary of Paimiut on the north bank of the Yukon River then south across the Yukon River to the northern terminus of the Paimiut Portage, then south along the Portage to its intersection with Arhymot Lake, then south along the northern and western bank of Arhymot Lake to the outlet at Crooked Creek (locally known as Johnson River) drainage then to, but not including, the Tozitna River drainage on the north bank, and to but not including the Tanana River drainage on the south bank, and excluding the Koyukuk River drainage upstream from the Dulbi River drainage;*** *(E) ~~Unit 21E consists of the Yukon River drainage from Paimiut upstream to, but not including, the Blackburn Creek drainage, and the Innoko River drainage downstream from the Iditarod River drainage.~~* ***Unit 21(E) consists of that portion of Unit 21 in the Yukon River and Arhymot Lake drainages upstream from a line starting at the downriver boundary of Paimiut on the north bank of the Yukon River, then south across the Yukon River to the northern terminus of the Paimiut Portage, then south along the Portage to its intersection with Arhymot Lake, then along the northern and western bank of Arhymot Lake to the outlet at Crooked Creek (locally known as Johnson River) drainage, then to, but not including, the Blackburn Creek drainage, and the Innoko River drainage downstream from the Iditarod River drainage;***
OSM Conclusion	**Support**

WP16–36 Executive Summary	
Yukon-Kuskokwim Delta Regional Advisory Council Recommendation	**Support**
Western Interior Alaska Regional Advisory Council Recommendation	**Support**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Support**
Written Public Comments	**None**

STAFF ANALYSIS
WP16-36

ISSUES

Proposal WP16-36, submitted by the Office of Subsistence Management, requests changes to the existing boundaries for Unit 18, Unit 19, and Unit 21.

DISCUSSION

The proponent states that this proposal was submitted to align the Federal unit boundary descriptions with the boundaries the Alaska Board of Game adopted when it changed the boundaries for Units 18, 19, and 21 at their 2014 meeting. Before the boundaries were changed, public testimony noted that the old boundaries were confusing. People who hunted in the area and law enforcement wanted boundaries established using recognizable landmarks to delineate them more easily.

Existing Federal Regulation

> *(18) Unit 18. (i) Unit 18 consists of that area draining into the Yukon and Kuskokwim Rivers downstream from a straight line drawn between Lower Kalskag and Paimiut and the drainages flowing into the Bering Sea from Cape Newenham on the south to and including the Pastolik River drainage on the north; Nunivak, St. Matthew, and adjacent islands between Cape Newenham and the Pastolik River.*
>
> *(19) Unit 19. (i) Unit 19 consists of the Kuskokwim River drainage upstream from a straight line drawn between Lower Kalskag and Piamiut:*
>
> *(A) Unit 19A consists of the Kuskokwim River drainage downstream from and including the Moose Creek drainage on the north bank and downstream from and including the Stony River drainage on the south bank, excluding Unit 19B.*
>
> (*21) Unit 21. (i) Unit 21 consists of drainages into the Yukon River upstream from Paimiut to, but not including, the Tozitna River drainage on the north bank, and to, but not including, the Tanana River drainage on the south bank; and excluding the Koyukuk River drainage upstream from the Dulbi River drainage:*
>
> *(E) Unit 21E consists of the Yukon River drainage from Paimiut upstream to, but not including, the Blackburn Creek drainage, and the Innoko River drainage downstream from the Iditarod River drainage.*

Proposed Federal Regulation

> (18) *Unit 18.* (i) ~~Unit 18 consists of that area draining into the Yukon and Kuskokwim Rivers~~

~~downstream from a straight line drawn between Lower Kalskag and Paimiut and the drainages flowing into the Bering Sea from Cape Newenham on the south to and including the Pastolik River drainage on the north; Nunivak, St. Matthew, and adjacent islands between Cape Newenham and the Pastolik River.~~

Unit 18 consists of that area draining into the Yukon and Kuskokwim Rivers westerly and downstream from a line starting at the downriver boundary of Paimiut on the north bank of the Yukon River then south across the Yukon River to the northern terminus of the Paimiut Portage, then south along the Paimiut Portage to its intersection with Arhymot Lake, then south along the northern and western bank of Arhymot Lake to the outlet at Crooked Creek (locally known as Johnson River), then along the south bank of Crooked Creek downstream to the northern terminus of Crooked Creek to the Yukon-Kuskokwim Portage (locally known as the Mud Creek Tramway), then along the west side of the tramway to Mud Creek, then along the westerly bank of Mud Creek downstream to an unnamed slough of the Kuskokwim River (locally known as First Slough or Kalskag Slough), then along the west bank of this unnamed slough downstream to its confluence with the Kuskokwim River, then southeast across the Kuskokwim River to its southerly bank, then along the south bank of the Kuskokwim River upriver to the confluence of a Kuskokwim River slough locally known as Old River, then across Old River to the downriver terminus of the island formed by Old River and the Kuskokwim River, then along the north bank of the main channel of Old River to Igyalleq Creek (Whitefish Creek), then along the south and west bank of Igyalleq Creek to Whitefish Lake, then directly across Whitefish Lake to Ophir Creek, then along the west bank of Ophir Creek to its headwaters at 61ø 10.22' N. lat., 159ø 46.05' W. long., and the drainages flowing into the Bering Sea from Cape Newenham on the south to and including the Pastolik River drainage on the north; Nunivak, St. Matthews, and adjacent islands between Cape Newenham and the Pastolik River, and all seaward waters and lands within three miles of these coastlines.

(19) Unit 19. (i) ~~*Unit 19 consists of the Kuskokwim River drainage upstream from a straight line drawn between Lower Kalskag and Piamiut:*~~

Unit 19 consists of the Kuskokwim River drainage upstream, excluding the drainages of Arhymot Lake, from a line starting at the outlet of Arhymot Lake at Crooked Creek (locally known as Johnson River), then along the south bank of Crooked Creek downstream to the northern terminus of Crooked Creek to the Yukon- Kuskokwim Portage (locally known as the Mud Creek Tramway), then along the west side of the tramway to Mud Creek, then along the westerly bank of Mud Creek downstream to an unnamed slough of the Kuskokwim River (locally known as First Slough or Kalskag Slough), then along the west bank of this unnamed slough downstream to its confluence with the Kuskokwim River, then southeast across the Kuskokwim River to its southerly bank, then along the south bank of the Kuskokwim River upriver to the confluence of a Kuskokwim River slough locally known as Old River, then across Old River to the downriver terminus of the island formed by Old River and the Kuskokwim River, then along the north bank of the main channel of Old River to Igyalleq Creek (Whitefish

Creek), then along the south and west bank of Igyalleq Creek to Whitefish Lake, then directly across Whitefish Lake to Ophir Creek then along the west bank of Ophir Creek to its headwaters at 61° 10.22' N. lat., 159° 46.05' W. long.;

(A) ~~Unit 19A consists of the Kuskokwim River drainage downstream from and including the Moose Creek drainage on the north bank and downstream from and including the Stony River drainage on the south bank, excluding Unit 19B.~~

Unit 19(A) consists of the Kuskokwim River drainage downstream from and including the Moose Creek drainage on the north bank and downstream from and including the Stony River drainage on the south bank, excluding Unit 19(B);

(21) *Unit 21.* (i) ~~Unit 21 consists of drainages into the Yukon River upstream from Paimiut to, but not including, the Tozitna River drainage on the north bank, and to, but not including, the Tanana River drainage on the south bank; and excluding the Koyukuk River drainage upstream from the Dulbi River drainage:~~

Unit 21 consists of drainages into the Yukon River and Arhymot Lake upstream from a line starting at the downriver boundary of Paimiut on the north bank of the Yukon River then south across the Yukon River to the northern terminus of the Paimiut Portage, then south along the Portage to its intersection with Arhymot Lake, then south along the northern and western bank of Arhymot Lake to the outlet at Crooked Creek (locally known as Johnson River) drainage then to, but not including, the Tozitna River drainage on the north bank, and to but not including the Tanana River drainage on the south bank, and excluding the Koyukuk River drainage upstream from the Dulbi River drainage;

(E) ~~Unit 21E consists of the Yukon River drainage from Paimiut upstream to, but not including, the Blackburn Creek drainage, and the Innoko River drainage downstream from the Iditarod River drainage.~~

Unit 21(E) consists of that portion of Unit 21 in the Yukon River and Arhymot Lake drainages upstream from a line starting at the downriver boundary of Paimiut on the north bank of the Yukon River, then south across the Yukon River to the northern terminus of the Paimiut Portage, then south along the Portage to its intersection with Arhymot Lake, then along the northern and western bank of Arhymot Lake to the outlet at Crooked Creek (locally known as Johnson River) drainage, then to, but not including, the Blackburn Creek drainage, and the Innoko River drainage downstream from the Iditarod River drainage;

Existing State Regulation

Game Management Unit 18 consists of that area draining into the Yukon and Kuskokwim Rivers westerly and downstream from a line starting at the downriver boundary of Paimiut on the north bank of the Yukon River then south across the Yukon River to the northern terminus of the Paimiut Portage, then south along the Paimiut Portage to its intersection with Arhymot Lake, then south along the northern and western bank of Arhymot Lake to the outlet at Crooked Creek (locally known as Johnson River), then along the south bank of Crooked Creek downstream to the northern terminus of Crooked Creek to the Yukon-Kuskokwim Portage (locally known as the Mud Creek Tramway), then along the west side of the tramway to Mud Creek, then along the westerly bank of Mud Creek downstream to an unnamed slough of the Kuskokwim River (locally known as

First Slough or Kalskag Slough), then along the west bank of this unnamed slough downstream to its confluence with the Kuskokwim River, then southeast across the Kuskokwim River to its southerly bank, then along the south bank of the Kuskokwim River upriver to the confluence of a Kuskokwim River slough locally known as Old River, then across Old River to the downriver terminus of the island formed by Old River and the Kuskokwim River, then along the north bank of the main channel of Old River to Igyalleq Creek (Whitefish Creek), then along the south and west bank of Igyalleq Creek to Whitefish Lake, then directly across Whitefish Lake to Ophir Creek, then along the west bank of Ophir Creek to its headwaters at 61° 10.22' N. lat., 159° 46.05' W. long., and the drainages flowing into the Bering Sea from Cape Newenham on the south to and including the Pastolik River drainage on the north; Nunivak, St. Matthews, and adjacent islands between Cape Newenham and the Pastolik River, and all seaward waters and lands within three miles of these coastlines;

Game Management Unit 19 consists of the Kuskokwim River drainage upstream, excluding the drainages of Arhymot Lake, from a line starting at the outlet of Arhymot Lake at Crooked Creek (locally known as Johnson River), then along the south bank of Crooked Creek downstream to the northern terminus of Crooked Creek to the Yukon- Kuskokwim Portage (locally known as the to Mud Creek Tramway), then along the west side of the tramway to Mud Creek, then along the westerly bank of Mud Creek downstream to an unnamed slough of the Kuskokwim River (locally known as First Slough or Kalskag Slough), then along the west bank of this unnamed slough downstream to its confluence with the Kuskokwim River, then southeast across the Kuskokwim River to its southerly bank, then along the south bank of the Kuskokwim River upriver to the confluence of a Kuskokwim River slough locally known as Old River, then across Old River to the downriver terminus of the island formed by Old River and the Kuskokwim River, then along the north bank of the main channel of Old River to Igyalleq Creek (Whitefish Creek), then along the south and west bank of Igyalleq Creek to Whitefish Lake, then directly across Whitefish Lake to Ophir Creek then along the west bank of Ophir Creek to its headwaters at 61° 10.22' N. lat., 159° 46.05' W. long.;

Unit 19(A) consists of the Kuskokwim River drainage downstream from and including the Moose Creek drainage on the north bank and downstream from and including the Stony River drainage on the south bank, excluding Unit 19(B);

Game Management Unit 21 consists of drainages into the Yukon River and Arhymot Lake upstream from a line starting at the downriver boundary of Paimiut on the north bank of the Yukon River then south across the Yukon River to the northern terminus of the Paimiut Portage, then south along the Portage to its intersection with Arhymot Lake, then south along the northern and western bank of Arhymot Lake to the outlet at Crooked Creek (locally known as Johnson River) drainage then to, but not including, the Tozitna River drainage on the north bank, and to but not including the Tanana River drainage on the south bank, and excluding the Koyukuk River drainage upstream from the Dulbi River drainage;

Unit 21(E) consists of that portion of Unit 21 in the Yukon River and Arhymot Lake drainages upstream from a line starting at the downriver boundary of Paimiut on the north bank of the Yukon River, then south across the Yukon River to the northern terminus of the Paimiut Portage, then south along the Portage to its intersection with Arhymot Lake, then along the northern and western bank of Arhymot Lake to the outlet at Crooked Creek (locally known as Johnson River) drainage, then to, but not including, the Blackburn Creek drainage, and the Innoko River drainage downstream from the Iditarod River drainage;

Extent of Federal Public Lands

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

Federal public lands comprise approximately 21% of Unit 19 and consist of 70% FWS managed lands, 16% BLM managed lands, and 5% National Park Service (NPS) managed lands.

Federal public lands comprise approximately 49% of Unit 21 and consist of 27% FWS managed lands and 22% BLM managed lands (**see maps for Units 18, 19, and 21**).

Customary and Traditional Use Determination

Residents of Unit 18, Aniak, Chuathbaluk, St. Michael, St, Stebbins, and Upper Kalskag have a customary and traditional use determination for moose in various areas of Unit 18. Residents of Unit 18, Manokotak, St. Michael, Stebbins, Togiak, Twin Hills, and Upper Kalskag have a customary and traditional use determination for caribou in Unit 18. Rural residents of Akiachak, Akiak, Eek, Goodnews Bay, Kwethluk, Mountain village, Napaskiak, Platinum, Quinhagak, St. Marys and Tuluksak have a customary and traditional use determination for brown bear in Unit 18. Residents of Unit 18, Unit 19A, Holy Cross, Stebbins, Togiak, and Twin Hills, have a customary and traditional use determination for black bear in Unit 18.

Residents of Units 19 and 18 have a customary and traditional use determination for moose in Unit 19A. Residents of Units 19A, 19B, 18, Marshall, Pilot Station, Russian Mission, and St. Marys have a customary and traditional use determination for caribou in Unit 19A.

Residents of Units 21A, 21E, Aniak, Crooked Creek, McGrath, and Takotna have a customary and traditional use determination for moose in Unit 21A. Residents of Units 21A, 21D, 21E, Aniak, Chuathbaluk, Crooked Creek, McGrath, and Takotna have a customary and traditional use determination for caribou in Unit 21A. Residents of Units 21 and 23 have customary and traditional use determination for brown bear in Unit 21.

Regulatory History

The boundaries for Unit 18, Unit 19, and Unit 21 were changed under State regulations. The Alaska Board of Game adopted Proposal 10 in March of 2014, stating that the boundaries, as delineated at the time, were confusing and unclear. The State wanted boundaries based on landmarks and features that could be easily identified.

Effects of This Proposal

If this Proposal is adopted, the unit boundaries for Unit 18, Unit 19, and Unit 21 will be modified using recognizable landmarks to delineate them more easily. The new boundary descriptions will parallel changes made by the Alaska Board of Game in 2014, reducing regulatory complexity by making the unit descriptions the same under State and Federal regulations. If this Proposal is adopted, there may be impacts to subsistence users, who will now live in a different Unit than they did previously, but these impacts are being addressed in WP16-33.

OSM Conclusion

Support Proposal WP16-36.

Justification

Adoption of Proposal WP16-36 would make the boundary descriptions for Units 18, 19, and 21, as listed in the Code of Federal Regulations, consistent with the State unit boundaries. Adopting this proposal will eliminate regulatory complexity, regarding unit boundaries, for Federally qualified subsistence users.

SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Yukon-Kuskokwim Delta Subsistence Regional Advisory Council

Support WP16-36. Adopting this proposal would align unit boundaries with State of Alaska regulations, reduce complexity of regulations and reduce opportunity for enforcement issues. The Council was assured that there would be no loss of subsistence opportunity for residents of Kalskag due to changing the Unit 18 boundary.

Western Interior Alaska Subsistence Regional Advisory Council

Support WP16-36. This is a housekeeping proposal. Local people want more clarity about landmarks—this is a positive direction and the council has dialogued with the community of Aniak when they last visited there regarding this issue.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

WP16–38 Executive Summary	
General Description	Proposal WP16-38 requests that the one-half mile corridor along the Innoko and Yukon Rivers be opened to moose hunting during the winter season in Unit 21E. *Submitted by Alfred Demientieff, Jr. on behalf of the Holy Cross Tribal Council.*
Proposed Regulation	**Unit 21E—Moose** *Unit 21E—1 moose; however, only bulls may be taken from Aug. 25-Sept. 30. During the Feb. 15-Mar.15 season, a Federal registration permit is required. The permit conditions and any needed closures for the winter season will be announced by the Innoko NWR manager and after consultation with the ADF&G area biologist and the Chairs of the Western Interior Regional Advisory Council and the Middle Yukon Fish and Game Advisory Committee as stipulated in a letter of delegation. Moose may ~~not~~ be taken ~~within one-half mile of the Innoko or Yukon River~~* ***anywhere on federal land*** *during the winter season.* — *Aug. 25-Sept. 30* *Feb. 15-Mar. 15*
OSM Conclusion	**Support** Proposal WP16-38 **with modification** to delete the language specifying where moose may be taken during the winter season and remove the regulatory language referring to permit conditions and season closures for the winter season and delegate authority to set permit conditions and announce season closures via a delegation of authority letter only. The modified regulation should read: **Unit 21E—Moose** *Unit 21E—1 moose; however, only bulls may be taken from Aug. 25-Sept. 30. During the Feb. 15-Mar.15 season, a Federal registration permit is required. ~~The permit conditions and any needed closures for the winter season will be announced by the Innoko NWR manager and after consultation with the ADF&G area biologist and the Chairs of the Western Interior Regional Advisory Council and the Middle Yukon~~* — *Aug. 25-Sept. 30* *Feb. 15-Mar. 15*

WP16–38 Executive Summary	
	~~*Fish and Game Advisory Committee as stipulated in a letter of delegation*. *Moose may not be taken within one-half mile of the Innoko or Yukon River during the winter season.*~~
Yukon-Kuskokwim Delta Regional Advisory Council Recommendation	**Oppose**
Western Interior Regional Advisory Council Recommendation	**Oppose**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Oppose**
Written Public Comments	**None**

STAFF ANALYSIS
WP16-38

ISSUES

Proposal WP16-38, submitted by Alfred Demientieff, Jr. on behalf of the Holy Cross Tribal Council, requests that the one-half mile corridor along the Innoko and Yukon Rivers be opened to moose hunting during the winter season in Unit 21E (**Map 1**).

DISCUSSION

The proponent states that climate change is negatively impacting hunters' ability to harvest moose and that the moose hunting restriction in the half-mile corridor is confusing to users, especially because of the many river islands in the area. The proponent claims that removal of the half-mile hunting restriction will benefit users by increasing their chances of harvesting a moose during the winter season and that the existing Federal subsistence registration hunt will preclude any impact to the moose population.

Existing Federal Regulation

Unit 21E—Moose

Unit 21E—1 moose; however, only bulls may be taken from Aug. 25-Sept. 30. During the Feb. 15-Mar.15 season, a Federal registration permit is required. The permit conditions and any needed closures for the winter season will be announced by the Innoko NWR manager and after consultation with the ADF&G area biologist and the Chairs of the Western Interior Regional Advisory Council and the Middle Yukon Fish and Game Advisory Committee as stipulated in a letter of delegation. Moose may not be taken within one-half mile of the Innoko or Yukon River during the winter season.	*Aug. 25-Sept. 30* *Feb. 15-Mar. 15*

Proposed Federal Regulation

Unit 21E—Moose

Unit 21E—1 moose; however, only bulls may be taken from Aug. 25-Sept. 30. During the Feb. 15-Mar.15 season, a Federal registration permit is required. The permit conditions and any needed closures for the winter season will be announced by the Innoko NWR manager and after consultation with the ADF&G area biologist and the Chairs of the	*Aug. 25-Sept. 30* *Feb. 15-Mar. 15*

Western Interior Regional Advisory Council and the Middle Yukon Fish and Game Advisory Committee as stipulated in a letter of delegation. Moose may ~~not~~ be taken ~~within one-half mile of the Innoko or Yukon River~~ ***anywhere on federal land*** *during the winter season.*

Existing State Regulation

Unit 21E—Moose

Resident: One antlered bull by permit available in person at license vendors in Units 21E and ADF&G in McGrath beginning Aug. 13	*RM836*	*Sept. 5-Sept. 25*
Nonresident: One bull with 50-inch antlers or antlers with 4 or more brow tines on at least one side by permit	*DM837/ 839*	*Sept. 5-Sept. 25*

Extent of Federal Public Lands

Federal public lands comprise approximately 60% of Unit 21E and consist of 48% Bureau of Land Management (BLM) managed lands and 12% U.S. Fish and Wildlife Service (FWS) managed lands.

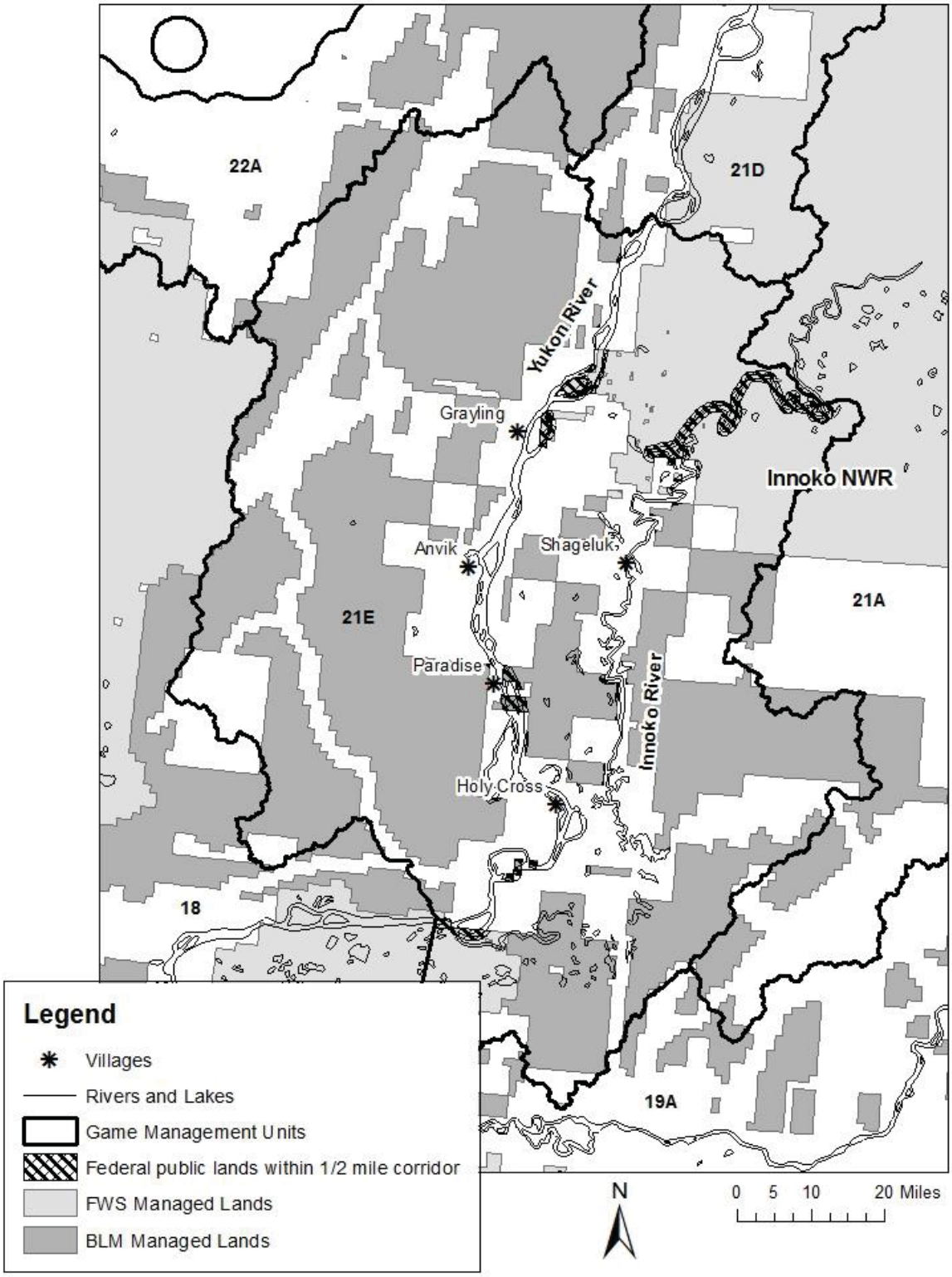
Customary and Traditional Use Determinations

Rural residents of Unit 21E, Aniak, Chuathbaluk, Kalskag, Lower Kalskag, and Russian Mission have a customary and traditional use determination for moose in Unit 21E south of a line beginning at the western boundary of Unit 21E near the mouth of Paimiut Slough, extending easterly along the south bank of Paimiut Slough to Upper High Bank, and southeasterly in the direction of Molybdenum Mountain to the juncture of Units 19A, 21A, and 21E.

Rural residents of Unit 21E and Russian Mission have a customary and traditional use determination to harvest moose in the remainder of Unit 21E.

Regulatory History

The Paradise Controlled Use Area (CUA) is almost entirely within Unit 21E. It was established in 1978 by the Alaska Board of Game in response to concerns that hunter success rates favored non-rural users and that the total harvest of moose in the area was threatening the population. The Paradise CUA regulations placed a restriction on fly-in hunting for moose, air transport of hunters and hunting-related equipment, and the air transport of moose meat from the field. The Paradise CUA access restriction and the State's moose seasons for Units 21E were adopted by the Federal Subsistence Board (Board) in 1990.



Map 1. Federal public lands within the half-mile corridor along the Yukon and Innoko Rivers in Unit 21E.

In 1993, the Alaska Department of Fish and Game (ADF&G) submitted a request for reconsideration, R93-08, requesting a half mile restriction for moose hunting along the Yukon River in Unit 21E. Requests R93-08 was deferred to the 1994-1995 regulatory cycle as Proposal P94-58. The Federal Subsistence Board (Board) deferred P94-58 at its spring 1994 meeting due to the oversight of including all affected regional advisory councils in the review process (FSB 1994). The Board adopted P94-58 at its meeting in November 1994. The intent of proposal P94-58 was to protect overwintering moose and to align State and Federal regulations in order to alleviate law enforcement concerns as distinguishing land status in the area was impracticable (OSM 1994).

In 1995, the Board adopted Proposal P95-40, establishing the half mile restriction for moose hunting along the Innoko River due to concerns over hunting disturbance to moose concentrated on critical winter feeding grounds.

In 1999, Proposal P99-045 sought to close the islands in the Innoko and Yukon Rivers to moose hunting during the winter season to protect the moose population, which concentrate on these islands during the winter. This proposal was rejected as hunting was already restricted within one half mile of these rivers, including islands, under the existing Federal subsistence regulations.

In 2003, the Alaska Board of Game adopted Proposal 172, eliminating the winter moose hunting season (Feb. 1-Feb. 10) in Unit 21E. This closure occurred based on recommendations from the Grayling-Anvik-Shageluk-Holy Cross Fish and Game Advisory Committee (GASH AC) and concern that the moose population was declining and could not sustain a large cow harvest and a winter hunt open to all Alaska residents (ADF&G 2003, ADF&G 2006).

In 2010, the Board adopted Proposal WP10-65, which changed the winter moose season from Feb. 1-Feb. 10 to Feb. 15-Mar. 15 and delegated authority to the Innoko National Wildlife Refuge (NWR) manager to establish permit conditions and closures. The Board determined that the longer winter season would provide hunters with more opportunity and flexibility and that a registered hunt would provide more accurate harvest data to inform management decisions.

The Board also adopted Proposal WP10-66, which changed the fall season dates from Aug. 20-Sept. 25 to Aug. 25-Sept. 30 in order to provide users greater opportunity to harvest moose later in the season when moose are moving around more.

In 2012, the Board approved deferred Proposal WP10-69, which gave a customary and traditional use determination for moose to the communities of Aniak, Chuathbaluk, Kalskag, and Lower Kalskag in the Paimiut Slough area in Unit 21E.

In 2014, the Board adopted Proposal WP14-32 to extend the boundary for the Paradise CUA two miles to the east, paralleling the Innoko River. This was done to lessen user conflicts between local and non-local users who were circumventing restrictions by accessing lakes via aircraft within two miles of the Paradise CUA to hunt moose.

Biological Background

In January 2005, a cooperative moose planning effort called the Yukon-Innoko Moose Management Working Group was launched. The goal of the planning effort was to develop a proactive management plan to help maintain the moose population while also providing for high levels of human consumptive uses of moose in Units 21A and 21E (ADF&G 2006). The working group included representatives of the GASH and Lower Yukon Fish and Game Advisory Committees, the Western Interior Alaska and Yukon-Kuskokwim Delta Subsistence Regional Advisory Councils, as well as non-local hunters and representatives who had commercial interests associated with hunting in the area.

The result of the planning effort was the Yukon-Innoko Moose Management Plan (Management Plan), which was completed in March 2006. The Federal Subsistence Board endorsed the Management Plan in May 2006 through Resolution 06-0201. The Management Plan presented recommendations for harvest management at different moose population levels and levels of hunting pressure, predation management, and habitat management (ADF&G 2006). The Management Plan also listed goals, objectives, and strategies for cooperative moose management and information needs.

Current State management and harvest objectives for moose in Unit 21E are the same as those in the 2006 Management Plan and are as follows (ADF&G 2006, Peirce and Seavoy 2010):

- Manage to achieve the IM (intensive management) objective of 9,000-11,000 moose in Unit 21E.
- Maintain a minimum post hunt bull:cow ratio of 25-30 bulls:100 cows in Units 21A and 21E.
- Maintain a minimum post hunt calf:cow ratio of 30-40 calves:100 cows in Units 21A and 21E.
- Maintain at least 20% calves in the late winter moose population in Unit 21E.
- Maintain a harvest of ≤4% of the estimated moose population in Unit 21E until the IM population objective has been met.
- Provide for a sustained harvest of up to 40 antlerless moose in a winter season in Unit 21E.
- Provide for the harvest of approximately 310 moose in Unit 21E by residents of Unit 21E and other Alaska residents.

Population estimates have been sporadically conducted using Geospatial Population Estimation (GSPE) Surveys (Kellie and Delong 2006). The 5,070 mi^2 GSPE survey area included mainly that portion of Unit 21E east of the Yukon River and includes portions of the Innoko and Yukon Delta National Wildlife Refuges, as well as BLM lands.

Between 2000 and 2012, the winter moose population in Unit 21E remained relatively stable, with population estimates ranging from 4,673-6,218 moose (**Figure 1**). These estimates are well below management objectives.

Four moose composition surveys were conducted in Unit 21E between 2007 and 2011; however, it is important to note that the surveys did not follow a rigid survey design (Peirce 2010). Therefore, variation in the number of observed moose could be attributed to actual changes in moose abundance or survey methodology.

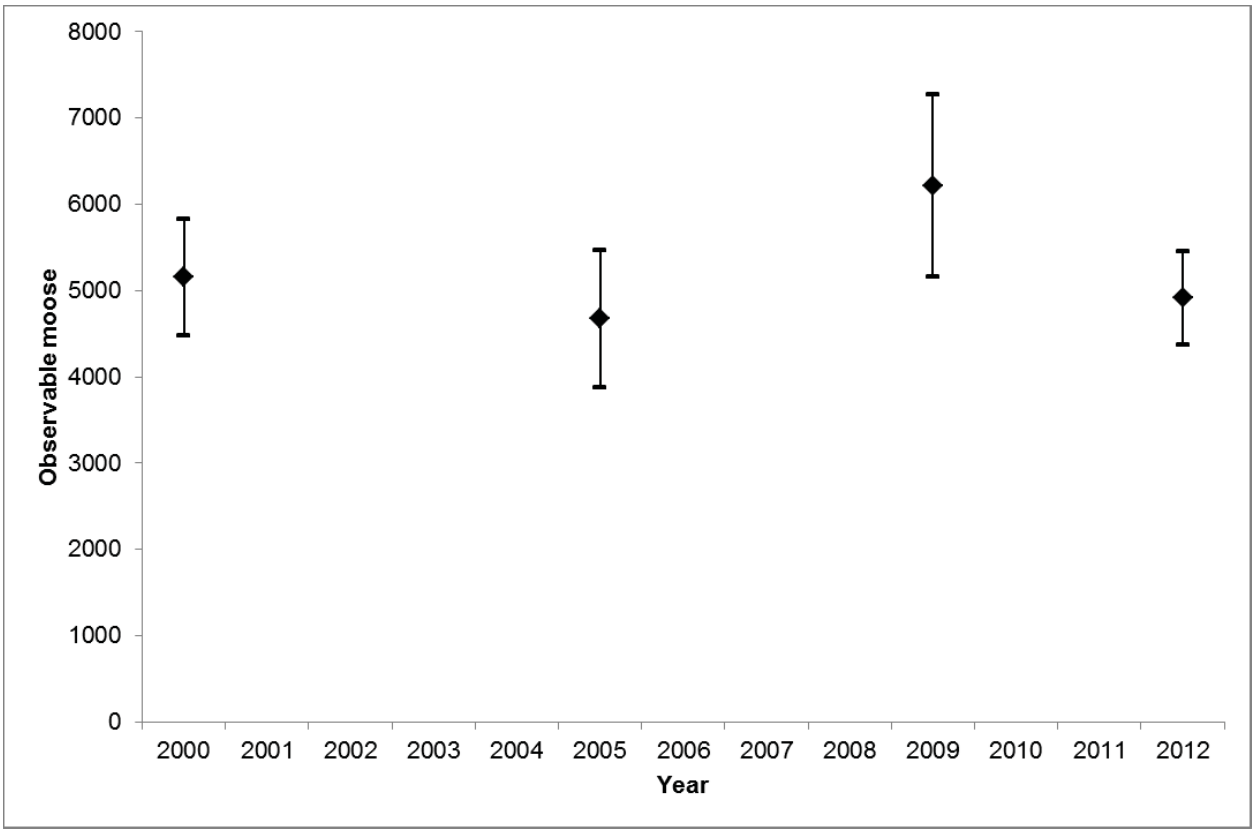


Figure 1. Unit 21E population estimates (± 90% CI) from Geospatial Population Estimation surveys conducted during March, 2000-2012 (Peirce 2010, 2012).

Bull:cow ratios have generally been high (61–74 bulls:100 cows) and well above the management objective (**Table 1**). The lower ratio in 2009 (**Table 1**) may be due to differences in survey area, as weather precluded biologists from including an area where high numbers of bulls have been observed during previous surveys (Peirce and Seavoy 2010).

Calf:cow ratios met the State management objectives in all years surveyed, except for 2009 (**Table 1**).

Based upon spring surveys, twinning rates showed an increasing trend between 2007 and 2009, but decreased to 32% in the 2013 survey (**Table 2**). There is ongoing moose collaring study by the ADF&G that should help address some of the moose survey data limitations in Unit 21E.

Habitat

Habitat is not considered a limiting factor for moose in Unit 21E (ADF&G 2006, Peirce and Seavoy 2010, Peirce 2012). Browse surveys conducted by ADF&G in 2006 noted abundant felt leaf willow (typical winter browse) in riparian areas and abundant diamond leaf willow (typical summer/autumn browse) in meadows (ADF&G 2006). Based on browse removal and twinning rates, nutrition is considered adequate to support moose population growth in Unit 21E, suggesting other, non-habitat factors are limiting the population (Boertje et al. 2007, 2009 *in* Peirce and Seavoy 2010).

Table 1. Fall composition surveys conducted in Unit 21E, 2007-2011 (Peirce 2012).

Year	Moose observed	Ratios		
		Bulls:100 cows	Yearling bulls:100 cows	Calves:100 cows
2007	84	74	26	66
2008	186	62	29	37
2009	153	32	21	18
2010	287	61	15	51
2011	201	64	22	47

Table 2. Spring moose twinning surveys conducted in Unit 21E, 2007-2013 (Peirce 2012, Seavoy 2013).

Year	Total Moose	Cows with 1 calf	Cows with 2-3 calves	Twinning rate (%)
2007	148	18	7	28
2008	194	17	15	47
2009	182	12	12	50
2010	256	32	22	41
2013	339	38	18	32

Harvest History

Over the past 15 years, the percentage of the moose population harvested fell well within the management objective of ≤ 4% (**Table 3**). The total reported moose harvest ranged between 94 and 236 moose/year, which is well below the management objective (ADF&G 2015b, OSM 2015, **Figure 2**).

Household survey data available for the GASH communities reveals the estimated harvest to be 4-10% greater than the reported harvest for 2002-2004 and 33% greater for the baseline survey year, 1990 (ADF&G 2015a, **Table 4**).

Federally qualified subsistence users harvested 2-7 moose/year during the Federal winter season between regulatory years 2010/11 and 2014/15, roughly half of which were cows (OSM 2015, Havener 2015b, **Table 5**). These numbers are well below the winter harvest threshold of 40 antlerless moose/year.

The Yukon-Innoko Moose Management Plan recommends maintaining a cow harvest not to exceed 0.5% of the population (ADF&G 2006). Based on the 12-year average population (5,239 moose), 26 cow moose can be sustainably harvested during the winter season. The number of cows harvested between 2010/11 and 2014/15 fell well below this recommended level (**Table 5**).

Table 3. Percentage of the Moose Population Harvested in Unit 21E (ADF&G 2015b, OSM 2015, Peirce 2010, 2012).

Year	Moose Population (GPSE est)	Reported Moose Harvested	% of Population Harvested
2000	5,151	202	3.9
2005	4,673	124	2.7
2009	6,218	106	1.7
2012	4,914	105	2.1

Table 4. Reported and estimated harvest by GASH communities (ADF&G 2015a)

Year	Reported Harvest	Estimated Harvest	% Difference
1990	169	252	32.9
2002	119	133	10.5
2003	113	118	4.2
2004	89	94	5.3

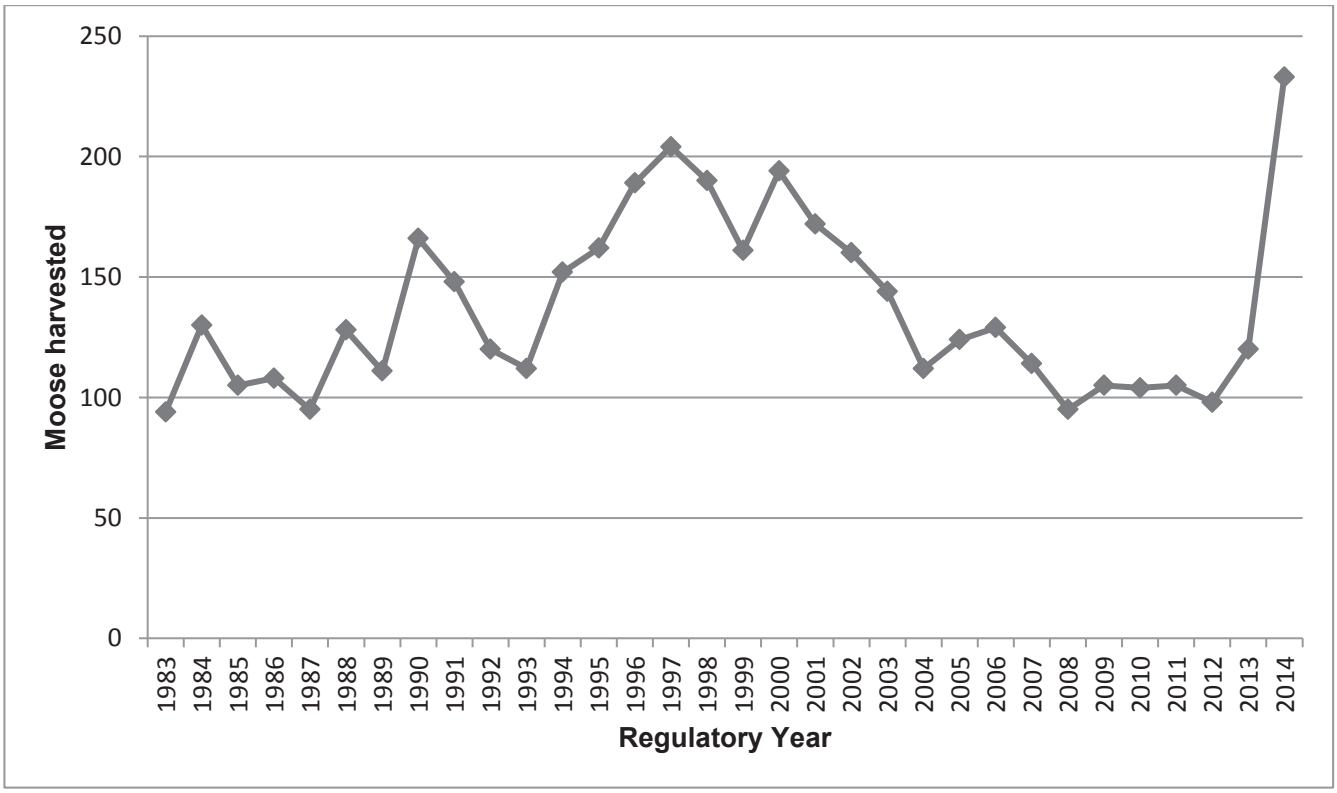


Figure 2. Reported harvest of moose under State harvest regulations in Unit 21E; 1983-2014 (ADF&G 2015b, OSM 2015).

Table 5. Winter season permits issued by Innoko NWR and moose harvested in Unit 21E (OSM 2015, Havener 2015b).

Regulatory Year	Permits Issued	Total Harvest	Males Harvested	Females Harvested
2010/11	24	6	2	4
2011/12	14	4	2	2
2012/13	15	7	3	4
2013/14	17	2	1	1
2014/15	24	3	1	2
Average	18.8	4.4	1.8	2.6

Effects of the Proposal

If this proposal is adopted, the half-mile restriction along the Innoko and Yukon Rivers would be lifted during the winter season in Unit 21E. Adoption of this proposal would simplify the hunting area for users who have a difficult time determining whether they are within the half mile corridor or not.

Adoption of this proposal would also improve harvest opportunity and access for Federally qualified subsistence users, increasing their chances of a successful hunt and the number of animals harvested. Although the total population is below management objectives, harvest rates are well within management objectives and could sustain an increase in harvest.

The number of moose harvested and permits issued during the Federal winter season has been low (**Table 5**). Even if every issued permit was filled in past years, the harvest would still be well below the harvest objective. Similarly, the number of cows harvested/year is well below the recommended harvest level and can sustain an increase in harvest. While adopting this proposal is likely to increase harvest, these increases are not expected to negatively impact the moose population as harvest would need to increase at least 5 fold to approach management thresholds.

The original intent of the half mile corridor closures in 1994/1995 was to minimize disturbance to moose when they are concentrated on their winter feeding grounds, then considered critical habitat. However, habitat is not currently considered a limiting factor as evidenced by abundant browse and high twinning rates.

Additionally, the majority of lands within the half mile corridor are not Federal public lands. Opening the half mile corridor to winter hunting would only apply to 20% of the area (including islands and water, **Map 1**); the remainder being closed during the Federal winter season and continuing to provide refugia (areas where no hunting is permitted) for overwintering moose.

Both the Innoko NWR (Havener 2015a, pers. comm.) and the BLM (Seppi 2015, pers. comm.) have expressed concerns about law enforcement if this proposal is adopted as distinguishing land status in the area is difficult. Users already must distinguish between the open Federal public and closed non-Federal lands during the winter hunt as well as whether or not they are within half a mile of the rivers. However,

hunting pressure is expected to increase if the areas within half a mile along the Yukon and Innoko rivers are opened, which could result in more hunting violations and law enforcement issues.

However, barring conservation concerns, Section 802(1) of the Alaska National Interest Lands Conservation Act (ANILCA) mandates, ". . . the utilization of the public lands in Alaska is to cause the least adverse impact possible on rural residents who depend upon subsistence uses of the resources of such lands." As the biology and harvest history indicate the moose population in Unit 21E can sustain an increase in harvest, Federally qualified subsistence users should be afforded additional opportunity and accessibility to subsistence resources.

Additionally, the Board delegated in-season manager of Innoko NWR manager will maintain management authority and flexibility to open/close the season, announce the harvest quota, and the number of permits to be issued, ensuring the moose population is maintained long-term.

OSM CONCLUSION

Support Proposal WP16-38 **with modification** to delete the language specifying where moose may be taken during the winter season and remove the regulatory language referring to permit conditions and season closures for the Feb. 15 – Mar. 1 season and delegate authority to set permit conditions and announce season closures via a delegation of authority letter only (**Appendix 1)**.

The modified regulation should read:

Unit 21E—Moose

Unit 21E—1 moose; however, only bulls may be taken from Aug. 25-Sept. 30. During the Feb. 15-Mar.15 season, a Federal registration permit is required. ~~The permit conditions and any needed closures for the winter season will be announced by the Innoko NWR manager and after consultation with the ADF&G area biologist and the Chairs of the Western Interior Regional Advisory Council and the Middle Yukon Fish and Game Advisory Committee as stipulated in a letter of delegation~~. ~~Moose may not be taken within one-half mile of the Innoko or Yukon River during the winter season.~~	*Aug. 25-Sept. 30* *Feb. 15-Mar. 15*

Justification

Adoption of this proposal would increase harvest opportunity for Federally qualified subsistence users and reduce confusion over whether or not they are within a half mile of the rivers, although users would still need to distinguish between Federal and non-Federal lands.

There are no conservation concerns for moose in Unit 21E. The moose population appears stable and able to sustain an increase in harvest. Habitat is not a limiting factor for this population and moose would still

have undisturbed wintering grounds on non-Federal lands within the half mile corridor. The Innoko NWR manager will maintain authority to establish seasons and permit conditions, ensuring the conservation of the moose population.

Creation of a delegation of authority letter for the Federal in-season manager will serve to simplify regulations and allow for management flexibility through adjustment of in-season hunt parameters. Adoption of this proposal opens all Federal lands within the hunt area to moose hunting, so no additional language specifying where moose may be taken is necessary.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Western Interior Alaska Subsistence Regional Advisory Council

Oppose WP16-38. The Council is concerned with Federally qualified users having difficulty distinguishing federal lands in the hunt area (already quite complex, patchwork) and there may be a hardship if they risk the possibility of being cited. The Council wishes to accommodate subsistence needs but does not want to set the users up for failure with little potential for benefit. Due to moose population concerns and the potential for enforcement issues, this Council is in opposition to this proposal. Moose bunched up on river corridors and islands—easy to affect the population because of the concentration in one area. The full ramifications of the proposed actions are not fully understood and the Council heard from the local GASH State Advisory Committee which is strongly opposed to the proposed action. Defer to local GASH A/C and their opposition.

Yukon-Kuskokwim Delta Subsistence Regional Advisory Council

Oppose WP16-38. There would be almost no benefit to Federally qualified subsistence users because there is very little Federal land within the corridor. Adopting this proposal would result in increased enforcement concerns for local residents. The original closure was requested by the local communities and unless there is support from those same communities, there is no reason to change the regulation.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

Appendix 1.

Refuge Manager
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 21E as it applies to moose on these lands.

It is the intent of the Board that actions related to management of moose 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 Innoko National Wildlife Refuge Manager is hereby delegated authority to issue emergency or temporary special actions affecting moose 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:

- To set permit conditions and announce any needed closures for the winter season for moose on Federal public lands in Unit 21E.

This delegation may be exercised only when necessary to conserve moose populations, to continue

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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 21E.

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

5. Guidelines for Delegation: You will become familiar with the management history of the wildlife species relevant to this delegation in the region, with current State and Federal regulations and management plans, and be up-to-date on population and harvest status information. You will 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.

6. Support Services: Administrative support for regulatory actions will be provided by the Office

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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

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WP16–39 Executive Summary	
General Description	Proposal WP16-39 requests that all Nowitna National Wildlife Refuge lands downstream of the Little Mud River drainage in Unit 21B be open to moose hunting during the Sept. 5 – Oct. 1 season. *Submitted by the Western Interior Alaska Subsistence Regional Advisory Council.*
Proposed Regulation	**Unit 21B—Moose** *Unit 21B—that ~~part of the Nowitna River drainage~~* ***portion within the Nowitna National Wildlife Refuge*** *downstream from and including the Little Mud River drainage—1 bull. A State registration permit is required from Sept. 5-25. A Federal registration permit is required from Sept. 26-Oct 1.* — *Sept. 5-Oct. 1.* *Unit 21B— that ~~part of the Nowitna River drainage~~* ***portion within the Nowitna National Wildlife Refuge*** *downstream from and including the Little Mud River drainage—1 antlered bull. A Federal registration permit is required during the 5-day season and will be limited to one per household. The 5-day season may be announced by the Koyukuk/Nowitna National Wildlife Refuge Manager after consultation with the ADF&G and the Chairs of the Western Interior Regional Advisory Council and the Ruby Fish and Game Advisory Committee.* — *Five-day season to be announced between Dec. 1 and March 31.* *Unit 21A and 21B, remainder—1 bull* — *Aug. 20-Sept. 25. Nov. 1-30.*
OSM Conclusion	**Support** Proposal WP16-39 **with modification** to remove the regulatory language for Unit 21B referring to the five-day to-be-announced season from Dec. 1 – Mar. 31 and delegate authority to set season opening and closing dates for this season via a delegation of authority letter. The modified regulation should read:

WP16–39 Executive Summary	
	Unit 21B—Moose *Unit 21B—that ~~part of the Nowitna River drainage~~ **portion within the Nowitna National Wildlife Refuge** downstream from and including the Little Mud River drainage—1 bull. A State registration permit is required from Sept. 5-25. A Federal registration permit is required from Sept. 26-Oct 1.* — *Sept. 5-Oct. 1.* *Unit 21B— that ~~part of the Nowitna River drainage~~ **portion within the Nowitna National Wildlife Refuge** downstream from and including the Little Mud River drainage—1 antlered bull. A Federal registration permit is required during the 5-day season and will be limited to one per household. ~~The 5-day season may be announced by the Koyukuk/Nowitna National Wildlife Refuge Manager after consultation with the ADF&G and the Chairs of the Western Interior Regional Advisory Council and the Ruby Fish and Game Advisory Committee.~~* — *Five-day season to be announced between Dec. 1 and March 31.* *Unit 21A and 21B, remainder—1 bull* — *Aug. 20-Sept. 25. Nov. 1-30.*
Western Interior Alaska Regional Advisory Council Recommendation	**Support as modified by OSM**
Eastern Interior Alaska Regional Advisory Council Recommendation	**Support**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

WP16–39 Executive Summary	
ADF&G Comments	**Support as modified by OSM**
Written Public Comments	**None**

STAFF ANALYSIS
WP16-39

ISSUES

Proposal WP16-39, submitted by the Western Interior Alaska Subsistence Regional Advisory Council, requests that all Nowitna National Wildlife Refuge (NWR) lands downstream of the Little Mud River drainage in Unit 21B be open to moose hunting during the Sept. 5 – Oct. 1 season. (**Maps 1-2**).

DISCUSSION

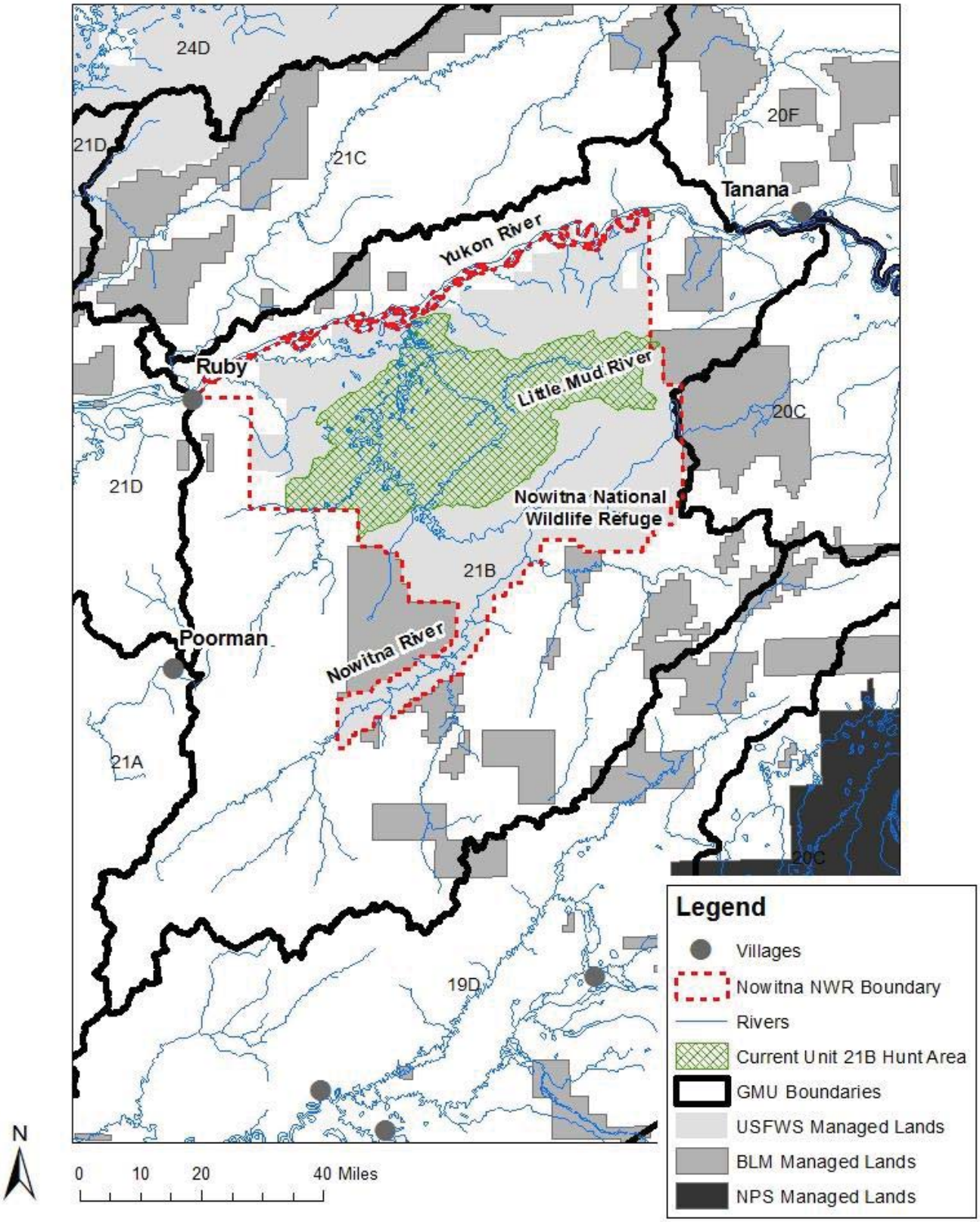
The proponent states that expanding the area open for moose hunting would increase harvest opportunities and utilization of refuge lands. The proponent feels that the moose population is able to sustain increased harvest as the bull:cow ratio is within management objectives.

After further communication with the proponent, it was clarified that the hunt area descriptor for the to-be-announced winter season was also intended to be changed.

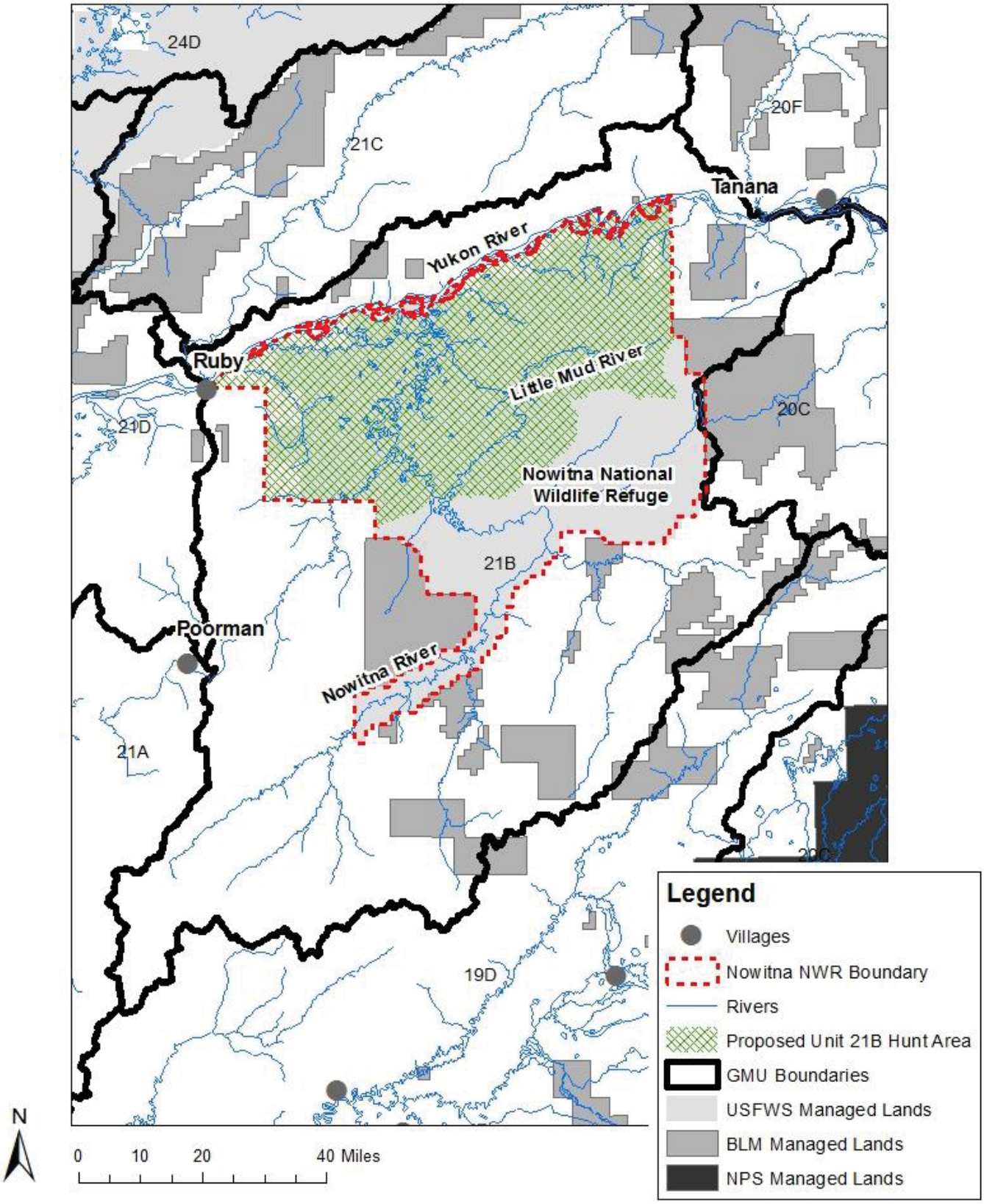
Existing Federal Regulation

Unit 21B —Moose

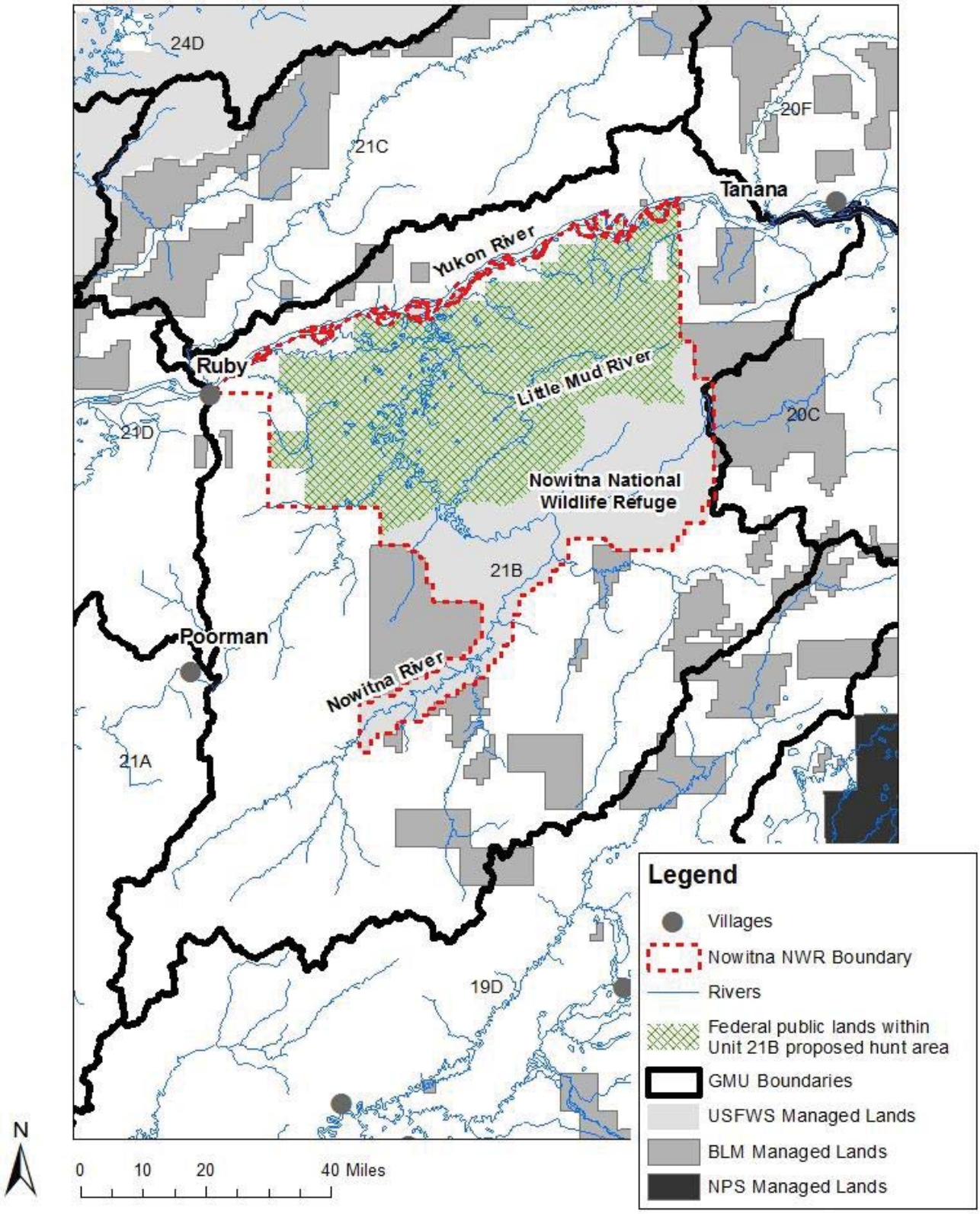
Unit 21B—that part of the Nowitna River drainage downstream from and including the Little Mud River drainage—1 bull. A State registration permit is required from Sept. 5-25. A Federal registration permit is required from Sept. 26-Oct 1.	*Sept. 5-Oct. 1.*
Unit 21B—that part of the Nowitna River drainage downstream from and including the Little Mud River drainage—1 antlered bull. A Federal registration permit is required during the 5-day season and will be limited to one per household. The 5-day season may be announced by the Koyukuk/Nowitna National Wildlife Refuge Manager after consultation with the ADF&G and the Chairs of the Western Interior Regional Advisory Council and the Ruby Fish and Game Advisory Committee.	*Five-day season to be announced between Dec. 1 and March 31.*
Unit 21A and 21B, remainder—1 bull	*Aug. 20-Sept. 25.* *Nov. 1-30.*



Map 1. Current hunt area in Unit 21B.



Map 2-1. Proposed hunt area in Unit 21B.



Map 2-2. Federal public lands within the proposed hunt area in Unit 21B.

Proposed Federal Regulation

Unit 21B—Moose

Unit 21B—that ~~part of the Nowitna River drainage~~ ***portion within the Nowitna National Wildlife Refuge*** *downstream from and including the Little Mud River drainage—1 bull. A State registration permit is required from Sept. 5-25. A Federal registration permit is required from Sept. 26-Oct 1.*	*Sept. 5-Oct. 1.*
Unit 21B— that ~~part of the Nowitna River drainage~~ ***portion within the Nowitna National Wildlife Refuge*** *downstream from and including the Little Mud River drainage—1 antlered bull. A Federal registration permit is required during the 5-day season and will be limited to one per household. The 5-day season may be announced by the Koyukuk/Nowitna National Wildlife Refuge Manager after consultation with the ADF&G and the Chairs of the Western Interior Regional Advisory Council and the Ruby Fish and Game Advisory Committee.*	*Five-day season to be announced between Dec. 1 and March 31.*
Unit 21A and 21B, remainder—1 bull	*Aug. 20-Sept. 25.* *Nov. 1-30.*

Existing State Regulation

Unit 21B—Moose

Unit 21B within the Nowitna River drainage upstream from the Little Mud River drainage, and outside a corridor extending two miles on either side of, and including, the Nowitna River	*Residents—One bull*		*Aug 22-Aug 31* *Or* *Sept 5-Sept 25*
	Nonresidents—One bull with 50-inch antlers or antlers with 4 or more brow tines on at least one side		*Sept 5-Sept 25*
Unit 21B remainder	*Residents—One bull by permit, available online at http://hunt.alaska.gov or in person at license vendors in Units 21B, 21D, 24, and ADF&G in Fairbanks beginning Aug 13. Trophy value*	*RM834*	*Aug 22-Aug 31* *Sept 5-Sept 25*

must be destroyed.		
Residents—One bull by permit.	*DM802/806 808/810*	*Sept 5-Sept 25*
Nonresidents—One bull with 50-inch antlers or antlers with 4 or more brow tines on at least one side by permit.	*DM802/805 808/809/811*	*Sept 5-Sept 25*

Extent of Federal Public Lands

Federal public lands comprise approximately 40% of Unit 21B and consist of 29% U.S. Fish and Wildlife Service managed lands and 11% Bureau of Land Management managed lands (See **Unit 21 Map**).

Customary and Traditional Use Determinations

Rural residents of Unit 21B, Unit 21C, Galena, Ruby, and Tanana have a positive customary and traditional use determination for moose in Unit 21B.

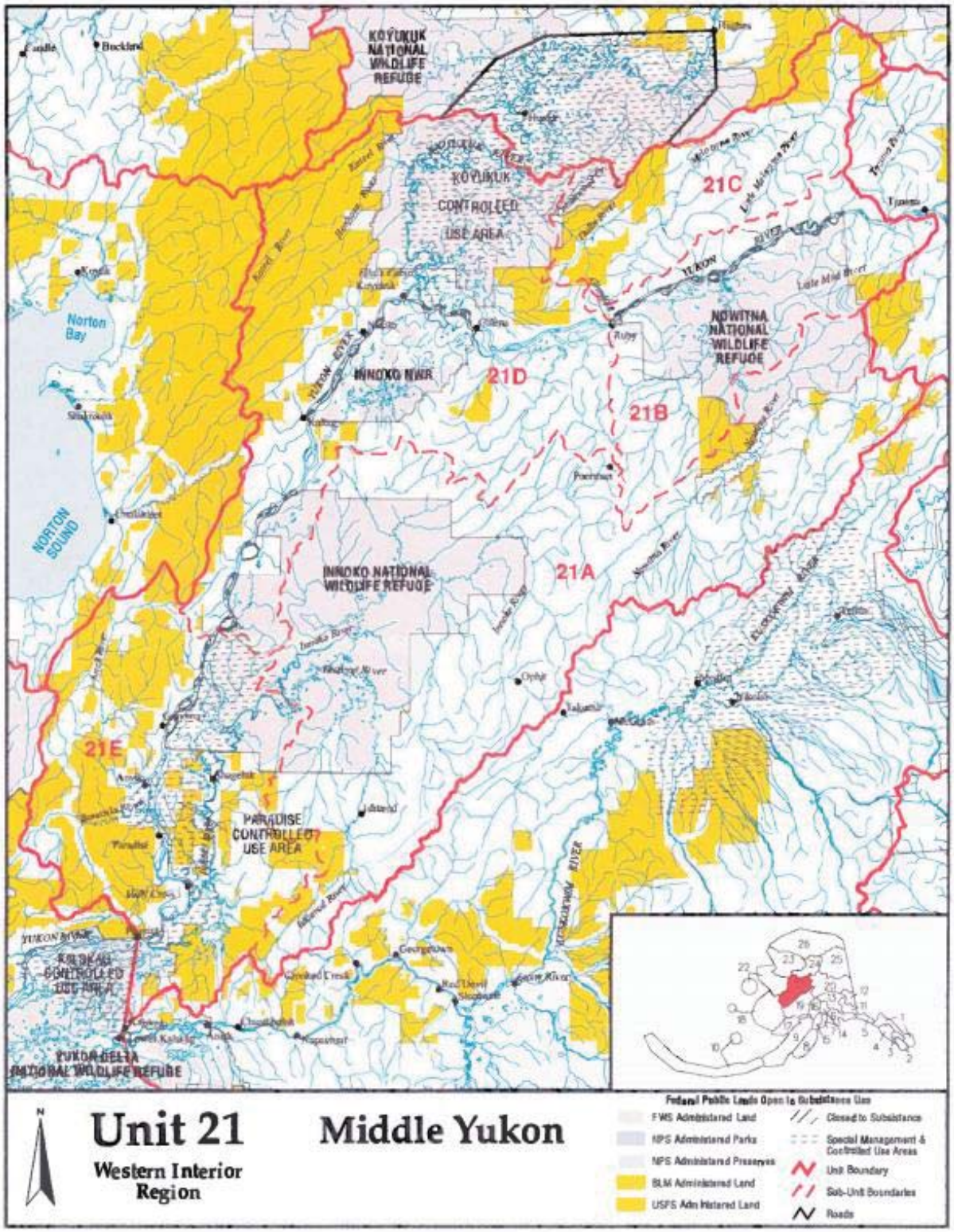
Regulatory History

Federal regulations for Unit 21B moose were adopted by the Federal Subsistence Board (Board) from State regulations in 1990, with a season of Sept. 5 – Sept. 25 and a harvest limit of one bull.

In 2004, the Board adopted Proposal WP04-62 with modification to require the use of a State registration permit for moose in Unit 21B (FSB 2004). WP04-62 requested an earlier opening date of the Unit 21B moose season. The Board opposed the season extension due to conservation concerns, but modified the proposal to require a State registration permit as required under newly adopted State regulations.

In 2006, the Alaska Board of Game adopted Proposal 48, modifying the boundary of Unit 21B to include all of the Nowitna River drainage, adding the upper Nowitna River drainage that was formerly part of Unit 21A (ADF&G 2006a, **Unit 21 Map, Map 3**). This was done to enable the entire Nowitna River drainage to be managed by one area office (Galena) instead of two area offices (Galena and McGrath), simplifying management (ADF&G 2006b).

Also in 2006, the Board adopted WP06-34, which responded to the change in Unit 21 subunit boundaries and described hunt areas in the new 21B subunit. The State descriptions of the hunt areas in the modified Unite 21B are the reverse of the Federal hunt area descriptions (**Table 1**). Because of the difference between State and Federal hunt area descriptors, hunt areas and seasons in Unit 21B differ under State and Federal regulations (**Maps 4-5**). Proposal WP06-34 also added an earlier season (Aug. 22-Aug. 31) to the original Unit 21B, which was established to provide additional opportunity to subsistence users and to reduce regulatory complexity by matching State and Federal seasons.



Map 3. Game Management Unit 21 and subunits prior to 2006.

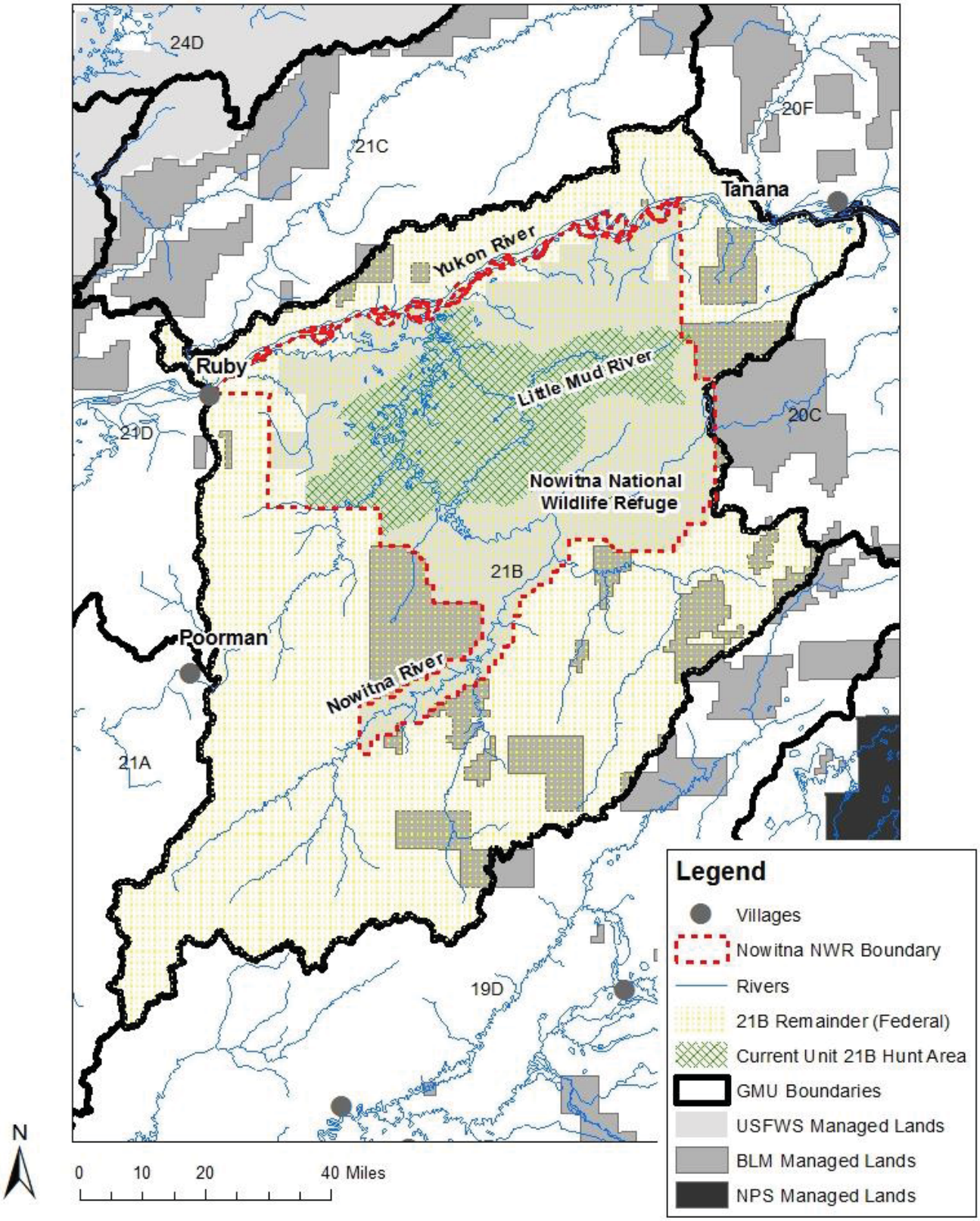
Table 1. Unit 21B Hunt Area Descriptors.

	Federal Hunt Area Descriptor	State Hunt Area Descriptor
"original" Unit 21B	"*that part of the Nowitna River drainage downstream from and including the Little Mud River drainage"*	*"Remainder of Unit 21B"*
Formerly part of Unit 21A	"*21B remainder"* (FSB, 2006, OSM 2006)	"*that portion within the Nowitna River drainage upstream from the Little Mud River drainage, and outside a corridor extending two miles on either side of and including the Nowitna River"* (ADF&G 2006).

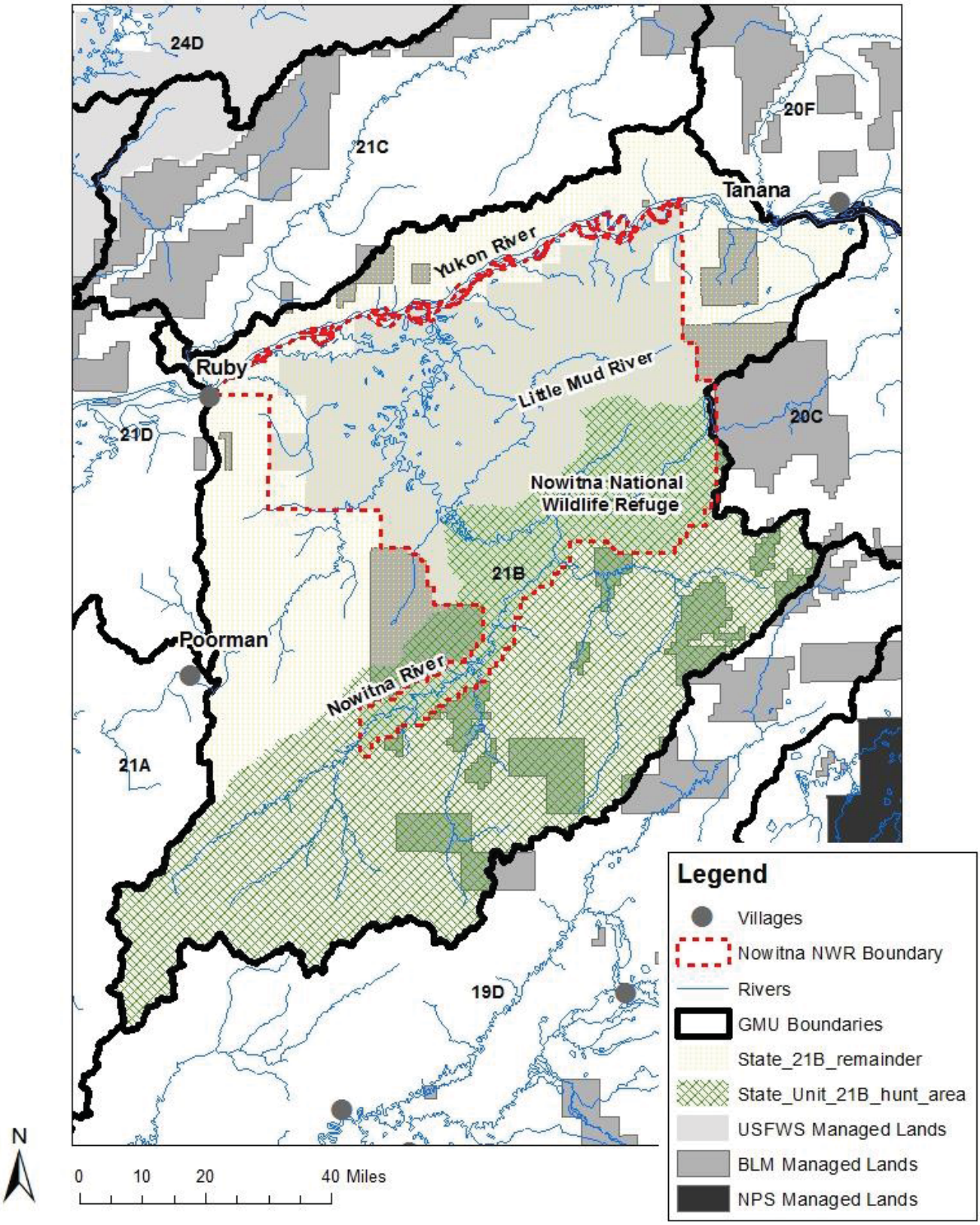
In 2007, the Board adopted Proposals WP07-36 and WP07-37 to modify Unit 21B moose seasons. WP07-36 extended the moose hunting season in the original Unit 21B from Sept. 5-Sept. 25 to Sept. 5-Oct. 1, requiring a State registration permit during the State open season of Sept. 5-Sept. 25 and a Federal registration permit during the extended Sept. 26-Oct. 1 season. This was done to provide subsistence users better opportunity to harvest moose later in year when moose are more active. WP07-37 established a five day to-be-announced winter season between Dec. 1 and Mar. 31 to provide increased hunting opportunity, flexibility, and access.

Proposal WP12-56, requested a seven-day extension of the fall season (from Sept. 5-Oct. 1 to Sept. 5-Oct. 8) in that portion of Unit 21B encompassing the Nowitna River drainage downstream from and including the Little Mud River drainage. The intent of the proposed season extension was to provide additional harvest opportunity when temperatures are cooler and bull moose are more active. This proposal was rejected by the Board due to bull:cow ratios and population estimates that were below management objectives and because the proposed season extended into the peak of the rut.

As part of the analyses for WP12-56, it was realized that only part of Nowitna National Wildlife Refuge (NWR) falls within the Federal Unit 21B hunt area descriptor (WIRAC 2015, **Table 1, Map 1**). Prior to 2012, users hunted all Nowitna NWR lands downstream of the Nowitna and Little Mud River confluence and permits were issued at three locations: Ruby, Tanana, and Galena (Havener 2015a, **Map 2**). Since the analysis of WP12-56 in 2012, hunters have not been able to hunt moose during the Federal fall season on portions of Nowitna NWR lands that were formerly open (WIRAC 2015, **Maps 1-2**). Permits are currently only issued from the check station at the mouth of the Nowitna River (Havener 2015a).



Map 4. Federal hunt area descriptors for moose in Unit 21B.



Map 5. State hunt area descriptors for moose in Unit 21B.

Biological Background

The State management goals and objectives for Unit 21B moose (Pamperin 2012) are as follows:

- Manage Unit 21B moose on a sustained yield basis to provide both hunting and other enjoyment of wildlife in a manner that complements the wild and remote character of the area and that minimizes disruption of local residents' lifestyles.
- Provide for harvest of 50 – 200 moose or 5% of the annual moose population estimate, whichever is less.
- In combination with Unit 21C, implement at least two habitat enhancement activities every five years.
- Maintain a moose population of greater than 4,000–5,000.

Aerial moose population surveys have been conducted in Unit 21B since the late 1970s. However, due to variations in survey method, area, and conditions, these data must be interpreted with caution (Stout 2010). The most recent and only population estimate for the entire subunit is 2,317 moose in 2008, which is well below management objectives (Stout 2010).

Recent surveys within the Nowitna NWR indicate that the moose population in Unit 21B is stable at low density under the best case scenario, but may be declining (Bryant and Scotton 2015). Nowitna NWR and the Alaska Department of Fish and Game (ADF&G) conduct annual fall moose aerial surveys over Nowitna NWR. Data from these surveys are used to estimate the total moose population on the refuge and track population trends over time (**Figure 1**). These data indicate that the moose population, especially cows, has been trending downward since 2011 and is the lowest it has been for 14 years. In 2014, a record low number of cows were counted (**Figure 1**). However, poor survey conditions in 2014 due to low snow cover reduced sightability and may have contributed to low moose observations (Bryant and Scotton 2015).

Between 2001 and 2014, the bull:cow and calf:cow ratios ranged from 13-38 bulls/100 cows and 7-40 calves/100 cows, respectively (**Figure 2**). The average ratios were 24.7 bulls:100 cows and 27.5 calves/100 cows. The record high bull:cow ratio in 2014 was affected by the record low number of cows counted in that year (Bryant and Scotton 2015).

Twinning rates in the 1980s were high, indicating good nutrition and quality habitat (Osborne et al. 1991, Boertje et al 2007 *in* Stout 2010). Recently, the twinning rate for this population has remained low, ranging from 0-15 twins per 100 cows between 2001 and 2014 (**Figure 3**).

The substantial decline in twinning rate suggests nutrition may be a limiting factor for this population and that the quality of habitat has decreased. However, actual differences in twinning rates may be affected by changing survey methodologies and areas between the 1980s and 2000s.

A radio-collared moose study indicated most moose spend summers away from the rivers in meadows and then move to riparian areas in October and remain through May (Woolington 1998 *in* Stout 2010).

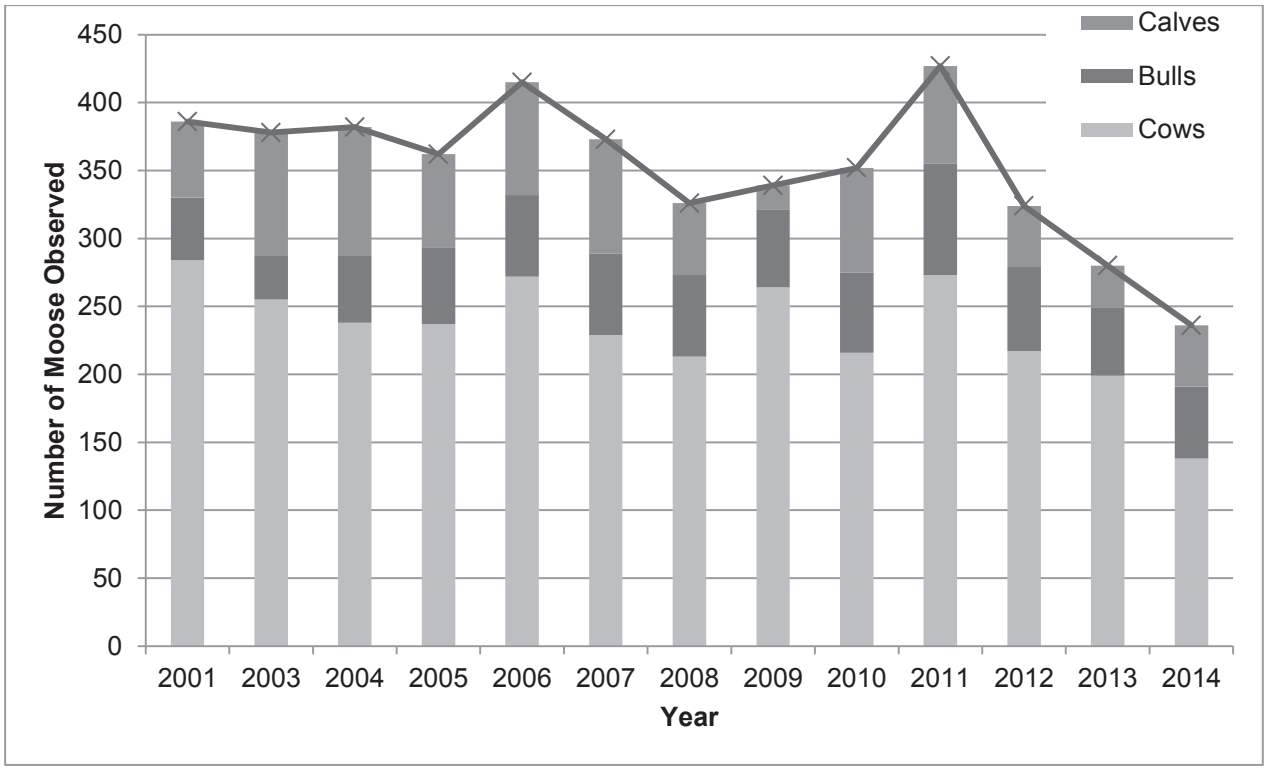


Figure 1. Moose observations on Nowitna NWR from aerial surveys by class (Bryant and Scotton 2015).

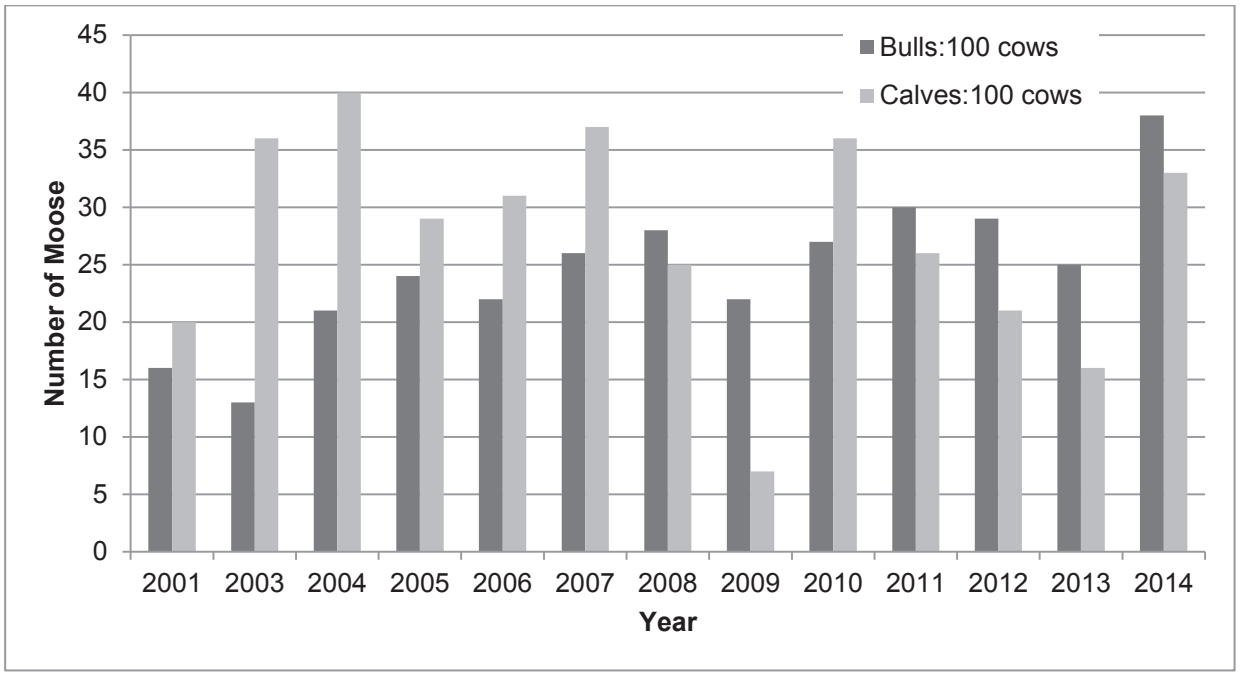


Figure 2. Bull:Cow and Calf:Cow ratios for Nowitna NWR from aerial moose trend surveys (Bryant and Scotton 2015).

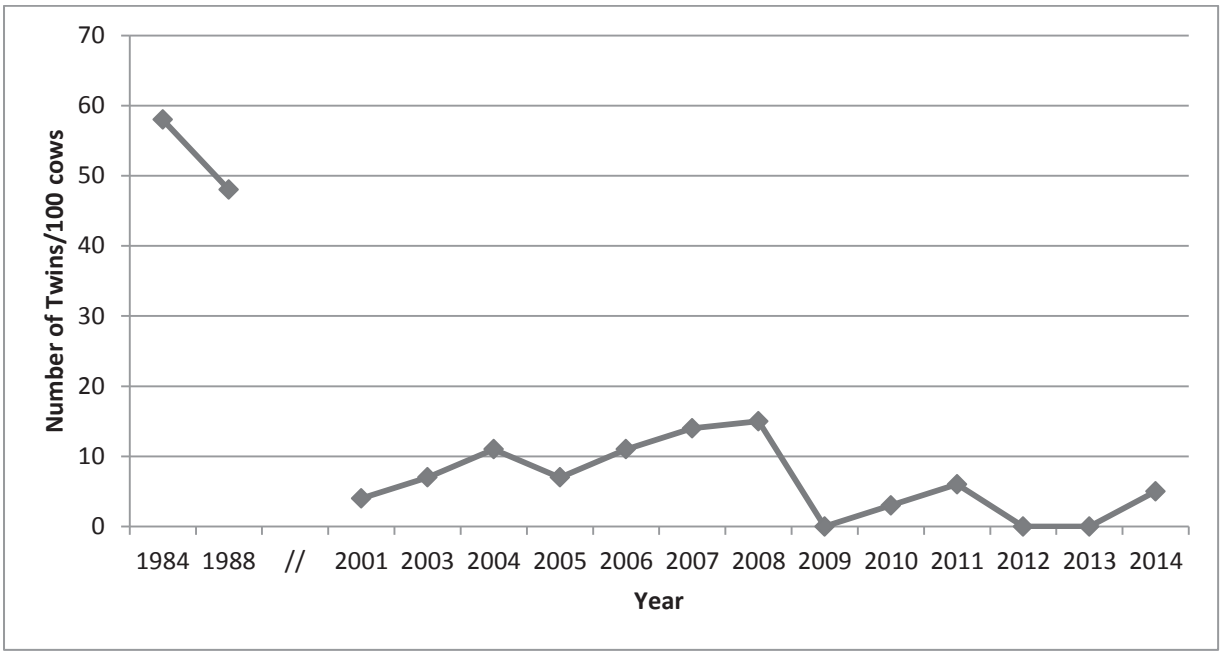


Figure 3. Moose twinning rates in Unit 21B (Bryant and Scotton 2015, Stout 2010).

Harvest History

Since 2007, when the Federal fall season moose hunt in Unit 21B began, the number of Federal permits issued has ranged from 4-12, with 0-5 moose being harvested annually (**Figure 4**). In 2012, the hunt area was limited to the Nowitna River Drainage downstream from and including the Little Mud River Drainage (Havener 2015a). Pre-2012, residents of Ruby comprised the majority of the permitees. After the change in hunt area, Ruby residents have comprised a minority (39%) of the permitees on average (**Figure 4**).

The majority of moose harvest in Unit 21B occurs under State registration and drawing permits. The number of reported moose harvested under State permits ranged from 64-86 moose/year between 1996-2014, with an average annual harvest of 74 moose (Stout 2010, ADF&G 2015, **Figure 5**). Unreported harvest was estimated as 15-25 moose/year between 1996-2010 (Stout 2010, Pamperin 2012). Unreported harvest was estimated using 1999/2000 community harvest survey data from Anderson et al. (2001). The increase in unreported harvest accounts for the addition of the upper Nowitna River drainage to Unit 21B in 2003/04 (Pamperin 2012).

The total moose harvest in Unit 21B under State and Federal seasons in 2008 (the only year with a population estimate for the entire subunit) was 111 moose or 4.7% of the population, which is within management objectives.

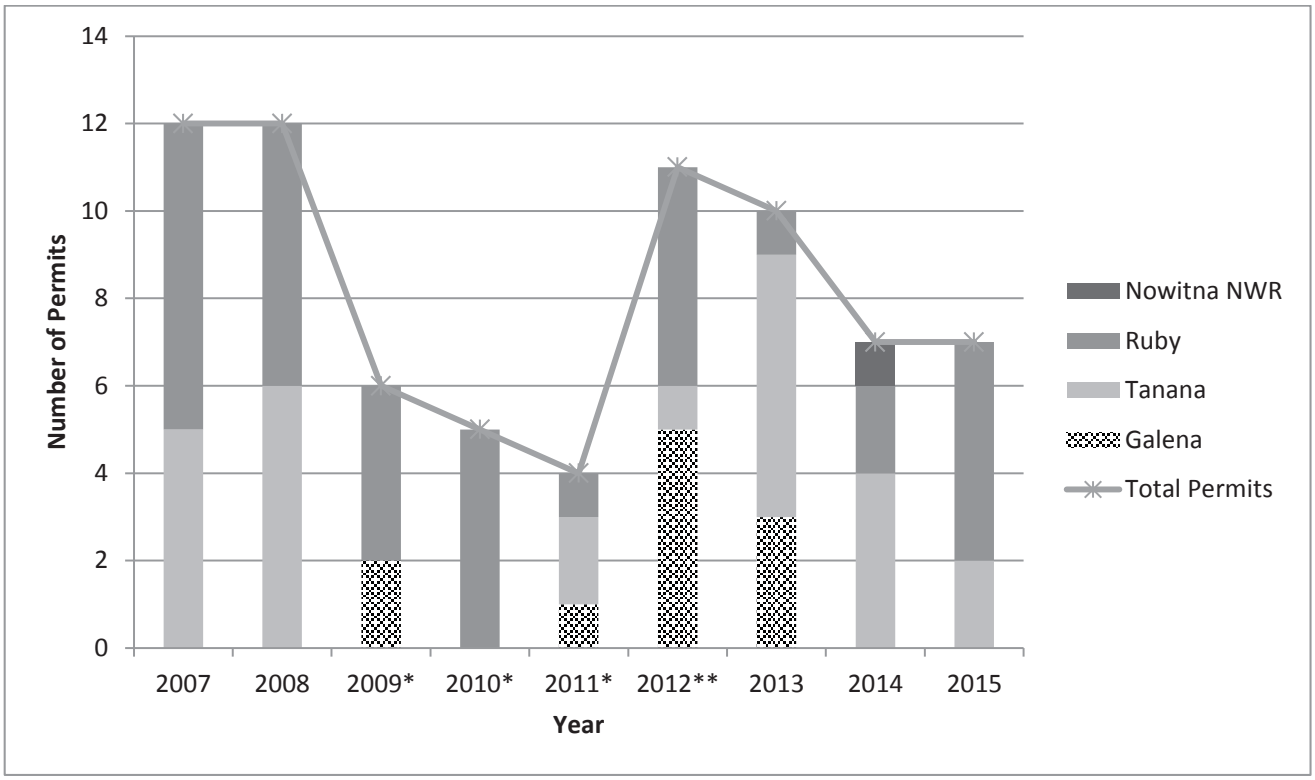


Figure 4. Number of FM 2101 permits issued by residency for moose in Unit 21B (Havener 2015a, Havener 2015b). *hunt closed early. **Harvest area was limited to the Nowitna River corridor up to and including the Little Mud River Drainage.

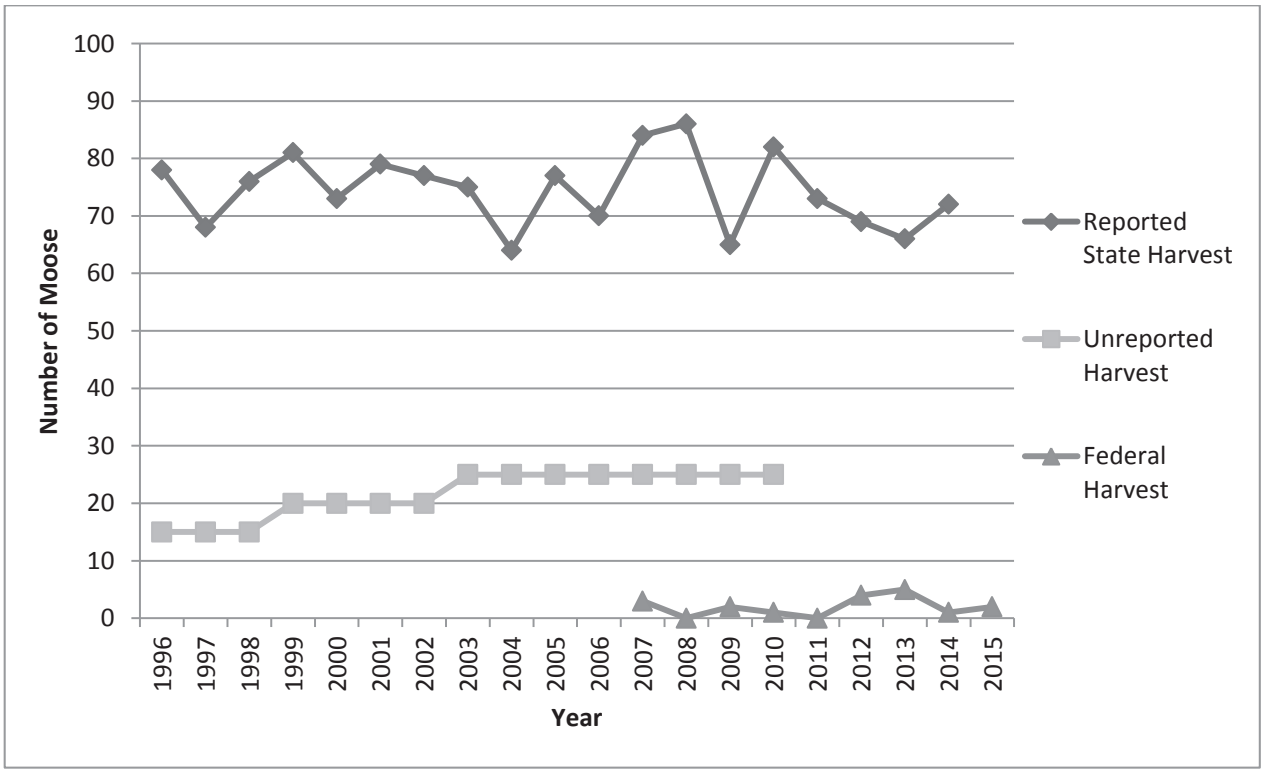


Figure 5. Moose harvest in Unit 21B (Stout 2010, Pamperin 2012, ADF&G 2015, Havener 2015a, Havener 2015b).

Other Alternative(s) Considered

One alternative considered was to align the Federal hunt area descriptors for Unit 21B with the State hunt area descriptor, reducing regulatory complexity and correcting an oversight made in 2006 (WIRAC 2015, FSB 2006, **Table 1, Maps 4-5**). This would reduce regulatory complexity for users. Under this alternative, the BLM managed lands to the east and north of the Nowitna NWR boundary (which are currently part of the Federal 21B remainder hunt area) would also be open during the Federal fall season (Sept. 26-Oct. 1, **Maps 2, 4**).

After discussion with Western Interior Alaska Subsistence Regional Advisory Council members, this alternative was not further considered.

Effects of the Proposal

If this proposal is adopted, Federally qualified subsistence users will be able to hunt anywhere within the Nowitna NWR downstream of the Little Mud River during the Federal fall season (Sept. 26-Oct. 1) and the to-be-announced winter season.

Adopting this proposal would shift some Nowitna NWR lands into another hunt area with a different and shorter season. Currently, Nowitna NWR lands that are outside of the Nowitna River Drainage downstream from the Little Mud River are part of the Federal 21B remainder hunt area. Unit 21B remainder has a 66-day open season (Aug. 20-Sept. 25 and Nov. 1-Nov. 30, **Map 4**). If this proposal is adopted, these lands will become part of the Unit 21B, Nowitna National Wildlife Refuge lands downstream from and including the Little Mud River drainage hunt area. This hunt area has a 26-day fall season (Sept. 5-Oct. 1) plus the to-be-announced winter season. Thus, if this proposal is adopted, the open moose season on Nowitna NWR lands outside of the Nowitna River drainage and downstream from the Little Mud River would be reduced by 40 days (**Maps 1-2, 4)**. Although, these lands would be open an additional six days during the fall season (Sept. 26-Oct. 1).

If this proposal is adopted, residents of Ruby and Tanana would have improved access to the area open to moose hunting during the Federal Sept. 26-Oct. 1 and to-be-announced winter season.

No biological effects are expected from this proposal. While the total moose population is below management objectives, the harvest is within management objectives and the number of moose harvested under the Federal registration permit comprises a small fraction (0-8%) of overall harvest in Unit 21B. The lands that would be opened to hunting during the Federal fall season (Sept. 26-Oct. 1) were already hunted during this season prior to 2012 with no alarming harvest rates or biological effects. Currently, these lands are open for a longer season as part of Unit 21B remainder than if this proposal were adopted.

Adopting this proposal would increase the administrative burden on Nowitna NWR staff and may decrease hunter compliance and harvest reporting. Currently, all hunters must obtain their permit from a check station on the Nowitna NWR, ensuring all registered hunters are aware of hunt area boundaries and permit conditions. Funneling all hunters through one spot also improves harvest reporting rates as all hunters must pass by the check station (Havener 2015a). If this proposal is adopted, users could hunt all Nowitna

NWR lands along the Yukon River, improving access to open hunting areas, especially for residents of Ruby (**Maps 1-2**). This improved access enables users to access the refuge from multiple points along the Yukon River during the Federal fall season, which could decrease hunter compliance and harvest reporting. Permits may also be issued from multiple locations, which would increase administration.

OSM CONCLUSION

Support Proposal WP16-39 **with modification** to remove the regulatory language for Unit 21B referring to the five-day to-be-announced season from Dec. 1 – Mar. 31 and delegate authority to set season opening and closing dates for this season via a delegation of authority letter (**Appendix 1**).

The modified regulation should read:

Unit 21B—Moose

Unit 21B—that ~~part of the Nowitna River drainage~~ ***portion within the Nowitna National Wildlife Refuge*** *downstream from and including the Little Mud River drainage—1 bull. A State registration permit is required from Sept. 5-25. A Federal registration permit is required from Sept. 26-Oct 1.*	*Sept. 5-Oct. 1.*
Unit 21B— that ~~part of the Nowitna River drainage~~ ***portion within the Nowitna National Wildlife Refuge*** *downstream from and including the Little Mud River drainage—1 antlered bull. A Federal registration permit is required during the 5-day season and will be limited to one per household. ~~The 5-day season may be announced by the Koyukuk/Nowitna National Wildlife Refuge Manager after consultation with the ADF&G and the Chairs of the Western Interior Regional Advisory Council and the Ruby Fish and Game Advisory Committee.~~*	*Five-day season to be announced between Dec. 1 and March 31.*
Unit 21A and 21B, remainder—1 bull	*Aug. 20-Sept. 25.* *Nov. 1-30.*

Justification

The moose harvest in Unit 21B is within management objectives and the number of moose harvested under the Federal registration permit comprises a small fraction of overall harvest in Unit 21B. The affected area is currently already open to moose hunting under State and Federal regulations. Adoption of this proposal would close the affected area to moose hunting under Federal regulations from Aug. 20-Sept. 4 and Nov. 1-Nov. 30, and open it from Sept. 26-Oct. 1, providing Federally qualified subsistence users an additional 5 days of hunting during a time period when bull moose are most active.

Delegating authority to determine the to-be-announced season to the Federal land manager allows for management flexibility; allowing the manager to respond to changing conditions from year to year if needed.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Western Interior Alaska Subsistence Regional Advisory Council

Support WP16-39 **as modified by OSM**. The proposed action is beneficial to subsistence users, and take is minimal with no anticipated enforcement concerns. If the portions of the refuge along the Yukon river are opened, Federally qualified subsistence users will not have to travel as far from nearby villages, saving fuel and weather exposure.

Eastern Interior Alaska Subsistence Regional Advisory Council

Support WP16-39. The community of Tanana has C&T for moose in Unit 21 and are known to utilize this hunt area. Council members felt that this would help Federally qualified subsistence users in Tanana. Council member Lester Erhart of Tanana expressed that this would be a great help to Tanana to be able to hunt there as they had in the past. There does not appear to be a conservation concern and the only concern expressed was to be aware of checkerboard ownership of State and Federal lands in this hunt area with differing regulations.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

Appendix 1

Refuge Manager
Nowitna 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 Nowitna 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 21B as it applies to moose on these lands.

It is the intent of the Board that actions related to management of moose 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 Nowitna National Wildlife Refuge Manager is hereby delegated authority to issue emergency or temporary special actions affecting moose 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 states: "The Board may delegate to agency field officials the authority to set harvest and possession limits, define harvest areas, specify methods or means of harvest, specify permit requirements, and open or close specific fish or wildlife harvest seasons within frameworks established by the Board."

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

- To set season opening and closing dates for a to-be-announced season between Dec. 1 and Mar. 31 for moose on Federal lands in Unit 21B downstream from and including the Little Mud River Drainage.

DRAFT

This delegation may be exercised only when necessary to conserve moose 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 21B.

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.

DRAFT

5. <u>Support Services:</u> 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

DRAFT

WP16–43 Executive Summary	
General Description	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. *Submitted by the Seward Peninsula Subsistence Regional Advisory Council.*
Proposed 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***
OSM Conclusion	**Oppose**

WP16–43 Executive Summary	
Yukon-Kuskokwim Delta Regional Advisory Council Recommendation	**No action taken**
Western Interior Alaska Regional Advisory Council Recommendation	**No action taken**
Seward Peninsula Regional Advisory Council Recommendation	**Oppose**
Northwest Arctic Regional Advisory Council Recommendation	**No action taken**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Oppose**
Written Public Comments	**1 Support**

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 the Upper Adreafsky drainages in Unit 18 and in the portion of Unit 22A south of the Unalakleet River, 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.

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 area, which uses the Golsovia River drainage rather than the Unalakleet River as the boundary. WP16-37 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 proposals are adopted.

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, 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 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 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 included adjustments to harvest seasons, restrictions on bull and cow harvest, and a prohibition on calf harvest.

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.

Biological Background

The WACH, the largest herd in Alaska, has a home range of approximately 157,000 mi^2 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/mi^2 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.

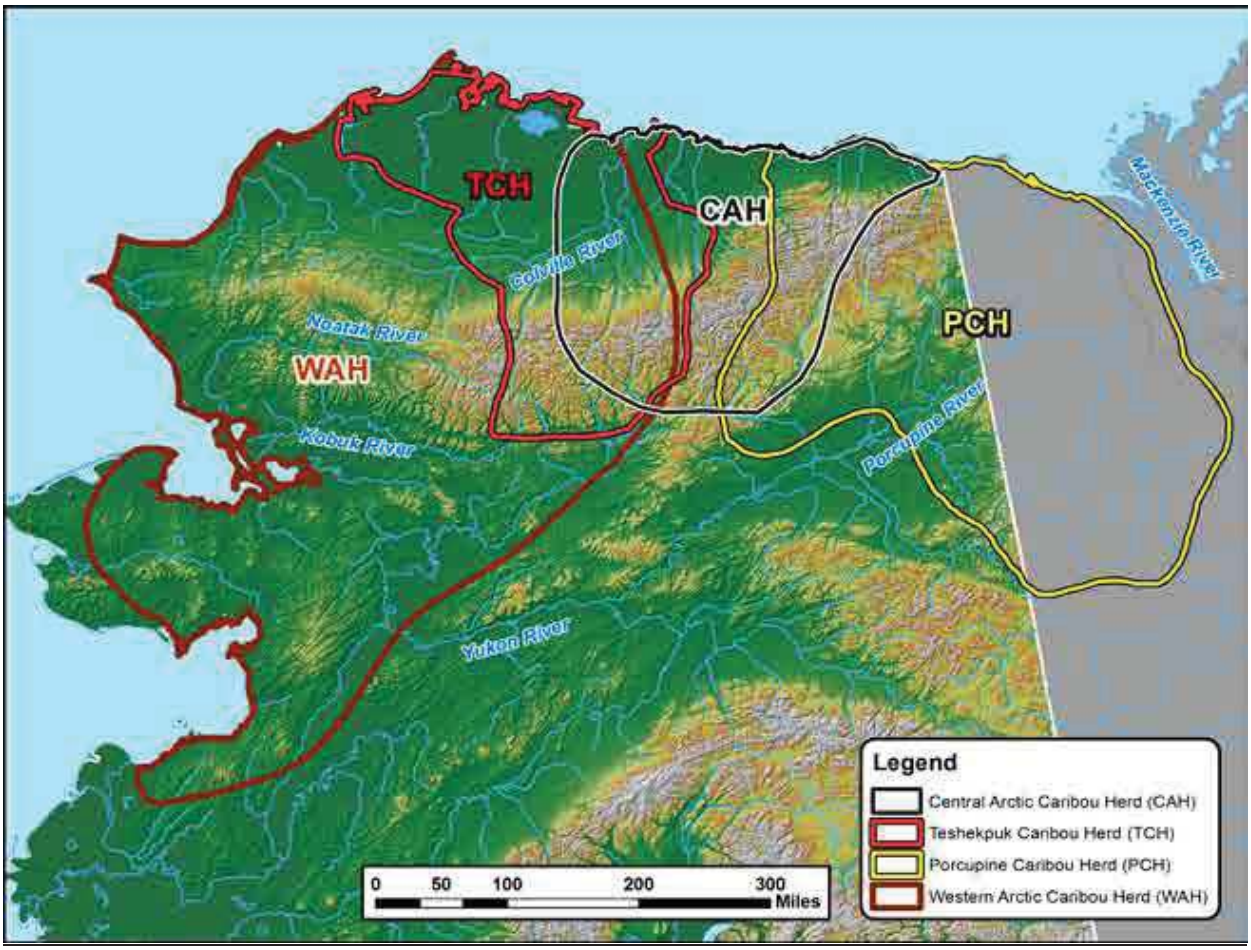

Figure 1. Herd overlap and ranges of the WACH, TCH, CACH and Porcupine caribou herds (WACH 2014).

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 for 1976–2001) than during the recent period of decline (44:100 for 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.

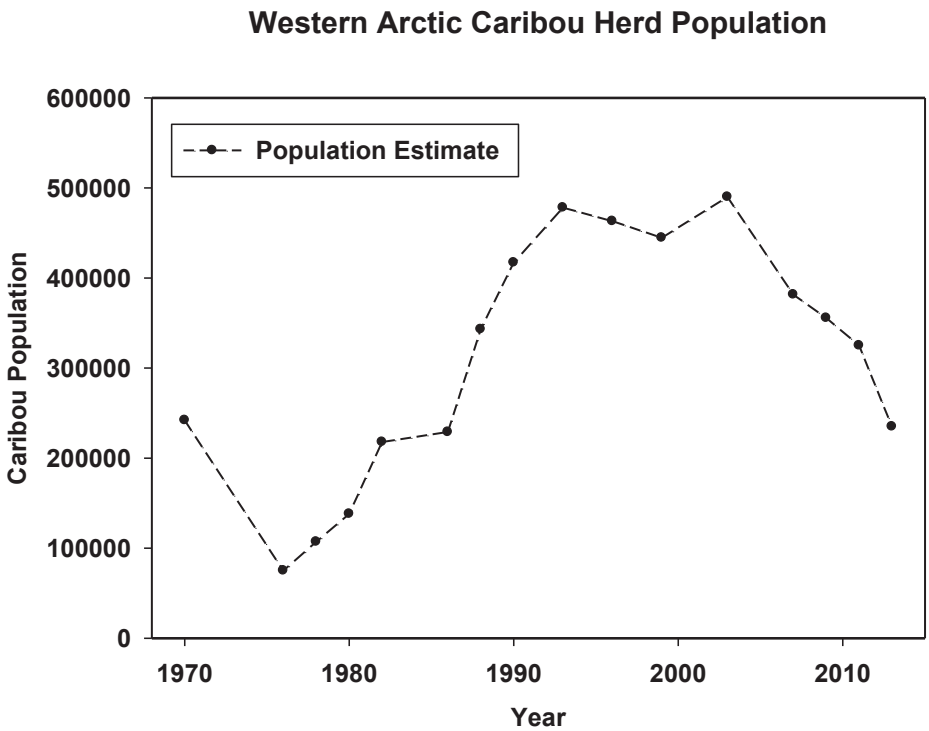

Figure 2. Maximum estimated population estimates of the Western Arctic Caribou Herd from 1970-2013. Population estimates from 1986-2013 are based on aerial photographs of groups of caribou that contained radio–collared animals (Dau 2011, 2014)

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 reindeer herds, beginning in the 1990s (Finstad et al. 2002). However, a few reindeer 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						
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)

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).

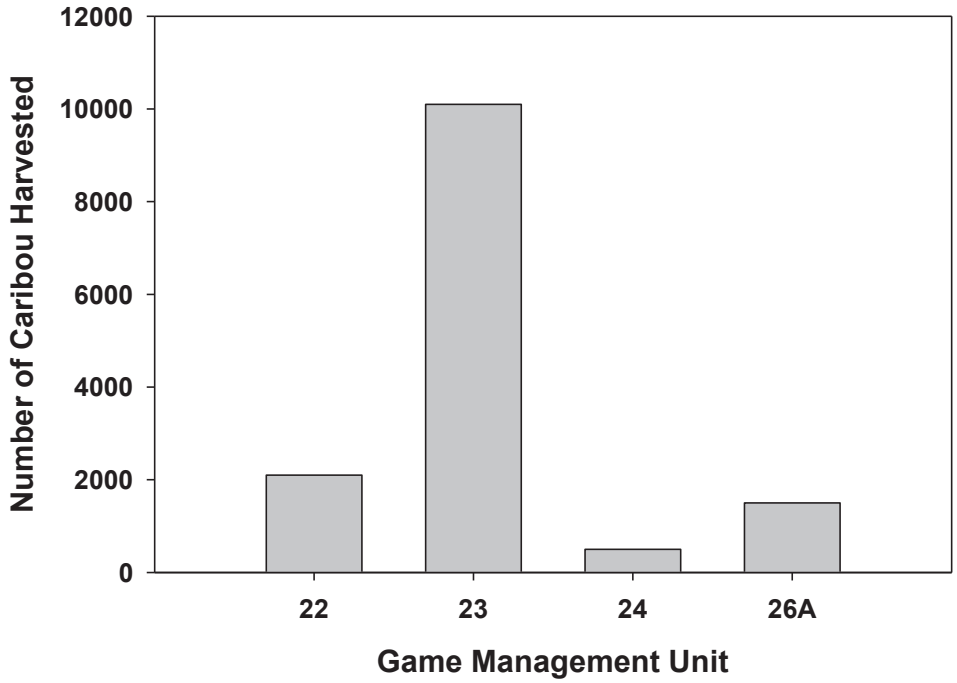

Figure 3. Average annual harvest by residents within the WACH range, RY1998-RY2012 (Dau 2014).

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 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, this request does not meet the criteria for closure, as outlined in the Board's closure policy (Appendix A). 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.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Seward Peninsula Subsistence Regional Advisory Council

Oppose WP16-43. Closure proposal is outside the jurisdiction of the Federal Subsistence Board.

Yukon-Kuskokwim Delta Subsistence Regional Advisory Council

No action taken on WP16-43. The Council believed that this proposal was outside the authority of the Subsistence Board.

Western Interior Alaska Subsistence Regional Advisory Council

No action taken on WP16-43. Defer action to the appropriate RAC.

Northwest Arctic Subsistence Regional Advisory Council

No action taken on WP16-43. Due to the justification as written in the OSM preliminary conclusion, the Council voted to No action taken since the proposal is contrary to the Board's closure policy and thus cannot be supported. The Council would, however, like to offer words of support for the intent of the proposal to protect incidental harvest of reindeer which local area communities rely on heavily, especially with the absence of caribou in recent years.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

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.

Kawerak, Inc.
Melanie Bahnke, President

APPENDIX A

POLICY ON CLOSURES TO HUNTING, TRAPPING AND FISHING ON FEDERAL PUBLIC LANDS AND WATERS 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-Federally 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

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

WP16–47 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. *Submitted by the Seward Peninsula Subsistence Regional Advisory Council.*
Proposed Regulation	**Unit 22E—Moose** *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~~* ***Jan. 1****– Mar. 15.* ***1 moose (except calves or a cow accompanied by a calf).*** — ***Jul. 15 – Dec. 31***
OSM Conclusion	**Oppose**
Seward Peninsula Regional Advisory Council Recommendation	**Oppose**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Oppose**
Written Public Comments	**1 Oppose**

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 July 15 instead of August 1 would provide additional harvest opportunities for Federally qualified subsistence users, since moose are often present at the end of July (SPRAC 2015).

The Council also submitted WP16-46, which requests that the closure of Federal public lands in Unit 22E to the harvest of moose be rescinded.

Existing Federal Regulation

Unit 22E—Moose

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.*

Proposed Federal Regulation

Unit 22E—Moose

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

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 (**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 moose in 2003 to 701 moose in 2014 (90% C.I. ± 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

Reported moose harvest has been relatively low in Unit 22E, averaging 15 moose annually between 2004 and 2014 (**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 53% of the reported harvest between 2004 and 2014 (**Table 1**). However, accounting for unreported harvest, local harvest averages an estimated 86% of the total harvest between 2004 and 2014, 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 beginning 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
2014	6	5	7	2	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 in this area, which is easily accessible via navigable rivers and aircraft, could result in the harvest of enough females to reduce recruitment and destabilize the population. In addition, 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 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.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Seward Peninsula Subsistence Regional Advisory Council

Oppose WP16-47. Current moose population data suggest that harvest of cows could negatively impact herd growth.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

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.

Kawerak, Inc.
Melanie Bahnke, President

WP16–50 Executive Summary	
General Description	Proposal WP16-50 requests a change that would expand the pool of Federally qualified subsistence users allowed to harvest muskox in Cape Krusenstern National Monument in Unit 23. *Submitted by the Northwest Arctic Subsistence Regional Advisory Council*.
Proposed Regulation	**Unit 23-Muskox** *Unit 23—Cape Krusenstern National Monument—1bull by Federal permit. Annual harvest quotas and any needed closures will be announced by the Superintendent of Western Arctic National Parklands. Cape Krusenstern National Monument is closed to the taking of musk oxen except by resident zone community members ~~with permanent residence within the Monument or the immediately adjacent Napaktuktuk Mountain area, south of latitude 67°05' N and west of longitude 162°30' W hunting under these regulations~~.* — *Aug. 1- March 15*

WP16–50 Executive Summary	
OSM Conclusion	**Support** Proposal WP16-50 **with modification** to include all Federally qualified subsistence users but not residents of Point Hope; remove regulatory language referencing harvest quotas and closures; and delegate authority to the National Park Service to close the season and determine annual quotas via a delegation of authority letter only The modified regulation should read: **Unit 23—Muskox** *Unit 23—Cape Krusenstern National Monument—1bull by Federal permit. ~~Annual harvest quotas and any needed closures will be announced by the Superintendent of Western Arctic National Parklands.~~ Cape Krusenstern National Monument is closed to the taking of musk oxen except by* ***Federally qualified subsistence users but not residents of Point Hope*** *~~resident zone community members with permanent residence within the Monument or the immediately adjacent Napaktuktuk Mountain area, south of latitude 67°05' N and west of longitude 162°30' W hunting under these regulations~~.* — *Aug. 1 – March 15*
Northwest Arctic Subsistence Regional Advisory Council Recommendation	**Support as modified by OSM.**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Board action on the proposal.
ADF&G Comments	**Neutral**
Written Public Comments	**None**

STAFF ANALYSIS
WP16-50

ISSUES

Proposal WP16-50 was submitted by the Northwest Arctic Subsistence Regional Advisory Council. The proponent requests a change that would expand the pool of Federally qualified subsistence users allowed to harvest muskoxen in Cape Krusenstern National Monument in Unit 23.

DISCUSSION

The proponent wishes to increase the number of Federally qualified subsistence users in Unit 23 who may hunt muskoxen by Federal permit in Cape Krusenstern National Monument. This proposal would make the opportunity to harvest one bull muskox under Federal regulations in the National Monument available to all resident zone communities. The proponent does not wish to change the harvest limit or the timing of the season for muskoxen in the National Monument. The total allowable harvest would remain at two bull muskoxen by Federal permit, unless changed by the Superintendent of the Western Arctic National Parklands. The proposal would remove the restriction put in place by an Alaska National Interest Lands Conservation Act (ANILCA) Section 804 prioritization of Federally qualified subsistence users that was adopted by the Federal Subsistence Board (Board) in 2005 when it supported with modification regulatory proposal WP05-19.

Existing Federal Regulation

Unit 23—Muskox

Unit 23—Cape Krusenstern National Monument—1bull by Federal permit. Annual harvest quotas and any needed closures will be announced by the Superintendent of Western Arctic National Parklands. Cape Krusenstern National Monument is closed to the taking of musk oxen except by resident zone community members with permanent residence within the Monument or the immediately adjacent Napaktuktuk Mountain area, south of latitude 67°05' N and west of longitude 162°30' W hunting under these regulations.	*Aug. 1 - March 15*

Proposed Federal Regulation

Unit 23—Muskox

Unit 23—Cape Krusenstern National Monument—1bull by Federal permit. Annual harvest quotas and any needed closures will be announced by the Superintendent of Western Arctic National Parklands. Cape Krusenstern National Monument is closed to the	*Aug. 1- March 15*

taking of musk oxen except by resident zone community members ~~with permanent residence within the Monument or the immediately adjacent Napaktuktuk Mountain area, south of latitude 67°05' N and west of longitude 162°30' W hunting under these regulations~~.

Existing State Regulation

Unit 23 – Muskox

Unit 23 – Seward Peninsula west of and including the Buckland River drainage	*Residents: One bull by permit*	*TX 106*	*Aug. 1 – Mar. 15*
Unit 23 – that portion north and west of Kobuk River drainage	*Residents: One bull by permit*	*TX 107*	*Aug. 1 – Mar. 15*
Unit 23 remainder	*Residents and Nonresidents*		*No open season*

Extent of Federal Public Lands

Federal public lands comprise approximately 69% of Unit 23 and consist of 42% National Park Service managed lands, 17% Bureau of Land Management managed lands, and 10% Fish and Wildlife Service managed lands (see **Unit 23 Map**). The proposed regulation would only apply to Cape Krusenstern National Monument, which is administered by the National Park Service. The National Monument consists of 659,807 acres in the northwestern coastal area of Unit 23 (NPS 2003).

Customary and Traditional Use Determinations

Residents of Unit 23 east and north of the Buckland River drainage have a customary and traditional use determination for muskoxen in the National Monument, including the communities of Kotzebue, Selawik, Noorvik, Kiana, Shungnak, Ambler, Kobuk, Noatak, Kivalina, and Point Hope.

Regulatory History

In 2003, the National Park Service prepared an Environmental Assessment under the National Environmental Policy Act, and its Regional Director signed a Finding of No Significant Impact, designating all lands within the Northwest Alaska Native Association (NANA) Region as the resident zone for Cape Krusenstern National Monument (36 C.F.R. § 13.802 [2015]). With this 2003 decision, the current resident zone communities are Kotzebue, Selawik, Noorvik, Kiana, Shungnak, Ambler, Kobuk, Noatak, Kivalina, Buckland, and Deering.

In 2005, the Board adopted an ANILCA Section 804 prioritization of Federally qualified subsistence users that limited the pool of eligible subsistence users of muskoxen in the National Monument (FWS 2005). The number of rural residents eligible to hunt muskoxen in the National Monument under Federal regulations was reduced to only those permanently residing in the National Monument or immediately adjacent in the Napaktuktuk Mountains south of latitude 67°05' N and west of longitude 162°30' W.

Proposal WP05-19, submitted by the Cape Krusenstern Subsistence Resource Commission and the National Park Service, requested the establishment of a season and an allocation for muskoxen in Unit 23 (FWS 2005). The intent of the proposal was to provide subsistence opportunity for a small number of families with permanent residence within or adjacent to the National Monument to harvest muskoxen. The pool of eligible hunters represented a substantially smaller subset of those living in the resident zone for the National Monument. The proposal was adopted with modification by the Board to delegate authority to the National Park Service to create annual quotas, determine the number of permits, and announce any needed closures of the muskox hunting season (FWS 2005).

Cultural Knowledge and Traditional Practice

The subsistence way of life in Northwest Alaska is a holistic and versatile phenomenon characterized by adaptation to changing conditions and sophisticated social networks. It involves sharing and other types of customary and traditional exchanges and harvesting practices, including mobility on the part of hunters and other residents of the region and free and open access to the land. Ethnographic research published by the National Park Service recorded, "contemporary villagers clearly feel that everybody living within a given region should have equal access to the land's resources" (Anderson et al. 1998:265).

Residents of the NANA Region practice subsistence hunting, fishing, and gathering throughout the region when necessary. Federally qualified subsistence users in Unit 23 are accustomed to moving with migrating wildlife such as caribou and can be quite mobile at times (Anderson et al. 1998). Some people living in the NANA Region move around and travel great distances to harvest subsistence resources, especially when resources are scarce or absent in their home territories (OSM 2015c). Having multiple opportunities available to subsistence harvesters outside their home territories allows for adaptations in times of resource shortages or other environmental changes.

Biological Background

The Alaska Department of Fish and Game (ADF&G) translocated 36 muskoxen to an area near to Cape Thompson in 1970, with an additional 34 animals released in the same area in 1977 (Westing 2011). This restored population of muskoxen has occupied the National Monument since at least 1979. These animals occupy habitat from the mouth of the Noatak River north to Cape Lisburn (NPS 2014).

Between 2004 and 2010, over half the estimated total muskoxen of the Cape Thompson population were located within the boundaries of the National Monument (OSM 2015a). Muskoxen in the Cape Thompson area appear to occupy relatively discrete, core areas separate from the muskox population on the Seward Peninsula, although muskoxen are also widely scattered throughout the remainder of Unit 23 in groups of one to four individuals (Westing 2011).

Aerial surveys in the core count area within the National Monument indicated the population of muskoxen had declined between the mid-2000s and early 2010s. The total population, including the core area, the Noatak River drainage, and portions of Unit 26A was estimated to be approximately 500 animals (NPS 2014). Composition data collected between 2004 and 2014 indicated that bull to cow ratios have declined (NPS 2014).

The ADF&G manages muskoxen in Unit 23 to meet certain objectives (Westing 2011):

1. Survey the Cape Thompson population at least once every three years.
2. Provide for subsistence hunting and eventually a general hunting season for muskoxen on a sustained yield basis.
3. Provide for non-harvest values of muskoxen (e.g., viewing and photography).

The National Park Service manages muskoxen to meet various objectives, including:

1. Maintain a viable population of muskoxen in the Cape Krusenstern National Monument and Noatak National Preserve in perpetuity (NPS 2014).
2. Provide subsistence opportunity for harvesting muskoxen when sustainable (NPS 2014).

Harvest History

Since 2005 when this Federal hunting opportunity was first made available to a limited number of Federally qualified subsistence users, the National Park Service has issued six permits, and three residents have hunted for muskoxen in the National Monument. Three bull muskoxen have been harvested. No harvest has been reported since 2010 (OSM 2015b).

Effects of the Proposal

If this proposal was adopted, more Federally qualified subsistence users would become eligible to obtain a Federal permit to harvest muskoxen in Cape Krusenstern National Monument. In addition to those living relatively near the Monument, residents of the region who do not live near the Monument would be eligible to receive Federal permits thereby increasing their harvest opportunities for muskoxen. With a decline in the Western Arctic Caribou Herd and pending restrictions on take of caribou in the region, muskoxen may become more desirable and critical in the near future for some residents of Unit 23.

If this proposal was adopted, there would likely be an increase in applications for the two existing Federal permits. For economic and practical reasons, many eligible hunters would likely not apply or likely not travel to the National Monument to hunt muskoxen due to distance if they received a permit. However, for those hunters and others in the region, knowing that this subsistence opportunity legitimately and legally exists would align with contemporary beliefs that all people living in the region should have equal access and opportunity to harvest resources on the land (Anderson et al. 1998).

There has been no reported harvest in this Federal hunt since 2010. The total allowed harvest is two bull muskoxen and most likely would not be increased in the near future. If this proposal became regulation, harvest limits and the season would not change. There would most likely be little or no biological effects to muskoxen or immediate conservation concerns, since the Federal manager has delegated authority to set the quota.

OSM CONCLUSION

Support Proposal WP16-50 **with modification** to include all Federally qualified subsistence users but not residents of Point Hope; remove regulatory language referencing harvest quotas and closures; and delegate authority to the National Park Service to close the season and determine annual quotas via a delegation of authority letter only (**Appendix 1**).

The modified regulation should read:

Unit 23—Muskox

Unit 23—Cape Krusenstern National Monument—1bull by Federal permit. ~~Annual harvest quotas and any needed closures will be announced by the Superintendent of Western Arctic National Parklands.~~ Cape Krusenstern National Monument is closed to the taking of musk oxen except by ***Federally qualified subsistence users but not residents of Point Hope*** *~~resident zone community members with permanent residence within the Monument or the immediately adjacent Napaktuktuk Mountain area, south of latitude 67°05' N and west of longitude 162°30' W hunting under these regulations~~.*	*Aug. 1 – March 15*

Justification

The modified proposed regulatory change would provide more opportunity for Federally qualified subsistence users to harvest muskoxen, which is consistent with ANILCA Title VIII and the National Park Service's management objective to provide subsistence opportunity for harvesting the species when sustainable. With a decline in the Western Arctic Caribou Herd and pending restrictions on take of caribou, muskoxen may become more important for maintaining a subsistence way of life in Unit 23. The proposal is not consistent with the Board's customary and traditional use determination for muskoxen in the National Monument. Resident zone communities Buckland and Deering are not included in the customary and traditional use determination for the National Monument, and therefore, will not be eligible to receive Federal permits for the National Monument. Little or no biological effects or conservation concerns are anticipated to result from this proposed change. People have in the past and continue to move from place to place in the region for various reasons, including hunting. The proposed regulation is consistent with their traditional and cultural practices of being mobile on the land for purposes of subsistence harvest when necessary.

Creation of a delegation of authority letter for the Superintendent of the Western Arctic National Parklands will clarify regulations and allow for flexible hunt management through in-season adjustment of hunt parameters.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Northwest Arctic Subsistence Regional Advisory Council

Support WP16-50 **as modified by OSM**. The Council supports an expanded opportunity to harvest the resource by Federally qualified subsistence users, especially when other key resources such as caribou are in a state of decline and conservation restrictions are in place. However, the Council was cautious of having a pool of users that is too large, as it makes it difficult for communities to obtain a permit.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Board action on the proposal.

Appendix 1

Superintendent
Western Arctic National Parklands
National Park Service
PO Box 1029
Kotzebue, Alaska 99752

Dear Superintendent:

This letter delegates specific regulatory authority from the Federal Subsistence Board (Board) to the Superintendent of the Western Arctic National Parklands to issue emergency or temporary special actions if necessary to ensure the conservation of a healthy wildlife population, continue subsistence uses of wildlife, for reasons of public safety, or to assure the continued viability of the population. This delegation only applies to the Federal public lands subject to Alaska National Interest Lands Conservation Act (ANILCA) Title VIII jurisdiction within Cape Krusenstern National Monument (CAKR) for the management of muskox on these lands.

It is the intent of the Board that actions related to management of muskox by designated Federal officials be coordinated, prior to implementation, with the Alaska Department of Fish and Game (ADF&G), the National Park Service (NPS) Regional Office, and the Chair of the Northwest Arctic Subsistence Regional Advisory Council (Council). Federal managers are expected to work with managers from the State and other Federal agencies, the Council Chair, and applicable members of the Council to minimize disruption to Federally qualified subsistence users and existing agency programs and in a manner consistent with the need for special action.

DELEGATION OF AUTHORITY

1. Delegation: The Superintendent of the Western Arctic National Parklands in Kotzebue is hereby delegated authority to issue emergency or temporary special actions affecting muskox in CAKR 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 regulations 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 regulations at 36 CFR 242.26 and 50 CFR 100.26:

DRAFT

- To set closing dates for the muskox season in CAKR.

- As needed, set or adjust the annual harvest quotas for muskox for the Federal hunt in CAKR.

This delegation may be exercised only when it is necessary to conserve muskox 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, shall be directed to the Federal Subsistence Board.
The Federal public lands subject to this delegated authority are those in Cape Krusenstern National Monument.

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

5. Guidelines for Delegation: You will become familiar with the management history of the wildlife species relevant to this delegation in the region, with current State and Federal regulations and management plans, and be up-to-date on population and harvest status information. You will 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, the National Park Service, and the Chair of the Northwest Arctic 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 immediately notify the proponent of the request. A summary of special action requests and your resultant actions must be provided to the coordinator of the Northwest Arctic Subsistence Regional Advisory Council at the end of each calendar year for presentation to the Council.

DRAFT

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. 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.

6. Support Services: Administrative support for regulatory actions will be provided by the Office of Subsistence Management, U.S. Fish and Wildlife Service.

Sincerely,

Tim Towarak
Chair, Federal Subsistence Board

cc: Commissioner, Alaska Department of Fish and Game
Assistant Regional Director, Office of Subsistence Management
Deputy Assistant Regional Director, Office of Subsistence Management
Chair, Northwest Arctic Regional Advisory Council
Chair, Cape Krusenstern National Monument Subsistence Resource Commission
Subsistence Manager, Cape Krusenstern National Monument
Federal Subsistence Liaison Team Leader, Alaska Department of Fish and Game
Subsistence Council Coordinator, Office of Subsistence Management
Federal Subsistence Board
Interagency Staff Committee
Administrative Record

DRAFT

WP16-55 Executive Summary	
General Description	Proposal WP16-55 requests that the coyote trapping season in Unit 25 be expanded from the current season of Nov. 1 – Mar. 31 to Oct. 1 – Apr. 30. *Submitted by the Eastern Interior Alaska Subsistence Regional Advisory Council*
Proposed Regulation	**Unit 25 — Coyote (Trapping)** *Coyote: No limit.* ~~*Nov. 1- Mar. 31.*~~ ***Oct. 1- Apr. 30.***
OSM Conclusion	**Support**
Eastern Interior Alaska Regional Advisory Council Recommendation	**Support**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Neutral**
Written Public Comments	**None**

STAFF ANALYSIS
WP16-55

ISSUE

Proposal WP16-55, submitted by the Eastern Interior Alaska Subsistence Regional Advisory Council (Council), requests that the coyote trapping season dates in Unit 25 be expanded from the current season of Nov. 1 – Mar. 31 to Oct. 1 – Apr. 30.

DISCUSSION

The proponent states that expanding the coyote trapping season will provide more harvest opportunity for Federally qualified subsistence users. The proponent also states that this change would simplify regulations in two ways: 1) align the coyote and wolf trapping seasons and 2) align the closing dates of the coyote hunting and trapping seasons. The Council states that the coyote population is abundant in the region and thought to be increasing.

Existing Federal Regulation

Unit 25 — Coyote (Trapping)

Coyote: No limit.	*Nov. 1- Mar. 31.*

Proposed Federal Regulation

Unit 25 — Coyote (Trapping)

Coyote: No limit.	~~*Nov. 1- Mar. 31.*~~ ***Oct. 1- Apr. 30.***

Existing State Regulation

Unit 25 — Coyote

Coyote: No limit.	*Nov. 1- Mar. 31.*

Extent of Federal Public Lands

Federal public lands comprise approximately 70% of Unit 25 and consists of 56% U.S. Fish and Wildlife Service (FWS) managed lands, 12% Bureau of Land Management (BLM) managed lands, and 2% National Park Service (NPS) managed lands.

Customary and Traditional Use Determinations

The Federal Subsistence Board (Board) has not made a customary and traditional use determination for coyote in Unit 25. Therefore, all Federally qualified users may harvest this species in this unit.

Regulatory History

The Federal subsistence harvest regulations for trapping coyote in Unit 25 have not changed since the Federal subsistence program was started in 1990. There have been no proposals to change the coyote trapping regulations in Unit 25. Current trapping regulations set no limit for harvest of coyotes between Nov. 1 and Mar. 31.

Biological Background

The coyote is believed to have expanded its range into Alaska around the turn of the 20th century (ADF&G 2015). Agricultural expansion and urban sprawl, in combination with the elimination of wolves in the contiguous United States provided coyotes with the opportunity to expand their range (ADF&G 2015; Boisjoly et al 2010:3; Berger & Gese 2007). Coyotes occur throughout most of Alaska, with the highest densities occurring in southcentral portion of the State (ADF&G 2015). Competition for resources between wolves and coyotes directly influences coyote distribution and abundance. The two species share an ecological niche and often come into contact while coyotes are scavenging (ADF&G 2012b:159-165; Berger & Gese 2007; Merkle et al 2009: 57). Coyotes generally breed between January and March, giving birth to 5-7 pups between March and May (ADF&G 2015).

Since regulatory year 1996/97, ADF&G trapper questionnaires have provided furbearer abundance and population trends based on responses from area trappers. While qualitative, this information is useful for tracking population changes over time and is the best available for many furbearer populations, including coyote in Unit 25.

The coyote population in the Lower Tanana Basin (Units 20ABCDF, 25C) has mostly been reported as common with a stable to increasing trend (**Table 1**). The coyote population in the Upper Yukon Basin (Units 25ABD, 26BC) has mostly been reported as scarce with a stable to decreasing trend (**Table 1**) (ADF&G, 2013a, 2013b, 2012a, 2010a, 2010b, 2010c, 2007, 2006, 2005, 2002).

Table 1. Coyote relative abundance and population trends (ADF&G 2013a, 2013b, 2012a, 2010a, 2010b, 2010c, 2007, 2006, 2005, 2002, 2001, 2000, 1998, 1997).

Regulatory Year	Lower Tanana Basin (20ABCDF, 25C)		Upper Yukon Basin (25ABD, 26BC)	
	Abundance	Trend	Abundance	Trend
1996	Common	Same	x	x
1997	Common	More	Scarce	Fewer
1998	Common	Same	Scarce	Fewer
1999	Common	Same	Scarce	Same
2000	Common	More	Scarce	Same
2001	Common	More	Scarce	More
2002	No Report			
2003	Common	More	Same	Fewer
2004	Common	Same	Scarce	
2005	Common	Same	Scarce	Same
2006	Common	Same	Scarce	Same
2007	Common	More	Scarce	Same
2008	Scarce	Same	Scarce	Same
2009	No Report			
2010	Scarce	Same	Scarce	Same
2011	Common	Same	Common	Same
2012	Common	Same	Scarce	Fewer

Harvest History

Coyote harvest in Unit 25 has historically been very low. Trappers are asked to voluntarily report harvested furbearers via the annual trapper questionnaires administered by ADF&G. Since 2004/05, ADF&G has reported this information by unit. From 2004/05 to 2012/13, there were 16 coyotes reported harvested within Unit 25 (ADF&G 2013a, 2013b, 2012a, 2010a, 2010b, 2010c, 2007, 2006, 2005, 2002). Most of the coyotes reported in Unit 25 were harvested from Unit 25D (9 coyotes total). Half of the coyotes harvested were reported in 2004/05 with 0-3 coyotes being reported harvested in Unit 25 from 2005/06 to 2012/13.

There is no other estimate for total annual harvest. There is no sealing requirement for coyotes, reporting harvest is optional, and many trappers do not return questionnaires. Therefore, the reported harvest number should be considered the minimum (ADF&G 2010d:195). Low harvest numbers may also be a reflection of the difficulty in capturing the species, low fur values, and an infestation of louse in some coyote populations (ADF&G 2010d:140, 155).

Between regulatory years 2005/06 and 2013/14, an average of 122 coyotes/year were reported harvested within the Alaska State Region 3 - Interior (encompassing Units 12, 19-21, 24, 25, 26B, and 26C). (ADF&G, 2013a, 2013b, 2012a, 2010a, 2010b, 2010c, 2007, 2006, 2005, 2002).

Other Alternative(s) Considered

One alternative considered was to modify the season opening date from Nov. 1 to Oct. 1, with no extension of the season closing date. This would have resulted in a coyote trapping season from Oct. 1 – Mar. 31. As coyote pupping season is March–May, extending the trapping season to Apr. 30 may increase the loss of litters. However, based upon the low long term reported harvest levels of coyote and the low price of pelts, coyotes do not seem to be highly sought after by trappers. With the differing season closing dates between wolves and coyotes, any pelts from coyotes that are incidentally trapped between Apr. 1 and Apr. 30 must be submitted to ADF&G. Adjusting the season closing date, from Mar. 31 to Apr. 30, is not expected to increase the number of coyotes trapped. Rather, it will allow trappers to keep pelts from coyotes incidentally taken while trapping for wolves.

Effects of the Proposal

If adopted, this proposal would add an additional 60 days to the coyote trapping season in Unit 25. Extension of this season would allow more trapping opportunities for Federally qualified subsistence users.

Aligning Federal subsistence trapping season dates for wolves and coyotes and for hunting and trapping season of coyote would simplify Federal subsistence trapping regulations. Although not specified by the proponent, aligning the wolf and coyote season would also allow trappers to keep the pelts of coyotes incidentally trapped during the wolf season, eliminating the collateral, and illegal, take of coyote during the wolf trapping season.

Adoption of this proposal would result in divergent State and Federal trapping seasons and may result in enforcement concerns. Additionally, user conflicts between recreationists and trappers may occur in the White Mountains National Recreation Area of Unit 25C as recreationists would have to avoid traps for longer periods.

Adoption of this proposal is not expected to adversely affect the coyote population in Unit 25. Information obtained from the annual trapping questionnaire by the ADF&G indicates that coyote populations within Unit 25 are generally stable and harvest is very low.

OSM CONCLUSION

Support Proposal WP16-55.

Justification

Adoption of this proposal would allow for more harvest opportunities for Federally qualified subsistence users. Extension of the coyote trapping season will align the Federal subsistence coyote and wolf trapping seasons, simplifying Federal subsistence trapping regulations for Federally qualified subsistence users. Aligning the wolf and coyote season would also allow trappers to keep the pelts of coyotes incidentally trapped during the wolf season. The best available information indicates that coyote populations in Unit

25 are generally stable at low to moderate levels and that harvest pressure is low. The population would not be adversely affected by an extended season.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Eastern Interior Alaska Subsistence Regional Advisory Council

Support WP16-55. The Council states that there doesn't appear to be a conservation issue. It will increase the length of the Federal season for coyote and be less complex to have Federal subsistence seasons for wolf and coyote aligned and align federal coyote hunting and trapping regulations. This will support subsistence users who hunt in the area to have an extended federal season for coyote.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

WP16-56 Executive Summary	
General Description	Proposal WP16-56 requests the beaver hunting season and harvest limits be modified in Units 25A, 25B, and 25D. The season would be lengthened and divided into two separate seasons with different harvest limits. The current Apr. 16 – Oct. 31 season would be changed to Jun. 11 – Aug. 31 and the harvest limit would remain 1 beaver per day; 1 in possession. The second portion of the season would be Sept. 1 – Jun. 10 with no limit on beaver harvest. *Submitted by the Eastern Interior Alaska Subsistence Regional Advisory Council*
Proposed Regulation	**Unit 25 — Beaver (Hunting)** *Unit 25A, 25B, and 25D — 1 beaver per day; 1 in possession* — ~~*Apr. 16 – Oct. 31*~~ ***June 11- Aug. 31*** ***Unit 25A, 25B, and 25D — no limit*** — ***Sep. 1 – June 10*** *Unit 25C* — *No open season.*
OSM Conclusion	**Support**
Eastern Interior Alaska Regional Advisory Council Recommendation	**Support**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Neutral**
Written Public Comments	**None**

STAFF ANALYSIS
WP16-56

ISSUES

Proposal WP16-56, submitted by the Eastern Interior Alaska Subsistence Regional Advisory Council (Council), requests the beaver hunting season and harvest limits be modified in Units 25A, 25B, and 25D. The season would be lengthened and divided into two separate seasons with different harvest limits. The current Apr. 16 – Oct. 31 season would be changed to Jun. 11 – Aug. 31 and the harvest limit would remain 1 beaver per day; 1 in possession. The second portion of the season would be Sept. 1 – Jun. 10 with no limit on beaver harvest.

DISCUSSION

The proponent states that lengthening the hunting season will provide more opportunity for Federally qualified subsistence users. Additionally, the proponent claims that changing the beaver hunting season would simplify regulations by aligning Federal hunting regulations with State trapping regulations.

Note: This proposal was originally submitted requesting a modification to the beaver hunting season and limits as follows: no harvest limit from Apr. 16 to June 10 and then revert back to 1 beaver per day; 1 in possession from Jun. 11 to Oct. 31; the proponent stated the intent of the proposal was to align Federal and State regulations. The original intent of the proponent is now reflected in this analysis.

Existing Federal Regulations

Hunting

Unit 25 — Beaver

Unit 25A, 25B, and 25D — 1 beaver per day; 1 in possession	*Apr. 16 – Oct. 31*
Unit 25C	*No open season.*

Trapping

Unit 25 — Beaver

Unit 25A, 25B, and 25D — 50 beaver	*Nov. 1 – Apr. 15*

Unit 25C — No limit	*Nov. 1 – Apr. 15*

Proposed Federal Regulations

Hunting

Unit 25 — Beaver

Unit 25A, 25B, and 25D — 1 beaver per day; 1 in possession	*~~Apr. 16~~ – ~~Oct. 31~~* ***June 11- Aug. 31***
Unit 25A, 25B, and 25D — no limit	***Sep. 1 – June 10***
Unit 25C	*No open season.*

Trapping

Unit 25 — Beaver

Unit 25A, 25B, and 25D — 50 beaver	*Nov. 1 – Apr. 15*
Unit 25C — No limit	*Nov. 1 – Apr. 15*

Existing State Regulations

Hunting

Unit 25 — Beaver

Beaver	*No open season.*

Trapping

Unit 25 — Beaver

Beaver: No limit.	*Sep. 1 – Jun.10*

5AAC 92.095(a) The following methods and means of taking furbearers under a trapping license are prohibited, in addition to the prohibitions in 5 AAC 92.080:

* * * *

(2) by disturbing or destroying any beaver house;

(3) taking beaver by any means other than a steel trap or snare, except that a firearm may be used to take two beaver per day in Units 9 and 17 from April 15 through May 31 if the meat is salvaged for human consumption; a firearm may be used to take beaver in Units 8, 18, 22, and 23 throughout the seasons and with the bag limits established in 5 AAC 84; a firearm or bow and arrow may be used to take beaver in Units 12, 19, 20(A), 20(C), 20(E), 20(F), 21, 24, and 25 throughout the seasons and with the bag limits established in 5 AAC 84;

Extent of Federal Public Lands

Federal public lands comprise approximately 70% of Unit 25 and consists of 56% U.S. Fish and Wildlife Service (FWS) managed lands, 12% Bureau of Land Management (BLM) managed lands, and 2% National Park Service (NPS) managed lands.

Customary and Traditional Use Determinations

The Federal Subsistence Board (Board) has not made a customary and traditional use determination for beaver in Unit 25. Therefore, all Federally qualified users may harvest this species in this unit.

Regulatory History

Federal regulations for beaver trapping in Unit 25 were adopted from State regulations in 1990. The season ran from Nov. 1-Apr. 15 with harvest limits of 50 beaver in Unit 25A, 25B, and 25D, and 25 beaver in Unit 25C.

Prior to 1995, there were no Federal subsistence hunting regulations for beaver in Unit 25.

In 1993, Proposal P93-62 was submitted requesting a hunting season for beaver in Unit 25 from Oct. 1 – May 15, with a harvest limit of 50 beaver. The intent of the proposal was to reduce the number of beaver and the associated dams that were thought to be impacting whitefish. Federal subsistence management regulations do not apply to habitat manipulation and, as a result, the proposal was rejected as outside the authority of the Federal Subsistence Board (Board).

In 1995, the Alaska Board of Game modified State trapping regulations to allow for the use of firearms to harvest beaver in Units 25A, 25B, and 25D from Apr. 16-June 1 with a harvest limit of 1 beaver/day. No firearm season was created for Unit 25C.

In 1995, the Board adopted Proposal P95-61 with modification. The original proposal submitted by the Eastern Interior Alaska Subsistence Regional Advisory Council (Council) included a year round season (July 1-June 30) with a 50 beaver harvest limit. The high harvest limit raised conservation concerns due to

the potential for high kit loss if parents were harvested. The modified proposal established a Federal subsistence beaver hunting season of Apr. 16-Oct. 31 in Units 25A, 25B, and 25D with a harvest limit of 1 beaver/day; 1 in possession. The modified proposal also required that the meat from beavers taken by firearm must be salvaged for human consumption. This was done to provide additional subsistence opportunity for local residents and because there were no conservation concerns over beaver populations provided the modified season dates and harvest limits (FSB 1995). No Federal subsistence hunting season was opened in Unit 25C.

In 2002, the Alaska Board of Game adopted Proposal 120, eliminating sealing requirements for beaver in Unit 25 due to an absence of any population concerns, low trapping pressure, and low fur prices (Crawford 2002).

In 2008, the Alaska Board of Game adopted Proposal 82, which liberalized beaver trapping seasons and bag limits across the Interior region. The season in Unit 25 was set at Sept. 1-June 10 with no bag limit. Proposal 82 also allowed for the take of beaver by a firearm or bow and arrow throughout the open trapping season under a trapping license in Interior Alaska, including Unit 25. This was done to simplify and liberalize regulations across Interior Alaska due to abundant beaver populations and low, declining harvest pressure (ADF&G 2008).

In 2010, the Yukon Flats Advisory Committee submitted Proposal 95 to the Alaska Board of Game, requesting the bag limit for beavers in Unit 25 be reduced from unlimited to 50 beaver/season because of overharvesting concerns (ADF&G 2010d). The Alaska Board of Game rejected this proposal due to no conservation concerns and the desire to maintain consistency in bag limits across units in the Interior Region (ADF&G 2010e).

Biological Background

Beavers in Unit 25C are managed separately from beavers in the rest of Unit 25. As this proposed regulatory change affects only Units 25A, 25B, and 25D, only those data and reports concerning these units will be discussed.

Beavers are common throughout Interior Alaska (Caikoski 2010). Beavers are often called ecosystem engineers as they substantially modify their environment through foraging, selective timber harvest, and dam construction. As such, beavers have had large-scale hydrogeological and environmental impacts that have provoked animosity from local communities (Havens et al. 2013; Milligan & Humphries 2010; Raffel et el. 2009).

Beavers are generally monogamous and only the dominant male and female will breed. Breeding season is in January or February, with two-to-four kits being born between late April and June (Haven et al. 2013, FSB 1995). Kits stay in the natal den until reaching two years of age before leaving to secure their own home range (Havens et al. 2013). Kit survival within the first year is estimated to be <50% due to a variety of factors including disease, predation, and human harvest (Haven et al. 2013).

Aerial surveys of beaver lodges and food caches conducted prior to 2002 indicated that beaver activity fluctuated from year to year. Current beaver population estimates for Unit 25 are unavailable as population monitoring was discontinued by ADF&G in 2002 (Caikoski 2010).

Since regulatory year 1996/97, ADF&G trapper questionnaires have provided furbearer abundance and population trends based on responses from area trappers. While qualitative, this information is useful for tracking population changes over time and is the best available for many furbearer populations, including beavers in Unit 25.

Prior to 2008, trappers reported beavers as relatively abundant in Units 25A, 25B, and 25D. Between 2008 and 2012, trappers reported beavers as relatively common in these units, indicating a perceived decline in the relative abundance of beaver. However, the perceived population trend for the same time period was reported as stable or "no change" (ADF&G 2013a, 2013b, 2012, 2010a, 2010b, 2010c, 2007, 2006, 2005, 2002a, 2002b, 2001).

Harvest History

Beaver harvest in Units 25A, 25B, and 25D during the late 1990s and early 2000's was relatively low compared to the late 1980s and was probably related to lower pelt values and a resulting reduction in trapper effort. Prior to 2002, beavers in the Interior were most commonly taken in and near major drainages such as Black, Little Black, Colleen, Hodzana, Chandalar, and Christian Rivers, and Birch and Beaver Creeks (Caikoski 2010).

Since the Alaska Department of Fish and Game (ADF&G) terminated beaver sealing requirements for Unit 25 in 2002, current harvest data is limited (ADF&G 2008, Caikoski 2010). The number of beavers sealed in the Interior region prior to 2002 averaged 1,500 beavers/year. The annual average post 2002 is 67 beavers sealed/year (ADF&G 2013a, 2010a, 2001).

Reported harvest within Units 25A, 25B, and 25D by trappers has been low, but consistent, ranging from 9-24 beavers between 2004 and 2012. The majority of reported beaver harvests have occurred in Unit 25D. No beaver harvests have been reported for Unit 25A (**Figure 1**). Harvest reporting for beaver in these units is optional and less than 10 trappers respond annually for Units 25A, 25B, and 25D. Therefore, the reported harvest greatly underestimates actual harvest (ADF&G 2013a, 2013b, 2012, 2010a, 2010b, 2010c, 2007, 2006, 2005, 2002).

Despite the liberalization of the beaver trapping season, bag limits and use of firearms across the Interior Region in 2008, the percent of beaver harvested by firearm has not increased appreciably since that time. This indicates that the ability to use firearms throughout the entire season did not result in a subsequent increase in the number of beavers taken by this method (**Figure 2**).

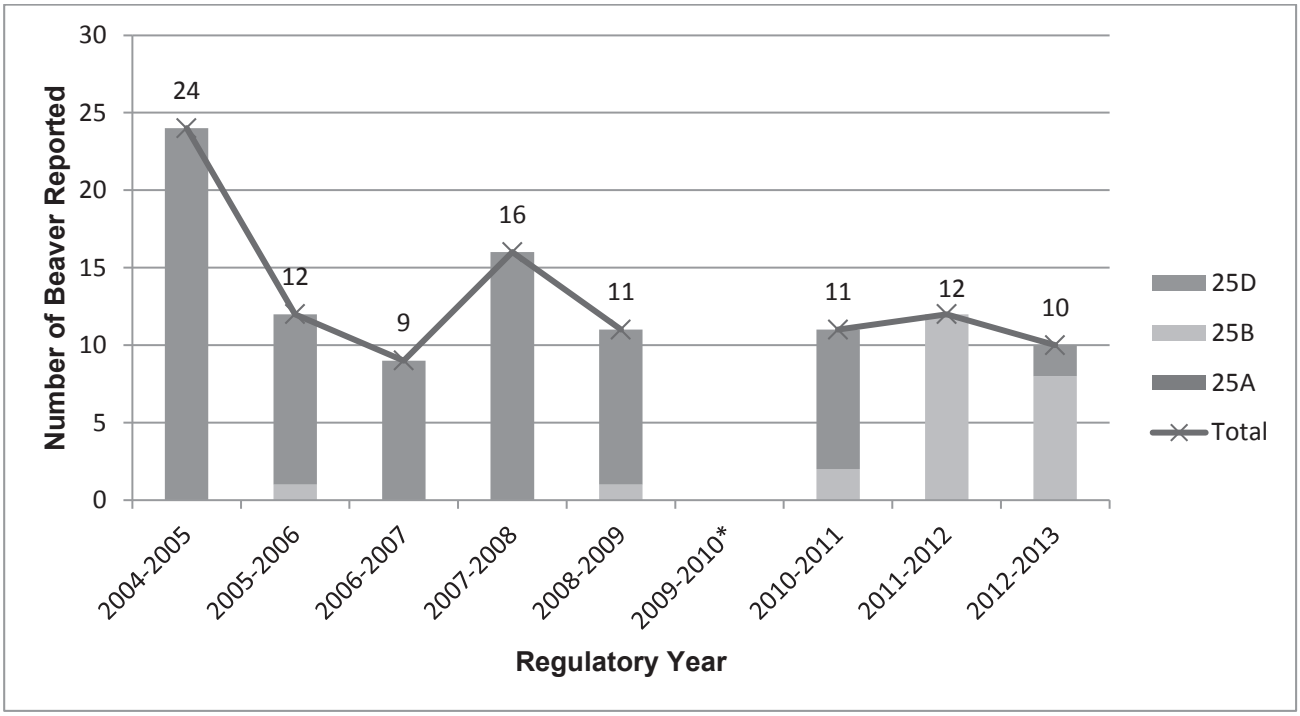

Figure 1. Number of reported beavers harvested in Units 25A, 25B, and 25D (ADF&G 2013a, 2013b, 2012, 2010a, 2010b, 2010c, 2007, 2006, 2005). *No report was written for 2009/10.

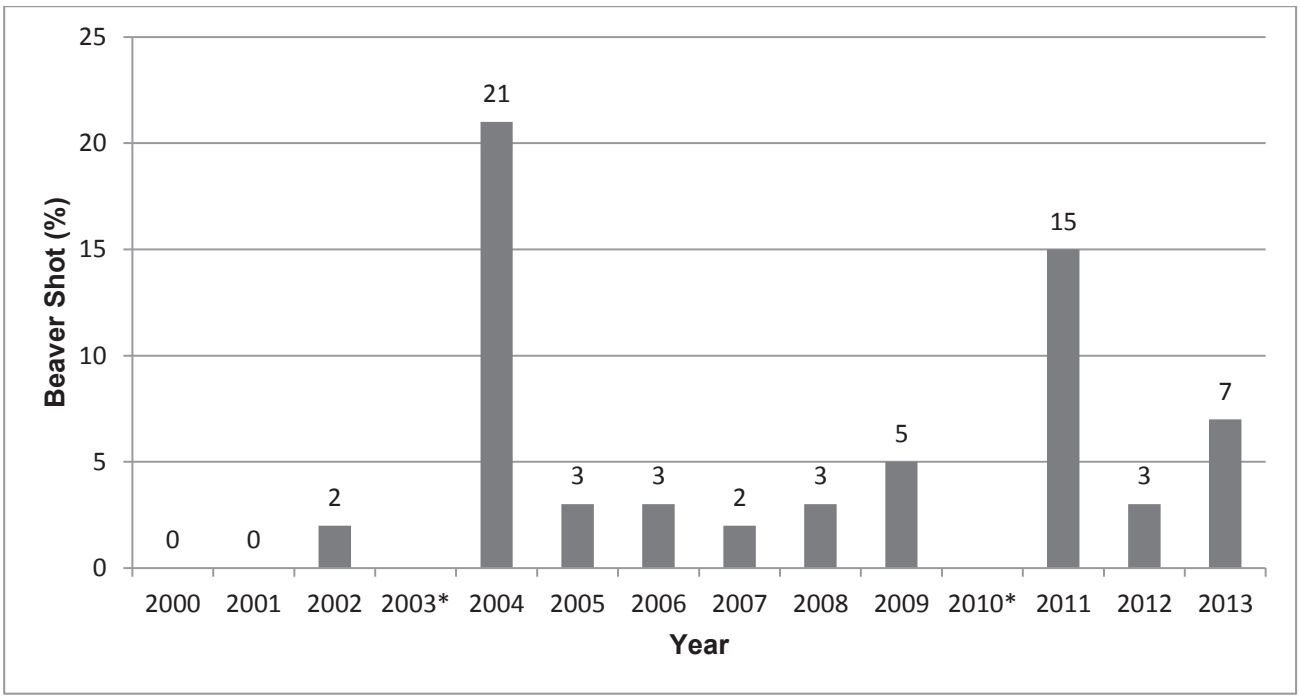

Figure 2. Percent of harvested beavers in the Interior Alaska region taken by firearm (ADF&G 2013a, 2013b, 2012, 2010a, 2010b, 2010c, 2007, 2006, 2005, 2002a, 2002b, 2001). The number of respondents/year ranged from 303-455. *No data is available for 2003 and 2010.

Other Alternatives Considered

One alternative considered was an unlimited harvest limit from Nov. 1-Apr. 15 and a harvest limit of 1 beaver/day, 1 in possession from Apr. 16-Oct. 31. This alternative would protect kits during denning. Kits are born between mid-April to May and may starve if parents are taken during this critical denning time. This alternative was rejected due to reasons outlined below.

While current and accurate population data and harvest information for beaver in Unit 25 is lacking, trapper questionnaires suggest beavers are relatively common with stable population trends.

As users are already able to harvest an unlimited number of beaver from Sep. 1-June 10 on most (non-NPS) Federal public lands in Units 25A, 25B, and 25D under State regulations, adoption of this modification would not have its desired effect.

The intent of this proposal is to simplify regulations and to provide more opportunity to Federal subsistence users. Adoption of this alternative would provide State users more harvest opportunity than Federally qualified subsistence users and would fail to align State and Federal regulations, defeating the intent of this proposal.

Effects of the Proposal

If adopted, this proposal would establish a new Federal subsistence beaver hunting season from Sep. 1-June 10 with no harvest limit in Units 25A, 25B, and 25D. The existing harvest and possession limits would remain in effect for the remainder of the season (June 11-Aug. 31).

These modifications would allow more hunting opportunities for Federally qualified subsistence users and reduce regulatory complexity by aligning the Federal subsistence hunting season and harvest limit with the State trapping season and bag limit.

Users are already able to harvest an unlimited number of beaver in Units 25A, 25B, and 25D on most (non-NPS) Federal public lands under State regulations. Additionally, the proportion of beavers taken by firearm has not increased since 2008 when the State allowed the use of firearms throughout the beaver trapping season. Therefore, adoption of this proposal is not expected to affect beaver populations or harvest.

There are concerns about unlimited beaver harvest during the denning period and its potential impact on kit survival, leading to decreasing population trends over time. These concerns are augmented by the lack of current, accurate population and harvest information. However, the best data available, provided by trappers on the annual ADF&G trapper questionnaires, suggest that beavers in Unit 25 are relatively common with stable populations.

Additionally, as fur quality is low in late spring, beavers harvested during this time period are primarily for food. As most trappers target beaver for fur rather than meat, the harvest during the denning period is likely low.

OSM CONCLUSION

Support Proposal WP16-56.

Justification

This proposal provides more harvest opportunity for Federally qualified subsistence users and reduces regulatory complexity for users by aligning Federal subsistence hunting and State trapping regulations for beaver in Units 25A, 25B, and 25D. While current beaver population and harvest information is lacking, trappers report beavers in Unit 25 to be relatively common with a stable population.

Reported harvest of beaver by firearm did not increase after 2008, indicating that the more liberal use of firearms allowed under State regulations did not affect the number of beavers harvested by this method. As users can already harvest beaver under the more liberal State regulations in Units 25A, 25B, and 25D, adoption of this proposal is not expected to have any biological impacts on beaver populations.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Eastern Interior Alaska Subsistence Regional Advisory Council

Support WP16-56. The Council feels that this would allow for more opportunity for Federal users to hunt beaver. Beaver is good food, great fur and also good for feeding dog teams. Council also felt there are no conservation concerns for the species as they are observed everywhere but it is hard work to hunt/trap and prepare beaver so it will make it easier for those that do use this resource but not expected to greatly increase the harvest pressure.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

WP16-57 Executive Summary	
General Description	Proposal WP16-57 requests that the lynx trapping season in Unit 25 be lengthened from Nov. 1 – Feb. 28 to Nov. 1 – Mar. 31. *Submitted by the Eastern Interior Alaska Subsistence Regional Advisory Council*
Proposed Regulation	**Unit 25 — Lynx (Trapping)** *Lynx—No limit.* *Nov. 1 – ~~Feb. 28~~* ***Mar. 31***
OSM Conclusion	**Support**
Eastern Interior Alaska Regional Advisory Council Recommendation	**Support**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Neutral**
Written Public Comments	**1 Neutral**

STAFF ANALYSIS
WP16-57

ISSUES

Proposal WP16-57, submitted by the Eastern Interior Alaska Federal Subsistence Regional Advisory Council (Council), requests that the Federal subsistence lynx trapping season in Unit 25 be lengthened from Nov. 1 – Feb. 28 to Nov. 1 – Mar. 31.

DISCUSSION

The proponent states that expanding the Federal subsistence lynx trapping season will provide more opportunity for Federally qualified subsistence users. Specifically, the Council states that local trappers do not usually begin to trap lynx until the last week of November or the beginning of December and that prime fur conditions extend beyond the current February 28 season closure.

Additionally, the proponent claims that changing the lynx trapping season to Nov. 1 – Mar. 31 would simplify regulations by aligning the lynx trapping season with the wolverine trapping season in Units 25A, B, and D, avoiding incidental take of lynx while targeting wolverine.

Related proposals: WP16-58 requests that the wolverine trapping season in Unit 25C be extended from Nov. 1-Feb. 28 to Nov. 1-Mar. 31.

Existing Federal Regulation

Trapping

Unit 25 — Lynx

Lynx—No limit.	*Nov. 1 – Feb. 28*

Proposed Federal Regulation

Trapping

Unit 25 — Lynx

Lynx—No limit.	*Nov. 1 – ~~Feb. 28~~* ***Mar. 31***

Existing State Regulation

Trapping

Unit 25 — Lynx

Units 25A, 25B, and 25D—No limit.	*Nov. 1 – Feb. 28*

Units 25C—No limit. *Nov. 1 – Mar. 15*

Extent of Federal Public Lands

Federal public lands comprise approximately 70% of Unit 25 and consists of 56% U.S. Fish and Wildlife Service managed lands, 12% Bureau of Land Management managed lands, and 2% National Park Service managed lands.

Customary and Traditional Use Determinations

The Federal Subsistence Board (Board) has not made a customary and traditional use determination for lynx in Unit 25. Therefore, all Federally qualified users may harvest this species in this unit.

Regulatory History

In 1987, the Alaska Board of Game (BOG) adopted a "tracking harvest strategy" to manage lynx trapping seasons in the road-connected game management units of Interior and Southcentral Alaska, including Unit 25C. Under this strategy, lynx seasons were reduced and liberalized in response to cyclical fluctuations in lynx populations via emergency orders (Hollis 2010).

Federal trapping regulations for lynx in Unit 25 were adopted from State regulations in 1990. The season in Units 25A, B, and D ran from Nov. 1-Feb. 28 with no harvest limit. This season has not changed. The season in Unit 25C ran from Dec. 1-Jan. 31 with no harvest limit.

In 1998, the Federal lynx trapping season dates for Unit 25C were changed from Dec. 1-Jan. 31 to Nov. 1-Feb. 28, aligning seasons across Unit 25. While these changes are reflected in the 1998 Federal register, no proposal requesting this change could be found in the OSM database or the Federal Subsistence Board (FSB) 1998 meeting book.

In 2001, in response to Proposal WP01-44, the Board adopted a statewide regulatory provision and issued a Delegation of Authority Letter so that the Assistant Regional Director for the Office of Subsistence Management (OSM) could adjust lynx trapping regulations through the use of the ADF&G tracking harvest strategy. This delegated authority required coordination with ADF&G, consultation with appropriate Federal land management agencies, development of a staff analysis to evaluate the effects of the changes to the season and harvest limit, and Interagency Staff Committee concurrence (FWS 2001).

In 2008, the BOG adopted Proposal 17, eliminating the "tracking harvest strategy". This was done to provide additional harvest opportunity to State users and because the "tracking harvest strategy" had limited efficacy (ADF&G 2008).

Current Events

WP16-58 requests that the wolverine trapping season in Unit 25C be extended from Nov. 1-Feb. 28 to Nov. 1-Mar. 31. Currently, the lynx and wolverine trapping seasons are aligned in Unit 25C. In Units 25A, B, and D, the wolverine trapping season currently runs a month longer than the lynx trapping season.

If both WP16-57 and WP16-58 are adopted, the lynx and wolverine Federal subsistence trapping seasons in all of Unit 25 would be aligned. If one proposal is adopted and not the other or if both proposals are opposed, the season closing dates for these species will continue to be misaligned in portions of Unit 25.

Biological Background

State management goals and objectives for lynx in Units 25A, B, and D are as follows (Caikoski 2010):

- Protect, maintain, and enhance furbearer populations in concert with other components of the ecosystem to assure their capability of providing sustained opportunities for trapping of furbearers.
- Provide people with sustained opportunities to participate in hunting, subsistence use, viewing, and photographing of furbearers.
- Maintain populations of furbearers at levels sufficient to provide for sustained consumptive and nonconsumptive uses.

State management goals and objectives for lynx in Unit 25C are as follows (Hollis 2010):

- Provide the greatest sustained opportunity for harvesting furbearers.
- Maintain populations of lynx that will support a minimum level of consumptive and nonconsumptive use.

Lynx are common in Alaska (Yom-Tov et al. 2007). Snowshoe hare are the predominant prey of lynx and are believed to comprise up to 83% of the species' diet (Yom-Tov et al. 2007 O'Donoghue et al. 1997). As a result, lynx populations fluctuate in direct response to changes in hare abundance (Yom-Tov et al. 2007). Snowshoe hare have a cyclical population trend that lasts from 8-11 years and lynx population numbers fluctuate in tandem with this trend with a lag of 1-2 years (USFWS 2013).

Lynx typically breed in March and April. Gestation is estimated to last 63-70 days and litter size ranges from 1 to 5 kittens. Typically, females carry one litter per year, but may breed a second time if the litter is lost shortly after birth. Both male and female lynx are reproductively capable in their first year, though they rarely breed. If yearling females do breed, they consistently produce smaller litters than older females. Reproductive output slows during the low phase of the hare cycle and there is some evidence that females may not produce a litter every year when hares are scarce (Anderson and Lovallo 2003).

In Alaska, all lynx pelts are required to be sealed. Sealing records can act as a proxy for lynx population trends (Yom-Tov et al. 2007). Between regulatory years 1990/91 and 2012/13, Statewide, Interior Alaska, and Unit 25 lynx populations demonstrate 3 periods of population highs (1991/92, 2000/01, and 2008/09), followed by periods of population lows (1995/96, 2002/03, and 2011/12, **Figures 1, 2**).

Since regulatory year 1996/97, ADF&G trapper questionnaires have provided furbearer abundance and population trends based on responses from area trappers. While qualitative, this information is useful for tracking population changes over time. Between 1996/97 and 2012/13, reported lynx abundance and population trends in the Lower Tanana and Upper Yukon Basins, which include Unit 25, have fluctuated in very rough alignment with the harvest sealing data (**Table 1, Figures 2**).

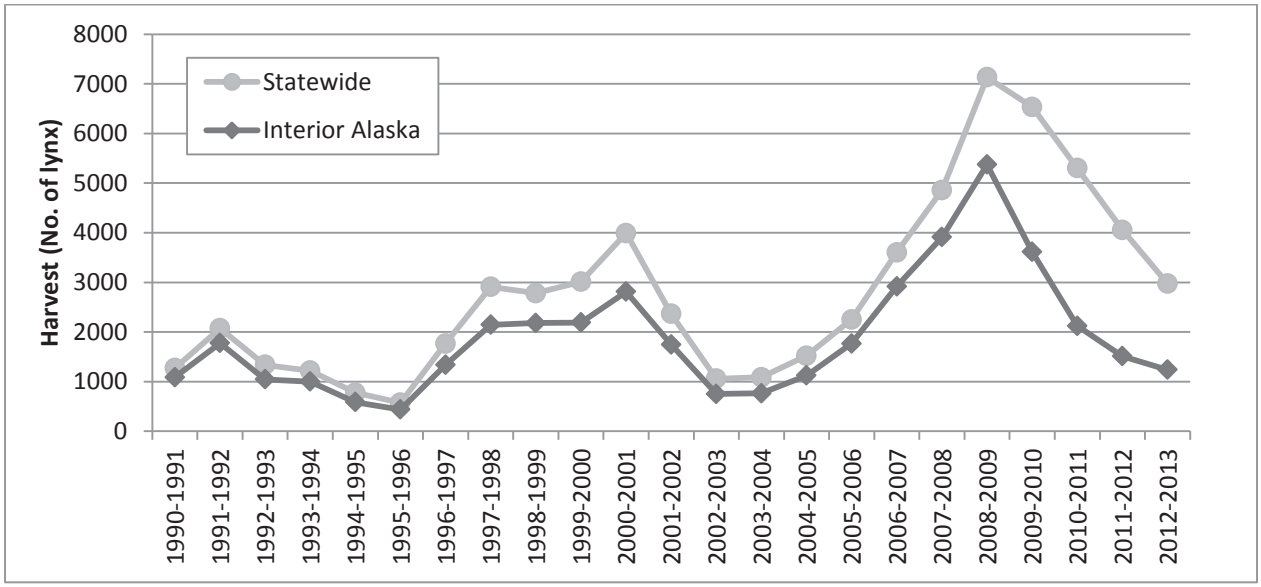

Figure 1. Lynx harvest (number of lynx sealed) in Interior Alaska and Statewide. Interior Alaska includes Units 12, 19A-D, 20A-F, 21A-E, 24A-C, 25A-D. (ADF&G 2002, 2005, 2006, 2007, 2010a, 2010b, 2010c, 2012, 2013a, 2013b).

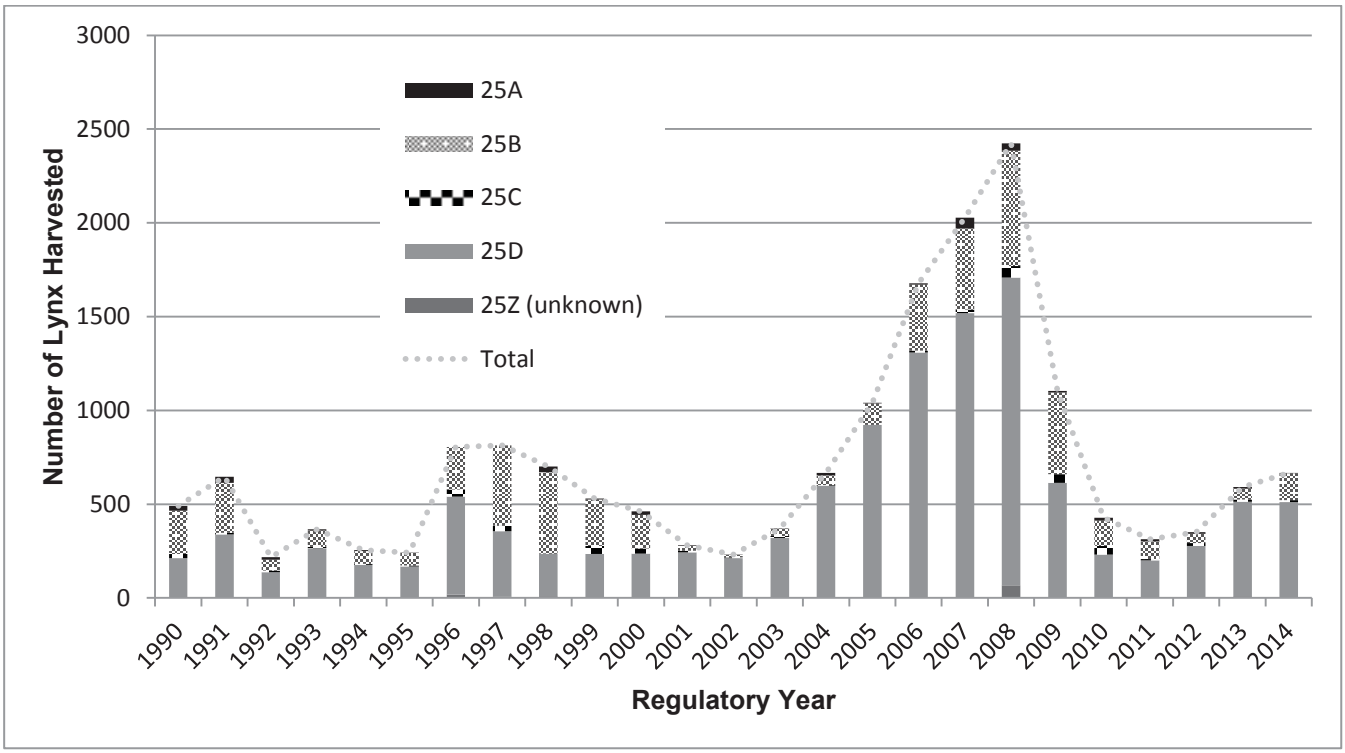

Figure 2. Lynx harvest (number of lynx sealed) in Unit 25 (Kephart 2015, pers. comm.).

Table 1. Lynx relative abundance and population trends for Units 20ABCDF, 25, and 26BC (ADF&G 2013a, 2013b, 2012, 2010a, 2010b, 2010c, 2007, 2006, 2005, 2002, 2001, 2000, 1998, 1997).

Regulatory Year	Lower Tanana Basin (Units 20ABCDF, 25C)		Upper Yukon Basin (Units 25ABD, 26BC)	
	Relative Abundance	Trend	Relative Abundance	Trend
1996	Common	More	Common	Fewer
1997	Common	Same	Common	Same
1998	Common	More	Common	Same
1999	Abundant	More	Abundant	More
2000	Abundant	More	Common	More
2001	Abundant	Same	Abundant	More
2002	No Data			
2003	Scarce	Same	Common	Same
2004	Scarce	Same	Common	More
2005	Common	Same	Common	More
2006	Common	Same	Common	Same
2007	Scarce	Same	Scarce	Same
2008	Common	More	Abundant	More
2009	No Data			

2010	Common	Same	Common	Fewer
2011	Scarce	Fewer	Scarce	Same
2012	Common	Fewer	Scarce	Same

Harvest History

Unit 25 has generally supported a high long-term lynx harvest rate that varies with the 8-11 year population cycles (**Figures 1-2**). Between 1990/91 and 2014/15, total lynx harvest in Unit 25 ranged from 217-2424 lynx/year, with an average of 708 lynx/year. While abundance is the primary factor influencing harvest, changes in season lengths, pelt value, and annual weather and environmental conditions also affect harvest (Hollis 2010).

Within Unit 25, the vast majority of lynx have historically been harvested in subunit 25D. Between 1990/91 and 2014/15, Unit 25D accounted for 32%-92% of the annual lynx harvest in Unit 25, averaging 67%/year during this time period (**Figure 2**, Kephart 2015).

Trappers are also asked to voluntarily report harvested furbearers via the annual trapper questionnaires administered by ADF&G. Since 2004/05, ADF&G has reported this information by unit. Between 2004/05 and 2012/13, 34-783 lynx were voluntarily reported per year for Unit 25, with an average of 244 reported lynx/year (**Table 2**).

Table 2. Trapper Reported Lynx Harvest in Unit 25 (ADF&G 2013a, 2013b, 2012a, 2010a, 2010b, 2010c, 2007, 2006, 2005, 2002).

Regulatory Year	Reported Harvested
2004-2005	117
2005-2006	137
2006-2007	161
2007-2008	462
2008-2009	783
2009-2010	*No Data*
2010-2011	171
2011-2012	88
2012-2013	34

Effects of the Proposal

If adopted, this proposal would add an additional 31 days to the Federal subsistence lynx trapping season in Unit 25, providing Federally qualified subsistence users with additional harvest opportunities.

Adoption of this proposal is not expected to adversely affect the lynx population in Unit 25. The lynx population in Unit 25 appears cyclically abundant and stable. Overall harvest is expected to increase, but will fluctuate in tandem with the lynx population.

Lynx and wolverine are often trapped in the same types of sets. If this proposal is adopted, the lynx and wolverine trapping seasons in Units 25A, B, and D would be aligned. Proposal WP16-58, has requested that the closing date of the wolverine trapping season in 25C be extended to March 31. If Proposal WP16-58 is adopted, along with this proposal, the lynx trapping season would align with the Federal subsistence wolverine trapping season in all of Unit 25, which would simplify Federal subsistence regulations and reduce the potential of trapping a lynx out of season while targeting wolverine.

Adoption of this proposal will result in different State and Federal lynx trapping seasons, potentially leading to increased user violations and law enforcement concerns.

OSM CONCLUSION

Support Proposal WP16-57.

Justification

If adopted, this proposal would provide additional trapping opportunities for Federally qualified subsistence users. Extending the trapping season would simplify Federal regulations and reduce incidental take by aligning the lynx trapping season with the wolverine trapping season in Units 25A, 25B, and 25D.

There are no biological concerns for lynx in Unit 25. Long-term harvest information, abundance and population trends as provided by trappers indicate that the lynx population in Unit 25 is cyclically abundant.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Eastern Interior Alaska Subsistence Regional Advisory Council

Support WP16-57. The Council feels there is no conservation concern for lynx in the area which has followed normal flux based on snowshoe hare population and harvest tends to follow this fluctuation. This season extension will allow for harvest of high quality fur with cold early spring temperatures during the extended season. This will increase opportunity for Federal subsistence both for fur and meat.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

WRITTEN PUBLIC COMMENTS

Miki & Julie Collins
ALASKAN FREELANCE WRITERS/PHOTOGRAPHERS
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RECEIVED
MAY 26 2015
BY Postmark 5/26/15

Federal Subsistence Board
Office of Subsistence Management
1011 E. Tudor Road, MS-121
Anchorage
AK 99503-6199

May 14, 2015

Hi,

My comments on the 2016-2018 Wildlife Proposals:

Quite a few of the proposals align State and Federal regulations. Unless contraindicated for sound biological reasons, I support al of these. It is incredibly onerous to keep track of what-is-allowed-where-and-how-and-when, and everything you can do to help ease this burden would be appreciated by all of us. I feel very strongly about this. Reg's have become ***much*** too complicated. I support WP 16-41 for a similar reason; it does not much sense to pay hundreds of dollars in air fare to fly to Fairbanks to get your horns seals. In some cases (e.g. WP 16-57) I only support it if fur remains prime that late in the year.

Just in general I support simplified reg's and more liberal seasons when populations are strong, and also support limiting the take (e.g.WP16-63) when populations are low or stressed in that area. I also in most situations support allowing traditional hunting methods. I am however pretty ambivalent about bear baiting because of the danger it can pose to other hunters bumbling blithely through the area, and the possibility of habituating bears.

Most of the proposals were not specific to my area so I hope you get some input from folks more familiar. Please keep in mind that usually local hunters and trappers know more about the critters and conditions in their areas than you-all do.

Thanks,

Miki Collins

WP16–60 Executive Summary	
General Description	Proposal WP16-60 requests the Chisana Caribou Herd (CCH) hunt be opened to all Federally qualified subsistence users with a customary and traditional use determination (C&T) for caribou in Unit 12 and that there be an unlimited number of Federal registration permits available. *Submitted by the Upper Tanana–Fortymile Fish and Game Advisory Committee.*
Proposed Regulation	**Unit 12—Caribou** *Unit 12 — that portion east of the Nabesna River and the Nabesna Glacier and south of the Winter Trail running southeast from Pickerel Lake to the Canadian border – 1 bull by Federal registration permit only.* — *Aug. 10 – Sept. 30* *Federal public lands are closed to the harvest of caribou except by* ***Federally qualified subsistence users hunting under these regulations.*** *~~residents of Chisana, Chistochina, Mentasta, Northway, Tetlin, Tok, Unit 12 along the Nabesna Road (mileposts 25-46), and that portion of Unit 12 east of the Nabesna River and the Nabesna Glacier and south of the winter trail.~~*
OSM Conclusion	**Support** Proposal WP16-60 **with modification** to retain the delegated authority of the superintendent of Wrangell-St. Elias National Park and Preserve to set the number of permits.
Southcentral Regional Advisory Council Recommendation	**Support as modified by OSM**
Eastern Interior Alaska Regional Advisory Council Recommendation	**Support as modified by OSM**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal

WP16–60 Executive Summary	
	Subsistence Board action on the proposal.
ADF&G Comments	**Support as modified by OSM**
Written Public Comments	**1 Support**

STAFF ANALYSIS
WP16-60

ISSUES

Proposal WP16-60, submitted by the Upper Tanana–Fortymile Fish and Game Advisory Committee, requests the Chisana Caribou Herd (CCH) hunt be opened to all Federally qualified subsistence users with a customary and traditional use determination (C&T) for caribou in Unit 12. The proponent also requests that there be an unlimited number of Federal registration permits available.

DISCUSSION

The proponent states that the intent of the proposal is to open the Chisana Caribou Herd hunt to all Federally qualified subsistence users with a C&T for caribou in Unit 12. Specifically, the proponent is requesting all Federally qualified subsistence users with a C&T for the CCH be allowed to participate in the hunt established in 2012. The proponent claims that the regulations resulting from the Section 804 analysis are unnecessarily restrictive.

Based upon the low number of permits issued and caribou harvested over the past three hunting seasons, the proponent feels that the CCH would not be impacted by increasing the number of permits available or the number of communities approved for the CCH hunt.

The original proposal removed the Federal land closure completely, which would have opened Federal land to all users (including State residents and non-residents). Upon clarification, the proposed Federal regulation reflects the actual intent of this proposal, which is to open Federal public lands to all Federally qualified subsistence users only.

Existing Federal Regulation

Unit 12—Caribou

Unit 12 — that portion east of the Nabesna River and the Nabesna Glacier and south of the Winter Trail running southeast from Pickerel Lake to the Canadian border – 1 bull by Federal registration permit only.	*Aug. 10 – Sept. 30*
Federal public lands are closed to the harvest of caribou except by residents of Chisana, Chistochina, Mentasta, Northway, Tetlin, Tok, Unit 12 along the Nabesna Road (mileposts 25-46), and that portion of Unit 12 east of the Nabesna River and the Nabesna Glacier and south of the winter trail.	

Proposed Federal Regulation

Unit 12—Caribou

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

Federal public lands are closed to the harvest of caribou except by ***Federally qualified subsistence users hunting under these regulations.*** ~~*residents of Chisana, Chistochina, Mentasta, Northway, Tetlin, Tok, Unit 12 along the Nabesna Road (mileposts 25-46), and that portion of Unit 12 east of the Nabesna River and the Nabesna Glacier and south of the winter trail.*~~

Existing State Regulation

Unit 12—Caribou

Unit 12 remainder

Residents and Nonresidents:	*No open season.*

Extent of Federal Public Lands

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

Customary and Traditional Use Determinations

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

<u>ANILCA Section 804 Determination</u>

Unit 12, that portion east of the Nabesna River and the Nabesna Glacier and south of the Winter Trail running southeast from Pickerel Lake to the Canadian border: Federal public lands are closed to the harvest of caribou except by residents of Chisana, Chistochina, Mentasta, Northway, Tetlin, Tok, Unit 12 along the Nabesna Road (mileposts 25-46), and that portion of Unit 12 east of the Nabesna River and the Nabesna Glacier and south of the Winter Trail.

Regulatory History

Federal regulations were adopted from State regulations for the CCH in Unit 12 in 1990. The season ran from Sept. 1-Sept. 20 with a harvest limit of one bull. A to-be-announced winter season was also established for residents of Tetlin and Northway only with a harvest limit of one caribou by Federal registration permit.

In 1992, the Federal Subsistence Board (Board) adopted Proposal P92-107, limiting the take of caribou during the winter season to bulls only. This was done due to conservation concerns caused by the mixing of caribou herds (OSM 1992).

In 1993, the Alaska Board of Game (BOG) adopted Proposal 149, establishing a registration permit hunt for the CCH. This was done in an effort to avert the closure of the hunt on Federal public lands by the Federal Subsistence Board or the NPS (ADF&G 1993). ADF&G has not issued any permits since 1993/94.

In 1994, the Board adopted Proposal P94-71, closing that portion of Unit 12 east of the Nabesna River and the Nabesna Glacier and south of the Winter Trail running southeast from Pickerel Lake to the Canadian border to caribou hunting. This was done due to conservation concerns over the declining Chisana Caribou herd (OSM 1994).

In 2010, the Alaska Board of Game approved a joint State-Federal drawing permit hunt for the CCH starting in 2011/12, for residents and nonresidents from Sept. 1-30 with a bag limit of one bull by drawing permit (ADF&G 2010). However, the entirety of the State authorized CCH hunt area is within Wrangell-St. Elias National Park and Preserve. As Federal public lands in this area are closed to non-Federally qualified subsistence users, there has been no CCH hunt under State regulations.

Also in 2010, the Board considered Proposal WP10-104, which requested establishment of a joint Federal/State draw permit for the CCH in Unit 12 with a harvest limit of one bull and a season of Sept. 1 – Sept. 30. The Board deferred action on WP10-104 to allow time for additional information (i.e. completion of a management plan and population surveys) to be gathered (FSB 2010).

In 2012, deferred Proposal WP10-104 along with new Proposals WP12-65 and WP12-66 were addressed by the Board. WP12-65 requested establishment of a Federal registration hunt for the CCH with a harvest limit of one bull and a season of Aug. 10 – Sept. 30, while WP12-66 requested establishment of a Federal registration hunt with a harvest limit of one bull and a season of Sept. 1 – Sept. 30, with the hunt restricted to Federal public lands in Unit 12 east of the Nabesna River and the Nabesna Glacier and south of the Winter Trail running southeast from Pickerel Lake to the Canadian border. The Board took no action on WP10-104 and WP12-65 and adopted WP12-66 with modification to identify the communities eligible to participate in the hunt consistent with Section 804 of the Alaska National Interest Lands Conservation Act (ANILCA): Northway, Mentasta, Tetlin, Tok, Chisana, and Chistochina. The authority to manage the Federal hunt was granted to the Wrangell-St. Elias National Park and Preserve Superintendent by letter of delegation from the Board.

Also in 2012, the Board adopted Proposal WP12-68, submitted by the Cheesh'na Tribal Council, adding the residents of Chistochina to the Unit 12 caribou customary and traditional use determination.

In 2014, Proposal WP14-15, submitted by the Wrangell-St. Elias National Park Subsistence Resource Commission, and Proposal WP14-45, submitted by the Eastern Interior Alaska Subsistence Regional Advisory Council, requested that the Board include residents of Nabesna (Nabesna Road from mileposts 25 to 46) and residents of the hunt area (Unit 12 east of the Nabesna River and the Nabesna Glacier and south of the Winter Trail) within the group of eligible users for the CCH. The Board took no action on Proposal WP14-45 and adopted WP14-15.

Proposal WP14-49, submitted by Gilliam Joe, requested a modification of the fall season dates for the Unit 12 caribou hunt that takes place east of the Nabesna River and Nabesna Glacier and south of the winter trail, and also requested the establishment of a winter hunt and a meat on the bone requirement. The proposal requested that the fall season be changed from Sept. 1 – Sept. 30 to Aug. 10 – Sept. 20 and that a Feb. 1 – Mar. 31 winter season be established. The Board adopted Proposal WP14-49 with modification to change the fall season dates to Aug. 10 – Sept. 30, but not establish a winter season or a meat on the bone requirement.

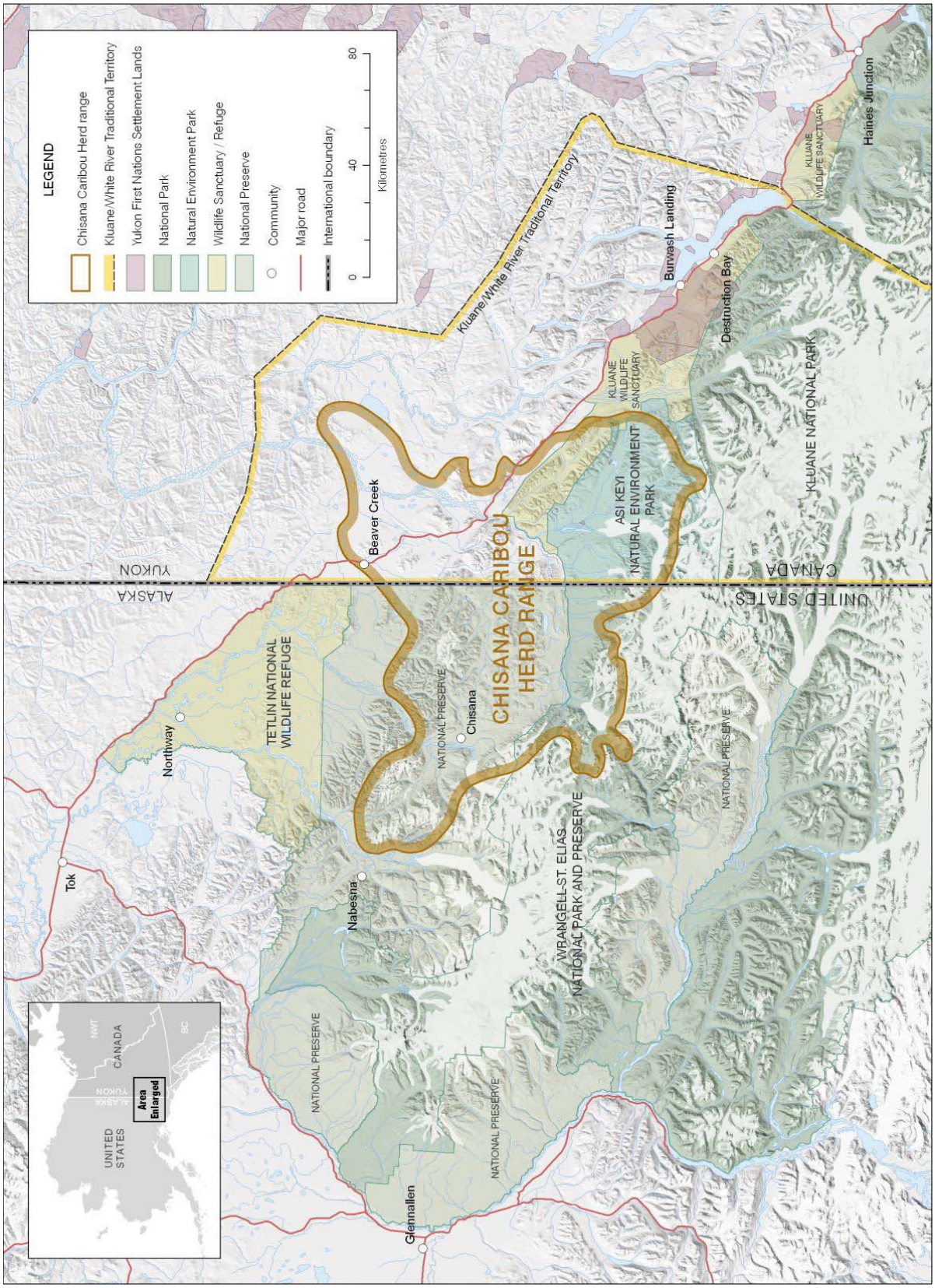
Biological Background

The CCH is a small, non-migratory herd inhabiting east-central Alaska (primarily Wrangell-St. Elias National Park and Preserve) and southwestern Yukon, Canada (**Map 1**). Genetic analysis suggests that this herd has been unique for thousands of years. The CCH are considered mountain caribou, characterized by cows calving alone at high elevations rather than aggregating in common calving grounds (Bentzen 2013, Bentzen 2011, CCHWG 2012).

The Chisana Caribou Herd Working Group (CCH Working Group) developed a 2010-2015 management plan for the Chisana Caribou Herd (Plan). The Plan guides harvest and management of the CCH, identifying specific goals, objectives, strategies, and activities. Population indicators identified in the Plan include:

- A stable or increasing population trend.
- An observed bull:cow ratio of 35 bulls:100 cows or greater.
- A three year calf:cow ratio above 15 calves:100 cows.

If any of these criteria are not met, no harvest is recommended. If all criteria are met, the plan recommends an annual bulls-only harvest not exceeding 2% of the estimated population. The Plan also recommends that the harvest be equally distributed between the Yukon (1%) and Alaska (1%). Harvest allocation within Alaska would be determined through the respective Federal and State regulatory process (CCHWG 2012). The CCH Working Group includes the Government of Yukon, Alaska Department of Fish and Game, White River First Nation, Kluane First Nation, National Park Service and U.S. Fish and Wildlife Service.



Map 1. Annual range of the Chisana caribou herd (CCHWG 2012).

Little is known about CCH population trends prior to the 1960s. In the mid to late 1970s, the CCH was estimated at 1,000 animals. Estimated herd size peaked in 1988 at 1,900 caribou before declining 60% to an estimated low of 315 caribou in 2002 (**Figure 1**). Data indicated that calf recruitment was chronically low during the decline and that the age structure was skewed toward older animals (Bentzen 2013, CCHWG 2012).

Concern over the decline led to implementation of an intensive captive rearing program in Canada, conducted from 2003 to 2006 by the U.S. Geological Survey (USGS) and the Canadian Wildlife Service. The program captured pregnant cows, placing them in holding pens to guard against predators during calving and the neonatal period. The recovery effort is considered successful in enhancing calf survival and recruitment, which may have offset further population declines (CCHWG 2012).

In 2003, survey efforts intensified due to the captive rearing program and the greater number of radio-collared caribou. Therefore, data (i.e. herd size and composition estimates) are not comparable pre and post 2003 (CCHWG 2012). Since 2003, (2003-2014) the CCH population has appeared stable at approximately 700 caribou (**Figure 1**).

Between 1987 and 2002, the bull:cow ratio ranged from 16-40 bulls:100 cows, meeting management objectives in only four years. Since 2003, bull:cow ratios have exceeded management objectives, ranging from 37-50 bulls:100 cows between 2003-2015 (**Figure** 2, CCHWG 2012, Putera 2015, SCRAC 2015).

Herd productivity has improved and stabilized since 2002 (**Figure 3**). Calf:cow ratios ranged from 0-31 calves:100 cows between 1987 and 2002. Calf:cow ratios ranged from 13-25 calves:100 cows between 2003 and 2014 (**Figure 3**). Between 1990 and 2003, the three year average calf:cow ratio did not meet management objectives. Since 2005, the three year average calf:cow ratio has exceeded management objectives.

Predation, particularly by wolves is considered a limiting factor for the CCH, although more research is recommended to better understand the impacts of predation on this herd (CCHWG 2012). Research conducted by the ADF&G, NPS, and the Yukon Department of the Environment (YDE) indicated predation accounted for 89% of documented mortality of radio-collared cows between 1991 and 2003 (Gross 2007). Disease is not considered a factor limiting the CCH population (CCHWG 2012).

Severe weather may also be a limiting factor. Heavy snow years increase energy expenditure by inhibiting movements and access to forage. Heavy snow could also decrease calving success by hampering cow movements to high elevations and increasing predation risks. Warmer, drier summers may increase harassment by insects (CCHWG 2012).

Habitat

The CCH range is considered very poor caribou habitat due in part to low lichen prevalence. Moss comprises a high proportion of the CCH's winter diet, which has extremely low nutritional value and digesti-

bility compared to lichen. Volcanic ash in the soil may contribute to accelerated tooth wear, indirectly impacting health and longevity (CCHWG 2012).

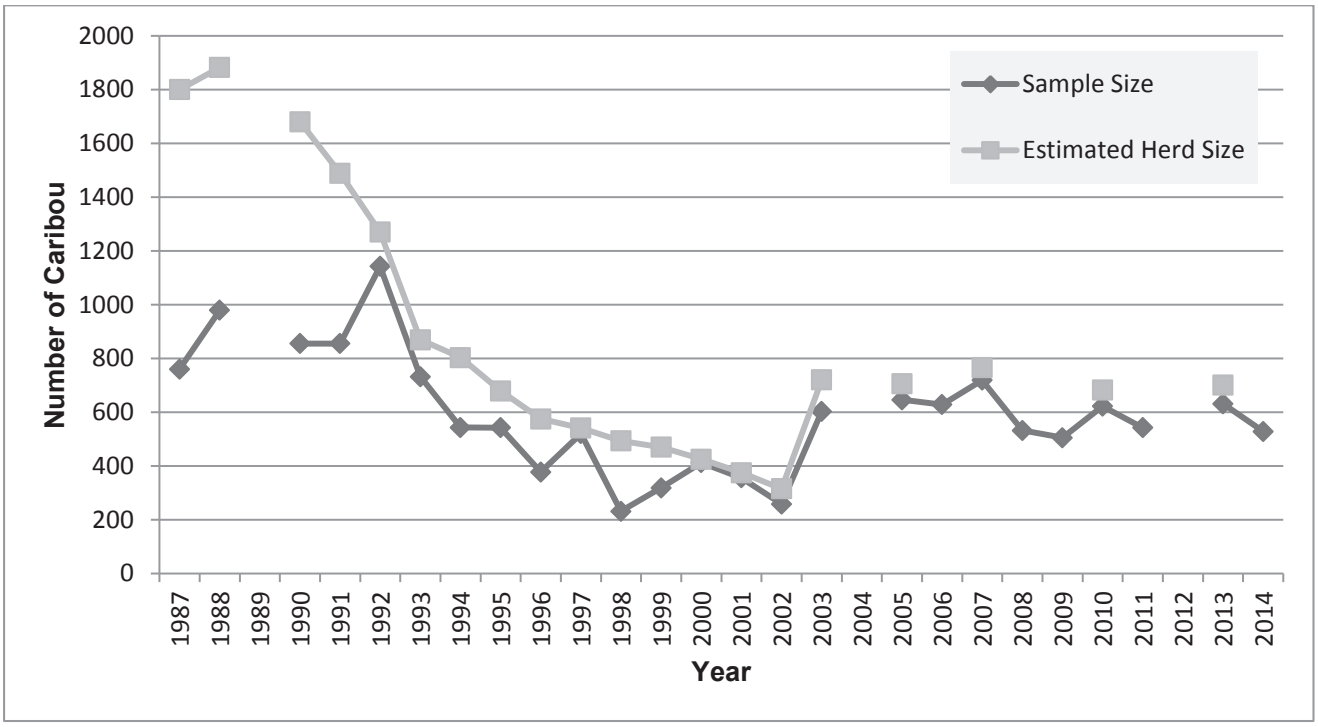


Figure 1. Chisana Caribou Herd population estimates. Estimates before 2003 are derived from ADF&G visual surveys. Estimates in 2003 and after are derived from USGS surveys using a sightability correction factor. No data available for years 1989, 2004, and 2012. In some years, no estimates were determined as no sightability correction factors were determined (CCHWG 2012, Putera 2015).

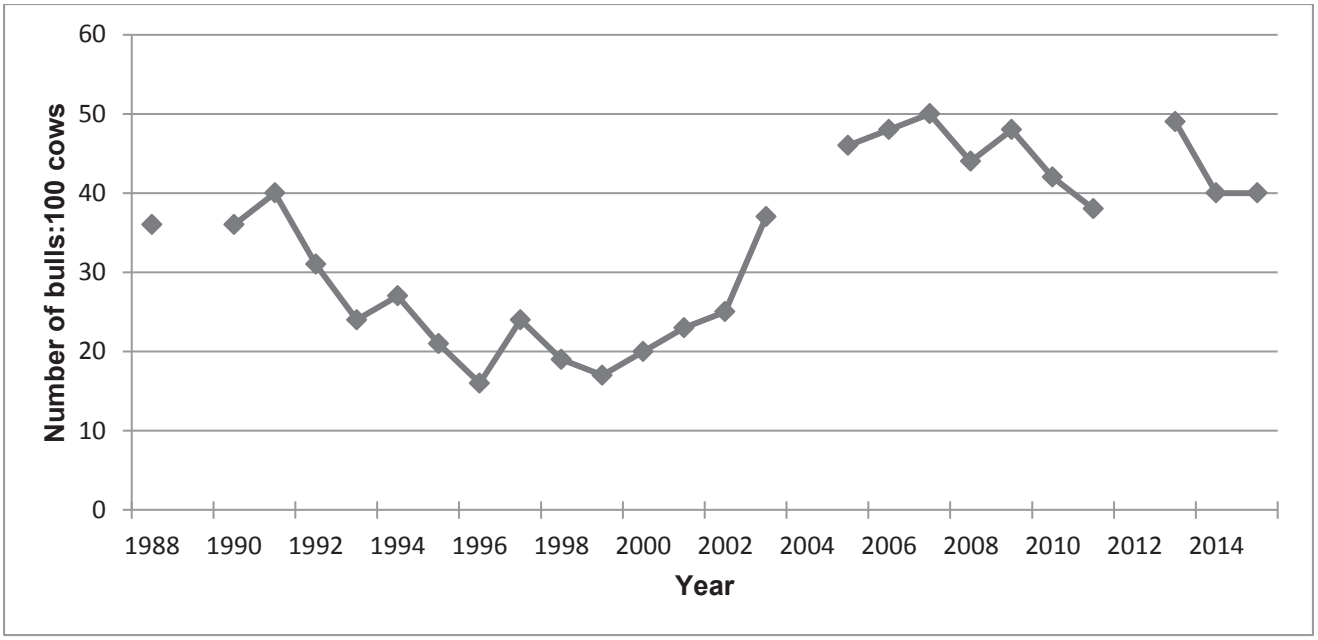


Figure 2. Bull:cow ratios of the Chisana Caribou Herd. Counts before 2003 were conducted by the ADF&G. Counts 2003 and after were conducted by the USGS. No data available for years 1989, 2004, and 2012 (CCHWG 2012, Putera 2015, SCRAC 2015).

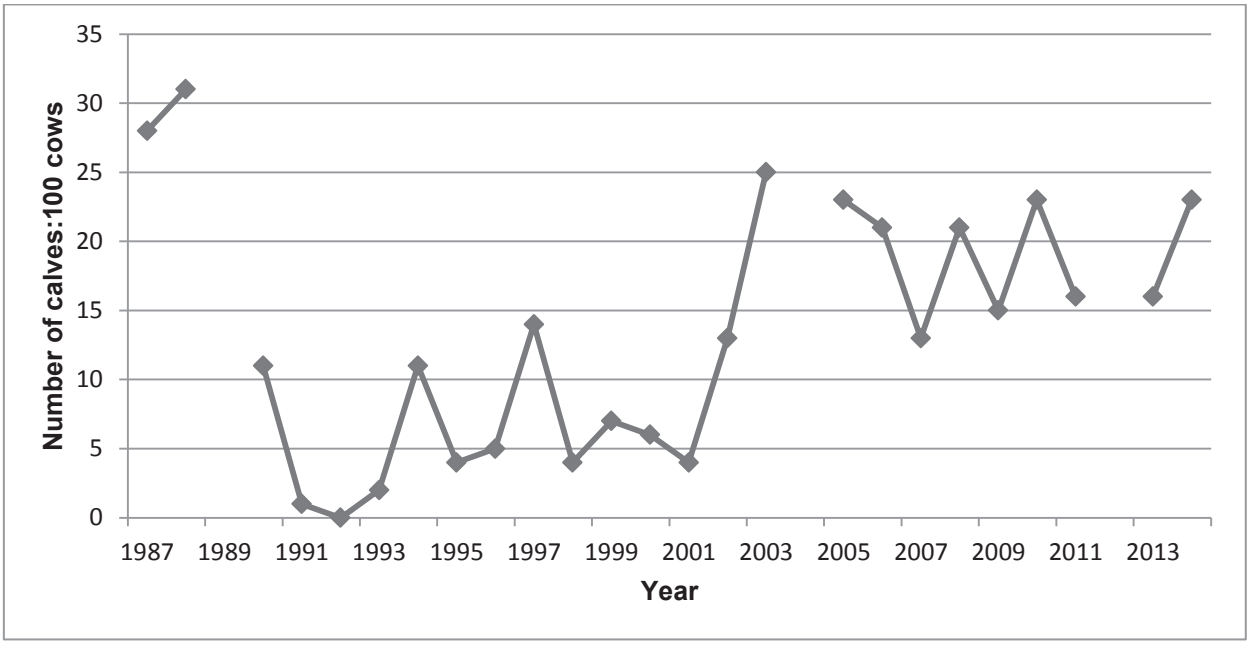


Figure 3. Calf:cow ratios of the Chisana Caribou Herd. Counts before 2003 were conducted by the ADF&G. Counts 2003 and after were conducted by the USGS. No data available for years 1989, 2004, and 2012 (CCHWG 2012, Putera 2015).

Harvest History

Because of its small population size and inaccessibility, the CCH has never supported large harvests across its range. During the early 1900s, residents of Athabascan villages and gold seekers harvested Chisana caribou. Subsistence use of the herd declined after the gold rush ended in 1929 and since Cooper Creek village burned in the mid-1950s, few people have depended on the CCH as their primary food source. However, the CCH continues to be an important aspect of Upper Tanana and Ahtna Athabascan culture (Gross 2007, Bentzen 2011, 2013).

Between the 1950s and 1994 when the CCH hunt closed, guided hunting was the primary use of the herd in Alaska (Gross 2007, Bentzen 2013). Local guides indicate that Chisana caribou are particularly large with large antlers, making them especially valued for guided hunts (OSM 2012).

Total (Yukon and Alaska) estimated caribou harvested from the CCH between regulatory years 1989/90 and 1993/94 ranged from 21-72 caribou/year (**Figure 4**). The unreported caribou harvest in the Yukon was estimated between 1-20 caribou/year during this time period (Gross 2007, Bentzen 2013).

Between 1990/91 and 1994/95, nonresidents took 58% of the harvested caribou while (State) subsistence users took 9% of the harvest (Bentzen 2013, CCHWG 2012). Because of the remoteness of the CCH, the closure in 1994 essentially affected only the 10 permanent residents in Chisana, half of which were registered guides (FSB 1994). Little illegal harvest has occurred (< 3 caribou/year) since the 1994 closure (**Figure 4**, Gross 2007, Bentzen 2013).

First Nations in the Yukon continued harvesting from the CCH throughout the 1990s. Between 1996 and 1999, First Nation members harvested 3-20 Chisana caribou annually. After 2001, First Nation members voluntarily ceased harvest (**Figure 4,** Gross 2007, Bentzen 2013).

In 2012, a CCH hunt was opened for residents of Northway, Mentasta, Tetlin, Tok, Chisana, and Chistochina by registration permits issued by Wrangell-St. Elias National Park and Preserve (NPP). Permits were allocated to each community according to a permit allocation plan developed by Wrangell-St. Elias NPP and various stakeholders. Under this plan, two permits each are allocated to the four eligible communities with Federally recognized tribal governments (Chistochina, Mentasta Lake, Northway, and Tetlin) with the understanding that all community residents, not just tribal members, would be considered for permit distribution, and the remaining permits are issued to Tok and Chisana residents on a first-come, first-served basis (Cellarius 2013).

In 2014, residents of Unit 12 along the Nabesna Road (mileposts 25-46) and residents of that portion of Unit 12 east of the Nabesna River and the Nabesna Glacier and south of the winter trail were added to the Federal subsistence users eligible to harvest Chisana caribou. Residents of these areas must contact the subsistence coordinator at Wrangell-St. Elias NPP for permit information (Keogh 2014).

The harvest quota for the Federal hunt has been set at seven bulls per the CCH management plan guidelines (1% of the estimated population). Fourteen permits were available for 2012/13 and 2013/14. Eighteen permits were available for 2014/15 and 2015/16.

In all years, the hunt was undersubscribed with Wrangell-St. Elias NPP issuing 9-11 permits/year (**Table 1**). Harvest was also below quota for all years, ranging from 0-3 caribou/year (**Figure 4**, **Table 1**).

Table 1. Chisana Caribou Hunt (FC1205) Summary 2012-2015 (OSM 2015, Cellarius 2015).

	2012	2013	2014	2015
Permits Available	14	14	18	18
Permits Issued	9	9	11	11
Individuals Hunting	8	7	8	7
Animals Harvested	2	3	2	0

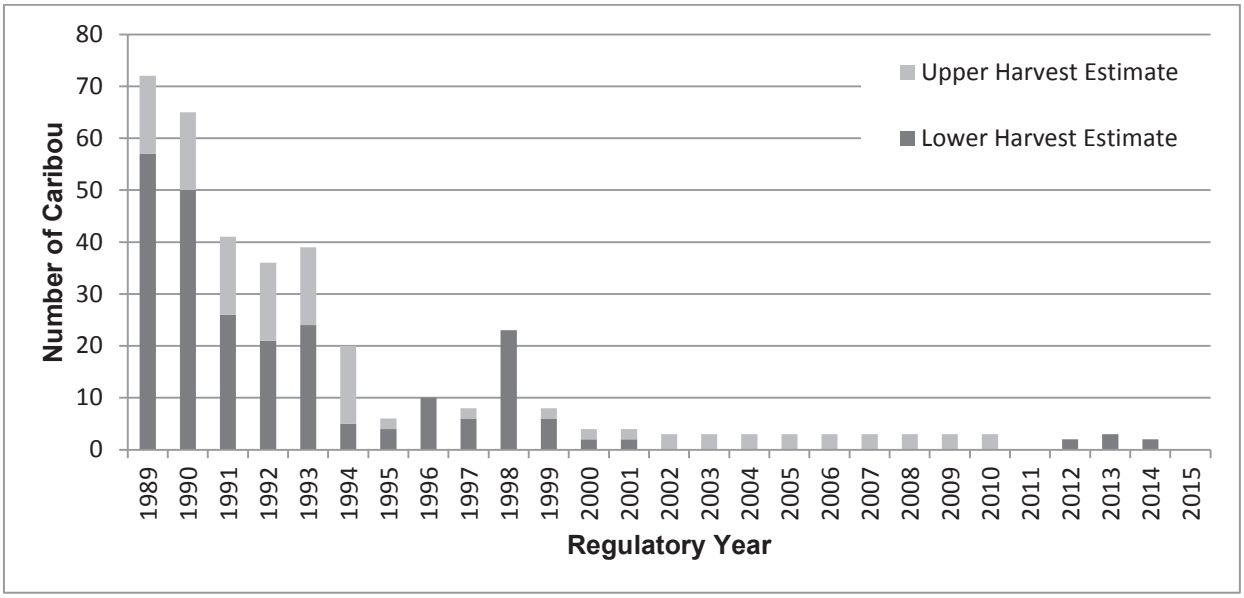


Figure 4. Total estimated caribou harvested from the Chisana Caribou Herd in Alaska and Yukon (Gross 2007, Bentzen 2013, OSM 2015, Cellarius 2015). 1994—The CCH hunt closed in Alaska. 2001—First Nations voluntarily ceased harvest from the CCH in Yukon. 2012—A CCH hunt was opened for Federally qualified subsistence users.

Effects of the Proposal

If adopted, this proposal would open the Chisana Caribou hunt to all Federally qualified subsistence users with a customary and traditional use determination for caribou in Unit 12, increasing hunting opportunities. While overall caribou harvest may increase as a result of adopting this proposal, it is unlikely that the harvest quota (7 bulls) would be met.

Given the quota, the low number of permits issued and animals harvested since the Federal hunt began in 2012, as well as a bull:cow ratio that has exceeded management objectives for over 10 years, it is unlikely that adoption of this proposal will have any biological impact on the CCH.

Adopting this proposal would allow an unlimited number of permits to be issued for the CCH hunt, removing the delegated authority of the Wrangell St-Elias National Park and Preserve (NPP) superintendent to set the number of available permits. The Wrangell-St. Elias NPP superintendent would maintain the management authority and flexibility to open/close the season, and announce the harvest quota and reporting period.

OSM CONCLUSION

Support Proposal WP16-60 **with modification** to retain the delegated authority of the superintendent of Wrangell-St. Elias National Park and Preserve to set the number of permits.

Justification

Opening the CCH hunt to all Federally qualified subsistence users with a customary and traditional use determination for this region will provide several communities with additional hunting opportunities. The number of permits issued and animals harvested have been well below quotas from 2012-2014. No biological impacts to the CCH are expected due to a harvest quota and harvest reporting requirements designed to prevent overharvest.

Currently, Wrangell-St. Elias National Park and Preserve superintendent maintains delegated authority to set, open, and close the Federal season and to announce the harvest quota, the number of permits, and the reporting period. This delegated authority enables the in season Federal land manager to quickly respond to any conservation concerns that may arise, ensuring the conservation of the CCH.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Eastern Interior Alaska Subsistence Regional Advisory Council

Support WP16-60 **as modified by OSM**. Allowing all qualified Federal users in the hunt area to harvest the Chisana Caribou Herd would provide subsistence opportunity for these communities but only add about 200 people to the eligible list and therefore not cause any increase in competition for the resource. There doesn't appear to be a conservation concern and it would be beneficial by allowing more opportunity for those who do wish to make the effort to hunt this herd.

Southcentral Subsistence Regional Advisory Council.

Support WP16-60 **as modified by OSM**. The subsistence hunt will provide additional subsistence opportunity for those communities with a positive C&T Use Determination for caribou in Unit 12. No conservation concerns exist and reporting requirements and quotas are in place to prevent overharvest.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

WRITTEN PUBLIC COMMENTS

Ahtna, Incorporated

May 27, 2015

Federal Subsistence Board
ATTN: Theo Matuskowitz
Office of Subsistence Management
1011 E. Tudor Road, MS-121
Anchorage, Alaska 99503-6199

RE: 2016-2018 Wildlife Proposals

Dear Mr. Matuskowitz:

Enclosed is Ahtna Tene Nene' Customary & Traditional Use Committee's comments on the 2016-2018 wildlife proposals.

Sincerely,

Gloria Stickwan
for Roy S. Ewan

Roy S. Ewan,
Chair

Page **1** of **5**

WP16-60 Unit 12 C&T for Chisana Caribou

Comments:

We support WP16-60 with an amendment to allow only federally qualified subsistence users with a positive customary and traditional use for caribou in Unit 12. We oppose opening Unit 12 Chisana Caribou hunt to non-federally qualified subsistence hunters. Adding the communities of Dot Lake, Healy Lake and Tanacross will provide an opportunity for them to harvest Chisana caribou to sustain their livelihood and meet subsistence needs.

As the proposal states, harvesting a Chisana caribou is difficult due to the terrain and access to the hunting area. Most likely not too many more Chisana Caribou will be harvested by including C&T for these additional communities to the Unit 12 caribou hunt.

Additionally, Wrangell St. Elias National Park Superintendent has the discretion to close the hunt, if the hunters are reaching the harvest quota for this caribou herd.

WP16–65 Executive Summary	
General Description	Proposal WP16–65 requests that delegated authority be given to the refuge to announce annual harvest quotas, announce the number of permits to be issued and to open and close the season for moose in Units 26B and 26C. *Submitted by the Arctic National Wildlife Refuge.*
Proposed Regulation	**Units 26B remainder and 26C—Moose** *Units 26B, remainder and 26C—1 moose by Federal registration permit by residents of Kaktovik only. The harvest quota* ***will be announced annually by the Manager of the Arctic National Wildlife Refuge.*** *is ~~5 moose. You may not take a cow accompanied by a calf in Unit 26B. Only 5 Federal registration permits will be issued.~~* — *July 1 – June 30* *Federal public lands are closed to the taking of moose except by a Kaktovik resident holding a Federal registration permit and hunting under these regulations.*
OSM Conclusion	**Support** Proposal WP16-65 **with modification** to create a May–be–announced season; remove regulatory language referencing harvest quotas and delegate authority to determine annual quotas; set opening and closing season dates; and the number of Federal permits to be issued via a delegation of authority letter only (**Appendix 1**). **Units 26B remainder and 26C—Moose** *Units 26B, remainder and 26C—1 moose by Federal registration permit by residents of Kaktovik only.* ~~*The harvest quota is 5 moose. You may not take a cow accompanied by a calf in Unit 26B. Only 5 Federal registration permits will be issued.*~~ — ~~*July 1 – June 30*~~ ***May be announced*** *Federal public lands are closed to the taking of moose except by a Kaktovik resident holding a Federal registration permit and hunting under these regulations.*
North Slope Regional Advisory Council	**Support as modified by OSM.**

WP16–65 Executive Summary	
Recommendation	
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Support as modified by OSM.**
Written Public Comments	**None**

STAFF ANALYSIS
WP16-65

ISSUE

Proposal WP16-65, submitted by the Arctic National Wildlife Refuge, requests that delegated authority be given to the refuge to announce annual harvest quotas, announce the number of permits to be issued, and to open and close the season for moose in Units 26B and 26C.

DISCUSSION

The proponent states that moose surveys conducted in April 2014 by the U.S. Fish and Wildlife Service (FWS) and the Alaska Department of Fish and Game (ADF&G) indicated a 50% reduction in the moose population since 2011 on the coastal plain of Unit 26C and poor recruitment in Units 26B remainder and 26C. In response to declines in population and recruitment, the moose season in Units 26B remainder and 26C was closed under Federal regulations for the 2014/2015 regulatory year. Surveys conducted in April 2015 continued to show low moose numbers. The proponent states that the moose population is no longer able to support existing harvest quota of 5 moose and that it is necessary to close the 2015/2016 season due to conservation concerns.

Existing Federal Regulation

Units 26B remainder and 26C—Moose

Units 26B, remainder and 26C—1 moose by Federal registration permit by residents of Kaktovik only. The harvest quota is 5 moose. You may not take a cow accompanied by a calf in Unit 26B. Only 5 Federal registration permits will be issued.	*July 1–June 30*
Federal public lands are closed to the taking of moose except by a Kaktovik resident holding a Federal registration permit and hunting under these regulations	

Proposed Federal Regulation

Units 26B remainder and 26C—Moose

Units 26B, remainder and 26C—1 moose by Federal registration permit by residents of Kaktovik only. The harvest quota ***will be announced annually by the Manager of the Arctic National Wildlife Refuge.*** *~~is 5 moose. You may not take a cow accompanied by a calf in Unit 26B. Only 5 Federal registration permits will be issued.~~*	*July 1 – June 30*
Federal public lands are closed to the taking of moose except by a	

Kaktovik resident holding a Federal registration permit and hunting under these regulations.

Existing State Regulations

Unit 26B—Moose

Unit 26B	*No open season*

Unit 26C—Moose

Unit 26C	*No open season*

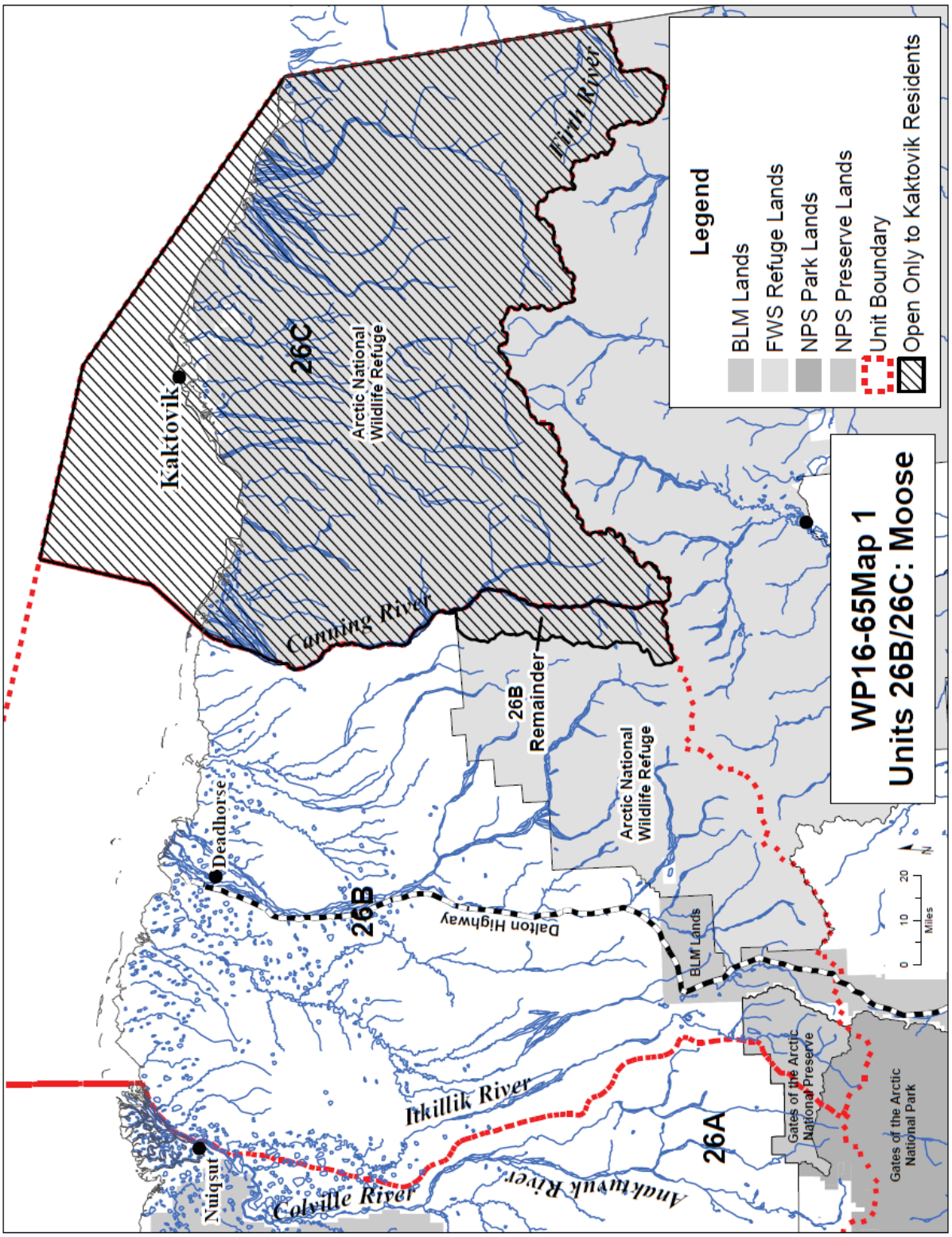
Extent of Federal Public Lands

Federal public lands comprise approximately 98% of Unit 26C and consist of 100% FWS managed lands.

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

Customary and Traditional Use Determinations

Residents of Unit 26 (except the Prudhoe Bay–Deadhorse Industrial Complex), Anaktuvuk Pass, and Point Hope have a positive customary and traditional use determination for moose in Unit 26. Federal public lands in Unit 26B remainder and Unit 26C were closed to non-Federally qualified users and those with recognized customary and traditional uses except the residents of Kaktovik. The prioritization of Kaktovik residents over other users was established through an Alaska National Interest Lands Conservation Act (ANILCA) Section 804 analysis in Proposal WP04-86.


WP16-65Map 1
Units 26B/26C: Moose
Legend
BLM Lands
FWS Refuge Lands
NPS Park Lands
NPS Preserve Lands
Unit Boundary
Open Only to Kaktovik Residents
Kaktovik
26C
Arctic National Wildlife Refuge
Canning River
Firth River
26B
Remainder
Arctic National Wildlife Refuge
Deadhorse
26B
Dalton Highway
BLM Lands
Itkillik River
Colville River
Anaktuvuk River
26A
Nuiqsut
Gates of the Arctic National Preserve
Gates of the Arctic National Park
0 10 20
Miles
N

Regulatory History

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

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

In 2004, the Board adopted Proposal WP04-86b with modification to allow a total harvest quota of 3 moose (2 bulls and 1 moose of either sex) in Units 26B and 26C with the restrictions that no more than 2 bulls and no cows could be harvested in Unit 26C. Proposal WP04-86 included an ANILCA Section 804 analysis (WP04-86a) which the Board used to give priority to residents of Kaktovik to harvest moose in Units 26B and 26C (FWS 2004).

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

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

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

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

were closed to the harvest of moose, except by residents of Kaktovik.

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

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

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

In April 2014 the Board adopted Proposal WP14-54 which requested an increase to the harvest quota for moose from 3 to 5 moose, to allow for the harvest of cows and cows with calves in Unit 26C, and to lengthen the season in Units 26B remainder and 26C from July 1–Mar. 31to a year-round season (July1 – June 30) (FWS 2014b).

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

Due to the population decline on the North Slope, the moose season in Units 26B remainder and 26C were closed by Temporary Special Action WSA14-02 in 2014/2015 (FWS 2014c).

The Board approved Temporary Special Action WSA15-08 to close the moose season in Units 26B remainder and 26C for 2015/2016 regulatory year. This request, submitted by the Arctic National Wildlife Refuge, was in response to the continued low moose numbers along the coastal plain of Unit 26C and 26B remainder. Surveys conducted in April 2014 by the Arctic National Wildlife Refuge and the ADF&G indicate that the North Slope moose populations in the affected area have declined by approximately 50% since 2011. The temporary closure to subsistence uses of this moose population is necessary to assure the continued viability of the populations as mandated under Alaska National Interest Lands Conservation Act.

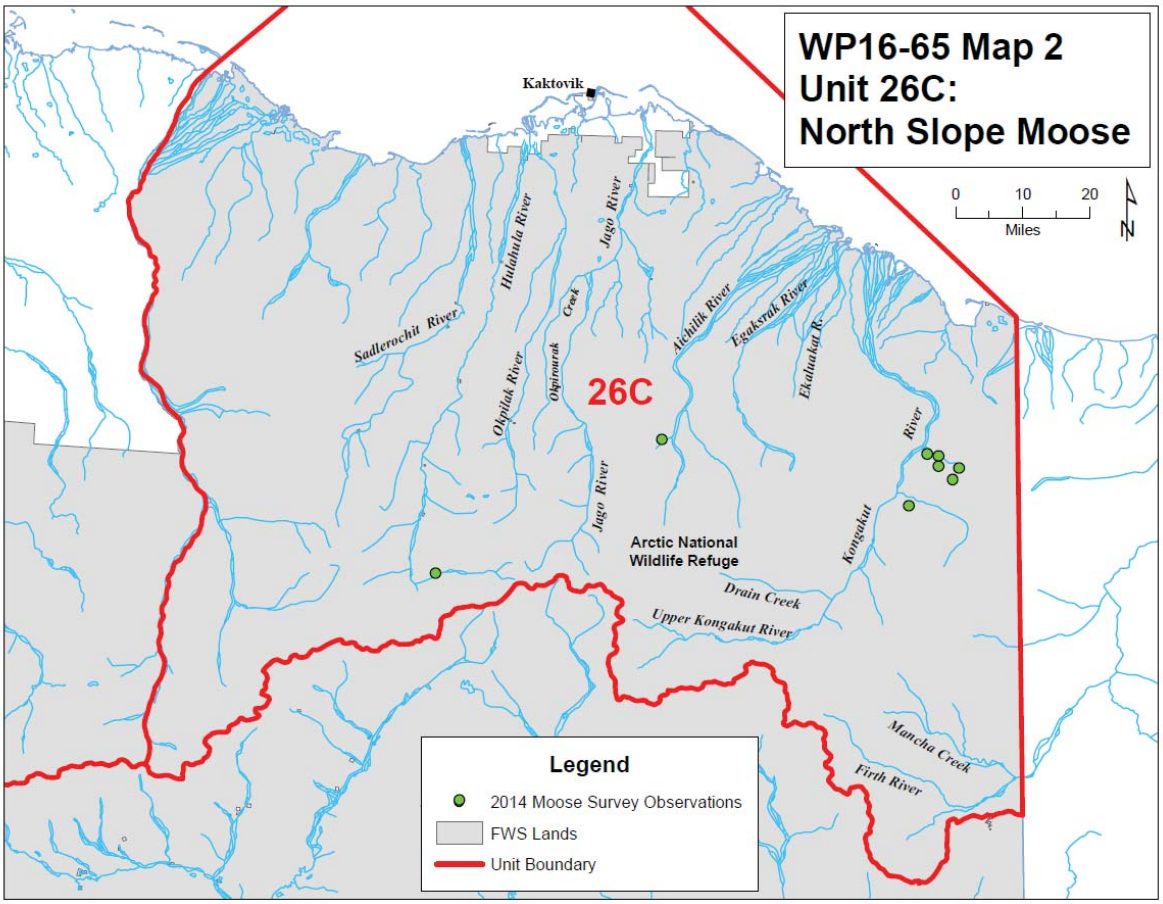
Biological Background

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

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

Data from surveys conducted by ADF&G and the FWS suggest that a significant decline in moose populations north of the Brooks Range occurred during 2012–2014. Survey results indicated that there has been approximately a 50% reduction of moose since 2011 in Unit 26A and in Unit 26B. The number of moose counted declined from approximately 400 moose in 2013 to 104 in 2015 (ADF&G 2014a, Lenart 2015, pers. comm). Although Unit 26A is west of the area affected by this Special Action request, it documents widespread declines in moose populations throughout the North Slope. In Unit 26B remainder the number of moose counted declined from 176 in 2013 to 57 in 2014 (no short yearlings) (Lenart 2014 pers. comm.).

In April 2014, FWS conducted moose surveys in Unit 26C (**Map 2**) and found 23 adult moose no short yearlings (11 month olds), which is approximately 50% of the 10 year average of moose counted since 2003 (Wald 2014).



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

- Unit 26B – maintain a population of at least 300 moose with short yearlings (10 to 11 month old calves) comprising at least 15% (3-year average) of the population.
- Unit 26C – maintain a population of at least 150 moose with short yearlings comprising at least 15% (3-year average) of the population.
- Maintain bull:cow ratios of at least 35 bulls:100 cows when hunting seasons are open for Unit 26B and Unit 26C.

A comprehensive moose survey has not been conducted for Units 26B and 26C; however, smaller scale minimum counts have been conducted in areas where moose concentrate to assess population trends. These trend counts account for a large percentage of the moose in the units as habitat is limited in the region (Lenart 2010).

The moose population in the eastern portion of Unit 26B, including the Canning River, rebounded from low levels of approximately 150 in 1998–2000 to 335 moose in 2005 (**Figure 1**). During that period, harvest was limited in Unit 26B due to State and Federal harvest closures enacted in 1996. A limited season for Kaktovik residents was opened under Federal regulations in 2004. The harvest closure on Federal public lands in Unit 26B was lifted in 2007, except for the Canning River drainage which remained open only to Kaktovik residents. The moose population in eastern Unit 26B has subsequently declined following peak counts in 2005–2008 (**Figure 1**). The estimated total population observed in 2014 and 2015 was 109 and 104 moose respectively (Lenart 2014, pers. comm., Lenart 2015, pers. comm.). The composition of short yearlings, which represents a measure of recruitment in the population, averaged 16% from 2005–2008, 9% from 2009 to 2012, 0% in 2014, and 4% in 2015 (Lenart 2015, pers. comm.).

The North Slope population in Unit 26C was surveyed every two years between 2003 and 2014 by Arctic National Wildlife Refuge staff (Wald 2014). This population occurs on the Coastal Plain from the Canadian border to the Canning River and from the Beaufort Sea coast to the foothills of the Brooks Range. Moose are usually concentrated in the drainages of the Sadlerochit, Hulahula, Okpilak, Okpirourak, Jago, Aichilik, Egaksrak, Ekaluakat, and the lower part of the Kongakut rivers (Wald 2014) (**Map 2**). Twenty three adults and no short-yearlings were observed during surveys conducted in April, 2014. In 2015, 36 moose were observed; 28 in the Kongakut drainage, 3 in the Egaksrak drainage, 3 in the Sadlerochit drainage, and 2 in the Hulahula drainage (Wald 2015, pers. comm.). The number of calves increased from 0 in 2014 to 5 in 2015. Based on trend counts between 2003 and 2015, the North Slope population was at low but the numbers were relatively stable until 2011, then declined from 2011–2014 before increasing slightly in 2015 (**Figure 2**).

Harvest History

Harvest quotas for North Slope moose populations are currently determined using a 3% harvest rate (preferably bulls only) (Lenart 2013, pers comm., Wald 2013, pers. comm.). Moose harvest on the affected Federal public lands in Units 26B and 26C has been limited to residents of Kaktovik since 2004, with up to three permits issued annually and a combined harvest quota for Units 26B remainder and 26C of 3 moose. Since 2004, 9 bull moose have been reported harvested, with an average of 1 moose harvested per year (**Table 1**). No additional moose were taken by Kaktovik residents in Unit 26B remainder during the two week extension under Emergency Special Action WSA12-12.

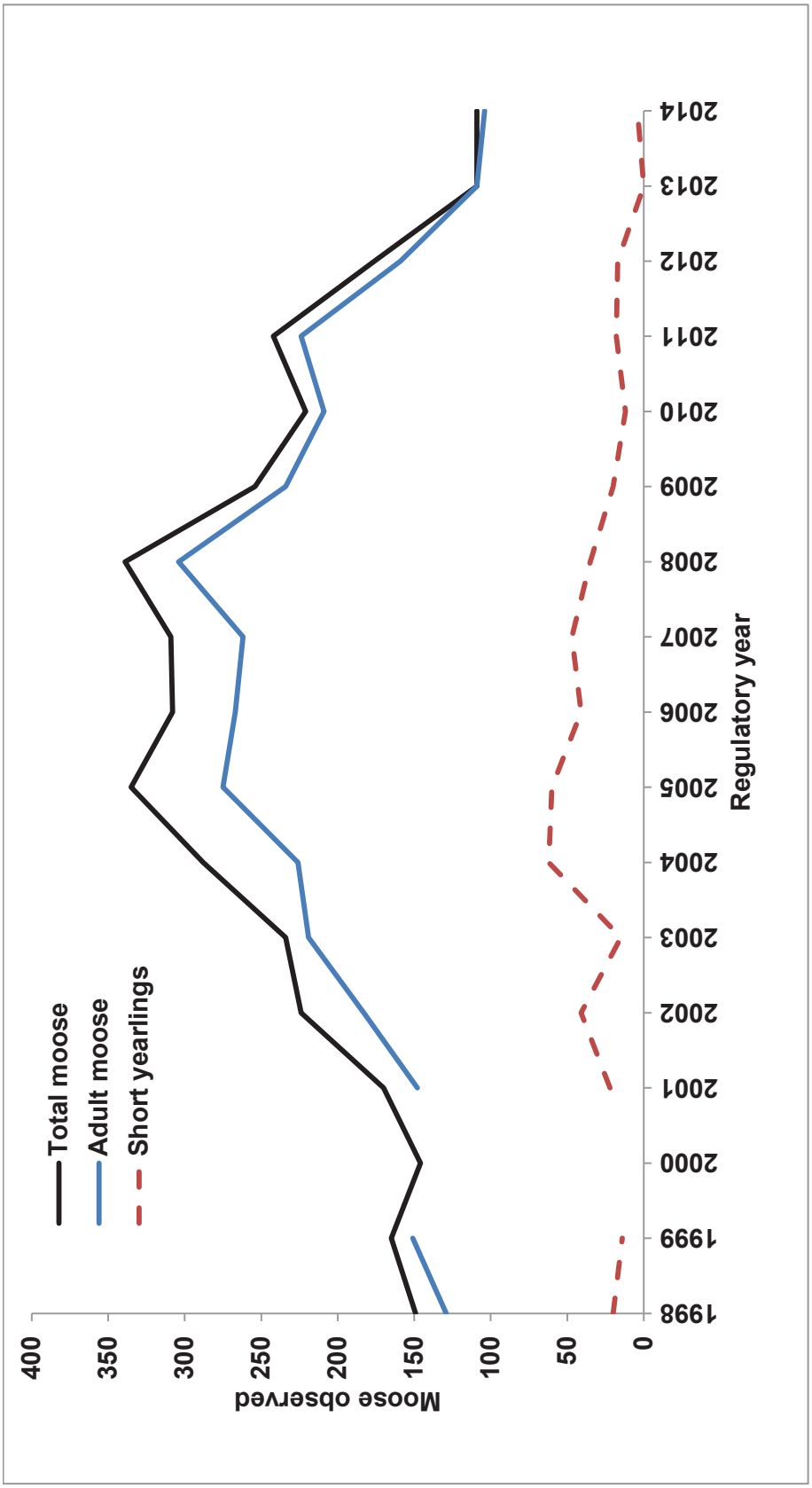


Figure 1. Aerial composition survey counts of moose in Unit 26B, east of the Sagavanirktok River and including the Canning River. Surveys were conducted in regulatory years 1998/1999 to 2013/2014 and moose presented as adults or short yearlings (11–month olds) (Lenart 2012, Lenart 2014 pers. com.).

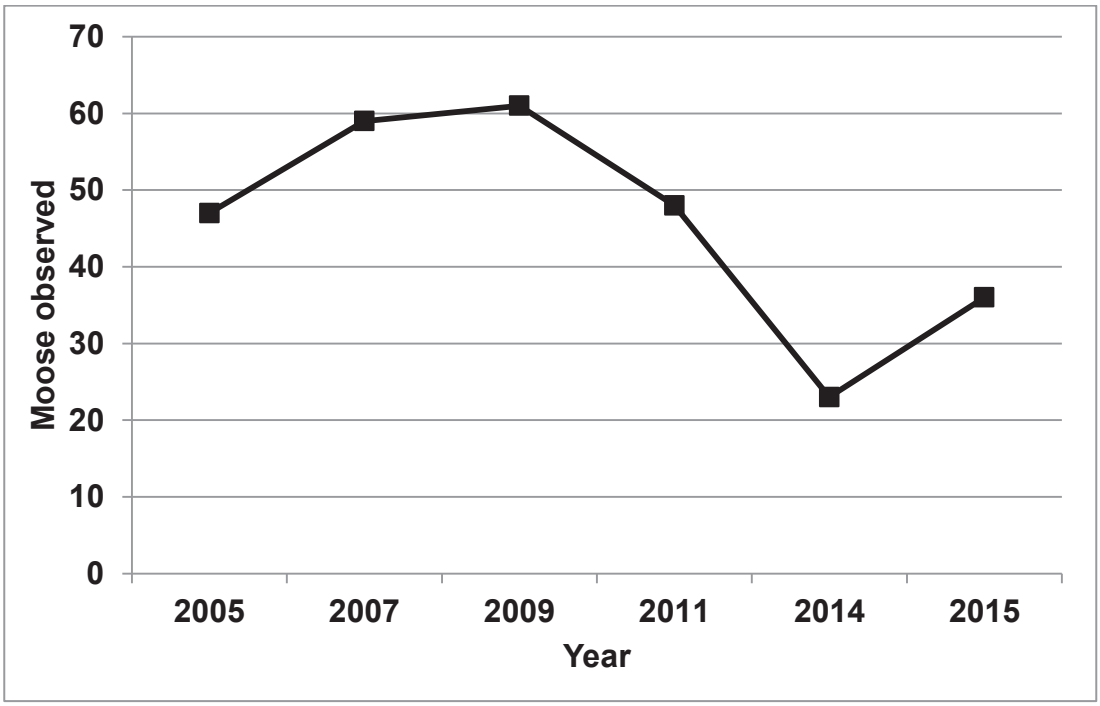


Figure 2. Moose observed during aerial surveys of trend count areas, conducted every other year by the U.S. Fish and Wildlife Service, for the North Slope Population of Unit 26C, 2003–2014 (Wald 2011, 2014).

Table 1. Federal registration permits issued and used by residents of Kaktovik to harvest moose in Units 26B and 26C (FWS 2015, Twitchell 2013, pers. comm.). Federal public lands in Unit 26B remainder and 26C are currently closed to the harvest of moose, except by residents of Kaktovik. Up to three permits are issued annually.

Year	Permits issued	Permits used	Harvest
2004/2005	3	1	1
2005/2006	3	2	2
2006/2007	3	2	2
2007/2008	3	- [a]	- [a]
2008/2009	3	2	1
2009/2010	3	2	- [a]
2010/2011	2	1	1
2011/2012	3	2	0
2012/2013	2	2	2
2013/2014	2	0	0
2014/2015	- [a]	- [a]	- [a]

[a] Data not available for the report.

Effects of the Proposal

If this Proposal is adopted, it would delegate authority to the Arctic National Wildlife Refuge Manager to announce annual harvest quotas, announce the number of permits to be issued and to open and close the Federal season for moose in Units 26B and 26C. Given recent population surveys, it is likely that harvest opportunities will be reduced since the moose population is no longer able to sustain any harvest quota. Giving the Federal manager delegated authority to adjust hunt parameters should help slow or reverse the overall decline in the moose population.

OSM CONCLUSION

Support Proposal WP16-65 **with modification** to create a may–be–announced season, remove regulatory language referencing harvest quotas, delegate authority to the Arctic National Wildlife Refuge to determine annual quotas, set opening and closing season dates, and the number of Federal permits to be issued via a delegation of authority letter only (**Appendix 1**).

The modified regulations should read:

Units 26B remainder and 26C—Moose

Units 26B, remainder and 26C—1 moose by Federal registration permit by residents of Kaktovik only. ~~*The harvest quota is 5 moose. You may not take a cow accompanied by a calf in Unit 26B. Only 5 Federal registration permits will be issued.*~~	~~*July 1—June 30*~~ ***May be announced***
Federal public lands are closed to the taking of moose except by a Kaktovik resident holding a Federal registration permit and hunting under these regulations	

Justification

Delegating authority to annually announce the harvest quota, set season opening and closing dates, and to determine the number of Federal permits to be issued will give the refuge manager the flexibility needed to manage the moose population in the affected area, while also allowing for the possibility of subsistence harvest opportunity at a sustainable level. The moose population in the affected area may take several years before it increases to a level to sustain a harvest. Changing the moose season from a year–round season to a may–be–announced season keeps the harvest season closed and reduces the need for repetitive special actions until the population increases to a level that can sustain a harvest.

Since 2011, North Slope moose populations have declined by approximately 50% in the area affected by this proposal. The overall decline and very low recruitment in Unit 26B remainder and Unit 26C suggest that any harvest at this time could be detrimental to recovery of the population.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

North Slope Subsistence Regional Advisory Council

Support WP16-65 **as modified by OSM**. There were concerns expressed about public participation and communication with the community, but the refuge manager noted that there was a MOU in place between the Arctic National Wildlife Refuge and the Village of Kaktovik that enhanced communication. The Council ultimately supported the proposal because it would eliminate the "middle man" and allow for a more direct process to open even a limited subsistence moose hunt for Kaktovik if the survey data indicated it could support the harvest. The Council supported greater flexibility for the community of Kaktovik to be able to work directly with the Refuge to harvest even one or two moose if conditions changed without having to go through a full regulatory process.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

Appendix 1

Refuge Manager
Arctic National Wildlife Refuge
101 12th Ave, Room 236
Fairbanks, Alaska 99701

Dear Superintendent:

This letter delegates specific regulatory authority from the Federal Subsistence Board (Board) to the Arctic 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 the population. This delegation only applies to the Federal public lands subject to Alaska National Interest Lands Conservation Act (ANILCA) Title VIII jurisdiction within Units 26B remainder and 26C for the management of moose on these lands.

It is the intent of the Board that actions related to management of moose by Federal officials be coordinated, prior to implementation, with the Alaska Department of Fish and Game (ADF&G), , the Bureau of Land Management Arctic Field Office, and the Chair of the North Slope Subsistence Regional Advisory 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 Arctic National Wildlife Refuge Manager is hereby delegated authority to issue emergency or temporary special actions affecting moose 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:

- To set or adjust annual harvest quotas, determine the number of Federal registration permits to be issued, and season opening and closing dates for moose on Federal public lands in Units 26B remainder and 26C.

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This delegation may be exercised only when it is necessary to conserve moose 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 restrictions for take for only non-Federally qualified subsistence users shall be directed to the Federal Subsistence Board.

The Federal public lands subject to this delegated authority are those within Units 26B remainder and 26C.

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

5. Guidelines for Delegation: You will become familiar with the management history of the wildlife species relevant to this delegation in the region, with current State and Federal regulations and management plans, and be up-to-date on population and harvest status information. You will 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, the National Park Service (Superintendent, Gates of the Arctic National Park and Preserve, the BLM Arctic Field Office, and the Chair of the North Slope 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 actions 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

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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.

6. Support Services: Administrative support for regulatory actions will be provided by the Office of Subsistence Management, U.S. Fish & Wildlife Service, and Department of the Interior.

Sincerely,

Tim Towarak
Chair, Federal Subsistence Board

cc: Commissioner, Alaska Department of Fish and Game
Assistant Regional Director, Office of Subsistence Management
Deputy Assistant Regional Director, Office of Subsistence Management
Chair, North Slope Subsistence Regional Advisory Council
Manager, BLM Arctic Field Office
Federal Subsistence Liaison Team Leader, Alaska Department of Fish and Game
Subsistence Council Coordinator, Office of Subsistence Management
Federal Subsistence Board
Interagency Staff Committee
Administrative Record

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WP16–66 Executive Summary	
General Description	Proposal WP16–66 requests closure of the sheep harvest season for the DeLong Mountains in a portion of Unit 26A, removal of regulatory language referencing sheep harvest quotas and to delegate authority to the Superintendent of the Western Area Parklands to determine annual sheep harvest quotas and limits. *Submitted by Western Arctic National Parklands.*
Proposed Regulation	**Unit 26— Sheep** *Unit 26A – that portion west of Howard Pass and the Etivluk River (DeLong Mountains) – 1 sheep by Federal registration permit.* ***Harvest quotas will be announced annually by the Superintendent of Western Arctic National Parklands.*** *~~The total allowable harvest of sheep for the Delong Mountains is 8, of which 5 may be rams and 3 may be ewes. If the allowable harvest levels are reached before the regular season closing date, the Superintendent of the Western Arctic National Parklands will announce early closure.~~* ***No open season****~~Aug. 10 – Apr. 30~~*
OSM Conclusion	**Support** Proposal WP16-66 **with modification** to create a May-be-announced season, remove regulatory language referencing harvest quotas and delegate authority to determine annual quotas, set opening and closing season dates, the number of permits to be issued, and the method of distribution via a delegation of authority letter (**Appendix 1**). **Unit 26— Sheep** *Unit 26A – that portion west of Howard Pass and the Etivluk River (DeLong Mountains) – 1 sheep by Federal registration permit (FS2607).* ***~~Harvest quotas will be announced annually by the Superintendent of Western Arctic National Parklands.~~*** *~~The total allowable harvest of sheep for the Delong Mountains is 8, of which 5 may be rams and 3 may be ewes.~~* ***Season may be announced*** *~~No open season Aug. 10 – Apr. 30~~* *~~If the allowable harvest levels are reached before the regular season closing date, the Superintendent of the Western Arctic National Parklands will announce early~~*

WP16–66 Executive Summary	
	~~closure.~~
North Slope Subsistence Regional Advisory Council Recommendation	**Support as modified by OSM.**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Support as modified by OSM.**
Written Public Comments	**None**

STAFF ANALYSIS
WP16-66

ISSUES

Proposal WP16-66, submitted by Western Arctic National Parklands (WEAR), requests closure of the sheep harvest season for the DeLong Mountains in a portion of Unit 26A, removal of regulatory language referencing sheep harvest quotas, and to delegate authority to the Superintendent of the Western Area Parklands to determine annual sheep harvest quotas and limits.

DISCUSSION

The proponent states the requested changes are necessary because they address conservation concerns for sheep in the affected unit, reduce hunter confusion between Federal and State regulations, and better reflect the biological realities while allowing for management flexibility as the sheep population recovers.

The proponent believes the large decline in the overall population, low numbers of rams in the population, and the very low recruitment rate of lambs all suggest that any harvest could be detrimental to the overall population, could prolong or worsen the current decline, and hamper recovery. The significant declines in lamb recruitment and abundance of all age classes in 2014 resulted in closures of State and Federal seasons in Units 23 and 26A.

Existing Federal Regulation

Unit 26— Sheep

Unit 26A – that portion west of Howard Pass and the Etivluk River (DeLong Mountains) – 1 sheep by Federal registration permit. The total allowable harvest of sheep for the DeLong Mountains is 8, of which 5 may be rams and 3 may be ewes. If the allowable harvest levels are reached before the regular season closing date, the Superintendent of the Western Arctic National Parklands will announce early closure.	*Aug. 10 – Apr. 30*

Proposed Federal Regulation

Unit 26— Sheep

Unit 26A – that portion west of Howard Pass and the Etivluk River (DeLong Mountains) – 1 sheep by Federal	***No open season****~~Aug. 10 – Apr. 30~~*

registration permit. ***Harvest quotas will be announced annually by the Superintendent of Western Arctic National Parklands.*** ~~*The total allowable harvest of sheep for the Delong Mountains is 8, of which 5 may be rams and 3 may be ewes. If the allowable harvest levels are reached before the regular season closing date, the Superintendent of the Western Arctic National Parklands will announce early closure.*~~

Existing State Regulation

Unit 26 - Sheep

Unit 26A – west of Etivluk River (DeLong Mountains)	***Resident Hunters:*** *One sheep by registration permit only*	*No open season*
	Nonresident Hunters:	*No open season*

Extent of Federal Public Lands

Federal public lands comprise approximately 73% of Unit 26A and consists of 66% Bureau of Land Management (BLM) managed lands, 7% National Park Service managed lands, and 0.1% US Fish and Wildlife Service (FWS) managed lands (See **Unit 26 Map**).

Customary and Traditional Use Determinations

All residents of Unit 26, Anaktuvuk Pass, and Point Hope have a positive customary and traditional use determination for sheep in Unit 26A.

Regulatory History

The use of State registration permits for sheep hunting in the Baird and DeLong Mountains was established in 1982. Declining sheep populations during the late 1980s prompted a series of State harvest closures. The initial Federal subsistence hunting regulations in 1991 were established by adopting the existing State regulations of one ram with 7/8 curl in the fall hunt and one sheep with a harvest quota of 30 animals in the winter hunt. However, in 1991, low sheep numbers in the Baird Mountains prompted State emergency hunt closures, which continued through 1997. In 1993, season restrictions (full curl rams only) were enacted by the Alaska Department of Fish and Game (ADF&G) in the DeLong Mountains, with emergency closures following in 1995-1997. In 1991 and 1992, special actions adopted by the Federal Subsistence Board (Board) closed the sheep harvest south and east of the Noatak River (Baird Mountains), which was repeated by special actions through 1997/98 (FWS 1991, 1992, 1993, 1994). In 1993, the Board shortened the subsistence harvest season in the DeLong Mountains by special action, and subsequently closed the

season by special action in 1994, and repeated the closures through 1997/98 (FWS 1993, 1994).

The Alaska Board of Game (BOG) met in November 1997 and the western portion of the range was divided into the Baird and Delong Mountain ranges. Subsistence needs were investigated by the State and determined to be 1-9 sheep for the DeLong Mountains and 18-47 sheep for the Baird Mountains. Based on that information and the fact that the surveys showed the first increase in sheep numbers in several years, the BOG preliminarily decided to not close the 1998/99 State season by Emergency Order and proceed with a Tier I harvest of 20 sheep in the Baird Mountains and a combination hunt (9 Tier I and 11 drawing permits) in the DeLong Mountains, with the final decision based on the results of the 1998 sheep surveys. Both hunts had harvest seasons August 10-April 30.

In July 1998, the Board approved a special action (S98-04) adopting the State's sheep harvest zones in Units 23 and 26A(Baird, Delong, and Schwatka Mountains), closing Federal lands to non-Federally qualified users in the Baird and DeLong Mountains, and setting up an August-April season for one full-curl ram (maximum of 20 for each mountain range). The DeLong Mountain sheep harvest quota was divided with ADF&G, providing half for their use through registration permits. In May 1999, the Board adopted Proposal P99-048, which requested the same changes from special action (S98-04), which formalizing new sheep zones in Units 23 and southwestern Unit 26A and a new harvest season and harvest limits for the Baird and DeLong Mountains. In addition, Proposal P99-048 allowed the Superintendent of the Western Arctic National Parklands to annually announce the harvest quota and divide the harvest into two seasons (fall and winter).

In May 2002, the Board adopted Proposal WP02-39, which implemented regulations for sheep harvest in Units 23 and 26A, including the requirement for trophy destruction sheep horns. This proposal was made at the request of the Northwest Arctic Subsistence Regional Advisory Council.

In 2004, the Board adopted Proposal WP04-72/73 with modification to eliminate the trophy destruction requirement, and adopt a mixed-sex hunt with fixed quotas (FWS 2004).

On August 8, 2014, the State of Alaska issued an Emergency Order closing sheep seasons in Units 23 and 26A for all resident and nonresident hunters. This was done in response to severe declines in sheep numbers in the Delong and Schwatka Mountains. The State initially issued no permits for its drawing hunt (DS384) in 2014 and the hunt was closed by Emergency Order later that year (Saito 2014, pers. comm.)

In 2014, the Board approved Temporary Special Action WSA14-03 which closed the sheep season on Federal public lands in Units 23 and 26A, that portion west of Howard Pass and the Etivluk River (DeLong Mountains) for the 2014/2015 regulatory year. This action was taken in response to declining sheep populations, low numbers of rams, and very low lamb recruitment in 2014 (FWS 2014a).

In 2015, the BOG closed by regulation all State sheep hunting seasons in Unit 26A, west of the Etivluk River (DeLong Mountains), at its March 13-17, 2015 meeting. All sheep seasons will remain closed to residents and nonresidents in Units 23 and 26A west of the Etivluk River drainage from July 1, 2015 to June 30, 2016 (ADF&G 2015). These season closures are intended to allow the sheep population in the DeLong Mountains an opportunity to recover.

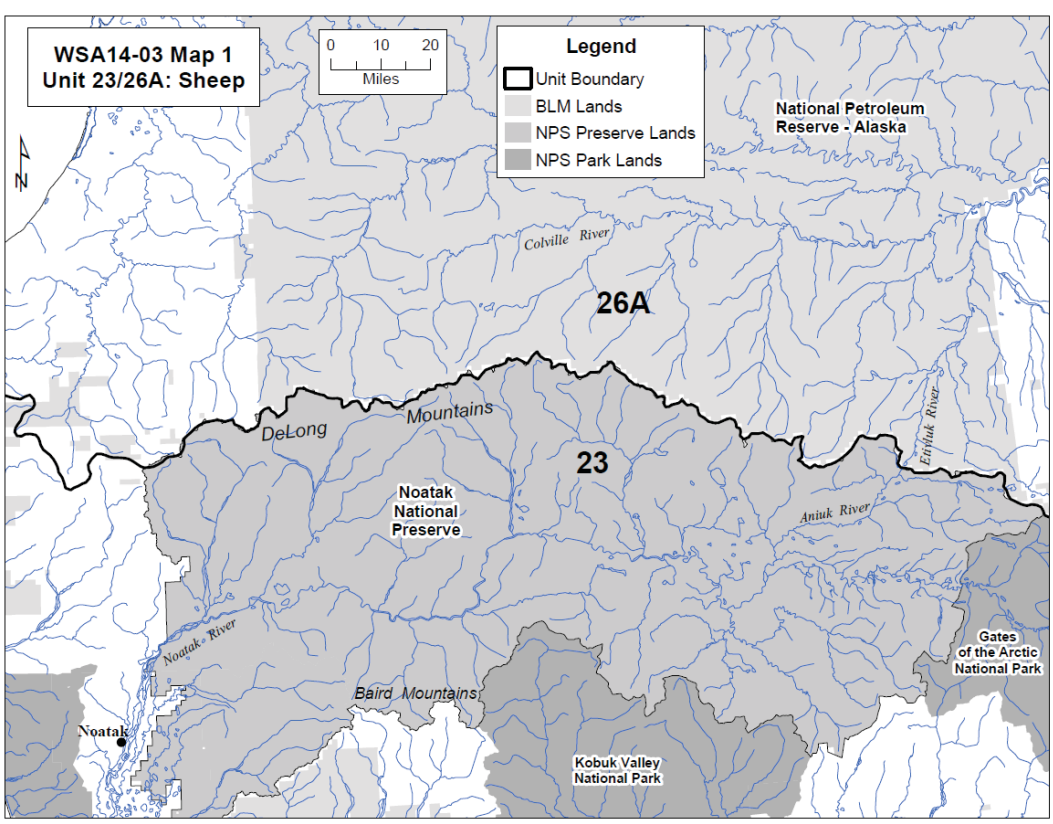
Current Events Involving Species

NPS staff are coordinating survey efforts with ADF&G to monitor the Western Baird Mountains hunt area annually and using it as an index for adjacent areas (**Map 1**). Depending on funding and availability of resources, efforts will also be made to monitor adjacent areas, which include the DeLong Mountains sheep population (Adkisson 2015).

Biological Background

The Dall's sheep in Unit 26A are at the northwestern margin of their range in Alaska and because of this, they are more prone to stochastic weather events affecting their populations than sheep in areas with more abundant habitat and stable range conditions (Shults 2004, Westing 2011). In addition, predation by wolves and the presence of caribou from the large Western Arctic herd and their influence on food availability may also be playing a role in the affected area (Westing 2011).

Sheep densities in Unit 26A are low compared to other areas of the State (Singer 1984). Severe winters in the 1990s resulted in high natural mortality, dramatically reduced sheep numbers in the area, and caused the closure of the general and subsistence hunt between 1991 and 1995 (Shults 2004). Sheep hunting in the Baird Mountains has been administered by the NPS since 1995. The DeLong Mountains sheep population occurs in both Units 23 and 26A (**Map 1**).



ADF&G management objectives for sheep in Unit 26A have been to monitor sheep with the NPS within each area at least once every 3 years to detect changes in population status. In addition, monitoring of harvest through harvest tickets, permits, and community-based harvest surveys and other methods are also used (Westing 2011).

In the past NPS objectives for Dall's sheep included monitoring sheep abundance and sex-age composition across WEAR and Gates of the Arctic National Park and Preserve (GAAR) by conducting surveys every five years across these parklands and every other year in the western Baird Mountains subarea of WEAR and the Itkillik subarea of GAAR every other year (Lawler et al. 2009). In 2015, the NPS decided to monitor the Western Baird Mountains hunt area every year. Adjacent areas, including the DeLong Mountains, will be surveyed periodically depending on funding and weather conditions.

The NPS, in coordination with ADF&G, completed surveys of the sheep population in the affected area (the larger part of WEAR) in July 2014. Estimates indicate a 70% population decline across WEAR from the previous 2011 survey. Specifically, there has been an estimated 82% decline (77% decline in adult sheep – 1,946 to 359) in the DeLong Mountains (southern WEAR) and a 50% decline (40% decline in adult sheep) in the Baird Mountains between 2011 and 2014. In 2011, the estimated sheep population in WEAR as a whole was 2,809 total sheep (95% CI 2,361-3,379) with an estimated 1,946 sheep (95% CI 1,593-2,397) in the DeLong Mountains (Schmidt and Rattenbury 2013). This overall decline is likely greater than when a full State and Federal closure was implemented from 1991-1997 in the DeLong and Baird Mountains following a 50% decline in adult sheep (Shults 2004). Surveys in GAAR, BLM land, and State land in the eastern Brooks Range also show significantly declining numbers in 2014.

Survey results also indicate very low lamb to ewe-like ratios and very low recruitment rates in 2014. The point estimates for lambs per 100 ewe-like sheep are down 90% from 2011 to 2014 (estimates are 3 lambs:100 ewe–like sheep in WEAR as a whole, 4 lambs:100 ewe–like sheep in the DeLong Mountains and 2 lambs:100 ewe–like sheep in the western Baird Mountains) (NPS 2014, unpublished data, Rattenbury 2015). These results are consistent with low lamb productivity indicated in surveys in GAAR, BLM land and State land in the eastern Brooks Range, which show low lamb productivity for at least the second year in a row, and where low lamb productivity in 2013 was attributed in part to the long, cold winter of 2012-2013 and record cold temperatures in May 2013 (NPS 2014, unpublished data.).

Large rams (full-curl or greater and double-broomed) declined in WEAR between 2011 and 2014 with large ram to ewe-like ratios down 75% across WEAR and 60% (3 to 2 rams:100 ewe-likes) in the DeLong Mountains. While the ratios of less than full-curl rams to ewe-like sheep appear to be stable or increasing the ratio may be inflated due to the loss of ewes. The number of full-curl rams in the WEAR population was on the low end of the range when compared with other populations in Alaska's NPS units in 2011, and this decline indicates there are very few to no large rams available for harvest in WEAR (NPS 2014, unpublished data.).

Harvest History

In Unit 26A, there is a State general hunt, a subsistence registration hunt (RS388 – DeLong Mountains) and two Federal subsistence registration hunt (FS2304 – DeLong Mountains; FS2607). Only 1 sheep was

taken in Unit 26A (2008) under Federal Subsistence regulations. In regulatory years 2009, 2010, 2011, 2012, and 2013 the sheep harvest in the DeLong Mountains was 12, 11, 4, 3, and 7, respectively.

In Unit 23, there is State drawing hunt (DS384 – DeLong Mountains) and two subsistence registration hunts (RS388 – DeLong Mountains; RS389 – Schwatka Mountains) and two Federal registration hunts (FS2301 – Baird Mountains; FS2304 – DeLong Mountains). Between 2004 and 2014, the total average annual sheep harvest in Units 23 and 26A (**Table 1**) under both State and Federal regulations was 23 animals (range 17 – 21, **Table 1**).

Table 1. State and Federal sheep harvest in Unit 23 and Unit 26A, 2004-2014 (ADF&G 2014, FWS 2014b, Johnson 2014, pers. comm.).

Year	State General Harvest	DS384[a]	RS388[a]	RS389[a]	FS2301[a] FS2304[a] FS2607[b]	Total Harvest
2004	4	8	1	0	15	28
2005	1	3	0	3	14	21
2006	6	4	1	0	8	19
2007	4	8	0	0	8	20
2008	3	10	2	0	8	23
2009	4	6	3	0	12	25
2010	6	5	5	0	16	32
2011	5	3	1		17	26
2012	4	3			10	17
2013	0	2			15	17
2014	-	-	-	-	-	-
2015[c]	-	-	-	-	-	-

[a] Closed by emergency order in 2014 and in regulation by the Alaska Board of Game in March of 2015

[b] Federal hunt FS2607 has not been utilized soon after its inception, therefore it is not included in this table (Adkisson 2014, pers. comm.)

[c] All State and Federal hunts were closed in August of 2014 for the 2014/2015 season

Effects of the Proposal

If this proposal is adopted, all sheep hunting under Federal regulations will be closed in Unit 26A, thus limiting harvest opportunities for Federally qualified subsistence users who are hunting under State regulations. Any harvest would be detrimental to the population at this time due to large declines in the overall population, low numbers of rams available for harvest, and the apparent low recruitment of lambs.

In addition, adoption of the proposal would remove season dates and harvest limits from regulation. The Federal inseason manager would be given the delegated authority to: determine annual quotas, set opening and closing season dates for the may-be-announced season, the number of permits to be issues, and the method of distribution. The in-season manager would keep the season closed until the population had reached a level which could sustain some limited harvest in Unit 26A.

OSM CONCLUSION

Support Proposal WP16-66 **with modification** to create a may-be-announced season, remove regulatory language referencing harvest quotas and delegate authority to determine annual quotas, set opening and closing season dates, the number of permits to be issued, and the method of distribution via a delegation of authority letter (**Appendix 1**).

The modified regulations should read:

Unit 26— Sheep

Unit 26A – that portion west of Howard Pass and the Etivluk River (DeLong Mountains) – 1 sheep by Federal registration permit (FS2607). ~~***Harvest quotas will be announced annually by the Superintendent of Western Arctic National Parklands.*** *The total allowable harvest of sheep for the Delong Mountains is 8, of which 5 may be rams and 3 may be ewes.*~~	***Season May-be -announced*** ~~***No open*** *season Aug. 10 – Apr. 30*~~ ~~*If the allowable harvest levels are reached before the regular season closing date, the Superintendent of the Western Arctic National Parklands will announce early closure.*~~

Justification

Since 2011, sheep populations in the Delong Mountains have declined between 50-70% in the area affected by this proposal. In addition to the population decline, low numbers of rams and low recruitment rates suggest that any harvest could be detrimental to the population and could hamper recovery by prolonging or worsening the current decline. The combined effort of Federal and State closures to the sheep seasons is required to reduce the hunting pressure on the declining population. The State already responded to this issue by closing all resident and nonresident hunting seasons under their regulations. Closure of sheep hunting under Federal regulations in Unit 26A is necessary to assure the continued viability of the population. 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 for other purposes (ANILCA Section 804). The Federal Subsistence Board is authorized to restrict or close the taking of fish and wildlife by subsistence and non-subsistence users on Federal public lands and waters (ANILCA Section 804 and 815(3)) when necessary for: 1) the conservation of healthy populations of fish and wildlife; or 2) to continue subsistence users of such populations. In addition, 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)).

The attached current delegation of authority letter (**Appendix 1**) will serve to clarify regulations and allow for hunt management flexibility through in-season adjustment of hunt parameters.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

North Slope Subsistence Regional Advisory Council

Support WP16-66 **as modified by OSM**. The Council supported the direct communications and flexibility for managers to be able to open a subsistence sheep hunt if the surveys indicated that the sheep populations could support even a small harvest. The Council did request that the National Park Service keep communications and outreach ongoing between the affected communities, the Subsistence Resource Commission and the Regional Advisory Council on this matter.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

Appendix 1

Superintendent
Western Arctic National Parklands
PO Box 1029
Kotzebue, Alaska 99752

Dear Superintendent:

This letter delegates specific regulatory authority from the Federal Subsistence Board (Board) to the National Park Service Superintendent of Western Arctic National Parklands 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 the population. This delegation only applies to the Federal public lands subject to Alaska National Interest Lands Conservation Act (ANILCA) Title VIII jurisdiction within Unit 23 except for that portion of Unit 23 Remainder (Schwatka Mountains) within Gates of the Arctic National Park and Preserve; and that portion of Unit 26A west of Howard Pass and the Etivluk River (DeLong Mountains) for the management of sheep on these lands.

It is the intent of the Board that actions related to management of sheep by Federal officials be coordinated, prior to implementation, with the Alaska Department of Fish and Game (ADF&G), the National Park Service (Superintendent of the Gates of the Arctic National Park and Preserve, the Bureau of Land Management Arctic Field Office, the Bureau of Land Management Anchorage Field Office, the Chair of the North Slope Subsistence Regional Advisory Council, and the Chair of the Northwest Arctic 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 Superintendent of Western Arctic National Parklands is hereby delegated authority to issue emergency or temporary special actions affecting sheep 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:

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- To set opening and closing dates for the sheep season on Federal public lands in Unit 23 except for that portion of Unit 23 Remainder (Schwatka Mountains) within Gates of the Arctic National Park; and that portion of Unit 26A west of Howard Pass and the Etivluk River (DeLong Mountains).

- This delegation may be exercised only when it is necessary to conserve the sheep population, 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 restrictions for take for only non-Federally qualified subsistence users shall be directed to the Federal Subsistence Board.

The Federal public lands subject to this delegated authority are those within Unit 23 except for that portion of Unit 23 remainder (Schwatka Mountains) within Gates of the Arctic National Park; and that portion of Unit 26A west of Howard Pass and the Etivluk River (DeLong Mountains).

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

5. Guidelines for Delegation: You will become familiar with the management history of the wildlife species relevant to this delegation in the region, with current State and Federal regulations and management plans, and be up-to-date on population and harvest status information. You will 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, the National Park Service (Superintendent, Gates of the Arctic National Park and Preserve, the BLM Arctic Field Office, the BLM Anchorage field Office, the Chair of the Northwest Arctic Subsistence Regional Advisory Council, and the Chair of the North Slope 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

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your resultant actions 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.

6. 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: Commissioner, Alaska Department of Fish and Game
Assistant Regional Director, Office of Subsistence Management
Deputy Assistant Regional Director, Office of Subsistence Management
Superintendent, Gates of the Arctic National Park and Preserve
Chair, Northwest Arctic Subsistence Regional Advisory Council
Chair, North Slope Subsistence Regional Advisory Council
Manager, BLM Arctic Field Office
Manager, BLM Anchorage Field Office
Federal Subsistence Liaison Team Leader, Alaska Department of Fish and Game
Subsistence Council Coordinator, Office of Subsistence Management
Federal Subsistence Board
Interagency Staff Committee
Administrative Record

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WP16–67 Executive Summary	
General Description	Proposal WP16-67 requests the beaver harvest limit be changed from 15 and 25 beaver/season in Units 12 and 20E, respectively, to no harvest limit in both units; trapping season dates be changed from Sept. 20-May 15 to Sept. 15-June 10; and bow and arrow be added as a legal means of take for beaver in Units 12 and 20E. *Submitted by the Upper Tanana–Fortymile Fish and Game Advisory Committee.*
Proposed Regulation	*__.26(d) The following methods and means of trapping furbearers for subsistence uses pursuant to the requirements of a trapping license are prohibited, in addition to the prohibitions listed at paragraph (b) of this section:* * * * * *(3) Taking beaver by any means other than a steel trap or snare, except that you may use firearms* ***and bow and arrow*** *in certain Units with established seasons as identified in Unit-specific regulations found in this subpart;* **Unit 12—Beaver Trapping** ~~*15 beaver per season. Only firearms may be used during Sept. 20-Oct. 31 and Apr. 16-May 15, to take up to 6 beaver. Only traps or snares may be used Nov. 1-Apr. 15. The total annual harvest limit for beaver is 15, of which no more than 6 may be taken by firearm under trapping or hunting regulations.*~~ ***No limit. Hide or*** *meat* ~~*from beaver harvested by firearm*~~ *must be salvaged.* ~~*for human consumption.*~~ *Traps, snares,* ***bow and arrow, or firearms may be used.*** *Sept.* ~~*20*~~***15***~~*-May 15*~~ ***June 10****.* **Unit 20E—Beaver Trapping** ~~*25 beaver per season. Only firearms may be used during Sept. 20-Oct. 31 and Apr. 16-May 15, to take up to 6 beaver. Only traps or snares may be used Nov. 1-Apr. 15. The total annual harvest limit for beaver is 25, of which no more than 6 may*~~ *Sept.* ~~*20*~~***15***~~*-May 15*~~ ***June 10****.*

WP16–67 Executive Summary	
	~~*be taken by firearm under trapping or hunting regulations.*~~ ***No limit. Hide or*** *meat* ~~*from beaver harvested by firearm*~~ *must be salvaged.* ~~*for human consumption.*~~ *Traps, snares,* ***bow and arrow, or firearms may be used.***
OSM Conclusion	**Support**
Southcentral Regional Advisory Council Recommendation	**No action taken**
Eastern Interior Alaska Regional Advisory Council Recommendation	**Support**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Support**
Written Public Comments	**1 Support**

STAFF ANALYSIS
WP16-67

ISSUES

Proposal WP16-67, submitted by the Upper Tanana-Fortymile Fish and Game Advisory Committee, requests the beaver harvest limit be changed from 15 and 25 beaver/season in Units 12 and 20E, respectively, to no harvest limit in both units; trapping season dates be changed from Sept. 20-May 15 to Sept. 15-June 10; and bow and arrow be added as a legal means of take for beaver in Units 12 and 20E.

DISCUSSION

The proponent states that the proposed changes would align Federal beaver trapping regulations with the more liberal State regulations as well as provide increased harvest opportunity for Federally qualified subsistence users. The proponent also claims that the proposed changes would have no impact on beaver populations or other users.

Upon personal communication with the proponent, it was clarified that the intent of the proposal was to align Federal and State regulations. Under current State regulations, bow and arrow is a legal means of take for beaver trapping in Units 12 and 20E. Omission of bow and arrow as legal gear in the submitted Federal proposal was an oversight of the proponent.

Existing Federal Regulations

__.26(d) The following methods and means of trapping furbearers for subsistence uses pursuant to the requirements of a trapping license are prohibited, in addition to the prohibitions listed at paragraph (b) of this section:

* * * *

(3) Taking beaver by any means other than a steel trap or snare, except that you may use firearms in certain Units with established seasons as identified in Unit-specific regulations found in this subpart;

Unit 12—Beaver Trapping

15 beaver per season. Only firearms may be used during Sept. 20-Oct. 31 and Apr. 16-May 15, to take up to 6 beaver. Only traps or snares may be used Nov. 1-Apr. 15. The total annual harvest limit for beaver is 15, of which no more than 6 may be taken by firearm under trapping or hunting regulations. Meat from beaver harvested by firearm must be salvaged for human consumption.	*Sept. 20-May 15.*

Unit 20E—Beaver Trapping

25 beaver per season. Only firearms may be used during Sept. 20-Oct. 31 and Apr. 16-May 15, to take up to 6 beaver. Only traps or snares may be used Nov. 1-Apr. 15. The total annual harvest limit for beaver is 25, of which no more than 6 may be taken by firearm under trapping or hunting regulations. Meat from beaver harvested by firearm must be salvaged for human consumption.	*Sept. 20-May 15.*

Proposed Federal Regulations

__.26(d) The following methods and means of trapping furbearers for subsistence uses pursuant to the requirements of a trapping license are prohibited, in addition to the prohibitions listed at paragraph (b) of this section:

* * * *

(3) Taking beaver by any means other than a steel trap or snare, except that you may use firearms ***and bow and arrow*** *in certain Units with established seasons as identified in Unit-specific regulations found in this subpart;*

Unit 12—Beaver Trapping

~~15 beaver per season. Only firearms may be used during Sept. 20-Oct. 31 and Apr. 16-May 15, to take up to 6 beaver. Only traps or snares may be used Nov. 1-Apr. 15. The total annual harvest limit for beaver is 15, of which no more than 6 may be taken by firearm under trapping or hunting regulations.~~ ***No limit. Hide or*** *meat ~~from beaver harvested by firearm~~ must be salvaged. ~~for human consumption.~~ Traps, snares,* ***bow and arrow, or firearms may be used.***	*Sept. ~~20~~**15**~~-May 15~~* ***June 10****.*

Unit 20E—Beaver Trapping

~~25 beaver per season. Only firearms may be used during Sept. 20-Oct. 31 and Apr. 16-May 15, to take up to 6 beaver. Only traps or snares may be used Nov. 1-Apr. 15. The total annual harvest limit for beaver is 25, of which no more than 6 may be taken by firearm under trapping or hunting regulations.~~ ***No limit. Hide or*** *meat ~~from beaver harvested by firearm~~ must be salvaged. ~~for human consumption.~~ Traps, snares,* ***bow and arrow, or firearms may be used.***	*Sept. ~~20~~**15**~~-May 15~~* ***June 10****.*

Existing State Regulations

5AAC 92.095(a) The following methods and means of taking furbearers under a trapping license are prohibited, in addition to the prohibitions in 5 AAC 92.080:

* * * *

(2) by disturbing or destroying any beaver house;

(3) taking beaver by any means other than a steel trap or snare, except that a firearm may be used to take two beaver per day in Units 9 and 17 from April 15 through May 31 if the meat is salvaged for human consumption; a firearm may be used to take beaver in Units 8, 18, 22, and 23 throughout the seasons and with the bag limits established in 5 AAC 84; a firearm or bow and arrow may be used to take beaver in Units 12, 19, 20(A), 20(C), 20(E), 20(F), 21, 24, and 25 throughout the seasons and with the bag limits established in 5 AAC 84;

Units 12, 20A, 20C, 20E, and 20F—Beaver Trapping

Residents and Nonresidents: No limit. Sept. 15-Jun. 10

Extent of Federal Public Lands

Federal public lands comprise approximately 61% of Unit 12 and consist of 48.2% National Park Service (NPS) managed lands, 10.9% U.S. Fish and Wildlife Service (FWS) managed lands, and 1.8% Bureau of Land Management (BLM) managed lands.

Federal public lands comprise approximately 30% of Unit 20E and consist of 20.4% NPS managed lands and 9.1% BLM managed lands.

Customary and Traditional Use Determinations

The Federal Subsistence Board (Board) has not made a customary and traditional use determination for beaver in Units 12 and 20E. Therefore, all Federally qualified users may harvest this species in these units.

Regulatory History

The National Park Service prohibits the use of a firearms or bow and arrow to take free-ranging furbearers under a trapping license. This practice is prohibited in Alaskan national parks, monuments and preserves as a result of two sets of regulations: June 1981 final regulations that defined a trap as "*a snare, trap, mesh, or other implement designed to entrap animals others than fish*," and June 1983 NPS-wide regulations that defined trapping as "*taking or attempting to take wildlife with a trap*."

Federal regulations for beaver trapping in Units 12 and 20E were adopted from State regulations in 1990. The season for both units ran from Nov. 1-Apr. 15. The harvest limits for Units 12 and 20E were 15 and 25 beaver per season, respectively.

In 2002, the Alaska Board of Game (BOG) expanded the beaver trapping season in Units 12 and 20E from Nov. 1-Apr. 15 to Sept. 20-May 15. The new State regulations also specified that only firearms could be used during the expanded season (Sept. 20-Oct. 31 and Apr. 16-May 15) to take up to six beavers and that the meat must be salvaged for human consumption.

In 2002, the Alaska BOG also adopted Proposal 120, eliminating sealing requirements for beaver in both units in 2002 due to an absence of any population concerns, low trapping pressure, and low fur prices (Crawford 2002).

In 2003, the Federal Subsistence Board (Board) adopted Proposal WP03-49 with modification, which aligned Federal regulations with the State regulations stated above. As take by firearm was not permitted under a trapping license on National Park Service (NPS) lands, WP03-49 was modified to open a beaver hunting season on NPS lands in Units 12 and 20E. These changes were made to provide increased opportunity for Federally qualified subsistence users.

In 2006, the Alaska BOG expanded the beaver trapping season in Units 12 and 20E from Sept. 20-May 15 to Sept. 15-May 31 and increased the bag limit in Unit 12 from 15 to 25 beavers. The firearm restriction was also lifted under State regulations. Firearms could be used throughout the State trapping season to harvest beaver for either fur or meat.

In 2008, the Alaska BOG adopted Proposal 82, which extended the beaver trapping season in Units 12 and 20E from Sept. 15-May 31 to Sept. 15-June 10 and changed the bag limit from 25 beavers to no limit for both units. This was done due to low harvest numbers and abundant beaver populations (Bentzen 2010). Adoption of Proposal 82 also allowed for the use of bow and arrow as a legal means of take under a trapping license.

Biological Background

State management goals and objectives for furbearers in Units 12 and 20E are as follows (Bentzen 2010):

- Provide the greatest opportunity to participate in hunting and trapping furbearers.
- Maintain viable populations of furbearers that will support annual hunting and trapping harvest.

Beaver populations fluctuate annually in Units 12 and 20E due to a variety of factors, including weather, amount and timing of snow pack runoff, habitat quality and successional stage, and predation (Bentzen 2010, Gross 2004).

Since regulatory year 1996/97, ADF&G trapper questionnaires have provided furbearer abundance and population trends based on responses from area trappers. While qualitative, this information is useful for tracking population changes over time and is the best available for many furbearer populations, including

beavers in Units 12 and 20E. From 2003/04 to 2012/13, beaver populations have been reported as stable at low to moderate levels in both units (Bentzen 2010, **Table 1**).

Harvest History

Trapping pressure on beavers in Units 12 and 20E is low. As sealing requirements for beaver in Units 12 and 20E were eliminated in regulatory year 2002/03, available harvest data for these units in subsequent years is limited. Beaver are not generally targeted by area trappers, but do provide an important subsistence resource to Northway residents who primarily harvest beaver in Unit 12. Residents of Eagle harvest the majority of the beavers in Unit 20E along the Yukon River for food and handicrafts (Bentzen 2010).

Before 2002, when sealing was discontinued, beaver harvest averaged 47 beavers/year (**Figure 1**, Gross 2004). Since 2002, reported beaver harvest has averaged 14 beavers/year (**Figure 1**, ADF&G 2005, 2006, 2007, 2010a, 2010b, 2010c, 2012, 2013a, 2013b). Harvest has been consistently greater in Unit 12 than in Unit 20E (**Figure 1**).

The most recent State furbearer management report recommends no change to the beaver trapping season or bag limit in Units 12 and 20E based on observations by ADF&G personnel, interviews with area trappers, population status and trends (Bentzen 2010).

Table 1. Relative abundance and trend of beaver populations for Units 12 and 20E as reported by trappers (ADF&G 2005, 2006, 2007, 2010a, 2010b, 2010c, 2012, 2013a, 2013b).

Year	Relative Abundance	Trend
2012	common	same
2011	common	same
2010	scarce	same
2009*	-	-
2008	scarce	same
2007	common	fewer
2006	common	same
2005	common	same
2004	common	same
2003	common	same

*No report written

Effects of the Proposal

If this proposal is adopted, the beaver season would be extended from Sept. 20-May 15 to Sept. 15-June 10; the harvest limit would be changed from 15 and 25 beaver per season in Units 12 and 20E, respectively, to no harvest limit in both units; and bow and arrow would be added as a method and means of harvest.

No impacts to the beaver population or user groups is expected as Federally qualified subsistence users can already trap on most (non-National Park) Federal lands under the more liberal State regulations. Additionally, adoption of this proposal would align Federal and State regulations, reducing the regulatory complexity for users.

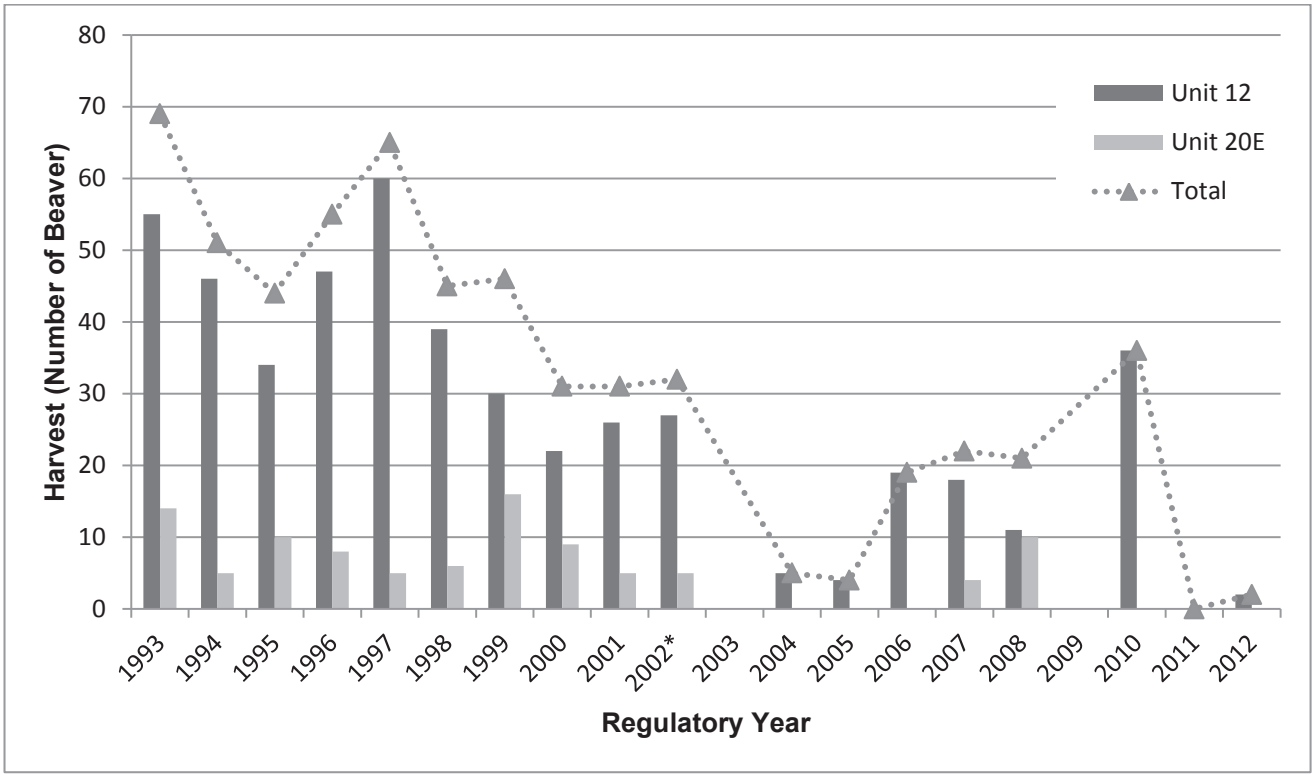

Figure 1. Beaver harvest in Units 12 and 20E (Gross 2004, ADF&G 2005, 2006, 2007, 2010a, 2010b, 2010c, 2012, 2013a, 2013b). Harvest before 2002 is from sealing data. Harvest after 2002 is optionally reported harvest from trapper questionnaires. *Sealing was discontinued in 2002. No data available for 2003 and 2009.

OSM CONCLUSION

Support Proposal WP16-67.

Justification

Beaver populations appear stable at moderate levels in these units and harvest is low. Federally qualified subsistence users are already able to trap on most Federal public lands under the more liberal State regulations. Adopting this proposal would provide Federally qualified subsistence users with additional harvest opportunities and methods and means for beaver trapping under Federal regulations. Additionally, Federal and State regulations for beaver trapping in Units 12 and 20E would be aligned, reducing regulatory complexity.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Eastern Interior Alaska Subsistence Regional Advisory Council

Support WP16-67. Harvest of beaver has been relatively low in the area and the population is seen to be increasing. Market value for beaver pelts is low and most of the use of the beaver in this area is for personal use. The Council feels it would be very beneficial to Federal users. The Council voted to support the proposal 9-0.

Southcentral Subsistence Regional Advisory Council

No action taken on WP16-67. The Council chose to defer to the Eastern Interior Region.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

WRITTEN PUBLIC COMMENTS

Ahtna, Incorporated

May 27, 2015

Federal Subsistence Board
ATTN: Theo Matuskowitz
Office of Subsistence Management
1011 E. Tudor Road, MS-121
Anchorage, Alaska 99503-6199

RE: 2016-2018 Wildlife Proposals

Dear Mr. Matuskowitz:

Enclosed is Ahtna Tene Nene' Customary & Traditional Use Committee's comments on the 2016-2018 wildlife proposals.

Sincerely,

Gloria Stickwan
for Roy S. Ewan

Roy S. Ewan,
Chair

Page 1 of 5

WP16-67 Unit 12 Beaver Hunting/Trapping Season

We support WP16-67 to change Unit 12 Beaver to hunting and trapping season from September 15 to June 10 with no limit, meat or hide must be salvaged, traps, snares or firearms may be used. Aligning state and federal methods and means, hunting seasons, no limit, meat or hide must be salvaged will allow more hunting and trapping opportunities on federal public lands.

Beaver population data is collected through surveys given to trappers. The Department of Fish & Game relies on this survey to determine beaver population. Harvest data gathered through surveys that trappers fill out and return to ADF&G office indicates that there isn't a conservation concern. According ADF&G Overview given at Central/Southwest meeting in February 2015, beaver population is stable/high, and beaver harvest was 225.

WP16–68 Executive Summary	
General Description	Proposal WP16-68 requests that the lynx trapping season in Units 12 and 20E be extended from Nov. 1 – Dec. 31 to Nov. 1 – Mar. 15, and that the Nov. 1 – Nov. 30 harvest limit of 5 lynx be eliminated. *Submitted by the Upper Tanana-Fortymile Fish and Game Advisory Committee.*
Proposed Regulation	**Units 12 and 20E—Lynx** *No limit~~, however no more than 5 lynx may be taken between Nov. 1 and Nov. 30~~* *Nov. 1 – ~~Dec. 31~~* ***Mar. 15***
OSM Conclusion	**Support**
Southcentral Regional Advisory Council Recommendation	**No action taken**
Eastern Interior Alaska Regional Advisory Council Recommendation	**Support**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Support**
Written Public Comments	**1 Oppose**

STAFF ANALYSIS
WP16-68

ISSUES

Proposal WP16-68, submitted by the Upper Tanana – Fortymile Fish and Game Advisory Committee, requests that the lynx trapping season in Units 12 and 20E be extended from Nov. 1 – Dec. 31 to Nov. 1 – Mar. 15, and that the Nov. 1 – Nov. 30 harvest limit of 5 lynx be eliminated.

DISCUSSION

The proponent states that the proposed changes will provide additional trapping opportunities for Federally qualified subsistence users, while aligning Federal subsistence trapping regulations with current State trapping regulations.

Existing Federal Regulation

Units 12 and 20E—Lynx

No limit, however no more than 5 lynx may be taken between Nov. 1 and Nov. 30	*Nov. 1 – Dec. 31*

Proposed Federal Regulation

Units 12 and 20E—Lynx

No limit~~, however no more than 5 lynx may be taken between Nov. 1 and Nov. 30~~	*Nov. 1 – ~~Dec. 31~~* ***Mar. 15***

Existing State Regulation

Units 12, 19, 20, 21, and 25C—Lynx

No limit	*Nov. 1 – Mar. 15*

Extent of Federal Public Lands

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

Federal public lands comprise approximately 29% of Unit 20E and consist of 20% NPS managed lands and 9% BLM managed lands.

Customary and Traditional Use Determinations

The Federal Subsistence Board (Board) has not made a customary and traditional use determination for lynx in Units 12 and 20E. All Federally qualified subsistence users may harvest lynx in these units.

Regulatory History

In 1987, the Alaska Department of Fish and Game (ADF&G) adopted a tracking harvest strategy for managing lynx (ADF&G 1987). This strategy called for shortening or closing trapping seasons when lynx numbers are low, and lengthening or opening seasons when lynx are abundant. In the spring of 1992, the Alaska Board of Game adopted maximum possible seasons for a number of management units within the state, and delegated authority to ADF&G to adjust seasons within seasonal windows. The decision to adjust the season was based upon the reported number of lynx harvested and the percentage of kittens within the total harvest.

The Board endorsed the State's strategy for setting lynx seasons and regularly made annual adjustments to the Federal seasons to align with State seasons. In 2001, in response to Proposal WP01-44, the Board adopted a statewide regulatory provision and issued a Delegation of Authority Letter so that the Assistant Regional Director for the Office of Subsistence Management (OSM) could adjust lynx trapping regulations through the use of the ADF&G tracking harvest strategy. This delegated authority required coordination with ADF&G, consultation with appropriate Federal land management agencies, development of a staff analysis to evaluate the effects of the changes to the season and harvest limit, and Interagency Staff Committee concurrence (FWS 2001).

In 2004, the Board adopted Proposal WP04-36, which clarified implementation procedures for Delegation of Authority to the Assistant Regional Director for OSM. The existing Delegation of Authority Letter allowed the Assistant Regional Director to adjust seasons and harvest limits through Special Action provisions. However, the Board's intent had been to allow annual adjustments using current harvest information and in line with the State's tracking harvest strategy. This action designated a Nov. 10 – Feb. 28 maximum season but allowed the Assistant Regional Director to continue making annual adjustments to seasons and harvest limits (FWS 2004).

By 2008 the Alaska Board of Game had discontinued use of the tracking harvest strategy in Units 12 and 20E, and had established permanent seasons in these units. To maintain parallel State and Federal management strategies, the Board adopted with modification Proposal WP10-04 in 2010. This resulted in

removal of Units 12 and 20E, along with a number of other units, from the area for which the Assistant Regional Director for OSM had the delegated authority to open, close or adjust Federal subsistence lynx seasons and to set harvest and possession limits (FWS 2010).

In 2010, the Alaska Board of Game adopted Proposal 17, which resulted in the establishment of the current lynx season and limit for Units 12 and 20E. This action by the Alaska Board of Game addressed concerns that some trappers were targeting lynx in November, when harvest was limited to five lynx, but not reporting them until December, when there was no harvest limit. The original rationale for limiting harvest to five lynx during November was to allow trappers to retain lynx trapped incidentally when targeting other species, even though pelt quality is low at this time of year (ADF&G 2010a).

Biological Background

Lynx are common in Alaska (Yom-Tov et al. 2007). Snowshoe hares are the predominant prey of lynx and are believed to comprise up to 83% of the species' diet (Yom-Tov et al. 2007; O'Donoghue et al. 1997). As a result, lynx populations fluctuate in direct response to changes in hare abundance (Yom-Tov et al. 2007). Snowshoe hares have a cyclical population trend that lasts from 8 – 11 years and lynx population numbers fluctuate in tandem with this trend, with a lag of 1 – 2 years (FWS 2013).

In Alaska, sealing records are used as a proxy for determining lynx population trends. An analysis of statewide lynx harvest sealing records from 1990 through 2013 reveals three population highs, occurring 1991 – 1992, 2000 – 2001, and 2008 – 2009, followed shortly by population lows, occurring 1995 – 1996, 2002 – 2003, and 2012 – 2013 (ADF&G 2002, 2005, 2006, 2007, 2010b, 2010c, 2010d, 2012, 2013a, 2013b; **Figure 1**). The lynx population in Interior Alaska remains in the low phase of the cycle (Berg 2015, pers. comm.; Burch 2015, pers. comm.; Gross 2015, pers. comm.)

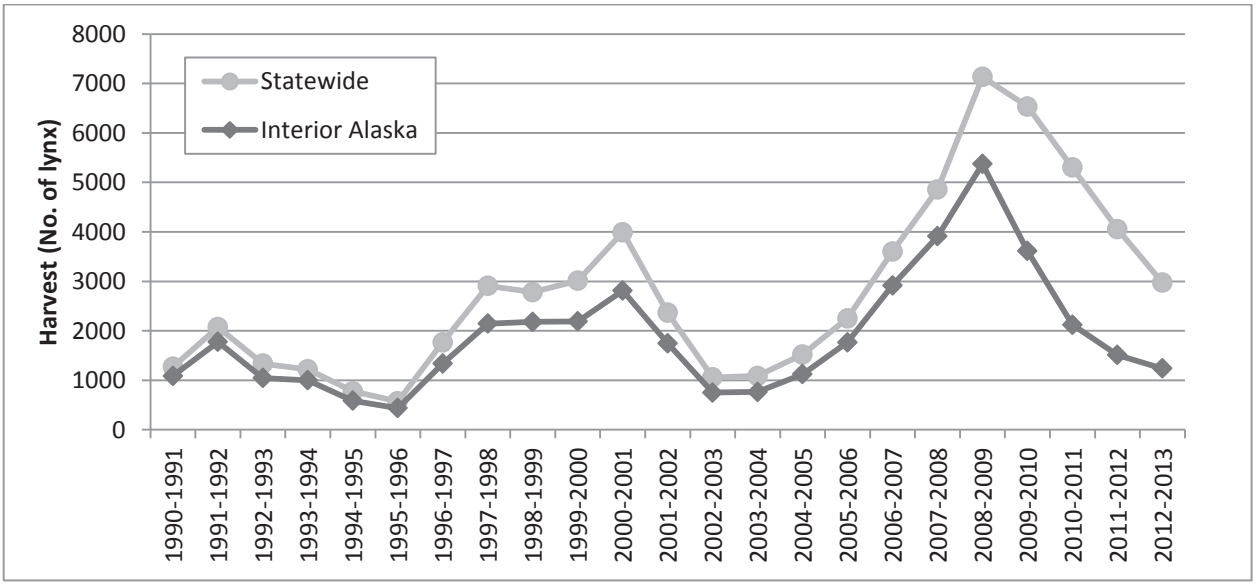

Figure 1. Lynx Population Trends, based on Harvest Sealing Data 1990-2013. Interior Alaska includes Units 12, 19A-D, 20A-F, 21A-E, 24A-C, 25A-D. (ADF&G 2002, 2005, 2006, 2007, 2010b, 2010c, 2010d, 2012, 2013a, 2013b).

Harvest History

The State no longer utilizes a tracking harvest strategy for managing lynx harvest in Interior Alaska. Rather, fixed seasons and harvest limits are implemented in Units 12 and 20E (Gross 2015, pers. comm.). Under this system, harvest limits remain static despite sizable fluctuations in lynx abundance. However, trapper effort parallels lynx abundance (Berg 2015, pers. comm.; Gross 2015, pers. comm.), and few trappers are active during the low phase (Bentzen 2010). See **Table 1** for reported lynx harvest in Units 12 and 20E.

Table 1. Reported Lynx Harvest in Units 12 and 20E, based on ADF&G Trapper Questionnaires, 2004-2013 (ADF&G 2006, 2007, 2010b, 2010c, 2010d, 2012, 2013a, 2013b).

Regulatory Year	Unit 12	Unit 20E
2004-2005	14	2
2005-2006	0	0
2006-2007	171	8
2007-2008	164	177
2008-2009	139	297
2009-2010	*No data*	*No data*
2010-2011	99	20
2011-2012	5	16
2012-2013	23	2

Effects of the Proposal

If adopted, this proposal would allow unlimited harvest Nov. 1 – Mar. 15, which would result in increased opportunity for Federally qualified subsistence users. Adoption of this proposal is not expected to have an appreciable effect on the lynx population, since lynx populations are regulated primarily by prey availability and because trapper effort and harvest decline sharply during the low phase of the population cycle. Additionally, adoption of this proposal would reduce regulatory complexity for lynx in Units 12 and 20E by creating parallel Federal and State lynx trapping seasons and by removing the Nov. 1 – Nov. 30 harvest limit.

OSM CONCLUSION

Support Proposal WP16-68.

Justification

Adoption of this proposal will provide additional harvest opportunities for Federally qualified subsistence users by lengthening the season and eliminating the harvest limit for the Nov. 1 – Nov. 30 time period. These changes are not expected to affect the lynx population, since lynx populations are regulated primarily by prey availability and because trapper effort declines during times of low lynx abundance. These changes will also reduce regulatory complexity, which will benefit subsistence users and is consistent with past Federal regulatory adjustments that reflect changes in State seasons and harvest limits.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Southcentral Subsistence Regional Advisory Council

No action taken on WP16-68. The Council chose to defer to the Eastern Interior Region.

Eastern Interior Alaska Subsistence Regional Advisory Council

Support WP16-68. The Council stated that hare and lynx populations in some areas are increasing so there is no conservation concern. This proposal will increase Federal subsistence opportunity and align State and Federal seasons making it easier for subsistence users.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

WRITTEN PUBLIC COMMENTS

Ahtna, Incorporated

May 27, 2015

Federal Subsistence Board
ATTN: Theo Matuskowitz
Office of Subsistence Management
1011 E. Tudor Road, MS-121
Anchorage, Alaska 99503-6199

RE: 2016-2018 Wildlife Proposals

Dear Mr. Matuskowitz:

Enclosed is Ahtna Tene Nene' Customary & Traditional Use Committee's comments on the 2016-2018 wildlife proposals.

Sincerely,

Gloria Stickwan
for Roy S. Ewan

Roy S. Ewan,
Chair

WP16-68 Unit 12 Lynx Trapping Season

Comments:

We oppose WP 16-68 to lengthen Unit 12 Lynx trapping season from Nov. 1- Nov. 30 to Nov 1- Mar. 15 with no limit. According to ADF&G Overview presented at Central/Southwest meeting in February 2015, lynx population is low, harvest is 444.

Opening a trapping season with no limit when the population is low and changing the dates to allow a longer trapping season is counterproductive to lynx populations.

WP16–69 Executive Summary	
General Description	Proposal WP16–69 requests that the moose season in Unit 20E remainder be changed from Aug. 24–Sept. 25 to Aug. 20–Sept. 30. *Submitted by the Upper Tanana–Fortymile Fish and Game Advisory Committee.*
Proposed Regulation	**Unit 20E —Moose** *Unit 20E remainder – 1 bull by joint Federal/State permit* — ***Aug. 20–Sept. 30*** ~~*Aug. 24–Sept. 25*~~
OSM Conclusion	**Support**
Eastern Interior Alaska Advisory Council Recommendation	**Support**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Support**
Written Public Comments	**None**

STAFF ANALYSIS
WP16-69

ISSUE

Proposal WP16-69, submitted by the Upper Tanana–Fortymile Fish and Game Advisory Committee, requests that the moose season in Unit 20E remainder be changed from Aug. 24–Sept. 25 to Aug. 20–Sept. 30.

DISCUSSION

The proponent states that many Federally qualified subsistence users are not able to hunt during the limited State moose hunting season and thus are requesting a longer Federal season in Unit 20E remainder.

Existing Federal Regulation

Unit 20E —Moose

Unit 20E remainder – 1 bull by joint Federal/State registration permit	*Aug. 24 – Sept. 25*

Proposed Federal Regulation

Unit 20E —Moose

Unit 20E remainder – 1 bull by joint Federal/State permit	***Aug. 20–Sept. 30*** ~~*Aug. 24–Sept. 25*~~

Existing State Regulation

Unit 20E—Moose

Unit 20E remainder—Moose

Unit 20E–remainder	*Resident: One bull by permit available in person in Tok, Delta Junction, Eagle, and Fairbanks beginning Aug 13; may not possess RC860 at same time as RM865*	*RM865*	*Aug. 24–Aug.28* *Sept. 8–Sept. 17*
	OR		
	Resident: One bull by	*DM794/796*	*Nov.1–Sept.10*

permit in the Ladue River Controlled Use Area		
Nonresident: One bull with 50–inch antlers with 4 or more brow tines on at least one side, by permit available in person in Tok, Delta Junction, Eagle, and Fairbanks beginning Aug. 13; may not possessRC860 at the same time as RM865.	*RM865*	*Sept. 8–Sept. 17*

Extent of Federal Public Lands

Federal public lands comprise approximately 29% of the lands in Unit 20E and consist of 20% National Park Service (NPS) managed lands and 9% Bureau of Land Management (BLM) managed lands (**See Unit 20 Map**).

Customary and Traditional Use Determinations

Rural residents of Unit 20E, Unit 12 (north of Wrangell-St. Elias National Preserve), Circle, Central, Dot Lake, Healy Lake and Mentasta Lake have a positive customary and traditional use determination for moose in Unit 20E.

Regulatory History

In 2000, the Alaska Board of Game created registration hunt RM865 in Unit 20E (excluding the Middle Fork Fortymile River) and split the moose season into two periods: August 24-28 and September 8-17, except within the Yukon River drainage, where the season became August 24-28 and September 5-25. The Alaska Board of Game also stipulated that a hunter could hunt both moose (RM865) and caribou (RC860), but not hold a registration permit for both species at the same time. These actions were in response to increased moose harvest, due to increasing numbers of caribou hunters in most of Unit 20E, and were designed to stabilize the moose harvest to maintain the bull:cow ratio within the management objective (Gross 2010).

In 2002, the Alaska Board of Game reduced the season within the Yukon River drainage to match the season in the remainder of Unit 20E (August 24-28 and September 8-17).

Prior to the 2004/2005 regulatory year, the Alaska Board of Game changed to the present area descriptions (listed above in State regulations), from the previous area descriptions of

"*Unit 20E draining into the Middle Fork of the Fortymile River upstream from the drainage of the North Fork Fortymile River"* and *"Remainder of Unit 20E."* The seasons and bag limits did not change.

In February 2010, the Eastern Interior Alaska Subsistence Regional Advisory Council (Council) deliberated on Proposal WP10-101 and recommended breaking out the proposed single, all-encompassing Unit 20E area description into three area descriptions to retain the Yukon-Charley Rivers National Preserve portion and to closely align the other two portions with State regulations for purposes of permit administration and harvest reporting. The Federal Subsistence Board (Board) adopted the Council's recommendation and the (current) regulations were effective 1 July 2010 (FWS 2010).

In 2012, the Board adopted Proposal WP12-75 changing the season for Unit 20E, that portion drained by the Middle Fork of the Fortymile River upstream from and including the Joseph Creek drainage from Aug. 24–Sept. 25 to Aug. 20–Sept. 30 to match the regulations in Unit 20E, that portion with the Yukon–Charley National Preserve. The new season gave the Federally qualified subsistence users an additional 9 days to hunt moose in the affected area and aligned the fall season dates in the portions of Unit 20E off the road system on Federal lands (FWS 2012).

Biological Background

State management goals for moose in Units 20E are to protect, maintain and enhance the moose population in concert with other components of the ecosystem, to provide sustained moose harvest opportunity for subsistence users, maximize sustainable opportunities to participate in hunting moose, and maximize opportunities for non–consumptive uses of moose (Gross 2010). Specific State management objectives for Unit 20E are as follows (Gross 2010):

- Maintain a post hunting bull:cow ratios of at least 40 bulls:100 cows in all survey areas.
- Maintain a population of 8,000–10,000 moose.
- Maintain a harvest of 500-1,000 moose annually.

The Alaska Department of Fish and Game (ADF&G) conducted moose population estimation surveys in southern Unit 20E, within the Tok West and Tok Central survey areas during 1998—2011, using the geospatial population estimator (GSPE) moose survey technique (Ver Hoef 2001, Kellie and DeLong 2006). The data collected were utilized to determine population trends, herd composition in the survey areas, and to estimate moose numbers in the entire unit by extrapolation (**Table 1**). The population estimate for Unit 20E 2011/2012 was 4,200-6,400 with a density of 0.53-0.80 moose/mi^2 of moose habitat (8,000 mi^2) (Gross 2012).

Table 1. Moose population estimates for portions of Unit 20E using GSPE, fall 1998—2009 (Gross 2008, 2010, 2012).

Year	Bulls: 100 Cows	Yearling bulls:100 Cows	Calves: 100 Cows	Percent Calves	Total moose observed	Density moose/mi^2 (90% CI)	Population estimate (90% CI)
1998[a]	64	18	19	10	278	0.56	1,086
1998[b]	59	14	23	14	450	0.62	1,694
1999[a]	80	16	22	10	365	0.47	901
2000[a]	60	11	14	8	561	0.58	1,115
2000[c]	49	11	21	13	347	0.70	1,272
2001[a]	76	9	14	7	531	0.47	915
2001[d]	51	6	10	6	624	0.75	2,026
2002[a]	59	10	25	14	364	0.60	1,166
2002[d]	71	8	20	10	396	0.63	1,707
2003[e]	64	9	15	9	355	0.58	1,128
2003[d]	53	5	11	6	297	0.51	1,379
2004[f]	61	11	26	14	283	0.59	1,435
2004[g]	48	11	23	14	233	0.37	802
2005[f]	55	13	30	16	543	0.73	1,801
2005[g]	48	8	16	10	344	0.50	1,097
2006[f]	39	9	37	20	584	0.98	2,398
2006[g]	46	3	24	14	520	0.45	979
2007[f]	50	11	30	16	503	0.86	2,098
2007[g]	46	11	22	13	440	0.62	1,348
2008[f]	47	11	27	16	509	0.83	2,040
2008[g]	72	16	31	16	356	0.72	1,571
2009[f]	63	18	34	18	585	1.00	2,445
2009[g]	51	11	25	14	461	0.68	1,471
2010[f]	83	14	37	17	618	1.03	2,519
2010[g]	54	6	15	9	369	0.68	1,379
2011[f]	67	8	17	9	799	1.26	3,082
2011[g]	61	5	5	3	272	0.47	1,025

[a] Tok West Survey Area, 1,932 mi^2 sampled
[b] Tok Central Survey Area, 2,750 mi^2 sampled
[c] Tok Central Survey Area, 1,821 mi^2 sampled
[d] Tok Central Survey Area, 2,703 mi^2 sampled
[e] Tok West Survey Area, 1,944 mi^2 sampled
[f] Tok West Survey Area, 2,452 mi^2 sampled
[g] Tok Central Survey Area, 2,178 mi^2 sampled

The highest densities of moose have been in a portion of southern Unit 20E, entirely within the Tok West and Tok Central moose survey areas, including the Mosquito Fork Fortymile River drainage downstream from and including Mosquito Flats, the West Fork Fortymile River drainage and the northern Mount Fairplay - lower Dennison Fork Fortymile River areas, where habitat availability and quality are also highest.

Between 2005 and 2011, the calf:cow ratio averaged 30 calves:100 cows (range 17–37) for the Tok West area whereas in the Tok Central area it was only 19 calves:100 cows (range 5–

31) (Gross 2010). Gross (2010) hypothesized that brown bears, one of the primary predators of moose calves, may have avoided burned areas in Tok West following large fires in 2004 and 2005. In Alaska and the Yukon, ratios of ≤ 25 calves:100 cows are indicative of stable or declining moose populations whereas ratios ≥ 30 calves:100 cows usually indicate an increasing moose population (Gasaway et al. 1992).

Between 1998 and 2011, the bull:cow ratio remained above 40 bulls:100 cows, but varied across the unit. In the most popular hunting areas (Nine Mile Trail, Mitchell's Ranch, and along the Yukon River and the Taylor Highway) bull populations were noticeably lower, but still the remained ≥ 40 bulls: 100 cows (**Table 1**) (Gross 2008; 2010).

Twinning rates in the southern portion of Unit 20E were moderate at 24-30% in 2004, 2005 and 2007, but higher in 2006 at 47% (Gross 2008). These twinning rates indicate that nutritional status is adequate to support an increase in the moose population (Boertje et. al. 2007).

Harvest History

Between 2005 and 2013, an average of 159 moose was harvested annually in Unit 20E (**Table 2**) which is about 3-4% of the population. Nonlocal residents harvested an average 113 (71%) moose per year compared to local residents which averaged 25 (16%) (**Table 2**). The primary hunting areas for moose in Unit 20E are along the Taylor Highway corridor and the Mosquito Fork of the Fortymile drainage.

Table 2. Moose harvest and residency in Unit 20E, 2005/2006 to 2013/2014 (ADF&G 2015, FWS 2015).

Regulatory Year	Bulls	Cows	Total[a]	Local Resident (%)[b]	Nonlocal Resident (%)	Nonresident (%)
2005/2006	137	0	137	27 (20)	78 (57)	33 (24)
2006/2007	129	1	130	27 (21)	85 (65)	18 (14)
2007/2008	144	0	144	24 (17)	108 (75)	12 (8)
2008/2009	176	0	176	25 (14)	130 (74)	23 (13)
2009/2010	169	0	169	22 (13)	129 (76)	21 (12)
2010/2011	165	0	165	27 (16)	119 (72)	19 (11)
2011/2012	186	1	187	30 (16)	134 (72)	23 (12)
2012/2013	182	1	183	29 (16)	131 (72)	22 12)

2013/2014	139	1	140	19 (14)	108 (77)	13 (9)
Mean	159	0.4	159	25 (16)	113 (71)	20 (13)

[a] Total may exceed sum by residency because some hunters fail to report residency
[b] Local means residents of Units 12, 20E, and portions of 20D. Main communities are Eagle, Chicken, Boundary, Northway, Tetlin, Tok, Tanacross, Slana, and Dot Lake.

Effects of the Proposal

If this proposal is adopted, it would align the fall hunting season for the three areas of Unit 20E, thus reducing regulatory complexity. In addition it would give Federally qualified subsistence users an additional 9 days of hunting opportunity in Unit 20E remainder. It is unlikely that the increase in harvest opportunity in Unit 20E remainder will have any negative population level effects because local residents have accounted for only a small proportion of the harvest in the past. Based on population and harvest information available, the adoption of this proposal should cause are no conservation concerns for the moose population.

OSM CONCLUSION

Support Proposal WP16-69.

Justification

If this proposal is adopted, Federally qualified subsistence users will be provided an additional 9 days of opportunity to harvest moose in Unit 20 E remainder and would align the Federal fall season dates within all portions of Unit 20E. The moose population in Unit 20E should be able to support anticipated small increase in the number of bulls harvested by Federally qualified subsistence users in Unit 20E remainder.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Eastern Interior Alaska Subsistence Regional Advisory Council

Support WP16-69. Some of the Council members feel that Federally qualified users are still having a hard time competing with outside hunters with respect to harvest of moose and a longer federal season would support struggling rural communities in the region to meet their subsistence needs. Overall harvest has been low in this area and likely would not pose any conservation issue to extend the season by the proposed 9 days but would still help give more opportunity to Federally qualified subsistence users. Council members in the area felt this was a housekeeping matter so that hunters on the border of 25B and 20E could hunt moose during the same season on either side. Some Council members had concerns about opening the season earlier given the warmer weather during this time of the year and that the proposed season might overlap with the rut but overall was felt to be an additional window of opportunity and subsistence hunters would use their knowledge as to whether conditions were good to hunt.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

WP16–70 Executive Summary	
General Description	Proposal WP16–70 requests that the regulation allowing for brown bears to be hunted over bait in Unit 25D be rescinded. *Submitted by David Bachrach of Homer.*
Proposed Regulation	**Unit 25D – Brown Bear** *Unit 25D – 2 bears every regulatory year* — *July 1 – June 30* §_____.26(n)(*25*)*(iii)(A) You may use bait to hunt black bear between April 15 and June 30 and between August 1 and September 25;* ~~*in Unit 25D you may use bait to hunt brown bear between April 15 and June 30 and between August 1 and September 25*~~*; you may use bait to hunt wolves on FWS and BLM lands.*
OSM Conclusion	**Support**
Eastern Interior Alaska Regional Advisory Council Recommendation	**Oppose**
Interagency Staff Committee Comments	**Oppose**
ADF&G Comments	**Oppose**
Written Public Comments	**2 Support**

STAFF ANALYSIS
WP16-70

ISSUES

Proposal WP16-70, submitted by David Bachrach of Homer, requests that the regulation allowing for brown bears to be hunted over bait in Unit 25D be rescinded.

DISCUSSION

The proponent states that the Federal Subsistence Board (Board) increased the harvest limit on brown bears in Unit 25D from one to two bears in 2012, and that the effect of the increase is not currently known. Also, the proponent feels that data used to assess brown bear populations in the unit are old and not from the same area in which regulations were implemented. Finally, the proponent states that allowing baiting of brown bears over bait is inconsistent with National Park Service (NPS) and U.S. Fish and Wildlife Service (USFWS) proposed rules prohibiting the taking of brown bears over bait in Federal lands.

Existing Federal Regulation

Unit 25D – Brown Bear

Unit 25D – 2 bears every regulatory year	*July 1 – Jun. 30*

§_____.26(n)(25)*(iii)(A) You may use bait to hunt black bear between April 15 and June 30 and between August 1 and September 25; in Unit 25D you may use bait to hunt brown bear between April 15 and June 30 and between August 1 and September 25; you may use bait to hunt wolves on FWS and BLM lands.*

Proposed Federal Regulation

Unit 25D – Brown Bear

Unit 25D – 2 bears every regulatory year	*July 1 – June 30*

§_____.26(n)(*25*)*(iii)(A) You may use bait to hunt black bear between April 15 and June 30 and between August 1 and September 25;* ~~*in Unit 25D you may use bait to hunt brown bear between April 15 and June 30 and between August 1 and September 25*~~*; you may use bait to hunt wolves on FWS and BLM lands.*

Existing State Regulation

Unit 25D – Brown Bear

Units 7,12, 13D, 15, 16, 20A, 20B, 20C, 20E, 21D, 24C, 24D, and 25D brown/grizzly bears may be taken at a black bear bait station subject to the same restrictions as black bear. Hunters who take brown bears over bait in these areas are required to salvage the edible meat in addition to the hide and skull. Hunters must comply with seasons, bag limits, and sealing requirements for brown/grizzly bears (registration permits and locking tags may be required in some areas, contact ADF&G for details).

Residents – two bears every regulatory year	*July 1 – Nov. 30*
	Mar. 1 – June 30
Nonresidents – one bear every regulatory year	*Sept. 1 – Nov. 30*
	Mar. 1 – June 15

Extent of Federal Public Lands

Federal public lands comprise approximately 63% of Unit 25D and consist of 62% US Fish and Wildlife Service managed lands and 1% Bureau of Land Management managed lands (**Unit 25 Map**).

Customary and Traditional Use Determinations

Rural residents of Unit 25D have a customary and traditional use determination for brown bear in Unit 25D.

Cultural Knowledge

Athabascan communities recognize brown bear as an important subsistence resource. Bears were harvested using spears, bow and arrows, and snares. Snares were sometimes baited (Nelson et al. 1982, Van Lanen et al. 2012). Rifles have replaced traditional methods of harvesting bears (Nelson 1973, Van Lanen et al. 2012). At the Eastern Interior Alaska Subsistence Regional Advisory Council (Council) meeting on February 21, 2013, in Fairbanks, a Council member from a Qwich'in village said:

> In the springtime you'll find the bears just coming out of their dens and the trappers . . . would use [carcasses] as bait . . . whatever didn't get eaten by the dogs, they would use that for bait in the springtime to get the spring bears. And you'd use whatever was left from your moose kill in the fall for bait to get a fall bear (EIRAC 2013: 255-256).
>
> Those were the two times of year that [bear were] normally taken, which the State season reflects. But I'd just like to see it in the Federal reg book as well so I don't have to play that lawyer GPS "where am I" game to go from State and Federal land . . . and I could leave my bait stations where they are and not have to move camp miles to get back onto Federal land or back onto State land. We have a checkerboard of land ownership in the Yukon Flats (EIRAC 2013: 255-256).

According to Van Lanen et al. (2012), use of brown bears has been historically low and harvest of the species was often incidental to other activities. No mention was made of brown bear baiting being used as a traditional method of harvest.

Regulatory History

At its January 2012 meeting, the Board adopted Proposal WP12-62 with modification, which increased the harvest limit for brown bears in Unit 25D from one bear every regulatory year to two bears every regulatory year.

At its March 2012 meeting, the Alaska Board of Game (BOG) addressed several proposals looking to allow harvesting of brown bears at bait sites: Proposal 168 was adopted to allow baiting of brown bears in Unit 21D. Proposal 196 was adopted to allow brown bear baiting in Units 12 and 20E with the same season and restrictions as black bear baiting. Proposal 232 was also adopted to allow the harvest of grizzly bears over a black bear bait site with the requirement to salvage the meat and hide in Unit 20C.

At its February 2014 meeting, the BOG adopted Proposal 80, to allow harvest of brown bears over black bear bait in Unit 25D, stating that it would be utilized primarily by local residents. Nonresidents would still be required to use a guide for brown bear baiting.

In April of 2014, the Board adopted Proposal WP14-50, which allowed baiting of brown bears at black bear baiting sites in Unit 25D. The Board felt that bear baiting was a traditional practice for local rural users and that whether or not a bear was killed by baiting or by other hunting methods was irrelevant from a population perspective.

Biological Background

Brown bears are widely distributed in northeastern Alaska. The brown bear population in Unit 25 declined in the 1960s primarily from aircraft-supported hunting associated with guiding. As a result, regulations were implemented to limit harvest starting in 1971. As the population recovered, regulations were gradually liberalized. Population trend data for Unit 25 are currently sparse; however, there is a possibility that the population has increased or expanded into new habitat based on an increase in sightings of brown bears by local residents on the Yukon River compared to years prior to 2000 (Lenart 2011).

The current population estimates of brown bears in Units 25A, 25B, and 25D are based on extrapolations from studies done in the 1980s and 1990s, with an estimated 1,200 brown bears (2.4 bears/100 mi^2) (Lenart 2011). Estimated densities and population size varies slightly between the units. In the mountainous portion of Unit 25C, Eagan (1995) (*cited* in Young 2007) determined that there was a medium density (1.3-2.6 bears/100 mi^2) based on extrapolations from studies done in Unit 20A in the 1980s and 1990s.

In northern Alaska, 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 reproductive periods lead to the low rates of successful production in brown bears in northern Alaska (USFWS 1982). In addition, female brown bears exhibit high fidelity to home ranges and little emigration or immigration (Reynolds 1993). Therefore, brown bears are often managed conservatively.

Brown bears in Unit 25D have been identified as a significant predator on moose calves and likely contribute to maintaining a low density of moose. In their moose mortality study, Bertram and Vivion (2002) found predation was responsible for 97% of known calf mortality, with brown bears causing 39% of it, second only to black bear at 45%. As a result, the *Yukon Flats Cooperative Moose Management Plan* (ADF&G 2002) prescribes increasing brown bear harvest. The *Yukon Flats Cooperative Moose Management Plan* notes the following about the brown bear population in Unit 25D:

> There are an estimated 380 grizzly bears in Unit 25D, or about 1 bear per 46 mi^2. Based on a 5% sustainable harvest rate, the estimated sustainable harvest is about 19 bears, assuming some harvest of female bears. The reported harvest of grizzly bears averages 3-4 each year and some additional bears are taken but not sealed. Increased awareness and concern about the effects of bear predation on moose has resulted in greater local interest in harvesting bears (*Yukon Flats Cooperative Moose Management Plan*, 2002: 25).

The State management objectives for Unit 25D are to manage for a temporary reduction in grizzly bear numbers and predation on moose. After this reduction is achieved, bear harvest will be reduced to allow the bear population to recover (Lenart 2011).

Harvest History

Brown bear mortality in Units 25B and 25D has been low in most years. Between 2000 and 2012, an average of 4 brown bears were killed annually in these units (**Table 1**). There was a spike of 11 bears killed in regulatory year 2002/03, most likely in response to increased effort to harvest bears as prescribed in the Yukon Flats Cooperative Moose Management Plan (Lenart 2011). Underreporting of harvest is suspected due to the difficulty in getting a bear sealed in this remote area, and there is a discrepancy between reported harvest and harvest recorded during household surveys (Van Lanen et al. 2012, Stevens and Maracle 2012). For example, annual harvest of brown bears between 2006 and 2010 averaged 23 animals according to household survey data (**Table 2**), while the annual reported harvest during this same period averaged just 6 animals. The average annual harvest as reported by household surveys exceeds the sustainable harvest for Unit 25D. There are two registered guides on Yukon Flats National Wildlife Refuge who harvest bears in Unit 25D.

Table 1. Units 25B and 25D brown bear reported mortality, RY 2000-2010 (Lenart 2011, Crawford 2013, pers. comm.).

Regulatory Year	Total Reported Mortality
2000-2001	1
2001-2002	1
2002-2003	11
2003-2004	2
2004-2005	3
2005-2006	1
2006-2007	4
2007-2008	6
2008-2009	6
2009-2010	6
2010-2011	2
2011-2012	3

Table 2. Unit 25B and 25D brown bear mortality (Lenart 2007, Young 2007, Van Lanen et al. 2012) from household survey data.

Regulatory Year	Household Survey Data Mortality[a]
1995-1996	1
1996-1997	0
1997-1998	1
1998-1999	0
1999-2000	-
2000-2001	-
2001-2002	-
2002-2003	5
2003-2004	-
2004-2005	22
2005-2006	-
2006-2007	37
2007-2008	17
2008-2009	22

2009-2010	16

[a]Household survey data does not include nonlocal harvest of brown bears.

Effects of the Proposal

If this proposal is adopted, brown bears would no longer be allowed to be harvested using bait on Federal public lands in Unit 25D by Federally qualified subsistence users. The latest population estimates for brown bears in Unit 25D are now more than 20 years old and based on extrapolations from studies done in the 1980s and 1990s . Indeed, without recent population estimates, managers have been relying on detecting trends in brown bear populations based on sex and age composition of bears harvests, which can be problematic due to vulnerability to harvest of different cohorts, patchy distribution of harvest as a result of differences in hunter accessibility, and detected trends being affected by changes in bag limits, seasons and other hunt parameters rather than any actual trends in population size (Miller et al. 2011).

Hunting brown bears over bait would most likely lead to an increase in hunter success versus a "spot and stalk" hunt because it is an efficient method of hunting (Dunkley and Cattet 2003, Gore 2003). Additionally, the harvest limit for brown bears in Unit 25D was changed from one to two bears every regulatory year in 2012. Allowing the baiting of brown bears, combined with the recent doubling of the brown bear harvest limit in such a short period of time could have an adverse impact on the species, especially in northern portions of the state where brown bears are known to have low reproductive rates.

Contrary to what the proponent states, allowing the harvest of brown bears over bait on Federal public lands in Unit 25D by Federally qualified subsistence users is not inconsistent with the proposed rule by the USFWS prohibiting the harvest of brown bears over bait on National Wildlife Refuge (Refuge) lands. The prohibitions mentioned in the proposed rule would only apply to non-Federally qualified users hunting on Refuge lands in Alaska.

OSM CONCLUSION

Support Proposal WP16-70.

Justification

Brown bear population estimates for Unit 25D are now more than 20 years old and based on extrapolations from studies done in the 1980s and 1990s. It is difficult to predict what the effect of allowing baiting for the species on Federal land would be, and the opportunity to harvest brown bears in this manner in Unit 25D has only been in place for on regulatory cycle. Population trends are being estimated based on harvest, which is problematic for a variety of reasons. Bear baiting is an efficient method of hunting and would likely lead to an increase in hunting success versus the "spot and stalk" hunting method now used. This, coupled with the recent doubling of the harvest limit in Unit 25D under Federal regulations, the preponderance of underreporting of harvest in Unit 25, and the already low reproductive rates of the species in northern Alaska would indicate caution in allowing this method of

harvest in Unit 25D to continue. A conservative approach to an increase in harvest for this species is warranted.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Eastern Interior Alaska Subsistence Regional Advisory Council

Oppose WP16-70. The Council noted it had submitted the proposal to allow the practice of taking bear over bait and see it as a subsistence opportunity. The Council see no evident conservation concern for the few grizzly bears that may be taken over a bait station. Bears are hard to see and hunt in the interior and it provides and additional opportunity if a grizzly is encountered at a bait station. The Council is concerned about how bear populations are estimated in this area such as extrapolations based on other areas and/or harvest reports. Based on local knowledge brown bear numbers appear healthy and there are increasing encounters in many areas. They also note that the reported increase in brown bear harvest may have been due to an intensive survey that was conducted at the time.

The Council feels this proposal is an issue of values and not conservation concern. Several Council members feel that this is a method and means issue and that rural users should have every tool at their disposal. While the Council expressed that harvesting bear over bait for subsistence was an important opportunity for those that chose to hunt in this way, there was not actually much increase in the practice to lead to human safety concerns.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

WRITTEN PUBLIC COMMENTS

May 27, 2015
Office of Subsistence Management
Attn: Regulations Specialist
1011 East Tudor Road, Mail Stop 121
Anchorage, Alaska 99503

Reference: WP16-70

To whom it may concern:

Brown bears and bear conservation is a high priority for me, not only from a business perspective, but also for my personal values, recreation, and spiritual well being. For nearly 15 years, I've been actively involved in reviewing, analyzing and commenting on brown bear trophy hunting, harvesting methods, predator management, and tourism industry issues. A great deal of my energy has been spent on public education and outreach (through the Kenai Brown Bear Committee et al) on living with bears, including the hazards of food conditioning brown bears and mitigation techniques. An ongoing issue of concern and public education in Alaska has been conditioning bears to "attractants" like fish waste, unsecured garbage and freezers that might attract bears to homes, businesses, and recreation areas which could result in bear-human conflicts.

The public safety concerns posed by food conditioned bears are universally recognized by natural resource agencies throughout the range of the species. Food conditioned bears are more likely to be a danger to humans then those that are not food conditioned. Further, food conditioning of bears tends to increase the likelihood of a bear being killed in defense of life or property. Baiting is incongruent with best management practices and standard public educational messaging on the issue of food and bears.

After reviewing the transcripts of the Federal Subsistence Board (FSB) meeting where Proposal WP14-50 passed allowing for brown bear baiting in the Yukon Flats National Wildlife Refuge, it appears that critical conservation concerns where ignored simply to make federal hunting regulations consistent with state hunting regulations. Listed below are some of these concerns:

1. The population data used was a mathematical extrapolation from the 1980's and 1990's, some 20-30 years old, and not even for the same area where the regulation was implemented.

2. The FSB raised the limit from one to two bears as of July 9, 2012, and the effects of that increased opportunity are not known.

3. The State of Alaska allows brown bear baiting in GMU 25D for the purpose of temporarily reducing brown bear numbers, largely to benefit moose populations. To align with the state in this regard is in violation of the FSB predator management policy.

4. Brown bears have a very low reproductive rate, warranting scientific concern for potential over harvest, particularly when baseline data is unknown or anecdotal.

Additionally, brown bear baiting in the Yukon Flats National Wildlife Refuge has set a dangerous precedent for this activity to occur on additional national wildlife refuges and other federal lands in Alaska. In fact, this has already begun to occur with new proposals to allow brown bear baiting in GMU 11 and 12 on federal lands.

This regulation is also inconsistent with the NPS and USFWS current and proposed rules prohibiting the taking of brown bears over bait on federal lands.

Passing this proposal will not affect subsistence use, as there is ample opportunity to hunt brown bears on federal lands in this GMU.

I urge you to support and pass WP16-70.

Thank you for considering my comments.

Dave Bachrach
Homer, AK

Matuskowitz, Theo <theo_matuskowitz@fws.gov>

Fwd: Letter supporting FSB proposal WP 16-70

1 message

AK Subsistence, FW7 <subsistence@fws.gov> Tue, Jun 9, 2015 at 12:21 PM
To: Theo Matuskowitz <theo_matuskowitz@fws.gov>, Kayla Mckinney <kayla_mckinney@fws.gov>

——— Forwarded message ———
From: **Derek Stonorov** <dstonorov@gmail.com>
Date: Tue, Jun 9, 2015 at 12:18 PM
Subject: Letter supporting FSB proposal WP 16-70
To: subsistence@fws.gov

To: Federal Subsistence Board

From: Derek Stonorov P.O. Box 15005, Fritz Creek, Alaska 99603

Subject: Letter of support for FSB proposal WP 16-70.

Please do support WP 16-70 to change the brown bear baiting regulations in YFNWR.
Please do not support WP 16-18 to allow brown bear baiting in GMU Units 10 and 11.

Brown bear baiting--or any bear baiting for that matter--sets a dangerous precedent for wildlife management, especially on federal lands. Bear baiting increases hunter efficiency and can most certainly can lead to over harvest.

A discussion of brown bear baiting in any context other than predator control is a waste of the FSB time.

Brown bear populations in GMUs 10 and 11 as well as the YFNWR are certainly not known and what little data available is 20-30 years old and it is very doubtful that the methods used by ADF&G for making these estimates would stand up to peer review.

I have lived and hunted in Alaska for more than 50 years. I am a wildlife biologist and served on the Homer Fish and Game Advisory Committee for many years.

Thank you for your time,

Derek Stonorov

WP16-01 Executive Summary	
General Description	Proposal WP16-01 requests limiting non-Federally qualified subsistence users to the harvest of two deer from Federal public lands in Unit 2 and extending the Unit 2 deer season ending date from December 31 to January 31. *Submitted by the Craig Tribal Association.*
Proposed Regulation	**Unit 2 - Deer** *5 deer; however, no more than one may be a female deer. Female deer may be taken only during the period Oct. 15–~~Dec~~**Jan**. 31. The harvest limit may be reduced to 4 deer based on conservation concerns. The Federal public lands on Prince of Wales Island, excluding the southeastern portion (lands south of the West Arm of Cholmondeley Sound draining into Cholmondeley Sound or draining eastward into Clarence Strait), are closed to hunting of deer from Aug. 1 to Aug. 15, except by Federally qualified subsistence users hunting under these regulations.* — *July 24–~~Dec~~**Jan**. 31* ***Federal Public Lands on Prince of Wales Island will be limited to 2 deer except by Federally qualified subsistence users hunting under these regulations.***
OSM Conclusion	**Oppose**
Southeast Regional Council Recommendation	The Council **Supported** WP16-01a, but **Opposed** WP16-01b**.**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Board action on the proposal. The Southeast Council made separate recommendations on the two aspects of the proposal. The Council supported the proposed extension of the Federal season from July 24 – Dec.

	31 to July 24 to Jan. 31. The Council opposed restricting the harvest limit for non-Federally qualified users on Federal public lands. If the Board agrees with the Council's recommendation, it could **Support** Proposal WP16-01, **with modification** to only extend the season from July 24 – Dec. 31 to July 24 – Jan. 31. Deer populations in Unit 2 are at reasonably high levels and the population is increasing. However, based on the staff analysis, the season change could cause a conservation concern for deer in Unit 2. Council comments during deliberations at their recent October 27-29, 2015 meeting indicated that it is a traditional practice to harvest deer in January and that even without antlers, male deer could be identified in January. As stated in the staff analysis, there is no legal or biological basis for restricting non-Federally qualified users in Unit 2.
ADF&G Comments	**Oppose**
Written Public Comments	**2 Support**

STAFF ANALYSIS
WP16-01

ISSUES

Proposal WP16-01, submitted by the Craig Tribal Association (CTA), requests that non-Federally qualified subsistence users be limited to the harvest of two deer from Federal public lands in Unit 2 and the season ending date for Federally qualified subsistence users be extended from December 31 to January 31.

DISCUSSION

CTA believes these changes are vital for the health and well-being of both CTA tribal members and Federally qualified subsistence users as mandated by Title VIII of the Alaska National Interest Lands Conservation Act (ANILCA). The proposal was submitted to provide for conservation of the Unit 2 deer population by reducing the harvest by non-Federally qualified users. CTA has also asked for a season extension through January. The proponent clarified that the season extension was to include the harvest of female deer.

In regards to adjusting State harvest limits, Title VIII of ANILCA provides that Federal public lands (and water) can be closed to non-subsistence uses when it is necessary to restrict taking in order to assure the continued viability of a fish or wildlife population or the continuation of subsistence uses of such population. It is the Board's view that because it has the authority to close non-subsistence uses under these circumstances, it would have the authority to take a lesser action, such as limiting the take of fish and wildlife for non-subsistence use. However, the Board has never exercised its authority in this manner.

Existing Federal Regulation

Unit 2 - Deer

5 deer; however, no more than one may be a female deer. Female deer may be taken only during the period Oct. 15–Dec. 31. The harvest limit may be reduced to 4 deer based on conservation concerns. The Federal public lands on Prince of Wales Island, excluding the southeastern portion (lands south of the West Arm of Cholmondeley Sound draining into Cholmondeley Sound or draining eastward into Clarence Strait), are closed to hunting of deer from Aug. 1 to Aug. 15, except by Federally qualified subsistence users hunting under these regulations.	*July 24–Dec. 31*

Proposed Federal Regulation

Unit 2 - Deer

*5 deer; however, no more than one may be a female deer. Female deer may be taken only during the period Oct. 15~~ Dec~~**Jan**. 31. The harvest limit may be reduced to 4 deer based on conservation concerns. The Federal public lands on Prince of Wales Island, excluding the southeastern portion (lands south of the West Arm of Cholmondeley Sound draining into Cholmondeley Sound or draining eastward into Clarence Strait), are closed to hunting of deer from Aug. 1 to Aug. 15, except by Federally qualified subsistence users hunting under these regulations.*	*July 24~~ Dec~~**Jan**. 31*
Federal Public Lands on Prince of Wales Island will be limited to 2 deer except by Federally qualified subsistence users hunting under these regulations.	

Existing State Regulation

Unit 2 – Deer

Residents and non-residents: Four bucks	*Aug. 1 – Dec. 31*
Harvest tickets must be validated in sequential order, and unused tickets must be carried when you hunt.	

Extent of Federal Public Lands

Federal public lands comprise approximately 74% of Unit 2, and consists of 73% U.S. Forest Service managed lands and <1% U.S. Fish and Wildlife Service managed lands (**see Unit 2 Map**).

Customary and Traditional Use Determinations

Rural residents of Units 1A, 2, and 3 have a customary and traditional use determination to harvest deer in Unit 2.

Regulatory History

Hunting regulations have permitted the harvest of deer in Unit 2 since 1925 (**Table 1**). During this period, season closing dates have varied between November and December, with December 31 being the common closing date since 1988. Seasons and harvest limits for subsistence users in Unit 2 are as liberal as they have been since 1925. Federal regulation have allowed the harvest of one female deer in Unit 2 since 1995, as well as the harvest of 5 deer beginning in 2006.

Table 1 - Regulatory history for Unit 2 deer.

Year	Type of Season	Season	Limit	Conditions and Limitations
1925	Open	Sep. 15–Dec. 16	3	Bucks, 3" antlers or longer
1925–1929	Open	Sep. 1–Nov. 30	3	Bucks, 3" antlers or longer
1930–1941	Open	Aug. 20–Nov. 15	2	Bucks, 3" antlers or longer
1942–1943	Resident	Sep. 16–Nov. 15	2	Bucks, 3" antlers or longer
1942–1943	Non-resident	Sep. 16–Nov. 15	1	Bucks, 3" antlers or longer
1944–1948	Resident	Sep. 1–Nov. 7	2	Bucks, 3" antlers or longer
1944–1948	Non-resident	Sep. 1–Nov. 7	1	Bucks, 3" antlers or longer
1949	Resident	Sep. 1–Nov. 15	2	Bucks, 3" antlers or longer
1949	Non-resident	Sep. 1–Nov. 15	1	Bucks, 3" antlers or longer
1950–1951	Resident	Aug. 20–Nov. 15	2	Bucks, 3" antlers or longer
1950–1951	Non-resident	Aug. 20–Nov. 15	1	Bucks, 3" antlers or longer
1952	Open	Aug. 20–Nov. 22	2	Bucks, 3" antlers or longer
1953–1954	Open	Aug. 20–Nov. 22	3	Bucks, 3" antlers or longer
1955	Open	Aug. 20–Nov. 22	3	3 bucks or 2 bucks and one antlerless, bucks 3" antlers or longer, antlerless may be taken Nov. 15–Nov. 22
1956	Open	Aug. 20–Nov. 26	4	3 bucks or 2 bucks and one antlerless, bucks 3" antlers or longer, antlerless may be taken Nov. 13–Nov. 26
1957–1959	Open	Aug. 20–Nov. 30	4	4 deer, does may be taken Oct. 15–Nov. 30
1960	Open	Aug. 20–Dec. 15	4	4 deer, does may be taken Oct. 1–Dec. 15
1961	Open	Aug. 1–Nov. 30	4	4 deer, antlerless deer may be taken Sep. 15–Nov. 30
1962	Open	Aug. 1–Dec. 15	4	4 deer, antlerless deer may be taken Sep. 15–Dec. 15
1963–1967	Open	Aug. 1–Dec. 31	4	4 deer, antlerless deer may be taken Sep. 15–Dec. 31
1968	Open	Aug. 1–Dec. 15	4	4 deer, antlerless deer may be taken Sep. 15–Dec. 15
1969–1971	Open	Aug. 1–Dec. 31	4	4 deer, antlerless deer may be taken Sep. 15–Dec. 31
1972	Open	Aug. 1–Dec. 31	3	3 deer, antlerless deer may be taken Nov. 1–Nov. 30
1973–1977	Open	Aug. 1–Nov. 30	3	1 antlerless deer may be taken Nov. 1–Nov. 30
1978–1984	Open	Aug. 1–Nov. 30	3	Antlered deer
1985–1986	State Subsistence/General	Aug. 1–Nov. 30	3	Antlered deer
1987	State Subsistence/General	Aug. 1–Nov. 30	3	1 antlerless deer may be taken Oct. 10–Oct. 31
1988–2013	State Subsistence/General	Aug. 1–Dec. 31	4	Antlered deer/bucks
1991–1994	Federal Subsistence	Aug. 1–Dec. 31	4	Antlered deer
1995–1997	Federal Subsistence	Aug. 1–Dec. 31	4	No more than one may be an antlerless deer, antlerless deer may be taken only during Oct. 15–Dec. 31
1998–2002	Federal Subsistence	Aug. 1–Dec. 31	4	No more than one may be an antlerless deer, antlerless deer may be taken Oct. 15–Dec. 31 by Federal registration permit only
2003–2005	Federal Subsistence	July 24–Dec. 31	4	No more than one may be an antlerless deer, antlerless deer may be taken Oct. 15–Dec. 31 by Federal registration permit only
2006–2009	Federal Subsistence	July 24–Dec. 31	5	No more than one may be an antlerless deer, antlerless deer may be taken Oct. 15–Dec. 31
2010–2014	Federal Subsistence	July 24–Dec. 31	5	No more than one may be a female deer, female deer may be taken Oct. 15–Dec. 31

While Unit 4 (Admiralty, Baranof and Chichagof Islands) has a season ending date of January 31 under Federal regulation, this is not the case for the remaining units in the Southeast Region. There are several factors in Unit 4 allowing for a January season to manage deer populations:

1) Unit 4 is less susceptible to extreme winter conditions than the mainland and more interior islands.
2) Unit 4 has very little road access, with hunting effort being primarily boat based.
3) Unit 4 does not have wolves, and brown bear predation during this time is virtually non-existent.

Following years of numerous Unit 2 related deer proposals (>30) to the Federal Subsistence Board (Board), the Unit 2 Deer Planning Subcommittee (Subcommittee) was formed in 2004 to address contentious deer management issues in Unit 2. At the request of the Board, the Southeast Alaska Subsistence Regional Advisory Council (Council) established the 12-member Subcommittee to address concerns that Federally qualified subsistence users in Unit 2 were unable to harvest enough deer to meet their needs. The Subcommittee included residents of Craig, Hydaburg, Ketchikan, Petersburg, Point Baker and Wrangell, along with representatives from State and Federal wildlife management agencies to reflect the range of users of Unit 2 deer.

The Subcommittee developed management recommendations at a series of five public meetings held in communities that depend upon Unit 2 deer. Both Federally and non-Federally qualified users participated at these meetings. The Subcommittee recommended that deer harvest management tools could be applied in Unit 2 as deer population trends and hunting use patterns changed. The degree to which these tools would be employed would be decided through the established public regulatory processes (SEASRAC 2006).

In 2006, the Board implememted two major changes regarding the Unit 2 deer hunt by supporting with modification Proposals WP06-08 and WP06-09. Action on WP06-08 reopened a portion of Federal public lands to non-Federally qualified users on the southeast side of Prince of Wales Island. Action on WP06-09, established the current 5 deer harvest limit for Federally qualified subsistence users (FSB 2006). Two other proposals, WP06-06 and WP06-10, related to the use of harvest tickets in Unit 2 were unanimously opposed by the Council and rejected by the Board (FSB 2006).

Only three proposals related to Unit 2 deer were submitted from 2007-2012. Proposal WP07-07 requested the female deer season be closed, ProposalWP10-19 requested a change to the female deer season and Proposal WP10-20 requested the August closure to non-Federally qualified users be lifted. The Council opposed and the Board rejected these proposals (FSB 2007, 2010).

Two proposals were considered for Unit 2 in 2013. Proposal WP14-03 requested the female deer season be eliminated while Proposal WP14-04 asked for an earlier season to be established for those Federally qualified subsistence users over the age of 60 or physically disabled. The Council unanimously opposed and the Board rejected these proposals (SEASRAC 2013; FSB 2014).

Biological Background

Sitka black-tailed deer spend the winter and early spring at low elevation where there is less snow accumulation and forests provide increased foraging opportunities. Fawning occurs in late May and early June as vegetation greens-up, providing abundant forage to meet energetic needs of the lactating doe. Some deer migrate and follow the greening vegetation up to alpine for the summer while others remain at lower elevations. The breeding season, or rut, generally occurs October through November and peaks in late November (ADF&G 2009). Wolves and black bears are the primary predators present in Unit 2 and may reduce deer populations.

Deer populations in southeast Alaska fluctuate and are primarily influenced by winter snow depths (Olson 1979). Deer typically have trouble meeting their energy needs in winter (Hanley and McKendrick 1985, Parker et al. 1999) and winters with long periods of deep snow that restrict the availability of forage can result in deer depleting their energy reserves to the point of starvation (Olson 1979).

Summer nutrition is important for building body reserves for sustaining deer through the winter (Stewart et al. 2005). Few studies have been conducted on summer habitat conditions because winter habitat carrying capacity is generally considered to be the limiting factor for deer in southeast Alaska. However, deer populations at or above habitat carrying capacity are affected by intra-specific competition for food and may enter winter in reduced condition compared to deer populations below carrying capacity (Kie et al. 2003, Stewart et al. 2005). This can result in higher susceptibility to severe winters and lower productivity (Kie et al. 2003, Stewart et al. 2005). In addition, nutritionally stressed does produce smaller and fewer fawns (Olson 1979).

Habitat

Old-growth forests are considered primary deer winter range, in part because the complex canopy cover allows sufficient sunlight through for forage plants to grow and intercepts snow, making it easier for deer to move and forage during winters when deep snow hinders access to other habitats. Some areas of Unit 2 have been impacted by large scale changes in habitat due to timber harvest, while the habitat is largely intact in other areas. Areas with substantial timber harvest are expected to have lower long-term carrying capacity compared to pre-harvest conditions.

Recent population indices

There are no methods to directly count deer in southeast Alaska, so the Alaska Department of Fish and Game (ADF&G) conducts deer pellet surveys as an index to the relative abundance of the deer population. Relating pellet group data to population levels is difficult, however, because factors other than changes in deer population size can affect deer pellet-group density. Snowfall patterns influence the distribution and density of deer pellets from year to year, and snow persisting late into the spring at elevations below 1,500 feet limits the ability to consistently survey the same elevation zones among years. In mild winters, deer can access forage in a greater variety of habitats, not all of which are surveyed. Conversely, in severe winters deep snow concentrates deer (McCoy 2011). Brinkman et al. (2013) questioned the value of pellet-group surveys for monitoring population trends due to the variability in the data compared to DNA based counts. Although pellet-group surveys remain the only widely available deer population data, the results should be interpreted with caution. In Unit 2, pellet-group data suggests a generally increasing population trend since a low during the late 1990s and early 2000s **(Figure 1**). This contrasts with Brinkman et al. (2011) who used a DNA based technique and estimated a 30% population decrease from 2006–2008 which they attributed to three consecutive deep snow winters. Brinkman's study was limited to three watersheds and the population changes during the study varied by watershed. It appears that populations increased after those severe winters and Bethune (2011) felt that by 2010 the Unit 2 deer population was healthy, stable to increasing, and at a 12-15 year high. No pellet surveys were completed during 2013 or 2014 (Bethune 2015).

Harvest History

Harvest data reported below are provided by ADF&G (Bethune 2015) and are gathered by several reporting systems including the Region 1 deer survey, Unit 2 deer harvest report, and the State-wide deer harvest report. The Region 1 deer survey is the most consistent report, covering the years 1997–2010 and is based on a sample of hunters. In general, 35% of hunters from each community were sampled annually and while response rates vary by community, the overall response rate across communities was approximately 60% each year. Harvest numbers were extrapolated using expansion factors that are calculated as the total number of harvest tickets issued to a community divided by the total number of survey responses for that community. If response was low from a community, an individual hunter may have a disproportionate effect on the data. As confidence intervals are not available for these data, harvest numbers should be considered estimates and used with caution. Trends, however, , should be fairly accurate especially at larger scales. The Unit 2 deer report was in place from 2005–2010 and was instituted specifically for reporting deer harvest in Unit 2. In 2011, the Statewide deer report replaced the other deer harvest reporting systems and requires reporting of harvest by all deer hunters. Different expansion factors are used for the various data sets so that total harvest estimates between years are comparable (McCoy 2011).

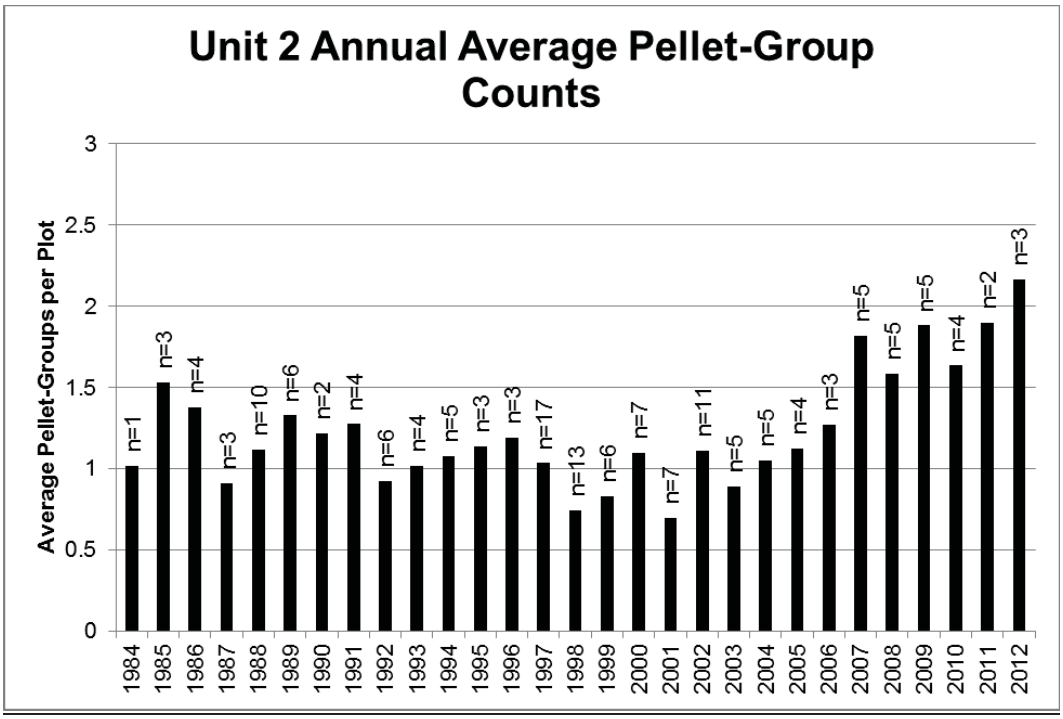

Figure 1 – Average pellet-group counts for all of Unit 2 since transects began in 1984 (McCoy 2011). Data labels represent the number of watersheds surveyed that year.

Action taken by the Alaska Board of Game in fall 2000 established a harvest objective of 2700 deer for Unit 2 as they identified the population as important for satisfying high levels of human consumptive use (Bethune 2013). Estimated deer harvest in Unit 2 from 1997–2013 can be found in **Figure 2**, with harvest by month being found in **Table 2**. The estimated total harvest averaged 2,850 deer during this period.

Harvests have been increasing since 1997 and were at or above ADF&G's Unit 2 harvest objective of 2,700 deer since 2005 (Bethune 2011). Estimated female deer harvest (**Figure 3**) averaged 4.2% of the total harvest. The average number of deer harvested per hunter increased since the late 1990s and has remained stable since 2004 (**Figure 4**). The average number of days it takes to harvest a deer also appears to have been stable since 2007 and is lower than the late 1990s (**Figure 4**). The harvest data support the pellet-group data which indicate that the deer population in Unit 2 is healthy and stable to increasing.

The majority of the hunters harvesting deer in Unit 2 between 2010-2012 were residents of Unit 2. Hunters from Unit 2 communities had a higher success rate than other hunters with an average success rate of 84% during this period. Hunters residing in Unit 1A averaged a 70% success rate during this same period and accounted for an average of 30% of the total Unit 2 harvest (**Figure 5**). Non-resident activity in the unit has slightly increased, which may be related to changes in black bear hunting opportunity in Unit 2. The Craig ADF&G office has noted an increase in non-resident inquiries related to deer hunting (Bethune 2013).

Despite current abundant deer populations, historically high harvest, liberalized seasons and harvest limits, there are continued concerns from members of the subsistence community regarding their inability to meet their subsistence needs. The biggest concern is the perception of increased hunting pressure, which may be a result of the Access Travel Management Plan (ATM) enacted by the USDA Forest Service in 2009. The ATM reduced access for hunters by reducing miles of roads in Unit 2. The ATM may have resulted in pushing a similar "pre-ATM" number of hunters into smaller areas, affirming the perception of increasingly crowded hunting conditions. In addition, as clear-cuts advance past early seral stages, deer are less visible from the road which may also be leading to the misperception that fewer deer are available (Bethune 2013).

Table 2 – Estimated deer harvest by month in Unit 2, 2003-2013 (Bethune 2015).

	July	August	September	October	November	December	Totals
2003	78	284	287	357	566	49	1621
2004	68	310	240	481	811	61	1971
2005	210	485	393	503	895	76	2562
2006	192	501	459	541	1333	152	3178
2007	128	428	300	450	1217	121	2644
2008	116	494	362	522	1525	167	3186
2009	122	488	263	510	1655	183	3221
2010	156	471	281	595	1669	178	3350
2011	230	632	295	595	1932	197	3881
2012	143	460	302	556	1878	315	3654
2013	163	484	282	460	2105	174	3668

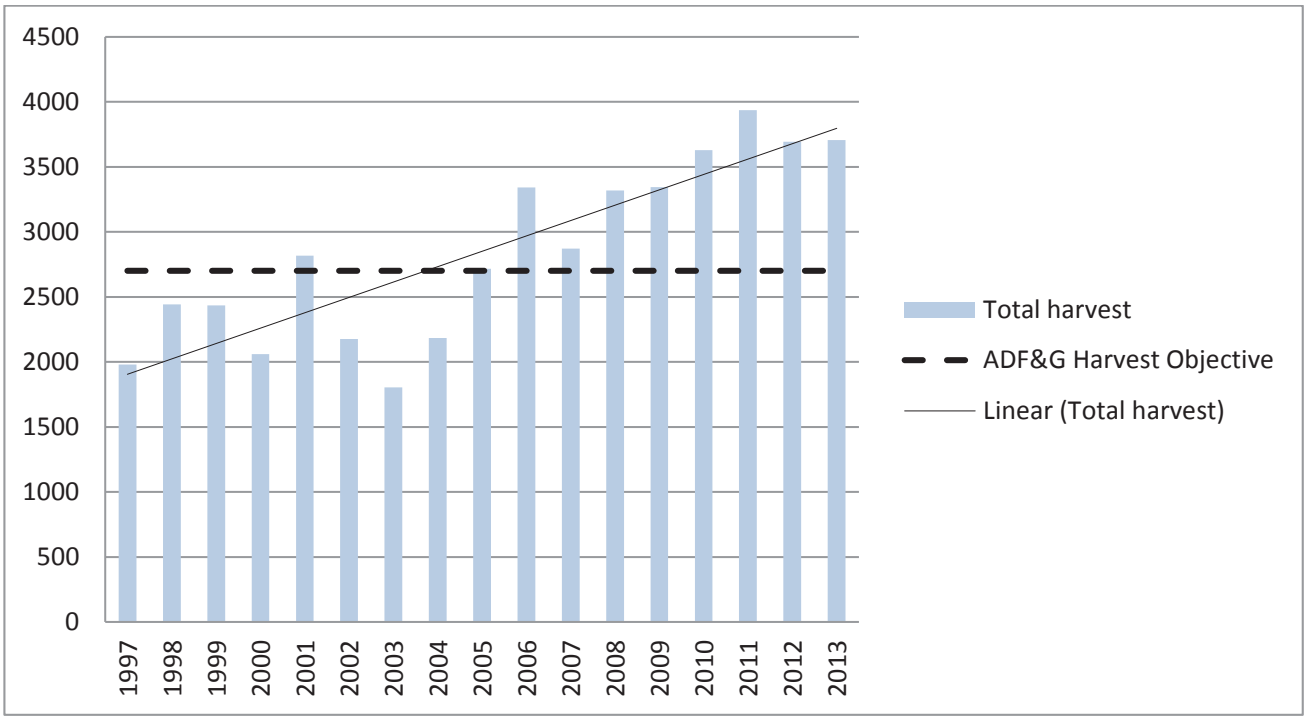

Figure 2 – Estimated total deer harvest in Unit 2 from 1997-2013 (Bethune, 2015).

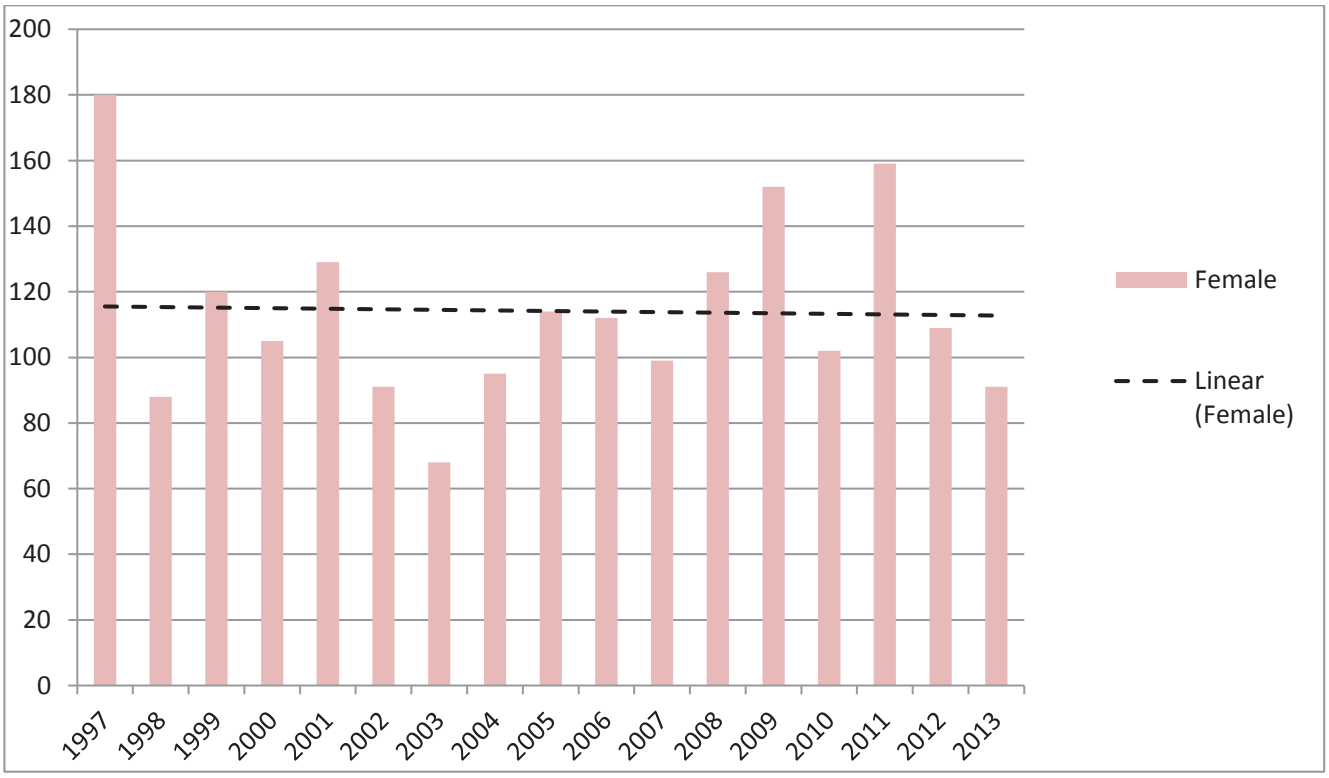

Figure 3 – Estimated female deer harvest in Unit 2 from 1997-2013 (Bethune, 2015).

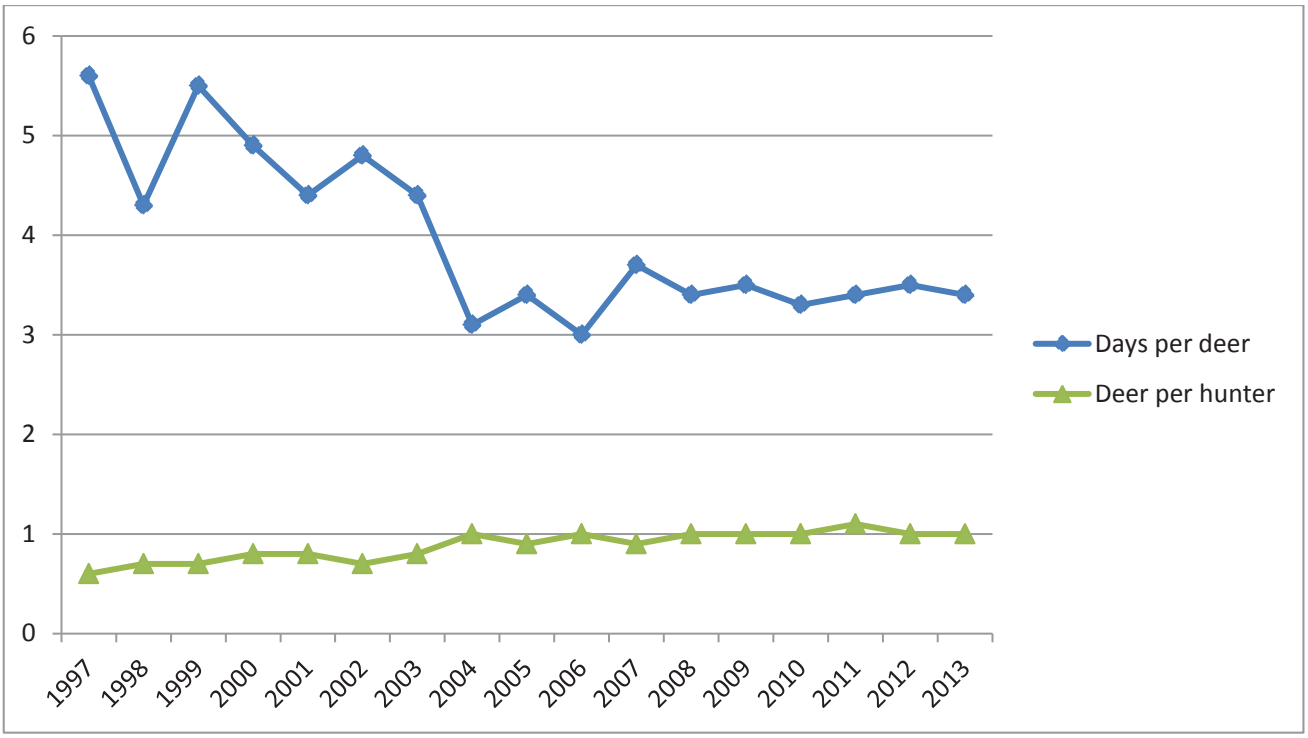

Figure 4 – Average number of days for successful hunters to harvest a deer and the average number of deer harvested per successful hunter in Unit 2 from 1997-2013 (Bethune, 2015).

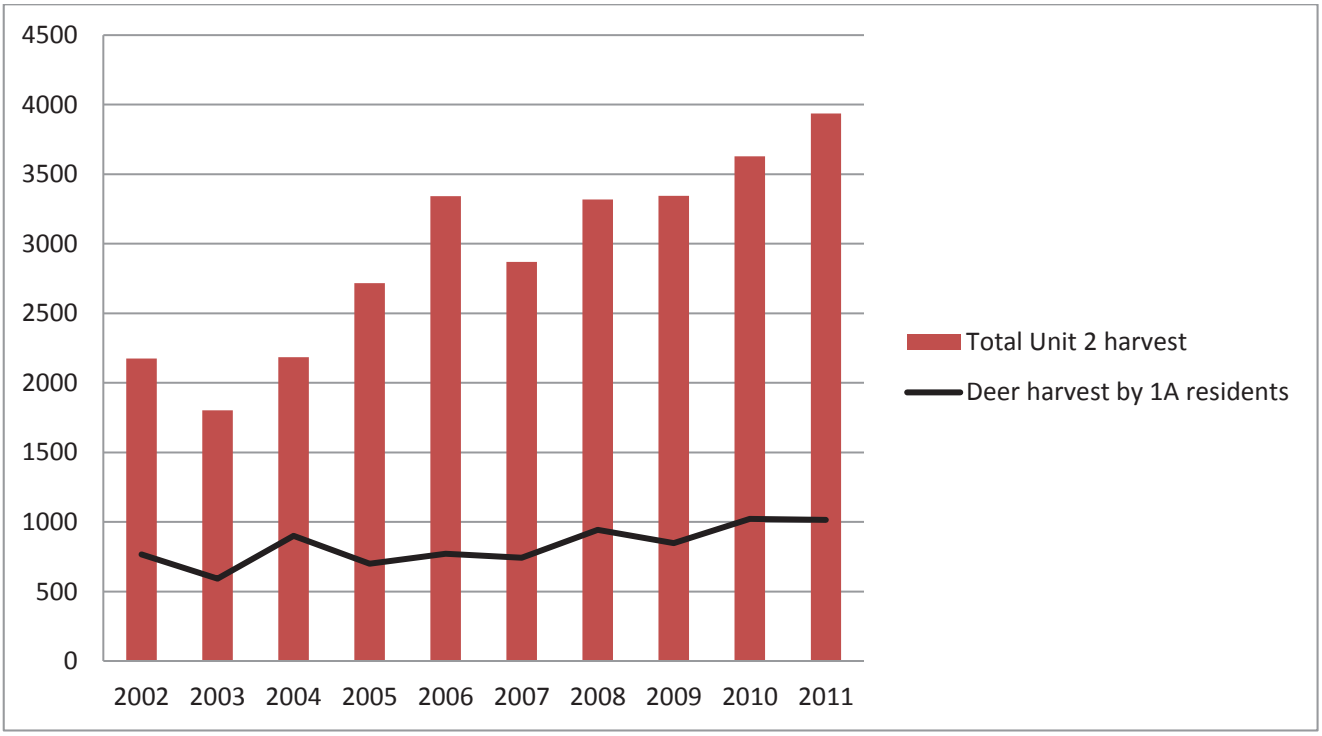

Figure 5 – Proportion of deer harvest taken by hunters residing in Unit 1A compared to total Unit 2 deer harvest from 2002-2011 (Bethune, 2013).

Effects of the Proposal

If adopted, the proposal would reduce the harvest limit for non-Federally qualified users hunting deer on Federal public lands in Unit 2. The proposal would not change the harvest limit under the State sport hunting regulation or affect harvest on State and private lands.

If adopted, the proposal would provide Federally qualified subsistence users an additional 31 days of opportunity to harvest deer on Federal public lands in Unit 2. The January portion of the season would only apply to Federal public lands. Although prior year harvest tickets can be used, Federally-qualified users will need a new State hunting license to participate in a January season.

Additional deer would be harvested during the proposed January season, however, both State and Federal managers are unable to estimate to what degree. While potential harvest may be far lower than other months, the harvest of female deer may increase dramatically beyond current levels as females are in better physical condition than bucks during January. Lastly, differentiating between male and female deer during January will be difficult as most bucks have shed their antlers and will have hair growth over their pedicles.

OSM CONCLUSION

Oppose Proposal WP16-01.

Justification

Although interpretation of Title VIII of ANILCA could allow the Board to restrict State harvest limits on Federal public lands, reducing the harvest limit for non-Federally qualified users in Unit 2 as allowed under §815 (3) of ANILCA is not necessary at this time for conservation. Although deer harvest in Unit 2 has been on the increase, the harvest percentage by non-Federally qualified users has not increased dramatically from previous levels. Recent increases in deer harvested per hunter, as well as the decrease in hunt days per deer for all Unit 2 deer hunters, suggest the deer population in Unit 2 is currently stable and growing.

The Unit 2 Federal season currently provides Federally qualified subsistence users eight additional hunting days in July prior to the start of the State season, a closure to non-Federally qualified users for 15 days in August on the majority of the Federal public lands on Prince of Wales Island, a more liberal harvest limit of five deer, and opportunity to harvest a female deer after October 15. Current harvest data suggests these priorities are benefitting Federally qualified subsistence users.

Although a January season exists in Unit 4, the addition of 31 days of hunting opportunity in Unit 2 may negatively affect the deer population. State and Federal managers believe extending the season in Unit 2 is not in the best interest of deer conservation due to ease of access through an expansive road system as well as the presence of wolves in the unit. Lastly, with male deer during January being in poorer physical

condition than female deer, along with the difficulty in distinguishing between the two during this time, the harvest of female deer may substantially increase resulting in conservation concerns.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Southeast Alaska Subsistence Regional Advisory Council

The Council decided this proposal contained two unrelated provisions and wanted to consider each topic separately. To expedite that process, the Council divided the proposal into WP16-01a, changing the season ending date from December 31 to January 31, and WP16-01b, reducing the non-federally qualified annual harvest limit from 4 deer to 2 deer.

Support WP16-01a. The Council did not think that extending the season would significantly increase the harvest of female deer. Female deer make up only 4% of the current harvest, the population is increasing and the season change would not cause a conservation concern. Many subsistence users do not have adequate freezer systems and would value the opportunity to harvest fresh meat in January. The season ending date in Unit 4 is January 31 and that works well at providing for local needs of residents in that area. During council discussions, it was stated that it was a traditional activity to harvest a deer when needed and a January season would provide for the continuation of this traditional use of deer.

Oppose WP16-01b. The Council determined that because there was no conservation concern with deer in Unit 2, there was no justification to reduce the harvest of deer by non-federal users. Adopting this portion of proposal WP16-01 would be detrimental to non-qualified users without reason.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and Federal Subsistence Board action on the proposal.

The Southeast Council made separate recommendations on the two aspects of the proposal. The Council supported the proposed extension of the Federal season from July 24 – Dec. 31 to July 24 to Jan. 31. The Council opposed restricting the harvest limit for non-Federally qualified users on Federal public lands.

If the Board agrees with the Council's recommendation, it could **Support** Proposal WP16-01, **with modification** to only extend the season from July 24 – Dec. 31 to July 24 – Jan. 31. Deer populations in Unit 2 are at reasonably high levels and the population is increasing. However, based on the staff analysis, the season change could cause a conservation concern for deer in Unit 2. Council comments during deliberations at their recent October 27-29, 2015 meeting indicated that it is a traditional practice to harvest deer in January and that even without antlers, male deer could be identified in January.

As stated in the staff analysis, there is no legal or biological basis for restricting non-Federally qualified users in Unit 2.

WRITTEN PUBLIC COMMENTS

Klawock Cooperative Association, Tribe
310 Bayview Blvd.
P.O. Box 430
Klawock, Alaska 99925

Phone: 907-755-2265
Fax: 907-755-8800

2016-2018 Wildlife Proposals Addendum

Southeast

WP16-01

October 12, 2015

Federal Subsistence Management
c/o Theo Matuskowitz
1011 E. Tudor Rd, MS-121
Anchorage, AK 99503

RE: Unit 2 Deer Harvest Limit Proposal

Dear Mr. Matuskowitz,

The Klawock Cooperative Association (KCA) is writing to show support for a proposal to the Federal Subsistence Board for consideration on the Unit 2 deer harvest limit submitted by the Craig Tribal Association (CTA).

Current Unit 2 Harvest Limits:
5 deer, no more than one may be female deer. Female deer may be taken only during the period Oct. 15-Dec 31. The harvest limit may be reduced to 4 deer based on conservation concerns.
Federal Public Lands on Prince of Wales Island, excluding the Southeast portion (land south of West Arm of Cholmondeley Sound draining into Cholmondeley Sound or draining eastward into Clarence Strait) are closed to hunting of deer from August 1- August 15, except by Federal qualified subsistence users hunting under these regulations.

Proposed Unit 2 Harvest Limits:
5 deer, no more than one may be female deer, Female deer may be taken only during the period Oct. 15-Dec 31. The harvest limit may be reduced to 4 deer based on conservation concerns.
Federal Public Lands on Prince of Wales Island, excluding the Southeast portion (land south of West Arm of Cholmondeley Sound draining into Cholmondeley Sound or draining eastward into Clarence Strait) are closed to hunting of deer from August 1- August 15, except by Federal qualified subsistence users hunting under these regulations.
Federal Public Lands on Prince of Wales Island will be limited to 2 deer except y Federal qualified subsistence users hunting under these regulations. Extend Deer Season to January 31 for Federal qualified subsistence users hunting under these regulations.

Statement of Necessity:
Title VIII of ANILCA and the ability of the Rural Federal Subsistence Users of Prince of Wales Island ability to get their needs fulfilled hunting under these regulations. This would also assist in the conservation concerns that the Rural Federal Subsistence Users of Prince of Wales Island have and sustain this resource.

Very Respectfully,

Lawrence Armour
Tribal Administrator
Klawock Cooperative Association

The Klawock Cooperative Association, ("the Tribe"), is a duly constituted Indian Tribe organized pursuant to the authority of Section 16 of the Act of Congress of June 18, 1934 (48 Stat. 984), amended May, 1 1936 (49 Stat. 1250) The Klawock Cooperative Association Tribal Council is a duly elected governing body of the Tribe, authorized to act by and on the behalf of its members.

ORGANIZED VILLAGE OF KASAAN

P. O. Box 26-Kasaan ▪ Ketchikan, Alaska 99950-0340
(907) 542-2230 ▪ (fax) 907-542-3006

RESOLUTION OVK-15-10-003

A Resolution of the Organized Village of Kasaan in support of the Craig Tribal Association's (CTA) Proposal, WP 16-01, requesting that non-Federally qualified subsistence users be limited to the harvest of two (2) deer from Federal public lands in Unit 2 and the season ending date for Federally qualified subsistence users be extended from December 31st to January 31st.

WHEREAS, the Organized Village of Kasaan is a federally recognized Tribe organized pursuant to the Indian Reorganization Act of June 18, 1934 (48 Stat. 984) and May 1, 1936 (49 Stat. 1250); and

WHEREAS, the Corporate Charter of the Organized Village of Kasaan (Ratified October 15, 1938) states in its Purpose and Existence, "In order to further the economic development of the Indians residing in the neighborhood of Kasaan, Alaska, by conferring upon the Organized Village of Kasaan corporate rights and powers; and to enable this Village and its members to undertake enterprises designed to secure for the members of the corporation an assured economic independence..."; and

WHEREAS, the Organized Village of Kasaan (hereinafter "OVK") is governed by a Council of elected representatives composed of a President and six members who act in accordance with the powers granted to it by its Constitution and By-Laws (Ratified on October 15, 1938); and

WHEREAS, the OVK supports the Craig Tribal Association's (hereinafter "CTA") proposal WP 16-01, requesting that non-Federally qualified subsistence users be limited to the harvest of two (2) deer from Federal public lands in Unit 2; and

WHEREAS, the OVK supports CTA's request that the season ending date for Federally qualified subsistence users be extended from December 31st to January 31st.

NOW THEREFORE BE IT RESOLVED, by the Council of the Organized Village of Kasaan supports the CTA Proposal WP16-01, requesting that non-Federally qualified subsistence users be limited to the harvest of two (2) deer from the Federally public lands in Unit 2 and the season ending date for Federally qualified subsistence users be extended from December 31st to January 31st.

WP16-07 Executive Summary	
General Description	Proposal WP16-07 requests that firearms be allowed under trapping regulations to harvest beaver in Units 1-5. *Submitted by the Southeast Alaska Subsistence Regional Advisory Council*.
Proposed Regulation	***In Units 1-5, a firearm may be used to take beaver under a trapping license during an open beaver season.***
OSM Conclusion	**Support** Proposal WP16-07 **with modification** specifying that firearms may not be used on National Park Service lands. The modified regulation would read: ***In Units 1-5, a firearm may be used to take beaver under a trapping license during an open beaver season, except on National Park Service lands.***
Southeast Regional Council Recommendation	**Support as modified by OSM**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Board action on the proposal. The Interagency Staff Committee determined that adopting this proposal as written would result in conflicting regulations on lands administered by the National Park Service. The modification as proposed by the Office of Subsistence Management and supported by the Southeast Council will align Federal and State rules and clarify that National Park Service lands are excluded from the proposed regulation. Taking beaver with a firearm is allowed in many other areas of the State without resulting in conservation concerns. It is anticipated that adopting this proposal as modified by OSM, will provide additional opportunity to harvest beaver for food and reduce regulatory complexity.
ADF&G Comments	**Support**
Written Public Comments	**None**

STAFF ANALYSIS
WP16-07

ISSUES

Proposal WP16-07, submitted by the Southeast Alaska Subsistence Regional Advisory Council (Council), requests that firearms be allowed for harvesting beaver in Units 1-5 under Federal subsistence trapping regulations.

DISCUSSION

In January 2015, the Alaska Board of Game considered Proposal 15 to allow beaver to be taken with a firearm under the terms of a State trapping license in Unit 2 which the proponent submitted a comment in support of the proposal. The Alaska Board of Game amended and adopted Proposal 15 to apply to Units 1–5. The proponent stated the following reasons of why a similar change should be made in Federal regulations: the proposal provides consistency in State and Federal regulations; taking beaver with a firearm under trapping license is allowed in other parts of the state; beaver are often used for food; there are no conservation issues with beaver in Units 1-5 and any harvesting of beaver with a firearm by trappers is not likely to substantially increase the overall harvest.

Existing Federal Regulation

§242.26(d) The following methods and means of trapping furbearers for subsistence uses pursuant to the requirements of a trapping license are prohibited, in addition to the prohibitions listed at paragraph (b) of this section:

(3)Taking beaver by any means other than a steel trap or snare, except that you may use firearms in certain Units with established seasons as identified in Unit-specific regulations found in this subpart;

Units 1, 2, 3 except Mitkof Island and Unit 4 – Beaver (trapping)

No limit	*Dec. 1 – May 15*

Unit 3 Mitkof Island – Beaver (trapping)

No limit	*Dec. 1 – Apr. 15*

Units 5 – Beaver (trapping)

No limit	*Nov. 10 – May 15*

When taking wildlife for subsistence purposes, trappers may <u>not</u>:

Under a trapping license, take a free-ranging furbearer with a firearm on NPS lands.

Proposed Federal Regulation

§242.26(d) The following methods and means of trapping furbearers for subsistence uses pursuant to the requirements of a trapping license are prohibited, in addition to the prohibitions listed at paragraph (b) of this section:

(3)Taking beaver by any means other than a steel trap or snare, except that you may use firearms in certain Units with established seasons as identified in Unit-specific regulations found in this subpart;

Units 1, 2, 3 except Mitkof Island and Unit 4 – Beaver (trapping)

No limit	*Dec. 1 – May 15*

Unit 3 Mitkof Island – Beaver (trapping)

No limit	*Dec. 1 – Apr. 15*

Units 5 – Beaver (trapping)

No limit	*Nov. 10 – May 15*

When taking wildlife for subsistence purposes, trappers may not:

Under a trapping license, take a free-ranging furbearer with a firearm on NPS lands.

In Units 1-5, a firearm may be used to take beaver under a trapping license during an open beaver season.

Existing State Regulation

Beaver must be sealed within 30 days of the close of the season.

Unit 1-5 – Beaver (trapping)

No limit	*Nov. 10 – Apr. 30*

Extent of Federal Public Lands

Federal public lands comprise approximately 88% of the Southeast Region which includes Units 1-5. The Forest Service manages the Tongass National Forest. The National Park Service manages the Glacier Bay National Park and Preserve, Sitka National Historical Park, Klondike Gold Rush National Historical Park and the Wrangell-St. Elias National Park and Preserve. There is no hunting allowed, on Federal public lands, in Glacier Bay National Park, Sitka National Historical Park or Klondike Gold Rush National Historical Park. In order to engage in subsistence in Wrangell-St. Elias National Park, the National Park Service requires that subsistence users either live within the park's resident zone (36 CFR 13.430, 36 CFR 13.1902) or have a subsistence permit (36 CFR 13.440) issued by the park superintendent. The U.S. Fish and Wildlife Service manages the Alaska Maritime National Wildlife Refuge.

Customary and Traditional Use Determinations

The Board has not made a customary and traditional use determination to harvest beaver in Units 1-5. Therefore, all Federally qualified subsistence users may harvest this specie in these units.

Regulatory History

Federal trapping regulations in Units 1-5 were adopted from the State trapping regulations at the time Federal management began. Although trapping regulations typically allow trappers to harvest furbearers with a firearm, harvesting beaver in southeast Alaska with this method has been prohibited. In January 2015, the Alaska Board of Game approved the use of a firearm in Units 1-5 to take beaver under trapping regulations.

The National Park Service prohibits the use of firearms to take free-ranging furbearers under a trapping license. This practice is prohibited in Alaskan national parks, monuments and preserves as a result of two sets of regulations: June 1981 final regulations that defined a trap as "*a snare, trap, mesh, or other implement designed to entrap animals others than fish*," and June 1983 NPS-wide regulations that defined trapping as "*taking or attempting to take wildlife with a trap*."

In 2007, the Southeast Alaska Subsistence Regional Advisory Council (Council) submitted proposals WP07-09 and WP07-10 to establish and/or realign open trapping seasons in Units 1D and 4 for beaver following Alaska Board of Game action in November 2006. The Council supported WP07-09 with modification and WP07-10 as written (SEASRAC 2007). The Board adopted both proposals as consensus agenda items (FSB 2007).

Biological Background

Beaver occur in the forested wetland areas of Alaska (ADF&G 2015). Beaver populations in Units 1-5 have increased following large scale timber harvest that began in the 1950's and are considered healthy (Bethune 2015, pers. comm.).

Harvest History

Any beaver harvested under trapping regulations in southeast Alaska must be sealed within 30 days of the close of the season. Reported harvest in Units 1-5 has ranged from 106 to 515 beaver annually since 2000. Harvest in Unit 2 has averaged around 61% of the entire annual Southeast Alaska harvest (**Table 1**). Harvests are more a function of trapper interest and fur prices rather than abundance.

Table 1 – Beaver harvest in Units 1-5 from 2000-2013 (Bethune 2015, pers. comm.)

	2000	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*	*2013*	*Total*
Unit 1	67	21	55	44	55	55	36	60	54	98	49	60	100	74	828
Unit 2	302	221	144	345	214	182	53	309	113	249	177	195	189	178	2871
Unit 3	139	110	86	43	61	43	16	11	27	41	17	11	55	77	737
Unit 4		14	1	4	5	2	1	12	18	7	19	15	26	33	157
Unit 5	7		17	7	9	8			4	7	3	3	8	5	78
Total	515	366	303	443	344	290	106	392	216	402	265	284	378	367	4671

Effects of the Proposal

If the proposal were adopted, Federally qualified subsistence users would be able to harvest beaver on Federal public lands with a firearm under Federal trapping regulations. Adopting the proposal aligns State and Federal regulations and provides Federally qualified users an additional method to harvest beaver. The proposal will not apply to National Park Service lands, however, as a separate provision currently restricts firearm use on lands within their jurisdiction. Allowing the take of beaver with a firearm should not dramatically increase beaver harvest or create conservation issues in Units 1-5.

OSM CONCLUSION

Support Proposal WP16-07 **with modification** to specify that firearms may not be used on National Park Service lands. The modified regulation would read:

In Units 1-5, a firearm may be used to take beaver under a trapping license during an open beaver season, except on National Park Service lands.

Justification

Allowing the use of firearms to take beaver provides for better meat quality when taking beaver for food, and is allowed in other areas of the State. If adopted as modified, the proposal does not create conservation issues as beaver populations in these units are healthy, provides additional means to harvest

beaver, and aligns State and Federal regulations. Adoption of the modified language would maintain the prohibition of firearm use on National Park Service lands.

LITERATURE CITED

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Southeast Alaska Subsistence Regional Advisory Council

Support WP16-07 **as modified by OSM**. There is no conservation concern by adopting this proposal because beaver populations appear to be healthy and hides must be sealed. This regulation will reduce the need to issue nuisance harvest permits for beaver, align Federal and State regulations and increase the food quality of beaver taken for subsistence. It will benefit subsistence users by allowing the take of beaver encountered while trapping other species. Modifying the proposal to exclude National Park Service lands will align this regulation with National Park Service rules.

The modified regulation would read:

> ***In Units 1-5, a firearm may be used to take beaver under a trapping license during an open beaver season, except on National Park Service lands.***

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and Federal Subsistence Board action on the proposal.

The Interagency Staff Committee determined that adopting this proposal as written would result in conflicting regulations on lands administered by the National Park Service. The modification as proposed by the Office of Subsistence Management and supported by the Southeast Council will align Federal and State rules and clarify that National Park Service lands are excluded from the proposed regulation. Taking beaver with a firearm is allowed in many other areas of the State without resulting in conservation concerns. It is anticipated that adopting this proposal as modified by OSM, will provide additional opportunity to harvest beaver for food and reduce regulatory complexity.

WP16-09 Executive Summary	
General Description	Proposal WP16-09 requests that the Federal Subsistence Board (Board) close the Federal subsistence marten trapping season on Kuiu Island in Unit 3. *Submitted by the Alaska Department of Fish and Game.*
Proposed Regulation	*§___.26(n)(3)(iii)* *Units 1, 2, 3* ***(except Kuiu Island),*** *and 4 – Marten (Trapping)* *Dec. 1-Feb. 15* *No limit* ***Kuiu Island portion of Unit 3*** ***No open season***
OSM Conclusion	**Support** Proposal WP16-09 **with modification** to reduce the length of the marten trapping season on Kuiu Island to Dec. 1-Dec. 31. The modified regulation would read: *Units 1, 2, 3* ***(except Kuiu Island),*** *and 4 – Marten (Trapping)* — *Dec. 1-Feb. 15* *No limit* ***Kuiu Island portion of Unit 3*** — ***Dec. 1-Dec. 31*** ***No limit***
Southeast Regional Council Recommendation	**Support as modified by OSM**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Board action on the proposal.
ADF&G Comments	**Support**
Written Public Comments	**None**

STAFF ANALYSIS
WP16-09

ISSUES

Proposal WP16-09, submitted by the Alaska Department of Fish and Game (ADF&G), requests that the Federal Subsistence Board (Board) close the Federal subsistence marten trapping season on Kuiu Island in Unit 3.

DISCUSSION

Beginning in 2008, there have been a number of regulatory actions by both State and Federal authorities to either close or restrict the marten trapping season on Kuiu Island. The actions were the result of a seven-year marten research project on Kuiu Island that concluded the marten population on Kuiu Island is at a low level. The Kuiu Island marten population is somewhat isolated from other marten populations and includes both marten subspecies (*Martes americana* and *M. caurina*). The proponent believes there are compelling conservation concerns with regard to marten on Kuiu Island and that the trapping season should be closed.

Existing Federal Regulation

Units 1, 2, 3, and 4—Marten (Trapping)

No limit	*Dec. 1–Feb. 15*

Proposed Federal Regulation

Units 1, 2, 3 (except Kuiu Island), and 4 – Marten (Trapping)	*Dec. 1-Feb. 15*
No limit	
Kuiu Island portion of Unit 3	***No open season***

Existing State Regulation

Units 1-3 (except Kuiu Island)-Marten (Trapping)

No limit	*Dec. 1-Feb. 15*
Unit 3, Kuiu Island	*No open season*

Extent of Federal Public Lands

Federal public managed lands comprise over 95% of the Kuiu Island portion of Unit 3 and are managed by the United States Forest Service (USFS) **(Map 1).**

Customary and Traditional Use Determinations

The Board has not made a customary and traditional use determination for marten in Unit 3. Therefore, all Federally qualified subsistence users may harvest this species in this unit.

Map 1. Kuiu Island, including open logging roads. (figure courtesy ADF&G)

Regulatory History

Historically, marten trapping seasons and harvest limits in Unit 3 were liberal, and State and Federal regulations were aligned. Season dates were from December 1–February 15, with no harvest limits. However, because of conservation concerns, the Alaska Board of Game adopted a proposal submitted by ADF&G to permanently close marten trapping on Kuiu Island during its November 2008 meeting, effective for the 2009 season. Because of the delayed implementation, ADF&G issued Emergency Order 01-11-08, effective November 30, 2008, to close marten trapping on Kuiu Island for the 2008 season.

The Board approved Special Action Request WSA08-11, submitted by ADF&G, which closed the marten trapping season on Kuiu Island for 60 days, beginning December 11, 2008. The Board approved Special Action Request WSA09-03 which closed the subsistence marten trapping season on Kuiu Island during the 2009 season.

As recommended by the Southeast Alaska Subsistence Regional Advisory Council (Council), the Board adopted Proposal WP10-07 as modified to close the 2010 and 2011 Federal subsistence marten trapping seasons on Kuiu Island; with a sunset clause that would reopen the season in 2012. When the Board made its decision, it was not known if there would be funding available for research on marten on Kuiu Island and the Board felt that if no research was forthcoming, a sunset clause would provide a mechanism to re-open the area after the marten population had a chance to recover. Harvest patterns, as referenced below, indicate that 42% of the total marten harvest occurs in December. Closing the January-February portion of the season would likely reduce the potential harvest by 58%. There would likely be some harvest during the December season and because of the fur sealing requirement; a time-series of information important to management (catch per unit effort, sex and age, etc.) could be obtained (FSB 2010).

In November 2012, ADF&G submitted Special Action Request WSA12-09 to close the Federal subsistence marten trapping season on Kuiu Island in Unit 3 for the 2012 season. ADF&G was concerned that the marten population on Kuiu Island was at a very low level, recruitment was poor and marten continued to experience a high degree of natural mortality. The marten study was ongoing and a trapping season could compromise the successful conclusion of the study. After a public hearing in Petersburg, with teleconferencing to include residents of Kake, the Board approved the Temporary Special Action on November 29, 2012 to close the marten season on the Kuiu Island portion of Unit 3.

ADF&G submitted Special Action Request WSA13-08 to close Federal subsistence marten trapping season on Kuiu Island in Unit 3 for the 2013 season (December 1, 2013 – February 15, 2014). A public meeting was held in Petersburg on December 6 with teleconferencing for residents of Kake. The Board closed the Jan. 1 – Feb. 15 portion of the 2013 season. The Board noted the low marten population on Kuiu Island and the continued low recruitment and high mortality rate. It also noted the low participation by Federally qualified subsistence users. The Board reasoned that reducing the trapping season to one month i.e., December 2013, would provide an opportunity for the continuation of subsistence use while providing adequate protection for conservation. In addition, because furs must be sealed, a limited

harvest would provide a mechanism for the collection of biological samples that could be used for management of this population.

Biological Background

In North America, marten range from Alaska to the southern Sierra Nevada and to New Mexico (Powell et al. 2003). Both sexes reach sexual maturity by age one, although effective breeding may not occur before age 2. Alaska marten give birth in April or early May (Shepherd and Melchior 1994). Breeding occurs shortly after parturition; however, implantation is delayed. Males are polygynous, and females may be both polyandrous and selective (Powell et al. 2003). Average litter size is three in Alaska (Shepherd and Melchior 1994).

Although only one species of marten is formally recognized in Southeast Alaska, two distinct lineages exist, including the coastal form *caurina* and the continental form *americana*. Based on recent molecular analyses, it appears there are very different evolutionary histories (Carr and Hicks 1997, Cook et al. 2006, Dawson 2008). A 2002 genetic study by the University of Alaska Fairbanks documented that both lineages occur in Southeast Alaska, and that the *caurina* form inhabits only two islands within the Archipelago, Admiralty and Kuiu Islands, and should be considered endemic (Dawson 2008). Hybridization between the two forms has been documented on Kuiu Island (Cook et al. 2006).

Marten populations fluctuate greatly in response to food availability, habitat conditions, and trapping pressure (Powell 1994 in Powell et al. 2003, Shepherd and Melchior 1994, USFS 2008). In Southeast Alaska, based on recent studies, marten abundance and densities are largely determined by the abundance and biomass of their mammalian prey (Flynn et al. 2013). Voles are the dominant prey of marten across their range (Powell et al. 2003), including Southeast Alaska (Flynn and Schumacher 1999, Shepherd and Melchior 1994). Other small mammals, berries, small birds, eggs, salmon, carrion and vegetation are also food sources for marten in Alaska (Flynn and Schumacher 1999, Shepherd and Melchior 1994). The role of ungulate carrion in the ecology of Southeast Alaska marten populations is unclear. Flynn et al. (2004) documented that ungulate density was a significant predictor of marten catch rate, but did not document ungulates in the diet. Ungulates may be a more important component of marten diets in the later winter and early spring when winter-killed carcasses become available. Kuiu Island has among the lowest deer density in Southeast Alaska (Lowell 2008); therefore, deer carcass availability may be limited.

Based on diversity in individual diets, marten are opportunistic predators, influenced by the type and quantity of local prey species (Ben-David et al. 1997). Flynn et al. (2004) documented seasonal variation in marten diet on Kuiu Island between 2001 and 2002. Although the composition of food sources was the same between years and included salmon, long-tailed voles, deer mice, red squirrels, and berries, the proportion of each food in the marten diet differed between the two years. Based on a recent study on northern Kuiu Island, small mammal abundance was lower in 2007 than during previous studies in 2002 and 2003 (Flynn et al. 2004, Flynn and Dawson 2008). Similar low abundance of small mammals was documented in other Southeast Alaska locations in 2007, which was predicted to result in a decline in the marten population (Ben-David 2007).

Marten are subject to high natural mortality rates, particularly from predation (Hodgman et al. 1997, Bull and Heater 2001). Bull and Heater (2001) reported that the probability of survival of marten >9 months old was 56% for 1 year old, 38% for 2 years old, 22% for 3 years old, and 16% for 4 years old, which equates to an average annual survival rate of approximately 65% per year over 4 years. The overall survival rate for the study period was estimated at 44%, with most mortalities occurring between January and March. On Chichagof Island, average survival rates for radio collared marten were estimated at about 75% considering only natural mortality, and 66% with trapping mortality included (ADF&G unpublished data). Between 2008 and 2012, the estimated natural annual mortality on Kuiu Island ranged from 12 to 63% (Flynn et al. 2013).

Marten are easily trapped, which can lead to overharvest (Powell et al. 2003, USFS 2008). Habitat quality must be considered when managing marten harvests. A management strategy incorporating areas closed to trapping is one option to maintain viable populations of marten to act as a source for adjacent trapped areas, although in areas with high road densities and high trapping pressure, closed areas alone may not be sufficient (Hodgman et al. 1997, Powell et al. 2003).

Density estimates for Kuiu Island ranged from 0.25-0.70 martens/ mi^2 over the course of the study, with poor juvenile recruitment (Flynn et al. 2013). By comparison, marten densities between $0.44/mi^2$ and $1.42/mi^2$ have been observed on Chichagof Island (Flynn et al. 2013.). Marten are easily caught by trappers and allowing trapping along roads is known to result in high catch rates (Flynn and Schumacher 1999). The road system on the northern end of Kuiu Island makes the marten population vulnerable to trapping in that area (Flynn et al. 2013).

Habitat

Marten are wide-ranging and require large tracts of contiguous habitat to move across the landscape, as well as habitats capable of supporting an adequate prey-base of small mammals. Marten are strongly associated with late seral and old-growth forests below 1,500 feet in elevation. One of the most important factors related to viability of the marten populations on the Tongass National Forest is the amount of habitat in Old Growth Reserves and non-development Land Use Designations (USFS 2008). Recent timber harvest activities have been restricted to the northern portions of Kuiu Island (the same area as the marten research study). Within that area (Wildlife Analysis Area 5012) high value marten habitat has been reduced by 29 % since 1954 (USFS 2007).

Radio-telemetry data was collected from 2007-2013 and showed more than 80% of the martens were located at some point within 250m of the shoreline (Flynn et al. 2013). Previous information indicated that Kuiu Island marten tend to concentrate near the beaches during winter (Flynn and Dawson 2008). It is not clear if winter concentration of marten on beaches occurs during all winters or during severe winters like those experienced in 2007-2008. Use of beach fringe may coincide with winter killed deer carrion availability, which is an important component of marten diets (Buskirk and Ruggiero 1994).

Harvest History

Generally, marten harvest levels are directly related to fur prices and winter weather conditions during the trapping season (Lowell 2007). Fluctuations in the number of marten taken annually are related to management actions restricting the season, or trappers avoiding Kuiu Island because of low marten population densities. The number of marten taken by fur trappers on Kuiu Island has ranged from 0 to 51 per year between 1984 and 2014, averaging 12 marten per season since the 1995 season, including only the years when the season was open (Lowell 2015, pers. comm.) (**Figure 1**). The number of individuals trapping marten on Kuiu Island ranged from 0-3 per year from 1995-2014 (Lowell 2015, pers. comm.). The majority of the marten harvest occurred during December (42%) and February (41%), whereas only 17% of the harvest has occurred in January (Lowell 2008). Kuiu Island has a land area of approximately 379.15 mi^2. Using the most recent estimate of marten density (.70/mi^2), there was an estimated 265 marten living on Kuiu Island in 2012.

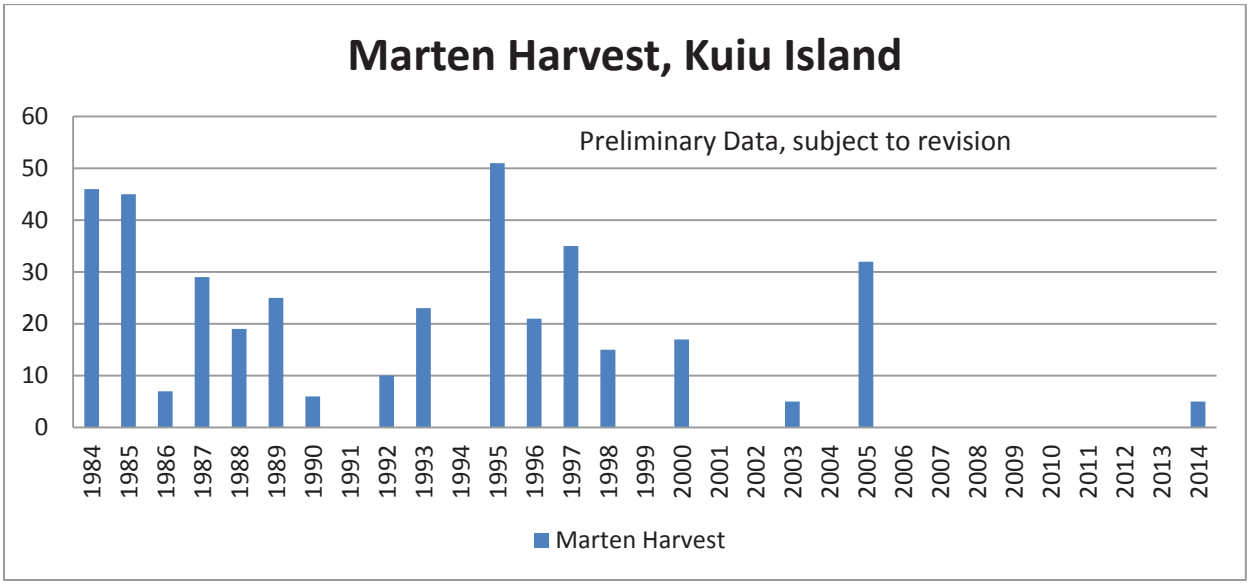

Figure 1. Marten harvest on Kuiu Island, 1984-2014 seasons.

Other Alternative(s) Considered

The alternative selected by the Board in 2010 was to close the Kuiu Island trapping season for two years to allow time for the marten population to recover. The fault with closing the season, with a sunset clause to re-open, is that there will be no new information to guide the Board in how to determine an appropriate closed period prior to re-opening. The marten study has concluded and there are no plans for future studies to determine marten densities on Kuiu Island.

Another alternative is to close marten trapping from the road system (i.e., allow boat-based trapping only). As discussed in the habitat section of this report, this option may be ineffective in reducing marten harvests because more than 80% of the collared marten were located at some point within 250 m of the shoreline. There is a tendency for marten to become concentrated near the beach line during the late

winter, at least in some years. The road system on Kuiu Island is not connected to any community and is unmaintained in winter and often impassable except by snow machine.

Effects of the Proposal

If Proposal WP16-09 were adopted, the Federal marten trapping season on Kuiu Island would be closed. There has been little trapping on the island in recent years and this closure would have minimal effects on Federally qualified subsistence users other than the loss of potential opportunity. Since studies have indicated that marten survival and abundance is positively correlated to abundance of food and the number of trappers and the resulting harvest is currently at low levels, a complete closure would not likely assist in increasing the marten population. The number of trappers that have used this area is very low at 0-3 in those years when the trapping season was opened; of which no more than one trapper each year has been a Federally qualified subsistence user (Lowell 2015, pers. comm.). Trapping on Kuiu Island is costly because of its remote location and trapping pressure is expected to remain at minimal levels until the marten numbers increase and trapping becomes economically justifiable.

OSM CONCLUSION

Support Proposal WP16-09 **with modification** to reduce the length of the marten trapping season on Kuiu Island to Dec. 1-Dec. 31.

The modified regulation would read:

Units 1, 2, 3 ***(except Kuiu Island****), and 4 – Marten (Trapping)*	*Dec. 1-Feb. 15*
No limit	
Kuiu Island portion of Unit 3	***Dec. 1-Dec. 31***
No limit	

Justification

This recommended modification was the solution adopted by the Board for the 2013 season. Harvest patterns, as referenced above, indicate that 42% of the total marten harvest occurs in December. The result of closing the January-February portion of the season would likely reduce the potential harvest by 58%. Additionally, sealing of marten is required and allowing some harvest would facilitate collection of harvest statistics and biological samples for use by managers in monitoring this population. A December only season provides an opportunity for the continuation of subsistence in addition to adequate protections for conservation of marten on Kuiu Island.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Southeast Alaska Subsistence Regional Advisory Council

Support WP16-09 **as modified by OSM** where the length of the marten trapping season on Kuiu Island would be reduced to Dec. 1-Dec. 31. The Council was concerned that without a trapping season, there would not be an opportunity to recognize when the marten population increases. The modification is a significant reduction in the length of the season and will likely reduce the potential harvest by 58%. Sealing marten is required and will allow harvests to be documented as well as facilitate communication between trappers and the management Agencies. A December only season provides an opportunity for the continuation of subsistence uses and provides for the conservation of marten on Kuiu Island.

The modified regulation should read:

Unit 3 – Marten

Units 1, 2, 3 ***(except Kuiu Island),*** *and 4 – Marten (Trapping)* *No limit*	*Dec. 1-Feb. 15*
Kuiu Island portion of Unit 3 ***No Limit***	***Dec. 1-Dec. 31***

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

WP16–10a Executive Summary	
General Description	Proposal WP16-10a requests that rural residents of Unit 6D be included in the customary and traditional use determination for moose in Unit 6D. *Submitted by Andy McLaughlin of Chenega Bay*.
Proposed Regulation	**Customary and Traditional Use Determination-Moose** *Unit 6D* ~~*No Federal subsistence Priority*~~ ***Residents of Unit 6D***
OSM Conclusion	**Support**
Southcentral Alaska Regional Advisory Council Recommendation	**Support**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal. The Interagency Staff Committee noted that while Unit 6D contains a significant amount of Federal public lands around Prince William Sound, none currently support a resident moose population nor provide significant moose habitat. However, an estimated 99% of the reported moose harvested in Unit 6D are known to have been taken on State managed lands along the Richardson Highway and the far eastern end of Hinchinbrook Island. Residents of Unit 6D have a demonstrated history of using moose.
ADF&G Comments	**Oppose**
Written Public Comments	**None**

STAFF ANALYSIS
WP16-10a

ISSUES

Proposal WP16-10a, submitted by Andy McLaughlin of Chenega Bay, requests that rural residents of Unit 6D be included in the customary and traditional use determination for moose in Unit 6D.

DISCUSSION

The proponent notes that State regulations are more lenient than the Federal regulations because currently there is no Federal subsistence priority for moose in unit 6D. Residents of Chenega Bay and Tatitlek have historically harvested moose in areas such as the Kings Bay drainage area in Unit 7; or in the Copper River Delta, near Cordova; and in the Lowe River drainage, outside of Federal public lands in Unit 6D. While moose populations in Prince William Sound are limited by available habitat, a positive customary and traditional use determination for moose in Unit 6D, and an established Federal open season, would allow rural residents of Unit 6D to harvest moose when the population increases (**Map Unit 6**). Proposal WP 16-10b, requests that an open season be established in Unit 6D for the harvest of one bull moose for Federally qualified subsistence users with a season of Sept. 1 to Dec 31.

Existing Federal Regulations

Customary and Traditional Use Determinations – Moose

Unit 6D	*No Federal subsistence priority*

Proposed Federal Regulation

Customary and Traditional Use Determinations – Moose

Unit 6D	~~*No Federal subsistence Priority*~~ ***Residents of Unit 6D***

Extent of Federal Public Lands

Federal public lands comprise 67% of Unit 6D and consist of 65% U.S. Forest Service (USFS) managed lands and 2% Bureau of Land Management (BLM) managed lands (**see Unit 6 map**).

Regulatory History

The Alaska Department of Fish and Game (ADF&G) has managed a hunt for any bull moose in Unit 6D with season dates running from Sept. 1 - Sept. 30 for over 20 years. Both Alaska residents and

nonresidents are eligible. There is currently no open season under Federal regulations to hunt moose and, no customary and traditional use determination for moose in Unit 6D.

At its April 1997 meeting, the Federal Subsistence Board (Board) adopted a customary and traditional use determination for moose in the Kings Bay drainage portion of Unit 7 for the residents of Chenega Bay and Tatitlek (Proposal P97-018b). The Board adopted Proposal P97-02 with modification to create a season from Aug. 10 – Sept. 20 and a harvest limit of 2 moose per community for residents of Chenega Bay and Tatitlek. It also closed Federal public lands to all other users (FSB 1997).

Residents of 6D, except for Whittier, have a customary and traditional use determination for black bear in Unit 6A and the remainder of Unit 6. Residents of Unit 6D, except for Whittier, have a customary and traditional use determination for goat in Units 6A, 6C, 6D and 6 remainder.

Emergency Special Action WSA01-02, submitted by the Chugach National Forest, requested that the Aug. 10 – Sept. 20 moose season in the Kings Bay drainage of Unit 7 be closed to all users for the 2001 season. This Special Action was approved by the Board which determined that the moose population was too small to support a harvest.

Proposal WP06-18, submitted by the Native Village of Chenega, requested that residents of Chenega Bay be added to those with a customary and traditional use determination for moose in Unit 6C. The Native Village of Chenega also requested a permit to take one bull moose annually for a ceremonial potlatch. While the proposal was not adopted by the Board, the staff analysis noted that a harvest use area for moose at Kings Bay in Unit 6D was mapped in 1985 and 1986 and hunters expressed hope that they could hunt moose there again in the future (Stratton and Chisum 1986:82-84).

In 2014, the Board adopted Proposal WP 14-10 establishing a customary and traditional use determination for moose in the remainder portion of Unit 7 for the residents of Chenega Bay and Tatitlek, recognizing their traditional use of moose in this area. The Board also adopted Proposal WP 16-11 establishing a limited moose hunt of one bull per community for Chenega Bay and Tatitlek every four years in the Kings Bay drainage of Unit 7.

Community Characteristics

The proposal seeks to include rural residents of Unit 6D, which includes rural residents of Whittier, Chenega Bay and Tatitlek, in a customary and traditional use determination for moose in Unit 6D. The communities of Chenega Bay and Tatitlek are both predominantly Chugach Alutiiq villages. In 2014, Whittier had a population of 234; Tatitlek had a population of 98; and Chenega Bay had a population of 57 people (Community Database Online 2015).

The old village of Chenega on Chenega Island, near Port Nellie Juan and relatively close to Kings Bay was founded before the Russians arrived in the area in the late 1700s; it was the longest occupied village in Prince William Sound. It was first reported in the 1880 Census. Chenega was destroyed by a tsunami triggered by an earthquake in 1964. The survivors were evacuated to Cordova and then relocated to

Tatitlek by the Bureau of Indian Affairs (Community Database Online 2015). Nearly all the original Chenega residents enrolled in their original village, and formed the Chenega Corporation under the Alaska Native Claims Settlement Act. A new village of Chenega Bay was established on Evans Island, to the south of the old village, and many of the original residents of Chenega moved to Chenega Bay in 1984 (Davis 1984). The village is only accessible by air or by boat and residents practice a subsistence lifestyle (Community Database Online 2015).

Tatitlek is an unincorporated coastal village, located on the northeast shore of the Tatitlek Narrows on the Alaska mainland in Prince William Sound. It was first reported in the 1880 Census with a population of 73. Originally located at the head of Gladhaugh Bay, the village moved to its present location around 1900. The village is governed by an Indian Reorganization Act Village Council, which was formed in 1934. The village is only accessible by air or by boat and residents practice a subsistence lifestyle (Community Database Online 2015).

Whittier was established in 1943 as a military complex, after the completion of the railroad to Whittier. The area where Whittier is located was originally part of a portage area used by the Chugach Natives of Prince William Sound as they traveled to fish in Turnagain Arm (Whittier, Alaska 2015). The city was incorporated in 1969 (Community Database Online 2015).

For the purposes of this analysis, residents of Whittier are residents of the Whittier Census Designated Place; residents of Chenega Bay are the residents of the Chenega Bay Census Designated Place; residents of Tatitlek are residents of the Tatitlek Census Designated Place. In the 2010 U.S. Census, the Chenega Bay Census Designated Place represented the entire Evans Island, including a small group of residents at Sawmill Bay. The Tatitlek Designated Place represents the village of Tatitlek and the small group of residents at Ellamar (U.S. Census 2015).

Eight Factors for Determining Customary and Traditional Uses

A community or area's customary and traditional use is generally exemplified through 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; and (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 a holistic application of these eight 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)).

The Board makes customary and traditional use determinations for the sole purpose of recognizing the pool of users who generally exhibit the eight factors. The Board does not use such determinations for resource management or restricting harvest. If a conservation concern exists for a particular population, the Board addresses that concern through the imposition of harvest limits or season restrictions rather than by limiting the customary and traditional use finding.

Specific information on each of the eight factors is not required because a community or area seeking a customary and traditional use determination only has to "generally exhibit" the eight factors (50 CFR 100.16(b) and 36 CFR 242.16(b)).

In 1949, a few moose calves were introduced in Unit 6C. There was originally little use of moose by these communities and the first harvest in Unit 6C took place in 1960. According to a report by Stratton and Chisum, only four hunters living in Chenega reported harvesting moose in a typical year during the 1960s (Stratton and Chisum 1986). Later household surveys showed some years with little or no harvest of moose during the 1980s and 90s in Chenega Bay and Tatitlek (ADF&G 2013).

At the beginning of the historical era in the late 1700s, settlement was along the deeply embayed coast or a few miles inland along salmon-bearing streams characterized by ice-free winters. This was a maritime culture known for hunting marine mammals and saltwater fishing. The Alutiiq are noted for their development of the two-hatch kayak. Land mammals were also pursued (Clark 1984).

When the Russians arrived in the late 1700s they diverted Alutiiq subsistence activities and trade to the Russian fur trade, often through coercion. The Russians altered the natural annual cycle of economic activities followed by Alutiiq (Clark 1984). Many were settled at Nuchek, a trading post established by Russians on Hinchinbrook Island, and dispersed after the sale of Alaska to the United States (Fall et al. 2001). In the late 1800s, there were two Alutiiq settlements in western Prince William Sound, Chenega and Kiniklik; and two in eastern Prince William Sound, Tatitlek and Nuchek. Some residents participated in fur farming, mining, and fishing industries while pursuing a subsistence way of life.

The current town of Whittier was established as a military port in the 1940s and was incorporated in 1969. Today tourism forms the base of the economy, providing many of the local jobs, along with jobs working for the State and Federal government. Cruise ships dock at Whittier and people come to Whittier to participate in both commercial and recreational fisheries.

The basis of the cash economy in many Alutiiq communities has been commercial fishing; however, participation in commercial fishing has declined in recent years. In 1989, the Exxon Valdez oil spill occurred in marine waters adjacent to Tatitlek. The spill disrupted the lives of people in most Alutiiq villages in the region. The 1990s were a time of questioning the safety and health of wild resources (Fall et al. 2001). The subsistence economies in Chenega Bay and Tatitlek appeared to rebound when in 2003,

subsistence harvests in the villages were found to be substantial. In 2003, the harvest by Chenega Bay residents was estimated to be 470 pounds per person. The average number of wild resources used per household was 24; compared to an estimated per capita harvest of 176 pounds and mean household use of 12 resources in Cordova (ADF&G 2013). The comparable values for Tatitlek residents were an estimated harvest of 290 pounds per capita and mean household use of 21 different wild resources.

Stratton and Chisum (1986) reported that in the past, moose were occasionally taken by Chenega and Tatitlek residents while they were hunting for goat; the usual times for goat hunting being in fall and winter. In the 1960s, hunters from the old village of Chenega took moose in the fall, which was the traditional season to hunt large land mammals. Moose hunting by Tatitlek residents in the 1980s also took place in the fall (Stratton 1986). Residents of Chenega Bay or Tatitlek participated in household harvest surveys in the 1980s, 1990s, and 2000s. According to the surveys, moose were harvested and the meat was shared with other households.

Moose meat is widely shared by residents of Unit 6D. Residents of Chenega Bay share and distribute moose meat within and beyond their villages. Even in years when there is no reported harvest of moose by residents of Unit 6D, there are reports of receiving moose from relatives or friends from other communities. ADF&G (2001) found that in most years, a higher percentage of respondents reported receiving moose meat than did harvesting moose, suggesting a pattern of redistribution of shared resources.

Moose were introduced in the Copper River Delta, and the numbers of moose documented in Unit 6D has been relatively low. However, the customary and traditional uses of moose by residents of Chenega Bay and Tatitlek have already been recognized by the Board, although most of these were harvested outside of Unit 6D. For example, in 2014, The Board adopted a customary and traditional use determination for moose in the Kings Bay drainage portion of Unit 7 for the residents of Chenega Bay and Tatitlek, recognizing their traditional use of moose in this area (Proposal WP 14-10).

The ADF&G and the U.S. Fish and Wildlife Service also maintain a harvest reporting database. However, complete records were not kept until the mid-1980s. **Table 1** displays the harvest of moose reported by residents of Chenega Bay, Tatitlek, and Whittier from 1985 to 2010, cumulative, for the years available.

Table 1. Reported Moose Harvest and Household Use by Residents of Chenega Bay, Tatitlek, and Whittier (ADF&G 2015).

Community	Year	Percentage of Households					Moose Harvest			
		Using moose (%)	Hunt moose (%)	Harvest moose (%)	Give moose (%)	Receive moose (%)	Estimated Harvest (number)	Lower Estimate (number)	Higher Estimate (number)	Per Person (lb)
Chenega Bay	2003	44	6	6	13	44	1	1	2	12
	1997	47	13	13	20	40	3	1	5	26
	1993	4	0	0	4	4	0	0	0	0
	1992	22	0	0	0	22	0	0	0	0
	1991	17	0	0	0	17	0	0	0	0
	1990	6	0	0	0	6	0	0	0	0
	1989	17	6	0	0	17	0	0	0	0
	1985	44	6	6	6	38	1	1	2	9
	1984	38	19	6	19	31	1	1	1	9
Tatitlek	2003	0	0	0	0	0	0	0	0	0
	1997	25	6	0	6	25	0	0	0	0
	1993	5	0	0	5	5	0	0	0	0
	1991	0	0	0	0	0	0	0	0	0
	1990	6	0	0	0	6	0	0	0	0
	1989	14	0	0	0	14	0	0	0	0
	1988	43	0	0	5	43	0	0	0	0
	1987	58	5	5	16	53	2	1	4	7
Whittier	1990	43	8	3	12	42	4	2	5	6

Effects of the Proposal

If the Board were to adopt this proposal, residents of Unit 6D would have a customary and traditional use determination already in place in the event that the moose population increases to allow for a Federal hunt. The number of moose harvested in this area has historically been low, and it is assumed the harvest numbers would continue to be minimal due to the sparse population of moose in the region. If adopted, this proposal will have no effect on the moose population because; although it will recognize customary and traditional use for the communities in Unit 6D, but there would be no Federal hunt for moose in Unit 6D under current regulations. If the Board were to adopt this proposal, residents of Unit 6D would be given a positive customary and traditional use determination for moose in Unit 6D and would have the opportunity to harvest moose in the unit if an open season is established in the future.

OSM CONCLUSION

Support Proposal WP 16-10a.

Justification

Whether or not a community receives a customary and traditional use determination is only contingent on fulfilling a past history of harvest in the area. It is not contingent on whether or not there are enough of the resources for Federally qualified subsistence users to harvest the resource or what the effects on the resource are. Residents of Unit 6D have shown a history of traditional use of moose harvested in Unit 6D.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Southcentral Subsistence Regional Advisory Council

Support WP16-10a. The Council heard testimony from the proponent that historically, moose have been harvested in Unit 6D. This will provide for subsistence opportunity in the future when the moose population can support a Federal subsistence opportunity for harvest.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

The Interagency Staff Committee noted that while Unit 6D contains a significant amount of Federal public lands around Prince William Sound, none currently support a resident moose population nor provide significant moose habitat. However, an estimated 99% of the reported moose harvested in Unit 6D are known to have been taken on State managed lands along the Richardson Highway and the far eastern end of Hinchinbrook Island. Residents of Unit 6D have a demonstrated history of using moose.

WP16–10b Executive Summary	
General Description	Proposal WP16–10b requests that a Sept. 1 to Dec 31season be established in Unit 6D for the harvest of one bull moose. *Submitted by Andy McLaughlin of Chenega Bay*.
Proposed Regulation	Units 6—Moose ***Unit 6D – 1 bull*** ***Sept. 1 – Dec. 31***
OSM Conclusion	**Oppose**
Southcentral Regional Advisory Council Recommendation	**Support**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Oppose**
Written Public Comments	**None**

STAFF ANALYSIS
WP16-10b

ISSUES

Proposal WP16-10, submitted by Andy McLaughlin of Chenega Bay, requests that rural residents of Unit 6D be included in the customary and traditional use determination for moose in Unit 6D which will be addressed in the analysis of proposal WP16-10a. Proposal WP16-10b, which requests that a Sept. 1 - Dec. 31season be established in Unit 6D for the harvest of one bull moose, will only be considered if the Board adopts WP16-10a and recognizes the customary and traditional uses of residents of Unit 6D for moose in Unit 6D.

DISCUSSION

The proponent notes that State regulations are more lenient than the Federal regulations because currently there is no Federal subsistence priority for moose in unit 6D. The proponent further states that rural residents have traditionally harvested moose in the winter and early spring months. Residents of Chenega Bay and Tatitlek have historically harvested moose in areas such as the Kings Bay drainage area in Unit 7; or on the Copper River Delta, near Cordova; and in the Lowe River drainage, outside of Federal public lands in Unit 6D. While moose populations in Prince William Sound are limited by available habitat, a positive customary and traditional use determination for moose in Unit 6D, and an established Federal open season, would allow rural residents of Unit 6D to harvest moose when the population increases.

Existing Federal Regulations

Customary and Traditional Use Determinations – Moose

Unit 6D	*No Federal subsistence priority*

Hunting Regulations

Unit 6 – Moose

Unit 6C – 1 antlerless moose by Federal drawing permit only	*Sept. 1 – Oct. 31*
Permits for the portion of the antlerless moose quota not harvested in the Sept. 1 – Oct. 31 hunt may be available for redistribution for a Nov. 1 – Dec. 31 hunt.	
Unit 6C – 1 bull by Federal drawing permit only	*Sept.1 – Dec. 31*

In Unit 6C, only one moose permit may be issued per household. A household receiving a State permit for Unit 6C moose may not receive a Federal permit. The annual harvest quota will be announced by the U.S. Forest Service, Cordova Office, in consultation with ADF&G. The Federal harvest allocation will be 100% of the antlerless moose permits and 75% of the bull permits. Federal public lands are closed to the harvest of moose except by Federally qualified users with a Federal permit for Unit 6C moose, Nov. 1 – Dec. 31.	
Unit 6, remainder	*No open season*

Proposed Federal Regulation

Customary and Traditional Use Determinations – Moose

Unit 6D	*~~No Federal subsistence Priority~~* ***Residents of Unit 6D***

Hunting Regulations

Unit 6 - Moose

Unit 6C – 1 antlerless moose by Federal drawing permit only	*Sept. 1 – Oct. 31*
Permits for the portion of the antlerless moose quota not harvested in the Sept. 1 – Oct. 31 hunt may be available for redistribution for a Nov. 1 – Dec. 31 hunt.	
Unit 6C – 1 bull by Federal drawing permit only	*Sept.1 – Dec. 31*
In Unit 6C, only one moose permit may be issued per household. A household receiving a State permit for Unit 6C moose may not receive a Federal permit. The	

annual harvest quota will be announced by the U.S. Forest Service, Cordova Office, in consultation with ADF&G. The Federal harvest allocation will be 100% of the antlerless moose permits and 75% of the bull permits. Federal public lands are closed to the harvest of moose except by Federally qualified users with a Federal permit for Unit 6C moose, Nov. 1 – Dec. 31.

Unit 6D – 1 bull	***Sept. 1 – Dec. 31***
Unit 6 - remainder	*No open season*

Existing State Regulations

Unit 6D – Moose	
One bull	*Sept. 1 – Sept 30*

Extent of Federal Public Lands

Federal public lands comprise 67% of Unit 6D and consist of 65% U.S. Forest Service (USFS) managed lands and 2% Bureau of Land Management (BLM lands) (**see Unit 6 Map**).

Regulatory History

The Alaska Department of Fish and Game (ADF&G) has managed a hunt for any bull moose in Unit 6D with season dates running from Sept. 1 -Sept. 30 for over 20 years. Both Alaska residents and nonresidents are eligible. There is no Federal hunt for moose or customary and traditional use determination for moose in Unit 6D.

At its April 1997 meeting, the Federal Subsistence Board (Board) adopted a customary and traditional use determination for moose in the Kings Bay drainage portion of Unit 7 for the residents of Chenega Bay and Tatitlek (Proposal P97-018b). The Board adopted Proposal P97-02 with modification to create a season from Aug. 10 – Sept. 20 and a harvest limit of 2 moose per community for residents of Chenega Bay and Tatitlek. It also closed Federal public lands to all other users (FSB 1997).

Emergency Special Action WSA01-02, submitted by the Chugach National Forest, U.S. Forest Service, requested that the Aug. 10 – Sept. 20 moose season in the Kings Bay drainage of Unit 7 be closed to all users for the 2001 season. This Special Action was approved by the Board. The Board determined that the moose population was too small to support a harvest.

WP06-18, submitted by the Native Village of Chenega, requests that residents of Chenega Bay be added to those with a positive customary and traditional use determination for moose in Unit 6C. The Native Village of Chenega also requested a permit to take one bull moose annually for a ceremonial potlatch. While the Proposal was not adopted by the Board, the staff analysis noted that a harvest use area for moose at Kings Bay in Unit 6D was mapped in 1985 and 1986 and hunters expressed hope that they could hunt moose there again in the future (Stratton and Chisum 1986:82-84).

In 2014, the Board adopted Proposal WP14-10 establishing the customary and traditional use determination for moose in the Kings Bay drainage portion of Unit 7 for only the residents of Chenega Bay and Tatitlek, recognizing their traditional use of moose in this area. The Board also adopted Proposal WP14-11 with modification, allowing residents of only Chenega Bay and Tatitlek to harvest moose from the portion Unit 7 draining into Kings Bay while recognizing the conservation concern for moose in this area and maintaining the closed season.

Biological Background

Moose populations in most of Unit 6 were originally relocated from other areas of Alaska in the 1940s and 1950s, when they were released on the Copper River Delta in Unit 6C, and expanded mostly eastward in subsequent years (Crowley 2010). The only moose endemic to Unit 6D are a small population in the Lowe River drainage near Valdez, numbering about 40 animals, largely occurring on non-Federal lands (Crowley 2008).

No formal moose surveys have been conducted in Unit 6D, which encompasses Prince William Sound. Most of Unit 6D consists of habitat largely unsuitable for moose with deep fjords and mountainous shorelines. The vegetation is mostly forested with muskeg meadows and few areas of extensive willow browse. Snow depths can be extreme, especially in the western and northern portions of Prince William Sound.

The moose population segment that regularly provides some harvest opportunity within Unit 6D occurs within the Lowe River drainage in the north end of Unit 6D, near Valdez. The Lowe River area likely receives dispersing moose from adjacent Unit 13 to the north, and because of severe winters and often extreme snow depths, supports only a small resident moose population (Crowley 2008, Westing 2015, pers. comm.).

Unit 6C to the east of Unit 6D has a thriving moose population that originated from releases of orphaned moose calves in the 1940s and 50s. This population is currently at an all-time high and is the likely source of occasional reports of moose on Hawkins and Hinchinbrook Islands in Unit 6D.

The Kings Bay portion of Unit 7, on the western border of Unit 6D, has had a small moose population for many years. Some moose from the King's Bay population have undoubtedly strayed into Unit 6D. Narrow riparian areas along the Kings and Nellie Juan Rivers result in little moose habitat in the King's Bay area. Moose surveys conducted in this area have resulted in declining counts of 20 to 5 moose between 1997 and 2006, respectively (Zemke 2006). The USFS contracted ADF&G to conduct a moose

survey of the King's Bay portion of Unit 7 in 2014, but no moose were observed (Westing 2015, pers. comm.).

Harvest History

An average of 2.5 moose /year have been harvested from Unit 6D since 1983. Of the 81 moose reported harvested from Unit 6D in this period, 89% had been taken from the Lowe River drainage near Valdez. Approximately 10% have come from the eastern portion of Unit 6D near Cordova; the majority of these coming from the far eastern end of Hinchinbrook Island. No recent harvest has been reported from the western portion of Unit 6D, or that area adjacent to the small moose population in the King's Bay portion of Unit 7 (Westing 2015, pers. comm.).

Effects of the Proposal

If this proposal is adopted it would establish a moose season in Unit 6D, from Sept. 1 - Dec. 31 with a harvest limit of one bull moose. There is little moose habitat in Unit 6D and no viable moose populations. The portion of Unit 6D, which is adjacent to the Kings Bay area of Unit 7, is the closest area within Unit 6D to where the proponent lives, that might support a moose population. The most recent survey of that area revealed no moose or sign of moose in 2014. Likewise, the population that has been counted in the area prior to 2014 has been too low to support any harvest, and as a result, harvest has been closed in both State and Federal regulations. The extension of the moose season in Unit 6D could lead to the harvest of moose adjacent to the King's Bay portion of Unit 7 which would inhibit growth of this population.

The Lowe River drainage near Valdez does support a small moose harvest that averages 2.5 moose per year. Lengthening the Federal season in Unit 6D would add little opportunity for rural residents as Valdez is a non-rural community and little Federal public land exists in the Lowe River drainage.

Likewise, some moose disperse from Unit 6C into eastern portions of Unit 6D. Most of the harvest that has come from this portion of Unit 6D has been on non-Federal lands on the eastern end of Hinchinbrook Island.

OSM CONCLUSION

Oppose Proposal WP16-10b.

Justification

This proposal to establish a Federal open season for the harvest of one bull moose in Unit 6D would add little opportunity for rural residents of Unit 6D to harvest moose, as there are no viable moose populations in the unit. Liberalizing harvest opportunity for moose adjacent to the King's Bay portion of Unit 7 could set back recovery efforts of that population and few other opportunities to harvest moose in Unit 6D exist, particularly on Federal public lands. All Alaska residents may harvest any bull moose in Unit 6D from Sept. 1 -Sept. 30, under State hunting regulations.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Southcentral Subsistence Regional Advisory Council

Support WP16-10b. The Council heard testimony from the proponent that historically, moose have been harvested in Unit 6D. The moose harvest occurs in the lower elevations of the unit and is mainly the transient moose that are harvested for subsistence. Current State hunting regulations allows for a general moose hunt.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

WP16–11 Executive Summary	
General Description	Proposal WP16–11 requests a buck–only season be established in Unit 6D with a season of Jan. 1 – Jan. 31, and a harvest limit of 1 buck. *Submitted by Andy McLaughlin of Chenega Bay.*
Proposed Regulation	**Unit 6—Deer** *4 deer; however antlerless deer may be taken only from Oct. 1–Dec. 31.* — *Aug. 1–Dec. 31* **Unit 6D–1 buck.** — ***Jan. 1–Jan. 31***
OSM Conclusion	**Oppose**
Southcentral Regional Advisory Council Recommendation	**Support** WP16-11 **with modification** that an unused harvest ticket must be in the hunter's possession. The modified regulation should read: **Unit 6—Deer** *4 deer; however antlerless deer may be taken only from Oct. 1–Dec. 31.* — *Aug. 1–Dec. 31* **Unit 6D–1 buck** — ***Jan. 1–Jan. 31*** ***Only unused harvest ticket may be used during Jan. 1–Jan. 31 buck season***
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal. The Southcentral Regional Advisory Council's recommendation on WP16-11 addressed potential conservation concerns with this deer subsistence hunt by restricting harvests to bucks only and maintaining the current 5 deer harvest limit for Federally qualified subsistence users.

WP16–11 Executive Summary	
	Limiting the proposed January season to bucks only is problematic since most bucks have lost their antlers by mid-January, and antlers remaining on deer in January are easily shed during handling/transport. Trying to determine sex of deer without antlers is difficult and can lead to misidentification, increased harvest of does, and enforcement issues. Hunters currently have a 5 month season and harvest of either sex is allowed from October through December. Additionally, while deer have had excellent winter conditions since the severe winter of 2011-12, deer surveys indicate that the population is still recovering.
ADF&G Comments	**Oppose**
Written Public Comments	**None**

STAFF ANALYSIS
WP16–11

ISSUES

Proposal WP16–11, submitted by Andy McLaughlin of Chenega Bay, requests a buck–only season be established in Unit 6D with a season of Jan. 1 – Jan. 31, and a harvest limit of 1 buck.

DISCUSSION

The proponent believes that a buck hunt in Unit 6D should be allowed because many subsistence users have not been able to harvest enough deer to feed their families due to mild winters which decrease the hunter success rate. In addition, the proponent states that the deer population in Prince William Sound seems to be increasing after a severe decline during the winter of 2011/2012 and thus should be able to sustain additional harvest.

Existing Federal Regulation

Unit 6—Deer

4 deer; however, antlerless deer may be taken only from Oct. 1–Dec. 31	*Aug. 1 – Dec. 31*

Proposed Federal Regulation

Unit 6—Deer

4 deer; however antlerless deer may be taken only from Oct. 1–Dec. 31.	*Aug. 1–Dec. 31*
Unit 6D–1 buck	***Jan. 1–Jan. 31***

Existing State Regulation

Unit 6 – Deer

Residents–5 deer total	*Bucks*	*Aug. 1–Sept. 30*
	Any deer	*Oct.1–Dec. 31*
Nonresidents–4 deer total	*Bucks*	*Aug. 1–Sept. 30*
	Any deer	*Oct. 1–Dec. 31*

Extent of Federal Public Lands

Federal public lands comprise approximately 71% of Unit 6 and consist of 49.2% U.S. Forest Service managed lands, 13.8% Bureau of Land Management managed lands, and 7.6% National Park Service managed lands (See **Unit 6 Map**).

Customary and Traditional Use Determinations

The Federal Subsistence Board (Board) has not made a customary and traditional use determination for deer in Unit 6; therefore, all rural residents of Alaska may harvest deer in this Unit.

Regulatory History

In 1990, the Board adopted subsistence regulations for deer hunting. The initial Federal deer season was Aug. 1–Dec. 31 with a limit of 5 deer, but antlerless deer could only be taken from Sept. 15–Dec. 31.

In 1991, Proposal 118 was submitted by the Chugach National Forest, Forest Supervisor to reduce the harvest limit from 5 to 4 deer and shorten the antlerless deer season from Sept. 15–Dec. 31 to Nov. 1–Dec. 31 in Units 6C and 6D. The proposal was submitted due to concerns about a population decline following heavy snow years. The Board adopted the proposal with modification to extend the regulatory changes to all of Unit 6 to match recent changes to State regulations (FWS 1991).

In 1996, the Board adopted Proposal 21, which extended the antlerless season from Nov. 1–Dec. 31 to Oct. 1–Dec. 31 (FWS 1996).

The Alaska Department of Fish and Game (ADF&G) closed the deer season to residents and nonresidents on December 7, 2012 via Emergency Order. The closure was due to heavy snowfall that concentrated deer on and near beaches, which likely increased the population's vulnerability to harvest. The Copper River/Prince William Sound Fish and Game Advisory Committee (Advisory Committee) and ADF&G agreed the deer population in Unit 6 should be protected from overharvest following the winter of 2011/2012, when the population experienced an estimated overwinter mortality of 50%–70% (Westing 2014). The Advisory Committee recommended that both the State and Federal deer seasons be closed on December 7 and that the Cordova District Ranger be delegated the authority to close the season when there are conservation concerns (Copper River/Prince William Sound Fish and Game Advisory Committee, 2012).

In 2012, the Board approved Emergency Special Action (WSA12-10) shortening the antlerless deer season from Oct. 1–Dec. 31 to Oct.1–Dec. 7 with modification (FWS 2012). The modification gave the Cordova District Ranger the ability to close the season for all hunting if further conservation concerns arose. Federally qualified subsistence users were still able to harvest antlered deer until December 31, 2012.

In 2013 the State issued an Emergency Order, to close the resident and nonresident antlerless deer season in Unit 6 at 11:59 p.m. on October 31, 2013. Subsequently, the Board closed Federal public lands in Unit 6

(WSA13-07) to the harvest of antlerless deer by Federally qualified subsistence users, effective at 11:59 p.m. on Nov. 1, 2013 (FWS 2013). These actions were taken to reduce the hunting mortality of female deer and aid in population recovery following the severe winter of 2011/2012.

Biological Background

Sitka black-tailed deer were introduced to Unit 6 between 1916 and 1923 (Paul 2009). The deer population rapidly increased and expanded throughout Prince William Sound (Reynolds 1979). Deer are at the extreme northern limit of their range in Unit 6; however, the population has persisted due to the mild, maritime climate conditions in Prince William Sound (Shishido 1986 *referenced in* Crowley 2011).

Sitka black-tailed deer occupy a variety of habitats throughout the year, from low elevation forests and beaches to alpine habitats (Schoen and Kirchhoff 2007). Deer are more dispersed during summer, but snow depth restricts their winter distribution to lower elevations (Schoen and Kirchhoff 2007). The breeding season begins in late October and peaks in late November (Schoen and Kirchhoff 2007). Throughout the species' range, bucks generally shed their antlers between mid-December and mid-April (Anderson and Wallmo 1984), but in British Columbia most antlers were dropped between January and March (British Columbia Ministry of Environment, Lands and Parks 2000).

The deer population in Prince William Sound is limited by snow depth and duration. Heavy snow events have caused multiple major winter mortality events in the area (Reynolds 1979, Crowley 2011). Populations typically increase and then disperse after a series of mild winters, but decline following severe winters (Reynolds 1979, Crowley 2011). Deep snow and high harvest during the winter of 2011/2012 resulted in an estimated mortality of 50%–70% of the deer population in Prince William Sound (Westing 2014). Deep snow concentrates deer along beach fringes, which can be overgrazed if deer are forced to remain there for an extended period of time, and can result in starvation (Reynolds 1979). Deer are also more vulnerable to harvest while concentrated on the beaches, and harvesting under these circumstances could have a significant impact on the population. However, deep snow events concentrating deer on beaches during the hunting season are not common (Reynolds 1979, Crowley 2011). Predation is not considered a significant for deer in Prince William Sound (Reynolds 1979).

The State has set a population objective of 24,000–28,000 deer with an annual harvest objective of 2,200–3,000 deer in Unit 6; however, currently there are no means of estimating the abundance of deer in the unit (Crowley 2011, Westing 2013). Instead, ADF&G and the Chugach National Forest use deer-pellet surveys as an index of the relative density of deer. The mean number of deer pellet groups observed declined from 2010 to 2013 (**Figure 1**), consistent with a decline in deer density (Westing 2013). However, deer pellet surveys are not sensitive to previous years' winter mortality events, because deer deposit pellets through most of the winter until succumbing to starvation in the spring (Burcham 2013, pers. comm.; Crowley 2012, pers.

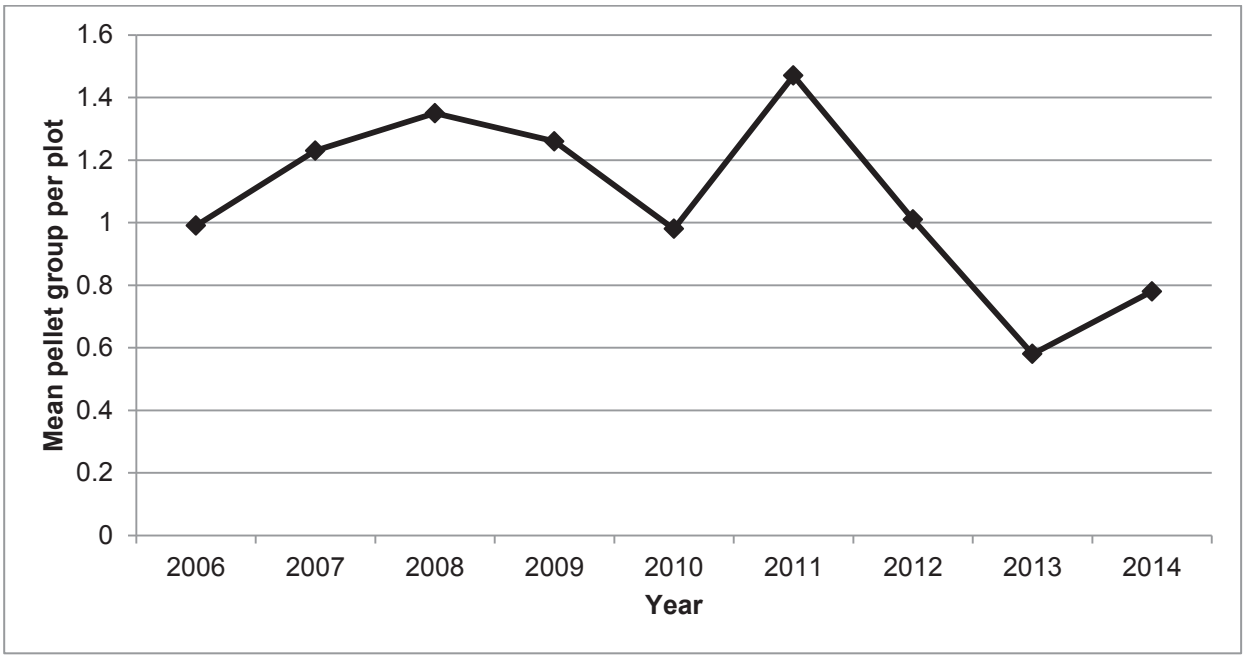

Figure 1. Deer pellet density observed along transects in Unit 6. Deer pellet density provides an index of the relative density of deer in the unit (Crowley 2011; Crowley 2012, pers. comm., Westing 2013, 2014, Westing 2015, pers. comm.).

comm.). Thus, there is a one year lag between mortality events and decrease in deer pellet density. Deer pellet counts conducted in 2012 and 2013 by ADF&G and the U.S. Forest Service corroborated the 50-70% mortality during the severe winter in 2011/2012 (Crowley 2011, Westing 2013). The 2012/2013 mean number of pellet groups per plot (0.58) was the lowest recorded by ADF&G since 1995 and represented a 61% decline from 2010/2011. Biologists also found evidence of the mortality event during the deer pellet surveys conducted in June 2012. Ten deer carcasses were encountered during transects, whereas zero or one are encountered during normal years (Burcham 2013, pers. comm.). Although differences in topography and snow retention among the islands can result in local variation in deer densities, declines in deer pellet densities were observed on all islands and in nearly every location during the 2013 survey (Figures 1-3 and Table 1, Westing 2013).

The mean number of pellet groups per plot in 2014 (0.78) increased slightly from 2013, but was still low suggesting the deer population still remains at relatively low levels despite two relatively mild winters (Westing 2014). The most recent deer pellet counts may have been influenced by a relatively warm winter which may have allowed the deer to remain dispersed at higher elevations, with fewer deer concentrated at lower elevations where pellet transects are conducted. No carcasses were found in 2013 and hunters reported that deer were in good condition (Westing 2014).

Harvest History

Deer are an important subsistence resource for residents of Unit 6. A community survey in 2003 showed that deer were used by more households in Chenega Bay, Cordova, and Tatitlek than any other large mammal species, with a minimum of 65% of households estimated using deer in each community (**Table**

1). In addition, deer were the primary large mammal harvested by households in each community, whereas other large mammal resources were more likely shared from individuals within or outside of the communities (Fall 2006) (**Table 1**). Moose and other large mammals are also an important source of food for the three communities. For example, despite the much higher number of deer than moose harvested by Cordova residents, the estimated amount of moose meat harvested (59,723 pounds) was higher than that of deer (58,501 pounds) in 2003 (Fall 2006). A large proportion of the yearly take of deer by the residents of Cordova, the largest of the three communities, occurs on Hawkins Island, which is in relatively close proximity to town.

Prior to 2011, deer harvest in Unit 6 was estimated from harvest questionnaires mailed to a sample of hunters who were issued State harvest tickets. It is difficult to identify deer harvested by Federally qualified subsistence users, as results are categorized by residents of Unit 6 (local residents), residents outside of Unit 6 (nonlocal residents), and nonresidents. Thus, the local and nonlocal resident categories include both Federally qualified subsistence users and non-Federally qualified subsistence users. However, beginning in 2011/2012, harvest reports were given to each user issued a State harvest ticket, which should improve reporting and relates each user to a community. The interim harvest report shows that approximately 45% of the reported resident harvest was by local Federally qualified subsistence users (residents of Cordova, Chenega Bay, Tatitlek, and Whittier), with 50% of the harvest by non-Federally qualified Alaska residents, and 5% by nonlocal Federally qualified subsistence users (ADF&G 2012). Approximately 98% of the reported harvest by local Federally qualified subsistence users was from Cordova residents (ADF&G 2012), which was similar to the results of the household survey conducted in 2003 (95% of reported harvest) (**Table 1**). The majority of harvest by non-Federally qualified subsistence users was from Anchorage residents (approximately 38% of reported harvest), and 5% of the reported harvest was associated with Valdez residents, which is a nonrural community in Unit 6 (ADF&G 2012). Local and nonlocal residents were the primary users (79%–97% of the estimated hunters) and accounted for 82%–98% of the estimated harvest between 2006/2007 and 2010/2011 (**Table 2**). Local residents of Unit 6, including Valdez residents, represented an estimated 24% to 30% of deer hunters in Unit 6 between 2006/2007 and 2010/2011, but accounted for 35% to 54% of the reported harvest (**Table 2**). McLaughlin (2015) reported a decline in hunter success during the winter of 2014-2015. This may be due in part to the relatively warm winter which allows the deer to remain more dispersed at higher elevations where they are less available to the Federally qualified subsistence users (Westing 2014).

From 2006 to 2012, the sex ratio of the harvest was approximately 62% male and 38% female (Crowley 2011, Westing 2013). Harvest reports between 2005/2006 and 2009/2010 showed that the majority of the annual deer harvest occurred during October (19%–35%), November (25%–35%), and December (18%–24%) (Crowley 2011, Westing 2013). Harvest chronology is similar to previous years, as users often prefer hunting after snow has pushed the deer to lower elevations and because the rut, which occurs in November, increases the harvest vulnerability of bucks (Crowley 2011, Westing 2013). Deer were primarily harvested by hunters using boats (76%–86%) as their primary transportation method (Crowley 2011, Westing 2013).

Table 1. Household harvest survey data from communities in Prince William Sound, Alaska in 2003. Households were classified as having used, attempted to harvest, or harvested resources if any member of that household participated in that category. The percentage of households that used a resource included those that harvested and gave it away, acquired the resource from another user, and included all non-commercial uses of the resource (Fall 2006).

		Percentage (%) of households			
Community	**Species**	**Used**	**Attempted**	**Harvested**	**Total animals harvested**
Chenega Bay	Deer	81	75	56	50
	Moose	44	6	6	1
	Goat	25	13	6	1
	Sheep	13	6	0	0
	Black bear	13	0	0	0
Cordova	Deer	65	44	39	1354
	Moose	51	14	12	111
	Goat	11	3	1	16
	Sheep	1	1	1	8
	Black bear	10	8	3	35
Tatitlek	Deer	100	56	28	30
	Moose	32	0	0	0
	Goat	40	12	4	1
	Sheep	4	0	0	0
	Black bear	20	8	4	1

Table 2. Unit 6 deer harvest 2006-2010 (Crowley 2012, pers. comm., Westing 2013, 2014, FWS 2015, Westing 2015, pers. comm.). Harvest data was recorded via the State's deer hunter questionnaire survey until 2010/2011 and via a harvest ticket starting in 2011/2012 (Westing 2015, pers. comm.).

	Local resident			Nonlocal resident			Nonresident	
Year	Hunters	Deer harvested		Hunters	Deer harvested		Hunters	Deer harvested
2006/2007	451	992		1145	825		42	31
2007/2008	356	468		842	569		312	231
2008/2009	420	662		1114	1164		68	62
2009/2010	355	607		851	945		83	29
2010/2011	352	805		775	778		60	29
2011/2012[a]	456	1207		909	1486		49	47
2012/2013	196	154		616	370		50	13
2013/2014	205	222		515	346		38	3

[a] Harvest data recorded via harvest ticket starting in 2011

Effects of the Proposal

If this proposal is adopted it would establish a buck season in January in Unit 6D. This new season would provide increased opportunity for Federally qualified subsistence users to harvest deer during the winter.

Although the deer population in Unit 6 seems to be increasing, it remains low and has not reached full recovery or management objectives. This proposed regulation change, if it applied to only the village of Chenega Bay, would have little effect on the deer population in Unit 6. However, since this proposal would include a longer season for the much larger population of Cordova, it does have the potential to slow deer recovery. In January, many bucks have dropped their antlers, thus making it more difficult to distinguish bucks and does. The population is mostly limited by snow depth, but an increased harvest of does further impact population recovery; however current regulations allow the harvest of does until December 31. Relatively mild winters during the past three years, which have been good for the deer, may have contributed to the slight decline in the hunter success because the deer more dispersed and remained at less accessible higher elevations.

OSM CONCLUSION

Oppose Proposal WP16–11.

Justification

Adding a buck season in January increases the potential harvest of does and slowing the recovery of the deer population in Prince William Sound from the severe decline in 2011/2012. The likelihood of taking does increases during January as many of the bucks have dropped their antlers. There are currently ample opportunities for residents to harvest deer under both the State and Federal regulations. Maintaining the current harvest season is recommended until the deer population fully recovers.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Southcentral Subsistence Regional Advisory Council

Support WP16-11 **with modification** that only an unused harvest ticket may be used during the Jan. 1 – Jan 31 buck season in Unit 6D.

The modified regulation should read:

Units 6—Deer

4 deer; however antlerless deer may be taken only from Oct. 1–Dec. 31. Aug. 1–Dec. 31

Unit 6D–1 buck ***Jan. 1–Jan. 31***

Only unused harvest ticket may be used during Jan. 1–Jan. 31 buck season

There were no emergency closures for deer harvest in the past winter. Some families were not able to meet their needs during the end of season, and allowing a hunt with an unused harvest ticket will provide for additional harvest opportunities. Delegation of authority will allow for emergency closure if there is a conservation concern on the population.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

The Southcentral Regional Advisory Council's recommendation on WP16-11 addressed potential conservation concerns with this deer subsistence hunt by restricting harvests to bucks only and maintaining the current 5 deer harvest limit for Federally qualified subsistence users. Limiting the proposed January season to bucks only is problematic since most bucks have lost their antlers by mid-January, and antlers remaining on deer in January are easily shed during handling/transport. Trying to determine sex of deer without antlers is difficult and can lead to misidentification, increased harvest of does, and enforcement issues. Hunters currently have a 5 month season and harvest of either sex is allowed from October through December. Additionally, while deer have had excellent winter conditions since the severe winter of 2011-12, deer surveys indicate that the population is still recovering.

WP16–13 Executive Summary	
General Description	Proposal WP16–13 requests that Federally qualified rural residents be required to obtain a Federal registration permit to harvest black bears in Unit 6D from Sept. 10 through June 30. *Submitted by Andy McLaughlin of Chenga Bay.*
Proposed Regulation	**Units 6—Black bear** *Sept. 1 – June 30* *1 bear. In Unit 6D a Federal registration permit is required to harvest black bear from ~~June 11~~* ***Sept. 10*** *to June 30 (FR0608).*
OSM Conclusion	**Support** Proposal WP16-13 **with modification** to require a Federal registration permit during the entire season. The modified regulation would read: Sept. 1 – June 30 *1 bear. In Unit 6D a Federal registration permit is required to harvest black bear from ~~June 11~~* ***Sept. 1*** *to June 30 (FR0608).*
Southcentral Regional Advisory Council Recommendation	**Support as modified by OSM**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Support** WP16-13 **with modification** to require the use of a State registration permit.
Written Public Comments	**None**

STAFF ANALYSIS
WP16-13

ISSUES

Proposal WP16-13, submitted by Andy McLaughlin of Chenega Bay, Alaska, requests that Federally qualified rural residents be required to obtain a Federal registration permit to harvest black bears in Unit 6D from Sept. 10 through June 30.

DISCUSSION

The proponent believes that rural residents should not have to utilize State harvest tickets/registration permits to harvest a quota of 20 black bears allowed for harvest by qualified rural residents between Sept. 10 to June 10 and would prefer to utilize the Federal registration permit for most of the Federal subsistence season for black bear in Unit 6D.

Existing Federal Regulation

Unit 6—Black Bear

Unit 6 —1 bear. In Unit 6D a Federal registration permit is required to harvest black bear from June 11 to June 30	*Sept. 1 – June 30*

(iii) Unit-specific regulations

(A) You may use bait to hunt black bear between April 15 and June 15. In addition, you may use bait in Unit 6D between June 16 and June 30. The harvest quota in Unit 6D is 20 bears taken with bait between June 16 and June 30.

Proposed Federal Regulation

Unit 6—Black Bear

*Unit 6 —1 bear. In Unit 6D a Federal registration permit is required to harvest black bear from ~~June 11~~ **Sept. 10** to June 30 (FR0608)*	*Sept. 1 – June 30*

(iii) Unit-specific regulations

(A) You may use bait to hunt black bear between April 15 and June 15. In

addition, you may use bait in Unit 6D between June 16 and June 30. The harvest quota in Unit 6D is 20 bears taken with bait between June 16 and June 30.

Existing State Regulation

Unit 6—Black Bear

Unit 6D — One bear by permit	*Sept. 10 –Jun. 10*

Extent of Federal Public Lands

Federal public lands, managed almost entirely by the U.S. Forest Service (USFS), comprise approximately 67% of Unit 6D.

Customary and Traditional Use Determinations

Rural residents of Yakutat and Units 6C and 6D, (excluding residents of Whittier) have a positive customary and traditional use determination for black bear in Unit 6A. Rural residents of Units 6C and 6D (excluding residents of Whittier) have a positive customary and traditional use determination for black bear in Unit 6 remainder.

Regulatory History

In 1990, the Federal Subsistence Board (Board) adopted interim subsistence regulations for black bear hunting at bait stations that aligned with State regulations. The Federal and State bear baiting season in Units 6A, 6B, and 6C has been from Apr. 15 – June 15 and since 2005 – 2006 the season in Unit 6D has been Apr. 15– June 10.

The Alaska Board of Game (BOG) has taken several incremental measures to reduce black bear harvest in Unit 6D over the past 15 years. In 2003, Unit 6D was closed to the shooting of black bears from a boat. Completing a bear baiting clinic to establish a bear bait station was required in 2005. Also in 2005, the BOG changed the season dates for Unit 6D from Sept. 1 – June 30 to Sept. 1 – June 10 to reduce harvest of black bears. Beginning in regulatory year 2009/2010 the start of the Unit 6D black bear season was changed from Sept. 1 to Sept. 10 to further reduce harvest. The intent of shifting the start of the season 10 days later was to reduce the harvest of black bears as they move from salmon streams to the high country during the fall. Also in 2009 the BOG approved the use of a harvest reporting system for Unit 6 to better track hunting effort for black bears.

In 2014, the Board adopted Proposal WP14-09 with modification to require the use of a Federal subsistence registration permit for hunting black bears in Unit 6D from June 11 – June 30, and setting a quota of 20 black bears to be taken over bait during the extended Federal baiting season . Requiring the use of a Federal registration permit was seen as a way to better track harvest of black bears at a time when there was a growing conservation concern for the species.

Current Events Involving the Species

In February 2015, the BOG adopted Proposal 210 to change the black bear hunt in Unit 6D to a registration hunt. The BOG concluded that bears in the area were being overharvested and that a better management tool was needed to assess and control harvest. This new regulation became effective July 1, 2015.

On February 27, 2015, the Alaska Department of Fish and Game (ADF&G) issued an Emergency Order closing the State black bear season in Unit 6D, effective May 27, 2015. This was in response to a steady decline in the black bear population, a tripling of the harvest between the 1990s and 2007, along with a marked decrease in harvest in 2012 and 2013. In addition, the percentage of females in the harvest has exceeded management goals since 2006.

Additionally, on May 19, 2015 wildlife special action request WSA15-09, submitted by ADF&G was received, requesting that the Federal subsistence black bear season close on May 27, the same effective date as the Emergency Order issued by the State. They also requested that the Federal Unit 6D black bear permit required from June 11 through June 30 be extended to begin on May 27 so that Federal subsistence users are in compliance with both State and Federal permit requirements. This special action request was unanimously approved by the Board with modification, temporarily extending the dates of the Unit 6D Federal subsistence black bear permit from May 27, 2015 through June 30, 2015.

Biological Background

Black bears are common throughout Unit 6 with the exception of Kayak and Middleton Islands along the North Gulf Coast of Alaska (NGC) and Montague, Hinchinbrook, Hawkins and several smaller islands in Prince William Sound (Crowley 2011). The State management goal for black bear in Unit 6 is to maintain a black bear population that will sustain a 3-year average annual harvest of 200 bears composed of at least 75% males with a minimum average skull size of 17 inches (Crowley 2011). The proportion of females taken exceeded the recommended management objective of 25% in 2006, 2007, and 2009 (Crowley 2011).

Black bear densities tend to be highest in western Prince William Sound (Unit 6D) and lowest along the NGC and eastern Prince William Sound (Units 6A, 6B, and 6C) (McIIroy 1970; Modafferi 1978, 1982). Density estimates in good habitat in Prince William Sound range between 0.4 to 10 bears/km^2 (McIIroy 1970; Modafferi 1978, 1982) and the overall density in Unit 6D which is in the most productive black bear habitat in Unit 6, from 2004 – 2006 was 0.59 bears/km^2 (range 0.33– 0.85 bears/km^2) (Crowley 2008). Modafferi (1982) found that male black bears in Unit 6D tended to move to beaches after emerging from winter dens to feed on new grasses and sedges, whereas females concentrated on south facing slopes and avalanche chutes. Black bear populations in Unit 6 fluctuate due to the severity of winter weather, food abundance, hunting pressure (Mcllroy 1970, Schwartz et al. 1986) and in some areas, competition with and predation by brown bears.

Harvest monitoring and assessment has been the primary method used to assess the status of the black bear population in Unit 6. In 2009, the BOG approved the use of a harvest reporting system that incorporated an assessment of effort in addition to the harvest (Crowley 2011). Since the late 1980s ADF&G has been using the skull size as a biological objective because it is thought that these changes may indicate changes in

population size, harvest composition, and the sustainability of harvest levels. A decreasing skull size may indicate a decline in older bears in the population which may be indicative of a population decline (Lowell 2011). To assess the population age structure, which is a measure of population health, skull size and harvest densities are compared between 8 geographic areas corresponding to well-defined watersheds within Unit 6 (Crowley 2011). The decline in skull size of male black bears, along with high annual harvest during the most recent 5-year period (2005– 2009), when compared to the previous two 5-year periods, suggests that harvest may be impacting the age structure of the black bear population. A similar trend was not found for female harvested bears.

Harvest History

Historical and ethnographic accounts of the Alutiiq of Prince William Sound and the Eyak Indians of the Copper River Delta, the traditional inhabitants of the Chugach, indicate that black bears were an important subsistence food source (Simeone 2008). Although black bears were once a major subsistence staple for residents in Prince William Sound communities, Sitka Black-tailed deer have replaced black bears in importance according to local residents (Simeone 2008). Between 1986 and 2006, residents of Unit 6, resident hunters living outside of Unit 6, and nonresidents accounted for 11%, 58%, and 31% of the black bear harvest in Unit 6, respectively. A majority of the harvest (85%) occurred in Unit 6D (Simeone 2008). From 2005 – 2010, the hunting pressure and take of black bears in Unit 6 was greatest in Unit 6D (83–86%), which coincides with the greatest densities of black bears and ease of access by Anchorage hunters through the Anton Anderson Memorial Tunnel (Whittier Tunnel) (Simeone 2008, Crowley 2011). An average of 427 black bears were taken per regulatory year between 2004 and 2013 (**Table 1**), which far exceeds the recently stated management goal to average 200 black bears over a 3-year period.

Table 1. Black Bear harvest in Unit 6D from 2004-2013 (Westing 2015, pers. comm.).

Year	Chenega Bay	Cordova	Tatitlek	Total by Rural Residents	Total 6D Harvest	% Harvest by Rural Residents
2004					318	0.00%
2005		3	1	4	417	0.96%
2006		5	1	6	481	1.25%
2007	1	1		2	570	0.35%
2008	1	1		2	538	0.37%
2009	1	2		3	481	0.62%
2010	1			1	453	0.22%
2011	3	3	1	7	467	1.50%
2012	2			2	358	0.56%
2013	1	1	1	3	185	1.62%

However, without accurate population estimates it is difficult to determine if current harvest levels are sustainable. Although it is difficult to determine the status of black bear populations using harvest data (Garshelis 1993), the decrease in age of harvested bears during the high harvest from 2005 – 2009 suggests that the harvest may be having a population level effect (reducing the overall size of the population)

(Crowley 2011). More compelling is the sharp drop in total Unit 6D harvest during 2012 and 2013, the most recent regulatory years for which data is available (**Table 1**)

Additionally, the number of bears taken over bait almost doubled during the 5 year period between 2005 and 2011 (50 to 96) (**Table 2**).

Table 2 Black Bear harvest over bait in Unit 6A, 6B, 6C, and 6D from 2005-2011 (Westing 2015, pers. comm.).

Year	Unit 6A	Unit 6B	Unit 6C	Unit 6D	Total
2005/2006	12	0	4	34	50
2006/2007	8	0	4	54	66
2007/2008	11	0	4	61	76
2008/2009	13	0	4	54	71
2009/2010	21	0	9	67	97
2010/2011	17	0	8	67	92
2011/2012	0	0	7	33	40

The total reported harvest of black bears taken in Unit 6D, by Federally qualified rural residents, from 2009 to 2013 was 16 (Westing 2015). The low harvest of black bears taken over bait in 2011 – 2012 was due in part to heavy snowfall and late spring melt; however, harvest has continued to decline in the in the last 2 years in which the snowmelt was exceptionally early (Westing 2015, pers. comm.). The percentage of black bears taken over bait in Unit 6 ranged from 6.9% to 15.0% between 2005 and 2011.

Effects of the Proposal

If adopted, this proposal would require Federally qualified subsistence users to obtain a Federal subsistence registration permit to hunt black bear in Unit 6D between September 10 and June 30. Currently, the Federal permit is required only from June 11 through June 30. With conservation concerns for the black bear population in Unit 6D, changes in State hunting season dates are likely in coming years, as has happened with the Emergency Order closure of the black bear season on May 27, 2015. This regulation change would not change the Federal subsistence hunting season or harvest limit for black bear in Unit 6D and would not have any negative effect on the black bear population in Unit 6D.

Qualified rural residents would be required to obtain a Federal registration permit to harvest a black bear under Federal regulations. This proposal would simplify the reporting requirements for Federal users.

OSM CONCLUSION

Support Proposal WP16-13 **with modification** to require a Federal registration permit during the entire season.

The modified regulation would read:

Unit 6—Black Bear

*In Unit 6D a Federal registration permit is required to harvest black bear ~~from **Sept. 10** to June 30~~ (FR0608)*

(iii) Unit-specific regulations

(A) You may use bait to hunt black bear between April 15 and June 15. In addition, you may use bait in Unit 6D between June 16 and June 30. The harvest quota in Unit 6D is 20 bears taken with bait between June 16 and June 30.

Justification

Requiring a Federal registration permit for the entire Federal season would simplify and consolidate reporting requirements for Federally qualified rural residents so that they would not have to report hunting effort or harvest to different management agencies for different portions of the open season. The proponent, Andy McLaughlin of Chenega Bay, approved of this modification to the proposal.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Southcentral Subsistence Regional Advisory Council

Support WP16-13 **as modified by OSM**. The proposal will benefit subsistence users in requiring a Federal registration permit for black bear to simplify and consolidate reporting requirements. Through this requirement, subsistence users will be covered when the State season is closed and the Federal season is open. It also allows for better tracking of the harvest.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

WP16-19 Executive Summary	
General Description	Proposal WP16-19 requests permission to harvest either 1 bull moose or 2 caribou between Jul. 15 and Aug. 31 by Federal registration permit for the Ahtna Heritage Foundation's Culture Camp. *Submitted by the Ahtna Heritage Foundation.*
Proposed Regulation	(C) Upon written request from the Ahtna Heritage Foundation to the Glennallen BLM Field Office, either 1 bull moose or 2 caribou, sex to be determined by the Glennallen Field Office Manager, may be taken from ~~Aug. 1 – Sept. 20~~ **Jul. 15 – Aug. 31** for 1 moose or ~~Aug. 10 – Sept. 20~~ **Jul. 15 – Aug. 31** for 2 caribou by Federal registration permit for the Ahtna Heritage Foundation's culture camp. ~~The permit will expire on September 20 or when the camp closes, whichever comes first.~~ **Hunting efforts are to cease when the camp event ends.** No combination of caribou and moose is allowed. The animals may be taken by any Federally qualified hunter designated by the Camp Director. The hunter must have in ~~his/her~~ **their** possession the permit and a designated hunter permit while hunting.
OSM Conclusion	**Support** Proposal WP16-19 **with modification** to remove the Ahtna Heritage Culture Camp from Unit 13 specific regulations and delegate authority to the Bureau of Land Management to issue a permit directly to the Ahtna Heritage Foundation Culture Camp and coordinate decisions with all affected Federal and state land managers.
Southcentral Alaska Subsistence Regional Advisory Council Recommendation	**Support with modification**. The Council struck the July 15 – August 31 dates in the proposed regulation, but supported a date of 15 days prior to the Cultural camp start date, until the conclusion of the camp. In addition, if no harvest occurs an additional Cultural camp can be scheduled and the permit will be valid 15 days prior to the start of the camp.
Interagency Staff Committee Comment	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Support as modified by OSM**
Written Public Comments	**None**

STAFF ANALYSIS
WP16-19

ISSUE

Proposal WP16-19, submitted by the Ahtna Heritage Foundation, requests permission to harvest either 1 bull moose or 2 caribou between Jul. 15 and Aug. 31 by Federal registration permit for the Ahtna Heritage Foundation's Culture Camp.

DISCUSSION

The proponent requests a modification of the current regulations for the Ahtna Heritage Foundation Culture Camp which would allow the culture camp designee the opportunity to harvest one bull moose or two caribou 16 days earlier than current regulations for Unit 13. The Culture Camp is usually held in July or August during a time when multiple subsistence harvest activities can occur simultaneously (e.g., fishing and berry picking) and when weather is mild and beneficial for the elders. The proponents claim that an early start for the hunting effort gives the participants greater opportunity, and increases the chance of success in the harvest of large game, something that has not happened during the two previous attempts.

Existing Federal Regulation

Unit 13

(iii) Unit-specific regulations

(C) Upon written request from the Ahtna Heritage Foundation to the Glennallen BLM Field Office, either 1 bull moose or 2 caribou, sex to be determined by the Glennallen Field Office Manager, may be taken from August 1 - September 20 for 1 moose or August 10 – September 20 for 2 caribou by Federal registration permit for the Ahtna Heritage Foundation's culture camp. The permit will expire on September 20 or when the camp closes, whichever comes first. No combination of caribou and moose is allowed. The animals may be taken by any Federally qualified hunter designated by the Camp Director. The hunter must have in his/her possession the permit and a designated hunter permit during all periods that are being hunted.

Proposed Federal Regulation

Unit 13

(iii) Unit-specific regulations

(C) Upon written request from the Ahtna Heritage Foundation to the Glennallen BLM Field Office, either 1 bull moose or 2 caribou, sex to be determined by the Glennallen Field Office Manager, may be taken from ~~August 1 - September 20~~ ***July 15 – August 31*** *for 1 moose or ~~August 10 - September 20~~* ***July 15 – August 31*** *for 2 caribou by Federal registration permit for the Ahtna Heritage Foundation's culture camp. ~~The permit will expire on September 20 or when the camp closes, whichever comes first.~~* ***Hunting efforts are to cease when the camp event ends.*** *No combination of caribou and moose is allowed. The animals may be taken by any Federally qualified hunter designated by the Camp Director. The hunter must have in ~~his/her~~* ***their*** *possession the permit and a designated hunter permit while hunting.*

Other pertinent Federal Regulations

§ 100.25 (g) Cultural/educational program permits.

(1) A qualifying program must have instructors, enrolled students, minimum attendance requirements, and standards for successful completion of the course. Applications must be submitted to the Federal Subsistence Board through the Office of Subsistence Management and should be submitted 60 days prior to the earliest desired date of harvest. Harvest must be reported, and any animals harvested will count against any established Federal harvest quota for the area in which it is harvested.

(2) Requests for followup permits must be submitted to the in-season or local manager and should be submitted 60 days prior to the earliest desired date of harvest.

Extent of Federal Public Lands

Federal public lands comprise approximately 15% of Unit 13 and consist of 7% Bureau of Land Management (BLM) managed lands, 6% National Park Service (NPS) managed lands, and 2% U.S. Forest Service (USFS) managed lands (**Unit 13 Map**).

Customary and Traditional Use

Moose

Residents of Unit 13, as well as the residents of Chickaloon and Slana, have a customary and traditional use determination for moose in Units 13A and 13D.

Residents of Units 13 and 20D (excluding residents of Fort Greely), and Chickaloon and Slana have a customary and traditional use determination for moose in Unit 13B.

Residents of Units 12 and 13, Chickaloon, Healy Lake, Dot Lake, and Slana have a customary and

traditional use determination for moose in Unit 13C.

Residents of Unit 13, Chickaloon, McKinley Village, Slana, and the area along the Parks Highway between mileposts 216 and 239 (excluding residents of Denali National Park Headquarters), have a customary and traditional use determination for moose in Unit 13E.

Caribou

Residents of Units 11, 12 (along the Nabesna Road and Tok Cutoff Road, mileposts 79-110), 13, 20D (excluding residents of Fort Greely), and Chickaloon have a customary and traditional use determination for caribou in Unit 13B.

Residents of Units 11, 12 (along the Nabesna Road and Tok Cuttoff Road, mileposts 79 - 110), 13, Chickaloon, Dot Lake, and Healy Lake, have a customary and traditional use determination for caribou in Unit 13C.

Residents of Units 11, 12 (along the Nabesna Road), 13, and Chickaloon, have a customary and traditional use determination for caribou in Unit 13A and Unit 13D.

Residents of Unit 11, 12 (along the Nabesna Road), 13, Chickaloon, McKinley Village, and the area along the Parks Highway between mileposts 216 and 239 (excluding residents of Denali National Park headquarters), have a customary and traditional use determination for caribou in Unit 13E.

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

Regulatory History

Title VIII of ANILCA and its implementing regulations recognize that subsistence use of wildlife consists of more than the act of harvesting. The Federal Subsistence Board (Board) is authorized to permit the taking of fish and wildlife for special purposes *[§__.10(d)(5)(iii)]*. Cultural and educational subsistence activities have been recognized through Special Actions or unit-specific Special Provisions.

In May 2004, the Board adopted Proposal WP04-26, establishing the current unit-specific regulation that allows the Glennallen BLM Field Office Manager to issue permits to the Ahtna Heritage Foundation Culture Camp director for either one bull moose (Aug. 1 – Sept. 20) or two caribou (sex to be determined by the Manager) (Aug. 10 – Sept. 20).

By 2010, the process for issuing harvest permits state-wide for cultural and educational programs had gone through a number of changes, not all well documented. Proposal WP10-03 requested the addition of a general provision in Federal subsistence management regulations to allow the harvest of fish and wildlife

by participants in a cultural or educational program. The Board adopted the proposal with unanimous support from all Regional Advisory Councils, creating Federal regulation § 100.25 (g). This regulation allows a culture camp or education program to deal directly with the land manager by delegated authority on an annual basis once an initial permit is approved.

In January of 2012, the Board adopted Proposal WP12-25, which extended the caribou season in Unit 13 for an additional nine days from Aug. 10 – Sep. 30 to Aug. 1 – Sep. 30, aligning the caribou and moose seasons and effectively spreading out hunter effort. To date, the Ahtna Heritage Foundation Culture Camp Special Provision regulation has not been updated to align with the change in caribou season.

Prior to the adoption of the unit-specific regulation, the Ahtna Culture Camp had been issued two permits for moose hunts through special actions: WS00-01 for one moose in Units 13A, B, C, and D, approved July 5, 2000; and SW01-06 for one moose in Unit 11, approved July 12, 2001. No harvest was reported for either hunt. Since the adoption of the unit-specific regulation, records indicate the Ahtna Culture Camp was issued permits to hunt for moose and caribou in 2005 and 2013. The harvest reports for both years indicate that no animals were harvested (FWS 2015).

Educational/Cultural Program Activities

The Ahtna Heritage Foundation Culture Camp has taken place on an annual basis in July or August since 1989. The camp consists of the following components: fish cutting and handling; beadwork and skin sewing; hunting; food preparation; use of the sweat bath; and storytelling. Instructors are selected on the basis of their knowledge and experience. Approximately 50 to 75 individuals participate in camp activities on an annual basis and there are typically 10 to 12 instructors. The duration of the camp is 3 – 4 days and participants attend all camp activities. The camp's focus is on hands-on activities, most of which are designed with a product (food and crafts) as an end goal. Participant success is measured through participation and evaluation by the instructors (Stickwan 2003, pers. comm.). In Proposal WP04-26, the proponents stated that traditional methods are taught with the goal of providing interaction between elders and youth to facilitate the transfer of Ahtna customs and traditions.

Cultural Knowledge and Traditional Practices

References to the harvest and use of moose and caribou by Ahtna Athabascans begin as early as the late 1800s and continue to the present day. Members of H. T. Allen's 1884 Copper River expedition documented the drying of meat by the Ahtna when they passed through the area (Allen 1889). The traditional practices of drying and smoking meat, as well as the proper and respectful treatment of harvested resources including moose and caribou, are described in several ethnographic accounts of the Ahtna (de Laguna and McClellan 1981; Mishler et al. 1988; Reckord 1983). In recent comprehensive subsistence surveys, it has been noted that while salmon composed a majority of the community harvest in most villages lining the upper Copper River, large land mammal harvest is high and in some communities surpassed that of fish (Kukkonen & Zimpleman 2012; La Vine, et al. 2013; La Vine & Zimpleman 2014). An ethnographic study of contemporary subsistence fishing in the Copper River Basin highlighted the significance of moose and caribou to residents' diets and cultural practices. Many of the study's participants reported that they valued the fall hunt as a cultural institution as much or more than fish camp and almost all, if offered a

choice, stated that they would choose shared meat over shared fish (McCall-Valentine & La Vine 2014). The knowledge and skills associated with moose and caribou harvesting have traditionally been passed on to children by the older generation. Present day culture camps have been identified as tools for teaching the young and to "heal" contemporary problems faced by adults (Simeone 1995).

Biological Background

Caribou

The Nelchina Caribou Herd (NCH) population in Unit 13 has fluctuated widely since the 1940s. The population was estimated to be between 5,000–15,000 in the1940s, 70,000 in the mid–1960s, 7,000–10,000 in 1972, and 50,000 in 1995. The increase in population between the 1940s and the 1960s was due in part to intensive predator control by the Federal government through the late 1950s and then public involvement in aerial shooting in the 1960s until the passage of the Federal Airborne Hunting Action in 1972 (Schwanke 2011, ADF&G 2002).

State management goals and objectives for NCH are as follows (Schwanke 2011):

- Maintain a fall population of 35,000–40,000 caribou, with a minimum of 40 bulls:100 cows and 40 calves:100 cows.
- Provide for the annual harvest of 3,000–6,000 caribou.

From 2001 to 2010, fall population estimates for the NCH have remained relatively stable with an estimated herd size between 30,000-44,000 animals. In June 2007, a post-calving survey estimated the NCH to be approximately 32,569 caribou (ADF&G 2008). The population was estimated at 33,146 and 44,954 caribou in 2009 and 2010 respectively (ADF&G 2009, ADF&G 2010).

Historically, the productivity and recruitment for the NCH has been high with an average of 52 calves:100 cows (1985-1996). The annual harvestable surplus of Nelchina caribou is dependent on productivity and survival of calves, which is determined from June and October biological surveys conducted by the Alaska Department of Fish and Game (ADF&G 2010). From 2001–2010 there was an average of 42 calves:100 cows, which is above State management goals (Toby and Kellyhouse 2007, ADF&G 2008, Schwanke 2011). During 2010, an average of 55 calves:100 cows were counted during the fall composition surveys (Schwanke 2011) .

Between 2001 and 2008, the bull:cow ratio was below the State management objective with an average of 32 bulls:100 cows. The lowest ratio of 23 bulls:100 cows was in 2006-2007. From 2008 to 2010, the average bull:cow ratio increased to 38 bulls:100 cows.

Winter habitat for the NCH ranges from northern Unit 13 to Unit 20E. Winter range in Unit 20E is generally considered high quality due to high lichen biomass as a result of old burns (>50 years) (Dale 2000, Joly et al. 2003). In 2004, a large proportion of NCH winter range in Unit 20E burned. Many caribou still winter in Unit 20E, although caribou now utilize adjacent unburned areas. Winter distribution for the NCH in 2006

extended into Unit 13E, across 13A and 13B, and northeast into Units 11, 12 and 20E (Tobey and Kelleyhouse 2007). In some years, a small number of caribou winter in Unit 13D and have been observed as far south as the Edgerton Highway. The eastern Talkeetna Mountains, from the Fog Lakes southeast to the Little Nelchina River, is the typical calving area for the NCH with the core calving area extending from the Little Nelchina River north to Kosina Creek (Tobey and Kelleyhouse 2007).

Moose

In the early 1900s, moose densities in Unit 13 were low but increased gradually until peaking in the mid-1960s. The population then declined due to a combination of factors including overhunting, severe winters, and predation. The population reached a low in 1975 and then started to increase by 1978, reaching a second peak in 1987. From 1987-2001, the moose population declined by an estimated 47% (Tobey and Schwanke 2008, 2010).

State management goals and objectives for moose in Unit 13 are as follows (Tobey and Schwanke 2010):

- Increase the Unit 13 moose population to 20,000 to 30,000 moose with a minimum of:
    - 25–30 calves:100 cows.
    - 25 bulls:100 cows
    - 10 yearling bulls:100 cows

- Provide for a total annual harvest of 1,200–2,000 moose and a subsistence harvest of 300–600 moose per year.

ADF&G conducts fall counts to determine the sex and age composition and population trends in large count areas distributed throughout Unit 13. From 2001–2009 the number of moose observed in Unit 13 during the fall increased from 3,466 to 4,481 moose. Although the bull:cow and yearling bull:cow ratios increased with the population increases between 2001–2008, the calf:cow ratios were below the management objective.

Moose are most abundant along the southern slopes of the Alaska Range, within Units 13B and 13C, and on the eastern Talkeetna Mountains of Unit 13A. It is within these subunits of Unit 13 that moose numbers have seen the greatest increase. Moose typically congregate in subalpine habitats during the fall rut and move down to lower elevations as the snow increases. From 2001–2009, the bull:cow ratio was close to or exceeded management objectives, whereas the yearling:cow and calf:cow ratios were below management objectives (Tobey and Schwanke 2010).

Harvest History

Participation rates in the Federal hunts of moose and caribou from 2004/2005 have been high while harvest success has been modest (**Table 1 and Table 2**). An average of 2,683 Federal caribou permits were issued during 2004-2013, with an average of 1,360 permits being reportedly used for hunting annually. Harvest success has fluctuated, with annual reported harvests ranging from 273 to 610 caribou, averaging 418 animals over the 10-year period. Over the same period, an average of 1,121 moose permits were issued

annually, with an average of 578 permits being reportedly used for hunting. Reported harvest ranged from 47 to 80 moose each year.

Table 1. Federal caribou harvest in Unit 13, 2004-2013 (OSM 2015).

Reg. Year	Species	Permits Issued	Hunted	Harvest Total
2004	Caribou	2,555	1,337	335
2005	Caribou	2,557	1,499	610
2006	Caribou	2,631	1,317	570
2007	Caribou	2,403	1,094	385
2008	Caribou	2,532	1,229	273
2009	Caribou	2,576	1,339	349
2010	Caribou	2,852	1,535	451
2011	Caribou	2,980	1,425	395
2012	Caribou	2,953	1,518	537
2013	Caribou	2,789	1,305	279
10 Yr Average		2,683	1,360	418

Table 2. Federal moose harvest in Unit 13, 2004-2013 (OSM 2015).

Reg. Year	Species	Permits Issued	Permits Hunted	Total Harvest
2004	Moose	1,050	553	49
2005	Moose	936	562	51
2006	Moose	1,071	506	47
2007	Moose	937	441	53
2008	Moose	1,125	559	57
2009	Moose	1,094	631	61
2010	Moose	1,172	669	77
2011	Moose	1,327	680	80
2012	Moose	1,292	645	59
2013	Moose	1,205	534	50
10 Yr Average		1,121	578	58

Effects of the Proposal

If adopted, this proposal would extend the potential dates for the Ahtna Heritage Foundation Culture Camp moose or caribou harvest that is currently authorized in regulation. Regulations allow for this harvest to occur during the existing Unit 13 Federal seasons for moose and 10 days later than the current season for caribou. This proposal would allow the culture camp harvest to occur outside the existing Unit 13 harvest seasons. The proponents state that allowing for an early hunt outside current seasons would not only provide greater likelihood of culture camp harvest success, but ensure the safety of youth participants moving through the landscape with less concern for other hunters (McConkey 2015, pers. comm.).

BLM staff (Teitzel 2015, pers. comm.) agree that allowing for the opportunity of an early harvest by the Ahtna Heritage Foundation Culture Camp would be a small deviation from the current practice. In addition, the harvest of one antlered bull moose or two caribou would not be biologically significant.

OSM CONCLUSION

Support Proposal WP16-19 **with modification** to remove the Ahtna Heritage Culture Camp from Unit 13 specific regulations and delegate authority to the Bureau of Land Management to issue a permit directly to the Ahtna Heritage Foundation Culture Camp and coordinate decisions with all affected Federal and state land managers (**Appendix A**).

Justification

A culture camp permit exists for the Ahtna Heritage Foundation Culture Camp to harvest one bull moose or two caribou. The Ahtna Heritage Foundation Culture Camp was established prior to the establishment in regulations of §___.25 (g) Cultural/educational program permits. By removing the Ahtna Heritage Foundation Culture Camp from regulation and moving authorization by a letter of delegation to BLM, Ahtna can request a permit directly from the land manager on an annual basis outside of the regulatory process. This would allow both Ahtna and BLM staff to address fluctuating camp and harvest dates with greater flexibility. Finally, BLM staff state that allowing for the opportunity of an early harvest by the Ahtna Heritage Foundation Culture Camp would be a small deviation from the current practice and that the harvest of one antlered bull moose or two caribou would not be biologically significant.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Southcentral Alaska Subsistence Regional Advisory Council

Support WP16-19 **with modification**. The Council struck the July 15 – August 31 dates in the proposed regulation, but supported a date of 15 days prior to the Cultural camp start date, until the conclusion of the camp. In addition, if no harvest occurs an additional Cultural camp can be scheduled and the permit will be valid 15 days prior to the start of the camp. The proposal will allow for flexibility to hold the Ahtna Heritage Foundation Culture Camp via delegation of authority by the local Federal land managing agency which will allow for flexibility to hold the camp.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

Appendix A

Dennis Teitzel, Field Manager
Bureau of Land Management
Glennallen Field Office
P.O. Box 147
Glennallen, AK 99588

Dear Field Manager:

This letter delegates regulatory authority from the Federal Subsistence Board (Board) to the Field Manager of the Bureau of Land Management (BLM) in Glennallen, to annually issue, subject to the guidelines for delegation, a Federal Cultural/Educational permit to a qualified rural resident to harvest either one bull moose or two caribou, on Federal public lands in Unit 13, as part of the Ahtna Heritage Foundation Culture Camp.

It is the intent of the Federal Subsistence Board that moose and caribou management by Federal officials be coordinated with the Alaska Department of Fish and Game and involve Regional Advisory Council representatives to conserve healthy populations while providing for subsistence uses. Federal managers are expected to cooperate with State wildlife managers and minimize disruption to resource users and existing agency programs, as agreed to under the Memorandum of Understanding for Coordinated Interagency Fish and Wildlife Management for Subsistence Uses on Federal Public lands in Alaska.

DELEGATION OF AUTHORITY

1. **Delegation:** The Field Manager of the Bureau of Land Management Glennallen Field Office is hereby delegated authority to issue one annual Federal Cultural/Educational permits for the harvest of either one bull moose or two caribou on Federal lands as outlined under **Scope of Delegation** below.

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 and wildlife harvest seasons within frameworks established by the Board."

3. **Scope of Delegation:** The regulatory authority hereby delegated is limited to the authority to issue a Federal Cultural/Educational permit annually to the Ahtna Heritage Foundation to harvest either one bull moose or two caribou on Federal public lands in Unit 13 for its annual Culture Camp. This delegation may be exercised when such a permit is requested by Ahtna Heritage Foundation Culture Camp and only in compliance with the procedures outlined under Guidelines for Delegation.

   All other permit requests from the Ahtna Heritage Foundation Culture Camp and all requests from other entities shall be directed to the Federal Subsistence Board.

The Federal lands subject to this delegated authority are those within Unit 13. You will coordinate your decisions with all affected Federal land managers and the Alaska Department of Fish and Game.

4. **Effective Period:** This delegation of authority is effective from the date of this letter, and continues until revoked by the Federal Subsistence Board.

5. **Guidelines for Delegation:** You will become familiar with the management history of moose and caribou in Unit 13, with the current State and Federal regulations and management plans, and be up-to-date on population and harvest status information. Following the receipt of the annual cultural/educational permit request from Ahtna Heritage Foundation Culture Camp to harvest either one bull moose or two caribou Federal public lands in Unit13, you may approve the request and identify any appropriate limitations or stipulations, subsequent to completion of the following steps: a) Review the initial OSM staff analysis and the harvest report from the previous year; b) Consider the need for the permit based upon the hunter's success and use of the resource during the previous year; c) Consult with the local ADF&G wildlife manager and any other appropriate Federal land managers; d) Note any changes in resource conditions and identify any restrictions on harvest location, etc., needed to address possible conservation concerns; and e) Certify that the re-issuance of the permit will be consistent with principles of fish and wildlife management. You may not approve permits that exceed the number and species of animals initially approved by the Federal Subsistence Board. You may not approve a permit if a repeat permit has not been issued within the previous five years. You will issue timely decisions. Requests not within your delegated authority will be forwarded to the Federal Subsistence Board for consideration. You will keep a record of all permit requests and their disposition. Affected State and Federal wildlife managers, law enforcement personnel, and Regional Advisory Council representatives will be notified before the effective date/time of decisions.

   You may defer a permit request to the Federal Subsistence Board in instances where the proposed action will have a significant impact on other Federal subsistence users. This option should be exercised judiciously and may only be initiated where sufficient time allows for it.

6. **Support Services:** This Cultural/Educational Permit may be accessed on the Federal Subsistence Permit System and administrative support for management activities will be provided by the Office of Subsistence Management, U.S. Fish & Wildlife Service, Department of the Interior.

This delegation of authority will assure conservation of wildlife populations through sound management decisions in cooperation with State managers, thereby providing for the long-term needs of the subsistence user. If you have any questions, please contact Mr. Chuck Ardizzone, Assistant Regional Director for the Office of Subsistence Management at (907) 786-3888.

Sincerely,

Tim Towarak, Chair

cc: Gene Petola, Assistant Regional Director, Office of Subsistence Management
Chuck Ardizone, Deputy Regional Director, Office of Subsistence Management
Donald Mike, Coordinator, Southcentral Alaska Subsistence Regional Advisory Council
Ralph Lhose, Chair, Southcentral Alaska Subsistence Regional Advisory Council
Sam Cotton, Commissioner, Alaska Department of Fish and Game
Federal Subsistence Liaison Team Leader, Alaska Department of Fish and Game
Federal Subsistence Board
Interagency Staff Committee
Alaska Wildlife Troopers, Northern Detachment
Administrative Record

WP16–20 Executive Summary	
General Description	Proposal WP16–20 requests that the harvest limit for sheep in Unit 11 be modified from 1 sheep to 1 ram with a ¾ curl horn or larger. *Submitted by the Eastern Interior Alaska Subsistence Regional Advisory Council.*
Proposed Regulation	**Unit 11— Sheep** *1 ~~sheep~~* ***ram with ¾ curl horn or larger*** *Aug. 10 – Sept. 20* *1 sheep by Federal registration permit only by persons 60 years of age or older. Ewes accompanied by lambs or lambs may not be taken.* *Aug. 1 – Oct. 20*
OSM Conclusion	**Support**
Southcentral Regional Advisory Council Recommendation	**Oppose**
Eastern Interior Advisory Council Recommendation	**Support**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal. WP16-20 is a cross-over proposal where the Eastern Interior and Southcentral Subsistence Regional Advisory Councils (RAC) disagree. The Board may consider deferring the proposal to allow time for completion of the NPS/ADF&G cooperative study to determine the effects of selective harvest on the population structure of rams. While the proposal was submitted by the Eastern Interior RAC, the proposed change would directly affect harvest regulations for Unit 11, which is within the Southcentral Region. Deferring WP16-20 will maintain the status quo for sheep hunting in Unit 11, which is consistent with the Southcentral RAC's recommendation to oppose the proposal. It will also provide time for completion of the cooperative study to determine

WP16–20 Executive Summary	
	whether the survival of young rams is influenced by the removal of a large proportion of the older dominant rams from the population. This information is important to inform future action on WP16-20 and deferral should not create a conservation concern at this time since the Unit 11 sheep population appears to be stable and not declining.
ADF&G Comments	**Support**
Written Public Comments	**1 Oppose**

STAFF ANALYSIS
WP16-20

ISSUES

Proposal WP16-20, submitted by Eastern Interior Alaska Subsistence Regional Advisory Council (EIRAC), requests that the harvest limit for sheep in Unit 11 be modified from 1 sheep to 1 ram with a ¾ curl horn or larger.

DISCUSSION

The proponent states that the requested change is necessary to reduce hunting pressure on ewes and younger rams. The proponent feels that a conservative approach to sheep management is needed given recent declines in the sheep population, current low densities, and the relatively easy access from the road system in Unit 11. The proponent states that a harvest limit of 1 ram with ¾ curl or larger will still give Federally qualified subsistence users a meaningful priority over people hunting under State regulations, that this change would not pose an undue hardship on subsistence users and would allow for the sheep population to increase.

Existing Federal Regulation

Unit 11— Sheep

1 sheep	*Aug. 10 – Sept. 20*
1 sheep by Federal registration permit only by persons 60 years of age or older. Ewes accompanied by lambs or lambs may not be taken.	*Aug. 1 – Oct. 20*

Proposed Federal Regulation

Unit 11— Sheep

1 ~~sheep~~ ***ram with ¾ curl horn or larger***	*Aug. 10 – Sept. 20*
1 sheep by Federal registration permit only by persons 60 years of age or older. Ewes accompanied by lambs or lambs may not be taken.	*Aug. 1 – Oct. 20*

Existing State Regulation

Unit 11 - Sheep

Residents and Nonresidents: One ram with full–curl horn or larger.	*Aug. 10 – Sept. 20*

Extent of Federal Public Lands

Federal public lands comprise approximately 88% of Unit 11 and consists of 84.5% National Park Service (NPS) managed lands, 3.3% U.S. Forest Service (USFS) managed lands, and 0.1% Bureau of Land Management (BLM) managed lands (See **Unit 11 Map**).

Customary and Traditional Use Determinations

Residents of Unit 12 and the communities and areas of Chistochina, Chitina, Copper Center, Dot Lake, Gakona, Glennallen, Gulkana, Healy Lake, Kenny Lake, Mentasta Lake, Slana, McCarthy/South Wrangell/South Park, Tazlina, and Tonsina; also residents along the Nabesna Road — milepost 0–46 (Nabesna Road); and residents along the McCarthy Road — milepost 0–62 (McCarthy Road) have a customary and traditional use determination for sheep in Unit 11, north of the Sanford River.

Residents of Chisana, Chistochina, Chitina, Copper Center, Gakona, Glennallen, Gulkana, Kenny Lake, Mentasta Lake, Slana, McCarthy/South Wrangell/South Park, Tazlina, and Tonsina; also residents along the Tok Cutoff Road (mileposts 79–110 Mentasta Pass), residents along the Nabesna Road — Milepost 0–46 (Nabesna Road); and residents along the McCarthy Road — Milepost 0–62 (McCarthy Road)) have a customary and traditional use determination for sheep in the remainder of Unit 11.

Under the guidelines of ANILCA, National Park Service regulations identify qualified local rural subsistence users in National Parks and Monuments by: 1) identifying resident zone communities which include a significant concentration of people who have customarily and traditionally used subsistence resources on park lands; and 2) identifying and issuing subsistence use (13.440) permits to individuals residing outside of the resident zone communities who have a personal or family history of subsistence use. In order to engage in subsistence in Wrangell St. Elias National Park, the National Park Service (WRST) requires that subsistence users either live within the park's resident zone (36 CFR 13.430, 36 CFR 13.1902) or have a subsistence permit (36 CFR 13.440) issued by the park superintendent.

Regulatory History

In 1998, the Federal Subsistence Board (Board) created a late sheep season in Unit 11 for persons 60 years of age or older. This season was extended one month beyond the regular sheep season, when sheep are at lower elevations to allow the opportunity for those "elders who are still capable of hunting, but cannot climb high enough into the mountain to find sheep during the early season, to continue to hunt and pass on traditional knowledge about sheep hunting to younger family members" (FWS 1998).

Due to declining sheep numbers, the State bag limit for resident hunters in 2001/2002 was changed from one sheep to one ram, and then in 2003/2004 to one ram with ¾ curl or larger. In 2011/2012, the State bag limit for both residents and nonresidents was changed to one ram with a full curl or larger.

In 2004, Proposal WP04-24 requested that designated hunting be allowed for the late season elder hunt in Unit 11. This proposal was opposed by the Southcentral Alaska and Eastern Interior Alaska Subsistence Regional Advisory Councils and rejected by the Board (FSB 2004). During consideration of WP04-24, there was discussion during both Council meetings regarding the opportunity for youth to accompany elders on hunts, but it was realized that the proposal under consideration dealt only with designated hunting provisions and there was a lack of detail about the provisions for allowing youth to accompany elders during the late sheep season (FWS 2004).

The Cheesh'na Tribal Council submitted Proposal WP05-06 with the goal of allowing elders to resume their traditional practices of teaching their grandchildren how to hunt sheep. The proponent stated that the existing regulation "neglects one aspect of the traditional instructional process, that the young people should have the opportunity to take the animal, rather than simply observing their elders doing so." WP05-06 was adopted by the Board at its May 2005 meeting and established the current elder/minor hunt with the season of Sept. 21 – Oct. 20 (FWS 2005). Under the provisions of the elder/minor hunt, a Federal registration permit is issued to a pair of Federally qualified subsistence users consisting of a youth between 8 and 15 years of age and an elder who is 60 years of age or older, and either the elder or the youth may harvest the sheep.

In 2012, the Board adopted Proposal WP12-32 with modification to change the harvest season dates for the Unit 11 elder hunt and the elder/minor hunt from Sept. 20 – Oct. 20 to Aug. 1 – Oct. 20 and prohibiting the taking of lambs and ewes accompanied by lambs (FWS 2012a,b).

Biological Background

Dall's sheep occur in most of the high alpine and subalpine areas in the Wrangell Mountains, which cross the Alaska–Canada border. Sheep population characteristics, densities, and morphology vary widely between populations in Unit 11 (Schwanke 2008, 2011). For example, sheep densities and population estimates are typically greater in the northern versus the southern portion of the range. Since 1973, when specific count areas (CA) and survey methods were established, aerial surveys to determine age and sex composition and sheep population trends have been conducted in selected trend count areas over large sections of the Wrangell and Chugach Mountains (**Figure 1**) (Schwanke 2011). The National Park Service Central Alaska Network (CAKN) used distance sampling methods to survey Dall's sheep in WRST in 2010 and 2011 (Schmidt et. al. 2011). Two hundred and forty three out of 303 randomly generated 20–km transects were flown. Population estimates generated from these surveys are presented in **Appendix 1**.

Sheep composition counts for select years (1981–2013) from aerial surveys conducted by the Alaska Department of Fish and Game (ADF&G) and Wrangell-St. Elias National Park and Preserve (WRST) within Unit 11 are presented in **(Appendix 1)**. During the late 1980s and 1990s, sheep populations declined over much of the southern area of the Wrangell Mountains which includes Mount Drum southeast to the Canadian border (Strickland et al. 1993a, 1993b; Schwanke 2011). Based on the survey count areas,

the overall sheep population in WRST has declined approximately 50% since the 1990s (**Table 1**). However the sheep populations in Unit 11 have remained fairly stable, although sheep numbers in some portions of the unit continue to be well below those observed in the 1980s and early 1990s (**Table 1, Appendix 1**). Recent surveys indicate ratios greater than 40 rams per 100 ewes in 10 of the 11 sheep survey units surveyed in 2013 and 2014 (**Appendix 1**) (Putera 2015, pers. comm.).

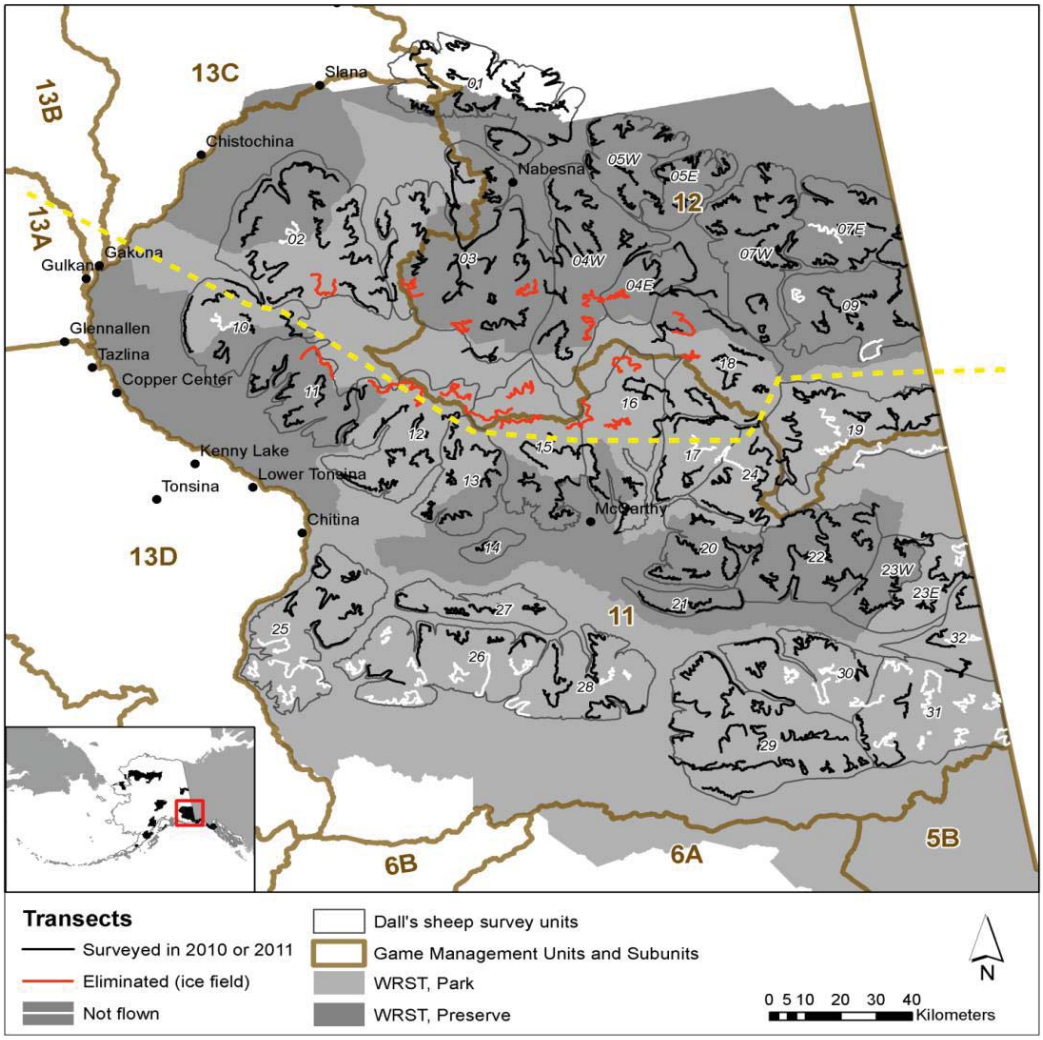

Figure 1. Game Management units, survey units (count areas) and transects used to survey Dall's sheep in Units 11 and 12 in Wrangell–St Elias National Park and Preserve in 2010 and 2011. (Putera 2013).

A brief summary by survey units and count areas are described below (**Figure 1**). Count Area 3 West (CA3W), in the north Wrangell Mountains within the Upper Copper River drainage, is located within WRST boundaries and is utilized by local subsistence hunters using four wheelers for access, making it a popular area to hunt. The sheep in this area readily cross the Unit 11/12 boundary, thus making sheep trends in this area difficult to interpret. For example, the number of sheep observed dropped from 584 to 330 sheep in CA3W between 2012 and 2103 although the ratios of number of rams: 100 ewes increased

from 29 to 46 (**Appendix 1**) (Schwanke 2011, Putera 2015, pers. comm.). This is a good example of why composition trends do not always correspond to changes in abundance. Ewes and rams increased from 2001–2012. Ewes and yearling rams then decreased from 2012–2013, although the number of rams

Table 1. Population estimates and composition of Dall's sheep in Wrangell–St. Elias National Park and Preserve. Distance sampling methods were used for the 201-2011 population estimates (Singer 1984, Strickland et al. 1993a, 1993b; Schmidt et al. 2011, Schmidt and Rattenbury 2013, Putera 2013, Putera 2015, pers. comm.). Population composition data was not collected during the 1981/1982, 1990,1991, 1992 and 1993 population surveys.

Park Unit or Area (year)	Total Sheep (95% confidence intervals)	Ewe–like Sheep	Lambs	< Full–curl Rams	≥ Full–curl Rams	Lambs:100 Ewe–like Sheep	Rams:100 Ewe–like Sheep
WRST (1981-1982)	12,578	-	-	-	-	-	-
WRST (1990)	25,972 (19,739–32,205)	-	-	-	-	-	-
WRST (1991)	25,088 (14,490–35,686)	-	-	-	-	-	-
WRST (1992)	17,455 (13,572–21338)	-	-	-	-	-	-
WRST (2010-2011)	12,428 (10,780–14,470)	55%	18%	21%	6%	26%	46%
WRST South–Unit 11 (1993)	5,071 (4934–5208)	-	-	-	-	-	-
WRST South–Unit 11 (2010-2011)	4,456 (3,718–5,390)	57%	18%	19%	6%	27%	38%
WRST North–Unit 12 (2010-2011)	8,017 (6,915–9,417)	54%	18%	22%	6%	26%	50%

decreased only slightly (Schwanke 2011, Putera 2015, pers. comm.). The population was stable until 2012, although once again the results can be difficult to interpret because the sheep move between Units 11 and 12. There are plans to survey the entire CA3 in 2016 (Putera 2105, pers. comm.).

Sheep populations in the southwest Wrangell Mountains include Count Areas CA10–14. Although the population composition in trend count areas CA 11 and CA 12 varied annually, the overall population numbers have remained at low but stable levels during the past 10 years (**Appendix 1**). In 2009, the number of full curl or larger rams observed dropped to 2 (13%) and the number of lambs:100 ewes dropped to a low of 20. However, sheep numbers generally increased in both count areas during 2011 and 2013, particularly for rams in both count areas and for ewes and lambs in CA12. Trend count areas CA-11 and CA-12 were surveyed in 2015 and sheep populations and lamb production in these areas increased (Putera 2015, pers. comm.).

Unlike some of the other monitored populations in Unit 11 which peaked in the early 1980s, the Mount Drum population (CA 10) has remained fairly stable with only a moderate decrease in lambs and slight decrease in rams. The sheep population in the Crystalline Hills, an isolated mountain block located adjacent to the McCarthy Road (CA14), has remained at low but stable numbers (approximately 70 animals) since the mid-1990s. There was a significant increase of rams in 2013 compared to earlier surveys when very few rams were observed.

Sheep populations in the southeast Wrangell Mountains, which are count areas CA21, CA 22, and CA 23, have been relatively stable at about 200 sheep in each count area since the mid-1990s. Current survey information suggests that sheep the populations in the south Wrangell Mountains are stable. The lamb:ewe ratios appear to be healthy at 32–33 lambs:100 ewes and the ram:ewe ratios are low to moderate, ranging from 21-40 rams:100 ewes (Putera 2015).

While total sheep numbers for CA23 have remained fairly stable over time, differences in Federal and State regulations between the CA23West (Preserve) and CA23 East (Park) have resulted in changes in population dynamics between these two areas. The park area is managed under Federal subsistence regulations, and only residents of NPS resident zone communities and those with 13.440 permits can hunt in this area. Hunting in the preserve (CA 23 West) occurs under both Federal subsistence and State of Alaska general hunting regulations. Fixed-winged aircraft may be used to access the preserve for the purpose of harvesting wildlife, but not the park. Off–road vehicles (ORV) may be used for access in both the Park and the Preserve; however, non-Federally qualified subsistence users are restricted to established ORV trails and must obtain a permit. In CA23 West (preserve), the ram to ewe ratios for 2001, 2003, and 2007 were consistently low to moderate, averaging 25 rams:100 ewes since 2001 whereas in CA 23 East (park), the average was 64 rams:100 ewes since 2001 (Schwanke 2011). The percentage of rams classified as full-curl or greater follow a similar pattern with fewer (23%) in the Preserve (CA 23 West) than in the Park (CA23 East, 41%) between 2001 and 2007 (Schwanke 2008). Although the variability of the lamb: ewe ratio was more variable in the Preserve (CA23 West) (10-33 lambs:100 ewes) compared to the Park (CA 23 East) (20-27 lambs:100 ewes) since 2001, the average number of lambs:100 ewes was similar between areas with an average of 19 lambs (CA23 West) and 21 (CA23 East).

Harvest History

Since 1991/1992, sheep harvest in Unit 11 along with the number of hunters has declined steadily. Annual harvest by local residents of Units 11,12, and 13 averaged 26 sheep (range 20-33 sheep) between 2005/2006 and 2013/2014, which is approximately 25% more than non-local residents which averaged 17 sheep (range 5-34) over the same time period (**Table2**). A large proportion of rams taken have greater than ¾ curl (Robbins 2015, pers comm.; Putera 2015, pers. comm.; Schwanke 2011). Only 5 sheep have been taken in the Unit 11 Elder and Elder/Minor sheep hunts since 1998.

Table 2. Sheep harvest in Unit 11, 2005/2006 to 2013/2014 (ADF&G 2015, FWS 2015).

Regulatory Year	Rams	Ewes	Total[a]	Local Resident (%)[b]	Nonlocal Resident (%)	Nonresident (%)
2005/2006	78	5	83	32 (34)	34 (41)	17 (21)
2006/2007	62	1	63	33 (52)	18 (29)	12 (19)
2007/2008	48	5	53	26 (49)	18 (34)	9 (17)
2008/2009	54	4	58	28 (48)	25 (43)	5 (9)
2009/2010	62	2	64	27 (42)	23 (36)	14 (22)
2010/2011	48	1	49	23 (51)	15 (31)	10 (20)
2011/2012	48	0	48	28 (58)	10 (21)	10 (21)
2012/2013	33	1	34	20 (59)	7 (21)	7 (21)
2013/2014	45	0	45	23 (51)	5 (11)	17 (38)
2014/2015	46	1	47	23(49)	11(23)	13(28)
Mean	53	2	54	26 (48)	17 (31)	11 (21)

[a] Total may exceed sum by residency because some hunters fail to report residency
[b] Local means residents of Unit 11, 12 and 13.

Other Alternatives Considered

WRST and ADF&G are starting a study this fall to determine the effects of selective harvest on the ram population structure. The two-year study will test the dominance-related mortality (DRM) hypothesis that the survival of young rams is compromised when few dominant rams are present. When most of the mature rams (3/4 curl or larger) are removed by hunting, the juvenile rams participate in the rut to a greater extent. This leads to immature courtship behavior, including harassment of ewes, less tending of ewes,

courting anestrous ewes, prolonging the mating season, and remaining with the ewes past the rut. The DRM hypothesis, this increased participation causes greater energy expenditure by both groups, depletes energy reserves, lowers pregnancy and parturition rates, reduces overwinter survival of ewes and could lead to higher overwinter mortality among all cohorts of the population. WRST would like to replace the proponent's recommendation of a ram with a ¾ curl or larger with any ram until their cooperative study with ADF&G concludes in 2 years (Putera 2015, pers. comm.). Although this alternative (any ram) would be less restrictive than the proponent's request (ram with ¾ curl or larger) this alternative was not chosen at this time because the potential of disturbance to the ewes and younger rams would likely be greater if younger rams were taken which was contrary to the proponent's request. Although a large percentage of hunters typically select for the larger rams subsistence users may target smaller rams (Table 2, Schwanke 2011).

Effects of the Proposal

If this proposal is adopted, the harvest limit for sheep will change from one sheep to 1 ram with ¾ curl or larger and be more restrictive for Federally qualified subsistence users. Federally qualified subsistence users would still have a meaningful priority (1 adult ram with ¾ curl or larger) over those hunting under State regulations (1 adult ram with full–curl or larger). This regulation change would help to reduce harvest pressure on ewes and younger rams in sheep populations within Unit 11 and may help aid in the recovery of the population by reducing the disturbance from hunting pressure to the ewes and younger rams.

OSM CONCLUSION

Support Proposal WP16-20.

Justification

Since the early 1990s the sheep populations in WRST have declined approximately 50%. Reducing the harvest limit from any sheep to 1 ram with a ¾ curl will help reduce hunting pressure on ewes and young rams while still retaining a meaningful harvest priority for Federally qualified subsistence users.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Southcentral Subsistence Regional Advisory Council

Oppose WP16-20. The Council opposed the proposal to require a ¾ curl horn or larger ram from one sheep. The Council cannot support restricting subsistence opportunities. If adopted, it will cause undue subsistence restrictions. No conservation concern exists for the sheep population in Unit 11.

Eastern Interior Subsistence Regional Advisory Council

Support WP16-20. The Council feels this is an important conservation measure to take now and stressed that the sheep populations need more time to recover from recent heavy winter losses. The Council discussed that these were minimal restrictive measure that if taken now would help support the rebound of the sheep population to assure future subsistence harvest.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

WP16-20 is a cross-over proposal where the Eastern Interior and Southcentral Subsistence Regional Advisory Councils (RAC) disagree. The Board may consider deferring the proposal to allow time for completion of the NPS/ADF&G cooperative study to determine the effects of selective harvest on the population structure of rams. While the proposal was submitted by the Eastern Interior RAC, the proposed change would directly affect harvest regulations for Unit 11, which is within the Southcentral Region.

Deferring WP16-20 will maintain the status quo for sheep hunting in Unit 11, which is consistent with the Southcentral RAC's recommendation to oppose the proposal. It will also provide time for completion of the cooperative study to determine whether the survival of young rams is influenced by the removal of a large proportion of the older dominant rams from the population. This information is important to inform future action on WP16-20 and deferral should not create a conservation concern at this time since the Unit 11 sheep population appears to be stable and not declining.

WRITTEN PUBLIC COMMENTS

WP16-20 Unit 11 Sheep Hunting Season

Comments:

We oppose WP16-20 Unit 11 Sheep proposal to change the harvest limit from 1 sheep to Rams with 3/4 curl hon or larger. According to an Overview given at Alaska Board of Game meeting in February 2015, sheep populations in Unit 11 are stable. A regulatory change of ram horn size at this time isn't necessary, changing Unit 11 sheep regulations will restrict Federally Qualified Subsistence Users to hunt only for larger rams. If the proponent has a concern about the population of sheep in Unit 11, a proposal to the Alaska Board of Game could address this issue. On average sport hunters harvest as many or more sheep than Federally Qualified Subsistence Users. Additionally, Federally Qualified Subsistence Users cannot fly into hunt on National Park Lands. Sports hunters are allowed to fly in to hunt on preserve lands. Sport hunters are the main concern, in most years, they harvest more sheep in Unit 11 than Federally Qualified Subsistence Users.

Ahtna Tene Nene' Customary& Traditional Use Committee

Appendix 1

Appendix 1. Unit 11 sheep composition counts from aerial surveys in count areas with Wrangell–St Elias National Park and Preserve (Schwanke 2008, 2011, Putera et al. 2014). See Figure 1 for location of count areas.

CA 2 – Mount Sanford						
Regulatory Year	**Full–curl[a] (%)[b]**	**< Full–curl**	**Ewes and yearling rams[c]**	**Lambs (%)[d]**	**Rams:100 Ewes**	**Total Sheep Observed**
2002	13 (20)	49	105	38	59	207
2014	10 (17)	48	102	19	57	179

CA 3W – Upper Copper River						
Regulatory Year	**Full–curl[a] (%)[b]**	**< Full–curl**	**Ewes and yearling rams[c]**	**Lambs (%)[d]**	**Rams:100 Ewes**	**Total Sheep Observed**
2001	75 (46)	89	314	24 (5)	52	502
2007	56 (50)	55	344	110 (19)	32	565
2012	9 (8)	106	400	69 (12)	29	584
2013	11(11)	85	207	27 (8)	46	330

CA 10 – Mount Drum						
Regulatory Year	**Full–curl[a] (%)[b]**	**< Full–curl**	**Ewes and yearling rams[c]**	**Lambs (%)[d]**	**Rams:100 Ewes**	**Total Sheep Observed**
1980	4 (11)	31	107	59 (29)	33	201
1992	Unk	Unk	273	83 (17)		481
2001	11 (35)	20	65	13 (12)	48	109

CA 11 – Dadina River to Long Glacier						
Regulatory Year	Full–curl[a] (%)[b]	< Full–curl	Ewes and yearling rams[c]	Lambs (%)[d]	Rams:100 Ewes	Total Sheep Observed
1982	24 (33)	48	359	126 (23)	20	557
1994	18 (46)	21	197	85 (26)	20	321
2001	16 (37)	27	147	32 (10)	22	222
2005	10 (34)	19	127	36 (19)	23	192
2006	10 (45)	12	110	32 (20)	20	164
2007	11 (52)	10	118	37 (21)	18	176
2008	8 (33)	16	132	47 (23)	18	203
2009	2 (13)	13	114	20 (13)	13	149
2011	7 (17)	34	131	35 (17)	31	207
2013	5 (15)	28	75	16 (13)	44	124
2015	5 (16)	26	102	38 (22)	30	171

CA 12 – Long Glacier to Kuskulana River						
Regulatory Year	**Full–curl[a] (%)[b]**	**< Full–curl**	**Ewes and yearling rams[c]**	**Lambs (%)[d]**	**Rams:100 Ewes**	**Total Sheep Observed**
1981	26 (33)	52	359	129 (232)	22	566
1993	36 (35)	67	426	39 (7)	24	568
2001	23 (30)	54	185	26 (9)	42	288
2005	19 (50)	19	105	28 (16)	36	171
2006	25 (63)	15	58	15 (13)	69	113
2007	27 (49)	28	112	41 (20)	49	208

2008	29 (53)	26	90	35 (19)	61	180
2009	25 (39)	39	81	20 (12)	79	165
2011	13 (19)	55	152	47 (18)	45	267
2013	19 (22)	69	144	26 (10)	61	258
2015	24 (30)	56	138	75 (23)	47	322

CA 14 – Crystalline Hills						
Regulatory Year	**Full–curl[a] (%)[b]**	**< Full–curl**	**Ewes and yearling rams[c]**	**Lambs (%)[d]**	**Rams:100 Ewes**	**Total Sheep Observed**
1981	2 (1)	5	142	60 (29)	5	209
1993	13 (10)	8	85	18 (14)	25	124
2001	1 (2)	10	43	6 (7)	26	91
2005	0 (0)	2	49	21 (29)	4	72
2013	0 (0)	25	64	5 (5)	39	94

CA 21 – Maccoll Ridge						
Regulatory Year	**Full–curl[a] (%)[b]**	**< Full–curl**	**Ewes and yearling rams[c]**	**Lambs (%)[d]**	**Rams:100 Ewes**	**Total Sheep Observed**
1982	25 (51)	24	187	69 (23)	26	305
1994	8 (38)	59	161	22 (9)	42	250
2005	9 (31)	20	136	45 (21)	21	210
2010	4 (10)	35	80	43 (27)	49	162
2014	4 (13)	28	63	22 (19)	51	117

CA 22 – Canyon Creek to Barnard Glacier						
Regulatory Year	**Full–curl[a] (%)[b]**	**< Full–curl**	**Ewes and yearling rams[c]**	**Lambs (%)[d]**	**Rams:100 Ewes**	**Total Sheep Observed**
1981	27 (49)	28	143	51 (20)	38	249
1993	20 (39)	31	190	63 (21)	27	304
2001	12 (22)	43	176	20 (8)	31	251
2005	16 (29)	39	139	44 (18)	40	238
2011	20 (28)	51	124	51 (21)	57	246
2013	15 (26)	43	142	34 (14)	41	234

CA 23 West – Barnard Glacier East to Park/Preserve Boundary						
Regulatory Year	**Full–curl[a] (%)[b]**	**< Full–curl**	**Ewes and yearling rams[c]**	**Lambs (%)[d]**	**Rams:100 Ewes**	**Total Sheep Observed**
1982	20 (47)	23	194	66 (22)	22	303
2001	4 (24)	13	105	10 (8)	16	132
2003	7 (27)	19	78	12 (10)	33	116
2007	4 (18)	18	86	28 (21)	26	136
2013	3 (12)	22	34	2 (3)	74	61

[e] 8 Total rams seen during the survey
[f] 26 Total rams seen during the survey

CA 23 East – Park/Preserve Boundary East to Anderson Glacier						
Regulatory Year	**Full–curl[a] (%)[b]**	**< Full–curl**	**Ewes and yearling rams[c]**	**Lambs (%)[d]**	**Rams:100 Ewes**	**Total Sheep Observed**
1982	26 (57)	20	26	7 (9)	177	79
2001	46 (52)	42	129	26 (11)	68	243
2003	25 (33)	50	117	25 (12)	64	217
2007	23 (37)	39	103	22 (12)	60	187
2013	11 (19)	46	112	20 (11)	51	189

CA 25 – Between Chitina and Hanagita Rivers						
Regulatory Year	**Full–curl[a] (%)[b]**	**< Full–curl**	**Ewes and yearling rams[c]**	**Lambs (%)[d]**	**Rams:100 Ewes**	**Total Sheep Observed**
1983	-	-[e]	25	8 (20)	32	41
2014	2 (15)	11	23	4 (10)	57	40

CA 27 – Between Copper, Chitina, Tebay, and Bremner Rivers						
Regulatory Year	**Full–curl[a] (%)[b]**	**< Full–curl**	**Ewes and yearling rams[c]**	**Lambs (%)[d]**	**Rams:100 Ewes**	**Total Sheep Observed**
1983	-	-[f]	75	13 (11)	35	114
2014	9 (21)	34	72	18 (14)	60	133

[a] Prior to 1989, the "Full Curl" column included rams 7/8 curl or larger
[b] Does not include an unknown number of legal rams at least 8 years old or with both horn tips broomed. Percent full–curl is calculation as a proportion of total rams.
[c] Includes yearlings of both sexes and rams of ¼ curl or less
[d] Percent lambs is calculated as a proportion of total sheep observed

WP16–22 Executive Summary	
General Description	Proposal WP16–22 requests that a Federal registration permit be required to hunt moose in Unit 9C – that portion draining into the Naknek River from the south, during the Aug. 20 – Sep. 20 season. The proponent also requests that hunters acquire a State registration permit and report their hunt via that permit. *Submitted by Alaska Peninsula/Becharof National Wildlife Refuge.*
Proposed Regulation	**Units 9—Moose** *Unit 9C – that portion draining into the Naknek River from the south – 1 bull* ***by Federal registration permit****.* ***All hunters are also required to acquire a State registration permit and report their hunt via that permit.*** *~~A State registration permit is required during the Aug. 20 – Sep. 20 season; a Federal registration permit is required during the Dec. 1–31 season.~~* — *Aug. 20 – Sep. 20* *Dec. 1 – Dec. 31* *Public lands are closed during December for the hunting of moose, except by Federally qualified subsistence users hunting under these regulations.*
OSM Conclusion	**Support** Proposal WP16-22 **with modification** to require only a Federal permit for the fall season. The modified regulation should read: **Unit 9C—Moose** *Unit 9C – that portion draining into the Naknek River from the south – 1 bull* ***by Federal registration permit****.* *~~A State registration permit is required during the Aug. 20 – Sep. 20 season; a Federal registration permit is required during the Dec. 1–31 season.~~* — *Aug. 20 – Sep. 20* *Dec. 1 – Dec. 31* *Public lands are closed during December for the hunting of moose, except by Federally qualified*

WP16–22 Executive Summary	
	subsistence users hunting under these regulations.
Bristol Bay Regional Advisory Council Recommendation	**Support as modified by OSM.**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal. The Board may want to consider retaining the requirement of a State registration permit for the fall portion of the hunt, or modifying the requirement for a State or Federal registration permit. This option was considered in the staff analysis; however, that option was not selected because there was no agreement between State and Federal managers to allow the use of the State registration permit for a Federal hunt with different season dates. At the ISC meeting, the State of Alaska was agreeable to allowing the use of a State registration permit that lists the Federal season dates, which would make a separate Federal permit unnecessary. The use of a single harvest permit would reduce confusion for users and allows for harvest reporting to a single source, and listing the Federal season dates would address concerns with using a State permit on misaligned dates. If there is no agreement with the State to use the State registration permit, a separate Federal registration permit would be required.
ADF&G Comments	**Oppose**
Written Public Comments	**None**

STAFF ANALYSIS
WP16-22

ISSUES

WP16-22, submitted by the Alaska Peninsula/Becharof National Wildlife Refuge (Refuge), requests that a Federal registration permit be required to hunt moose in Unit 9C – that portion draining into the Naknek River from the south, during the Aug. 20 – Sep. 20 season. A Federal registration permit is already required for the Dec. 1 – Dec. 31 season. The proponent also requests that hunters acquire a State registration permit and report their hunt via that permit.

DISCUSSION

Both the Alaska Board of Game and the Federal Subsistence Board (Board) have passed regulations aimed at minimizing user conflict among moose hunters in Unit 9, including the requirement to use a State registration permit throughout the unit. In Unit 9C, the Federal subsistence fall moose season starts 12 days before and continues 5 days beyond the State season. This hunt is only open on Federal public lands of Unit 9C within the Becharof National Wildlife Refuge. A State registration permit is required for the fall portion of the Federal hunt. However, Federally qualified subsistence users in Unit 9C are currently hunting with a permit with dates that differ from that of the Federal subsistence season.

The proponent is concerned that the use of a State permit causes confusion due to the differing Federal and State season dates. The proponent states that a Federal registration permit would create a consistent requirement for both the fall and winter hunts, and give hunters a permit which accurately reflects the season dates of the hunt in which they are participating.

The proponent also states that State and Federal biologists agreed that requiring hunters to report via the State harvest system yields more accurate data, due to penalties imposed for non-reporting, and that it would be beneficial to have the reporting for Unit 9 in one system, to the extent possible. To avoid confusion, the proponent suggests that the Federal subsistence permit should clearly indicate that reporting should be done via the State permit.

Existing Federal Regulation*

Unit 9C— Moose

Unit 9C – that portion draining into the Naknek River from the south – 1 bull. A State registration permit is required during the Aug. 20 – Sep. 20 season; a Federal registration permit is required during the Dec. 1 – 31 season.	*Aug. 20 – Sep. 20* *Dec. 1 – Dec. 31*

Public lands are closed during December for the hunting of moose,

except by Federally qualified subsistence users hunting under these regulations.

**Note: Wildlife Emergency Special Action WSA15-01 was approved by the Board in March of 2015. This Special Action required the use of a Federal registration permit during the August 20 – September 20, 2015 season.*

Proposed Federal Regulation

Unit 9C—Moose

Unit 9C – that portion draining into the Naknek River from the south – 1 bull ***by Federal registration permit****.* ***All hunters are also required to acquire a State registration permit and report their hunt via that permit.*** ~~*A State registration permit is required during the Aug. 20 – Sep. 20 season; a Federal registration permit is required during the Dec. 1–31 season.*~~	*Aug. 20 – Sep. 20* *Dec. 1 – Dec. 31*

Public lands are closed during December for the hunting of moose, except by Federally qualified subsistence users hunting under these regulations.

Other Applicable Federal Regulations

§__.6 Licenses, permits, harvest tickets, tags, and reports.

(a) If you wish to take fish and wildlife on public lands for subsistence uses, you must be an eligible rural Alaska resident and:

(3) Possess and comply with the provisions of any pertinent permits, harvest tickets, or tags required by the State unless any of the documents or individual provisions in them are superseded by the requirements in subpart D of this part.

§__.14 Relationship to State procedures and regulations.

(a) State fish and game regulations apply to public lands and such laws are hereby adopted and made a part of the regulations in this part to the extent they are not inconsistent with, or superseded by, the regulations in this part.

§__.25 Subsistence taking of fish and wildlife.

(h) Permits. If a subsistence fishing or hunting permit is required by this part, the following permit conditions apply unless otherwise specified in this section:

(5) If the return of harvest information necessary for management and conservation purposes is required by a permit and you fail to comply with such reporting requirements, you are ineligible to receive a subsistence permit for that activity during the following regulatory year, unless you demonstrate that failure to report was due to loss in the mail, accident, sickness, or other unavoidable circumstances.

Existing State Regulation

Unit 9C – that portion draining into the Naknek River

Residents: one bull by permit in person in King Salmon beginning Aug. 14	*RM272*	*Sep. 1 – Sep. 15*
Residents: one antlered bull by permit in person in King Salmon beginning Nov. 13	*RM272*	*Dec. 1 – Dec. 31*
Nonresidents: one bull with 50-inch antlers or antlers with 3 or more brow tines on at least one side by permit in person in King Salmon beginning Aug. 14	*RM282*	*Sep. 5 – Sep. 15*

Extent of Federal Public Lands

Federal public lands comprise approximately 86% of Unit 9C and consist of 78% NPS managed lands, 4% U.S. Fish and Wildlife Service managed lands, and 4% BLM managed lands. Hunting is not authorized within the Katmai National Park boundaries, which comprises approximately 71% of Unit 9C.

Customary and Traditional Use Determinations

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

Regulatory History

In 2008, Proposals WP08-30 and WP08-31, addressing moose in Units 9B and 9C, were submitted by the Bristol Bay Subsistence Regional Advisory Council (Council). Proposal WP08-30 requested a shorter moose season in Unit 9B while WP08-31 requested a closure of Federal public lands to non-Federally

qualified users in Units 9B and 9C. The Council's support of WP08-30 was contingent upon adoption of WP08-31. After extensive discussion and input from the State of Alaska and the Council Chair, the proposals were deferred by the Board so a working group could be formed to identify other management options that would address conflicts in Unit 9 subunits.

Based on the direction given by the Board, the Office of Subsistence Management provided funding for, and worked in cooperation with, the Alaska Department of Fish and Game (ADF&G) to initiate a Unit 9 Moose Working Group (Working Group). The Working Group was established to better understand the conflicts in the region and to develop management strategies and recommendations. The Council submitted a number of proposals (WP 10-47, -48, -49, -50, -52) to address user conflicts. In May 2010, the Board considered those proposals, as well as proposals WP10-45 (deferred WP08-30) and WP10-46 (deferred WP08-31). The Board deferred all of these proposals, consistent with the recommendations of the Council, until the Working Group could finish its work.

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

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

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

In March 2011, the Alaska Board of Game adopted Proposal 14, which was submitted by the Unit 9 Working Group. The proposal requested the establishment of registration permit hunts for moose in Unit 9. At this meeting the Alaska Board of Game also adopted Proposal 17, which extended the moose hunting season five days. In Unit 9C the end date changed from Sep. 15 to Sep. 20 and in Unit 9E the end date changed from Sep. 20 to Sep. 25. Based on the actions of the Alaska Board of Game, the Council supported aligning, to the maximum extent possible, Federal regulations for moose hunting in Unit 9 with the changes made in State regulation (BBSRAC 2011).

In 2012, deferred Proposals WP10-45, -46, -47, -48, -50 and -52 were addressed by the Board. WP10-45 requested a change to the moose season dates in a portion of Unit 9. Proposals WP10-46, WP10-49 and WP10-50 requested that portions of Unit 9 be closed to the taking of moose by non-Federally qualified subsistence users. Proposals WP10-47, WP10-48 and WP10-52 requested that non-Federally qualified subsistence users hunting moose in portions of Unit 9 be restricted from harvesting moose within a two mile wide corridor on either side of waterways within Federal public lands. All of the proposals were originally

deferred by the Board during its May 2010 meeting pending the outcome of the Unit 9 Moose Working Group process. In 2012, the Board rejected Proposals WP10-46, -47, -48, -49, -50 and -52 and adopted Deferred Proposal WP10-45 with modification to require a State registration permit to harvest moose in Unit 9 and to add an additional 5 days to the fall seasons in Units 9C and 9E. In Unit 9C, the season end date changed from Sep. 15 to Sep. 20 and in Unit 9E the season end date changed from Sep. 20. to Sep. 25.

Emergency Special Action Request WSA15-01 submitted by the Alaska Peninsula/Becharof National Wildlife Refuge, was approved by the Board in March 2015, to require a Federal permit for the fall 2015 season on Federal public lands within the Refuge. Since there was already a Federal registration permit required for the December moose season in the affected portion of Unit 9C, the fall season dates could be added to that permit. The Refuge submitted Proposal WP16-22 as a follow-up to WSA15-01 that would requesting this change be made in regulation.

Biological Background

Since the early 20th century, moose on the Alaska Peninsula gradually expanded their range southwestward. This expansion was accompanied by a dramatic population increase until the 1960s, when the population peaked and then began to decline. Biologists believe that range damage from over-browsing lead to the decline (Butler 2010). Even after a series of hunting restrictions and improvements in range conditions, the moose population in some subunits, such as Unit 9E, had declined as much as 60% from the peak moose population in the 1960s. Brown bear predation on neonatal moose was thought to be the primary limiting factor of moose in Unit 9 (Butler 2010).

State population objectives for moose in Unit 9 (Butler 2004 and 2008) are to:

1) maintain existing densities in areas with moderate (0.5–1.5 moose/square mile) or high (1.5–2.5 moose/square mile) densities;
2) increase low-density populations (where habitat conditions are not limiting) to 0.5 moose/square mile; and,
3) maintain sex ratios of at least 25 bulls:100 cows in medium-to-high density populations and at least 40 bulls:100 cows in low-density areas

Overall, management objectives for bull:cow ratios and population are being met in Unit 9C, a moderate density area (Butler 2009, pers. comm.). In Unit 9C, the bull:cow ratio has been well above the management objective for over a decade, suggesting that there is a harvestable surplus of bulls in that area (Watts 2015, pers. comm.). The moose populations in Unit 9 are considered stable, albeit at low density, with the most recent population estimate for Unit 9C outside of Katmai National Park at approximately 800 moose (Riley 2012).

In the past decade, local residents have regularly expressed difficulty in harvesting sufficient moose, a situation they attribute to a decreasing moose population. The erratic calf:cow ratios within Unit 9 (Butler 2008) may have led to the perception that the population is declining. In Unit 9C, the calf:cow ratio was as low as 5 calves: 100 cows in 2003 (Butler 2006, 2008), while recent composition surveys in 2013 showed an estimated calf:cow ratio of 25:100 (Crowley 2014, pers. comm.). Lack of snow cover prevented completion of 2014 surveys (Klutsch 2015, pers. comm). Low calf:cow ratios suggest that calf

recruitment and possibly calf production (depending on twinning rates) is a primary factor limiting moose abundance, and collectively, these data suggest that habitat and predation are probably key limiting factors to the moose population in Units 9B and 9C (Watts 2015, pers. comm.).

Harvest History

After remaining relatively stable for several decades, the reported moose harvest in Unit 9 has been declining since the 1990s (Riley 2012). In Unit 9C, total harvest averaged 25 moose annually between 2003 and 2014, but appears to have decreased over the past 12 years, from 31 moose annually for 2003 – 2008 to 20 moose annually for 2009 – 2014 (**Table 1**).

The percentage of Unit 9C harvest attributable to local users has increased somewhat in recent years, from 55% for 2003 – 2008 to 65% for 2009 – 2014, due in part to a decrease in nonresident harvest (ADF&G 2015). Underreporting of moose harvest by local users is known to occur (Riley 2012), so local harvest likely accounts for a larger proportion of total harvest than these data suggest. Success rates have declined among all user groups in recent years.

Across Unit 9, the majority of reported moose harvest has occurred in September. Aircraft have been, and continue to be, the most common transport method for moose hunters. Boats are the second most common transport mode (Riley 2012).

Table 1. Reported moose hunter residency and success in Unit 9C, 2003-2014 (ADF&G 2015; OSM 2015). Local residents are defined as those residing in Unit 9.

Year	Local Resident	Nonlocal Resident	Nonresident	Unknown	Total
2003	26	6	9	0	41
2004	21	4	12	2	39
2005	16	4	8	1	29
2006	8	5	9	0	22
2007	20	8	3	0	31
2008	12	5	4	0	21
2009	6	5	5	1	17
2010	16	3	0	0	19
2011	16	6	0	1	23
2012	12	5	2	0	19
2013	11	5	1	0	17
2014	17	3	4	0	24

Other Alternative Considered

The continued use of a State registration permit was considered, using modified permit language that instructs Federally qualified subsistence users of their seasons and reporting requirements. As an example, the Federal Unit 20E caribou hunt uses a joint State-Federal permit that includes language for both State

and Federal permit conditions that vary by season dates (Gronquist 2015, pers. comm.). This permit was agreed upon by State and Federal biologists of the Fortymile Caribou Herd planning team. State and Federal subsistence harvest data from that registration hunt are entered into the State harvest database. In the Fortymile caribou hunt, changing to a single permit for the entire hunt reduced confusion and eliminated the problem of multiple permits being issued to individual hunters (Harvest Management Coalition 2012).

This alternative was not selected, because there is not agreement among local State and Federal managers on the use of a joint permit. Unit 9C managers and biologists would need to agree to modify the current State registration permit language to accommodate issuance of a single permit with both State and Federal hunt conditions and enable harvest data to be entered into the State database.

Effects of the Proposal

If this Proposal is adopted, it would require Federally qualified subsistence users to use a Federal registration permit for the fall moose season in the portion of Unit 9C draining into the Naknek River from the south. This hunt is only open on Federal public lands of the Becharof National Wildlife Refuge. During the December season, Federally qualified subsistence users are already required to use a Federal registration permit to harvest moose in the affected area. The Federal subsistence permit requirement should reduce confusion for Federally qualified subsistence users by having a separate permit for the Federal hunt, which starts before and ends later than the State season. It should also clarify hunt conditions and season dates for managers and enforcement officers.

Requiring a Federal permit should result in better harvest reporting, as many Federally qualified subsistence users are unsure of the reporting requirements when using a State permit during a Federal subsistence season. Federal managers will need to ensure that permits are reported in timely manner and can refuse to issue a permit to non-reporting hunters from the preceding year. Refuge staff can enter harvest reports into the Federal subsistence harvest database and share all harvest records appropriately with local State wildlife staff.

A Federal subsistence permit requirement would supersede the currently used State permit and void the proponent's request for reporting harvest using a State permit. These changes are not expected to have any effect on the Unit 9 moose population.

OSM CONCLUSION

Support Proposal WP16-22 **with modification** to require only a Federal permit for the fall season.

The modified regulation should read:

Unit 9C—Moose

*Unit 9C – that portion draining into the Naknek River from the south – 1 bull **by Federal registration permit**. ~~A State registration permit is~~*	*Aug. 20 – Sep. 20* *Dec. 1 – Dec. 31*

~~*required during the Aug. 20 – Sep. 20 season; a Federal registration permit is required during the Dec. 1–31 season.*~~

Public lands are closed during December for the hunting of moose, except by Federally qualified subsistence users hunting under these regulations.

Justification

Issuance of a Federal permit would clarify hunt conditions and season dates for hunters, managers and enforcement officers. This should result in better harvest reporting, as many Federally qualified subsistence users are unsure of the reporting requirements while using a State permit during a Federal season. The applicable Federal regulation is found in §__.6(a)(3) and states that the State registration permit requirement is superseded by a Federal permit requirement. Under that regulation, if a Federal permit is approved, users cannot be required to report via the State permit. Federal managers will need to ensure that permits are reported in timely manner and can refuse issuance of a permit to non-reporting hunters in the following year, as stated in §__.25(h)(5).

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Bristol Bay Subsistence Regional Advisory Council

Support WP16-22 **as modified by OSM.** The Council noted that OSM really understood the issue and made a good modification. The modified proposal provides for simplifying the permit process for local user groups and will provide for additional subsistence opportunity.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendations and Federal Subsistence Board action on the proposal.

The Board may want to consider retaining the requirement of a State registration permit for the fall portion of the hunt, or modifying the requirement for a State or Federal registration permit. This option was considered in the staff analysis; however, that option was not selected because there was no agreement between State and Federal managers to allow the use of the State registration permit for a Federal hunt with different season dates. At the ISC meeting, the State of Alaska was agreeable to allowing the use of a State registration permit that lists the Federal season dates, which would make a separate Federal permit unnecessary. The use of a single harvest permit would reduce confusion for users and allows for harvest reporting to a single source, and listing the Federal season dates would address concerns with using a State permit on misaligned dates.

If there is no agreement with the State to use the State registration permit, a separate Federal registration permit would be required.

WP16–25/26 Executive Summary	
General Description	Proposal WP16–25/26 requests that the split season for caribou in a portion of Unit 17A and 17C be changed from Aug. 1 – Sep. 30 and Dec. 1 – Dec. 31 to Aug. 1 – Mar. 31 and the harvest limit be increased from 2 caribou to 3 caribou. *Submitted by the Togiak Fish and Game Advisory Committee and Nushagak Fish and Game Advisory Committee.*
Proposed Regulation	**Units 17A and 17C—Caribou** *Units17A and 17C – that portion of 17A and 17C consisting of the Nushagak Peninsula south of the Igushik River, Tuklung River and Tuklung Hills, west to Tvativak Bay – up to ~~2~~**3** caribou by Federal registration permit. Public lands are closed to the taking of caribou except by residents of Togiak, Twin Hills, Manokotak, Aleknagik, Dillingham, Clark's Point, and Ekuk hunting under these regulations. The harvest quota, harvest limit, and the number of permits available will be announced by the Togiak National Wildlife Refuge Manager after consultation with the Alaska Department of Fish and Game and the Nushagak Peninsula Caribou Planning Committee. Successful hunters must report their harvest to the Togiak National Wildlife Refuge within 24 hours after returning from the field. The season may be closed by announcement of the Togiak National Wildlife Refuge Manager.* *Aug. 1 – ~~Sep. 30~~**Mar. 31*** *~~Dec. 1 – Mar. 31~~*
OSM Conclusion	**Support** Proposal WP16-25 **with modification** to remove the regulatory language referencing harvest quotas and limits, and the number of permits available and delegate authority to determine the harvest quota and limit, and the number of permits to be issued via a delegation of authority letter and **Take no action** on Proposal WP16-26. The modified regulation should read:

WP16–25/26 Executive Summary	
	Unit 17A and 17C— Caribou *Units17A and 17C – that portion of 17A and 17C consisting of the Nushagak Peninsula south of the Igushik River, Tuklung River and Tuklung Hills, west to Tvativak Bay – up to ~~23~~ **23** caribou by Federal registration permit. Public are closed to the taking of caribou except by residents of Togiak, Twin Hills, Manokotak, Aleknagik, Dillingham, Clark's Point, and Ekuk hunting under these regulations. ~~The harvest quota, harvest limit, and the number of permits available will be announced by the Togiak National Wildlife Refuge Manager after consultation with the Alaska Department of Fish and Game and the Nushagak Peninsula Caribou Planning Committee. Successful hunters must report their harvest to the Togiak National Wildlife Refuge within 24 hours after returning from the field. The season may be closed by announcement of the Togiak National Wildlife Refuge Manager.~~* *Aug. 1 – ~~Sep. 30~~**Mar. 31*** *~~Dec. 1 – Mar. 31~~*
Bristol Bay Regional Advisory Council Recommendation	**Support** WP16-25 **as modified by OSM.** **No action taken** on WP16-26.
Western Interior Alaska Regional Advisory Council Recommendation	**No action taken**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Support** WP16-25 **with modification** to remove closure to non-Federally qualified subsistence users. **Take no action** on WP16-26.
Written Public Comments	**None**

STAFF ANALYSIS
WP16-25/26

ISSUES

Proposal WP16-25, submitted by the Togiak Fish and Game Advisory Committee, and Proposal WP16-26, submitted by the Nushagak Fish and Game Advisory Committee, request that the split season for caribou in a portion of Units 17A and 17C be changed from Aug. 1 – Sep. 30 and Dec. 1 – Dec. 31, to Aug. 1 – Mar. 31 and the harvest limit be increased from 2 caribou to 3 caribou.

DISCUSSION

The Nushagak Peninsula Caribou Herd (NPCH) is a viable, growing population and reported harvest the past 2 years has been well below the harvest objectives. The proponent believes that a harvestable surplus of caribou exists and states that the harvest objective was not met during the 2013-2014 season. The proponent states that for the 2014/2015 season, the reported harvest was only 6% of the harvest objective. Difficult and unsafe winter travel conditions in 2015 limited the opportunity to harvest Nushagak Peninsula caribou. A longer season and increased harvest limit would provide additional opportunity for Federally qualified subsistence users and may help achieve the management objectives. Proposal WP16-31/32 considers same day airborne hunting in the Nushagak Peninsula area.

Existing Federal Regulation

Unit 17A and 17C— Caribou

Units17A and 17C – that portion of 17A and 17C consisting of the Nushagak Peninsula south of the Igushik River, Tuklung River and Tuklung Hills, west to Tvativak Bay – up to 2 caribou by Federal registration permit. Public lands are closed to the taking of caribou except by residents of Togiak, Twin Hills, Manokotak, Aleknagik, Dillingham, Clark's Point, and Ekuk hunting under these regulations. The harvest quota, harvest limit, and the number of permits available will be announced by the Togiak National Wildlife Refuge Manager after consultation with the Alaska Department of Fish and Game and the Nushagak Peninsula Caribou Planning Committee. Successful hunters must report their harvest to the Togiak National Wildlife Refuge within 24 hours after returning from the field. The season may be closed by announcement of the Togiak National Wildlife Refuge Manager.	*Aug. 1 – Sep. 30* *Dec. 1 – Mar. 31*

Proposed Federal Regulation

Unit 17A and 17C— Caribou

*Units17A and 17C – that portion of 17A and 17C consisting of the Nushagak Peninsula south of the Igushik River, Tuklung River and Tuklung Hills, west to Tvativak Bay – up to ~~23~~ **23** caribou by Federal registration permit. Public lands are closed to the taking of caribou except by residents of Togiak, Twin Hills, Manokotak, Aleknagik, Dillingham, Clark's Point, and Ekuk hunting under these regulations. The harvest quota, harvest limit, and the number of permits available will be announced by the Togiak National Wildlife Refuge Manager after consultation with the Alaska Department of Fish and Game and the Nushagak Peninsula Caribou Planning Committee. Successful hunters must report their harvest to the Togiak National Wildlife Refuge within 24 hours after returning from the field. The season may be closed by announcement of the Togiak National Wildlife Refuge Manager.*	*Aug. 1 – ~~Sep.~~ **Mar. 31*** *~~Dec. 1 – Mar. 31~~*

Existing State Regulation

Unit 17 - Caribou

Unit 17A, all drainages that terminate east of Right Hand Point—two caribou by permit	*may be announced*
Unit 17C remainder—two caribou by permit	*may be announced*

Extent of Federal Public Lands

Federal public lands comprise approximately 85% of the Nushagak Peninsula hunt area and are wholly located within Togiak National Wildlife Refuge (NWR) in portions of Unit 17A and 17C (**Unit 17 Map**).

Customary and Traditional Use Determinations

Residents of Units 9B, 17, Lime Village, and Stony River have a customary and traditional use determination for caribou in Unit 17 remainder. However, by regulation Federal public lands on the Nushagak Peninsula are closed to the harvest of caribou except by the residents of Togiak, Twin Hills, Manokotak, Aleknagik, Dillingham, Clark's Point, and Ekuk.

Regulatory History

Caribou were reintroduced to the Nushagak Peninsula in 1988 and were intended to provide area residents with an important subsistence resource (FWS et. al. 1994). In 1994, Proposal P94-42 established a Jan. 1–Mar. 31 harvest season for the NPCH in portions of Units 17A and 17C, and instituted a closure to all users except residents of Togiak, Dillingham, Manokotak, Twin Hills, Aleknagik, Clark's Point, and Ekuk (FSB 1994). The newly established season started on January 1, 1995. Prior to the Federal Subsistence Board's (Board) action, there had been no harvest season for the reintroduced Nushagak caribou population. Special Action S95-06 extended the season from Jan. 1–Mar. 31 to Dec. 1–Mar. 31 for the 1995/1996 regulatory year. In 1996, the Board adopted P96-34 changing the caribou season from Jan. 1–Mar. 31 to Dec. 1–Mar. 31 and establishing a fall season Aug. 1 – Aug. 30 (FSB 1996). In 1997, the Board adopted Proposal P97-47, which increased the harvest limit from 1 caribou to 2 caribou on the Nushagak Peninsula portions of Units 17A and 17C, as there was a harvestable surplus of caribou and the previous year's harvest was well below the management objective (FSB 1997). In 1998, the Board approved Special Action S97-10, which extended the fall season from Aug. 1–Aug. 30 to Aug. 1–Sep. 30. This extension became permanent when the Board adopted Proposal P99-39 in 1999 (FSB 1999).

In 2001, the Board adopted Proposal WP01-18 to authorize use of a designated hunter permit. In 2003, the Board approved special action WSA02-13 reducing the harvest limit from 2 caribou to 1 caribou for the NPCH hunt and gave the Togiak NWR manager authority to close the season when harvest objectives are met. This action was taken to help prevent overharvest of the declining NPCH. In 2003, the Board adopted Proposal WP03-22 reducing the harvest limit from 2 caribou to 1 caribou. Additionally, the Board gave the Togiak NWR manager authority to close the season and required reporting harvest within 24 hours after returning from the field. The modifications provided management flexibility and reduced the need for special actions and follow-up proposals.

Closure reviews were conducted in 2008 and 2012 (WCR08-07 and WCR12-07). The Bristol Bay Subsistence Regional Advisory Council (Council) unanimously recommended maintaining the closures during both reviews (BBSRAC 2009, 2013). The Council felt it was important to maintain this closure and that the NPCH were an important subsistence resource. Local residents were still having a difficult time finding moose and Mulchatna caribou, and in spite of an increasing NPCH population, maintaining this closure would provide a subsistence priority for this resource.

Special Action Request WSA15-02, submitted by the Village of Manokotak in April of 2015, requested a season extension to May 31 due to poor winter travel conditions and subsequent low caribou harvest. The Special Action was rejected by the Board, primarily due to public safety concerns associated with a recent caribou capture and collaring project. While capture drugs may have been present in only a small percentage of caribou, consuming meat from affected individuals could have had negative health consequences, particularly if the meat had been shared with community members who may have been more susceptible to the risk, such as children and the elderly. There was also concern related to cow caribou disturbance and harvest during the calving season.

Biological Background

Within the first 10 years following reintroduction, the Nushagak Peninsula Caribou Herd grew from 146 animals in 1988 to over 1,200 caribou by 1998. Subsequently, calf recruitment and adult female survival decreased and the population fell below 600 caribou by 2006. By 2015, the population had increased to approximately 1,300 caribou (Aderman 2015, pers. comm.) (**Table 1**).

Table 1. Sex and age composition and minimum counts of Nushagak Peninsula caribou, southwest Alaska, 1988-2015 (Aderman 2015, Aderman 2015, pers. comm.).

Year	Bulls:100 Cows	Calves:100 Cows	Population Size (Minimum Count)
1988	11.7	10	146
1989	---	---	268
1990	---	---	383
1991	---	---	561
1992	59.8	71.6	734
1993	---	---	1,007
1994	71.3	64.6	1,106
1995	---	---	1,214
1996	---	---	1,255
1997	63.7	62.0	1,273
1998	57.4	62.6	1,281
1999	48.1	52.5	1,159
2000	51.5	38.1	1,037
2001	45.9	34.8	937
2002	42.9	36.1	810
2003	47.3	44.1	780
2004	42.5	33.8	665
2005	38.2	32.4	600
2006	31.3	35.6	550
2007	49.2	40.0	560
2008	43.8	59.6	575
2009	37.1	34.8	600
2010	42.1	45.2	801
2011	28.9	38.6	805
2012	52.0	50.2	902
2013	32.2	40.3	926
2014	43.8	52.5	1,018
2015	65.1	46.3	1,313

The causes of the decline between 1999 and 2009 are not clearly understood and are almost certainly multi-factored (Aderman and Lowe 2012). The most likely explanation for the decline is that the exceptionally high growth through 1998 produced large annual cohorts of females that survived until a relative old age, at which time they declined in productivity. This high proportion of unproductive

females, combined with high harvest years in 2001 and 2002, changed the population trajectory from an increasing trend to a decreasing trend, where it remained until the ultimate replacement of old, unproductive females with younger, more productive females. Changing nutritional conditions (both short-term, such as those associated with drought or winter icing, as well as longer-term changes, such as lower overall carrying capacity due to continuous grazing on the Nushagak Peninsula since 1988) underlaid and exacerbated this decline, but were not likely the primary drivers. Wolf predation could have been a factor in the decline; however, a study of wolf predation from 2007–2011 found that wolf predation was not a primary driver of Nushagak Peninsula caribou population dynamics (Walsh and Woolington 2012). Brown bears are common on the Nushagak Peninsula and likely have learned to exploit the caribou population, but their impact on the NPCH is not known (Aderman and Lowe 2012).

Since 2007, the population has increased due to improved fall calf recruitment and adult female survival (Aderman 2015). The most recent population estimate occurred in 2015, when a minimum of 1,313 caribou were observed (**Table 1**). This minimum count is above the upper end of the Nushagak Peninsula Caribou Management Plan's population objective, which is to maintain a population of 400–900 caribou and an optimum of 750 caribou (Aderman 2015). The most recent composition surveys were conducted October, 2015. These surveys estimated 65 bulls:100 cows, one of the highest bull:cow ratio on record, and 46 calves:100 cows (**Table 1**) (Aderman 2015, pers. comm.). Managers are concerned that continued growth of the herd may result in a population crash. Caribou harvest will need to increase substantially to prevent another population decline like the one experienced in the late 1990s and early 2000s (Aderman 2015).

Harvest History

Reported harvest increased during the eight years after the season was established in 1994/1995 (**Table 2**). Unreported harvest can be high, similar to other rural areas in Alaska, and illegal take of NPCH has been documented (Aderman and Lowe 2012).

The original NPCH Management Plan set a harvest level of no more than 10 percent of the population when the population was over 600 caribou (FWS, et. al. 1994). In 2011, the Management Plan Committee (Committee) reviewed and updated the plan's harvest strategy to make it more responsive to a dynamic caribou population. The updated strategy establishes an annual harvest goal based on population size and trend, and allows harvest when the population exceeds 200 caribou and is stable or increasing. The Committee also updated the population objective from 600 – 1,000 caribou to 400 – 900 caribou. The revised harvest strategy calls for a liberal harvest when the population is 800 caribou or greater, and recommends harvesting all animals over a minimum count of 750 caribou (Aderman 2015). The Committee recommended that Federal registration permits be allocated to eligible communities based on a formula in which each community receives 5% of the total permits, plus additional permits based on a percentage of the aggregate participating communities.

Table 2. Reported harvest of the Nushagak Peninsula caribou herd, by month, for regulatory years 1994/1995 – 2015/2016 (Aderman 2015; Aderman 2015, pers. comm.; OSM 2015).

	Month							
Regulatory year	**AUG**	**SEPT**	**DEC**	**JAN**	**FEB**	**MAR**	**Unknown**	**Total**
1994/1995	NS[a]	NS	NS	3	1	25	6	35
1995/1996	NS	NS	3	0	5	43	1	52
1996/1997	5	NS	0	0	2	13	0	20
1997/1998	5	NS	0	2	25	35	0	67
1998/1999	0	2	0	0	0	50	3	55
1999/2000	0	0	0	2	7	54	0	63
2000/2001	0	6	0	0	22	98	0	126
2001/2002	0	3	0	0	9	115	0	127
2002/2003	3	0	0	0	0	0	0	3
2003/2004	2	3	0	0	0	29	0	34
2004/2005	1	0	0	0	0	8	0	9
2005/2006	1	1	0	0	0	9	0	11
2006/2007	NS	NS	NS	NS	0	NS	0	0
2007/2008	NS	NS	NS	NS	0	0	0	0
2008/2009	NS	NS	NS	NS	5	2	1	8
2009/2010	NS	NS	NS	NS	3	14	1	18
2010/2011	NS	NS	NS	NS	18	27	0	45
2011/2012	0	2	NS	NS	20	64	0	86
2012/2013	6	3	0	5	6	89	0	109
2013/2014	3	1	0	0	0	98	0	102
2014/2015	8	7	0	0	1	0	0	16
2015/2016[b]	28	14	0	0	0	0	0	42
Total	62	42	3	12	124	773	12	1,028
% of Total	6%	4%	0%	1%	12%	75%	1%	-

[a] NS = No season
[b] Preliminary data

Hunting effort is influenced by travel conditions, availability of and opportunity to harvest Mulchatna caribou and moose, as well as economic factors (Aderman and Lowe 2012). Most of the reported harvest has occurred in February and March (**Table 2**), due to improved hunter access to the herd via snowmachines (Aderman and Lowe 2012). However, winter harvest in 2015 was low due to poor travel conditions as a result of low snowfall (Aderman 2015 pers. comm.), and included a single bull taken in February. Difficult travel conditions have limited the harvest in other years as well. Typically, annual harvest has increased as the population has recovered and harvest limits have increased (**Table 2**).

Effects of the Proposal

If these proposals are adopted, it would result in elimination of the current split season, adding an additional 61 days to the Federal subsistence season. It would also increase the available harvest limit from 2 caribou to 3 caribou. The NPCH population is currently well above the management objectives and managers are

concerned that if the herd continues to grow, it could result in a population crash. The proposed changes not only increase opportunity, but might also result in additional harvest, which could help prevent population crash.

OSM CONCLUSION

Support Proposal WP16-25 **with modification** to remove the regulatory language referencing harvest quotas, limits, and the number of permits available and delegate authority to determine the harvest quota, limits, and the number of permits to be issued via a delegation of authority letter (**Appendix 1**) and **Take no action** on Proposal WP16-26.

The modified regulation should read:

Unit 17A and 17C— Caribou

*Units17A and 17C – that portion of 17A and 17C consisting of the Nushagak Peninsula south of the Igushik River, Tuklung River and Tuklung Hills, west to Tvativak Bay – up to ~~23~~ **23** caribou by Federal registration permit. Public lands are closed to the taking of caribou except by residents of Togiak, Twin Hills, Manokotak, Aleknagik, Dillingham, Clark's Point, and Ekuk hunting under these regulations. ~~The harvest quota, harvest limit, and the number of permits available will be announced by the Togiak National Wildlife Refuge Manager after consultation with the Alaska Department of Fish and Game and the Nushagak Peninsula Caribou Planning Committee. Successful hunters must report their harvest to the Togiak National Wildlife Refuge within 24 hours after returning from the field. The season may be closed by announcement of the Togiak National Wildlife Refuge Manager.~~*	*Aug. 1 – ~~Sep. 30~~**Mar. 31*** ~~*Dec. 1 – Mar. 31*~~

Justification

Reported harvest from the past two years has been well below than the management objectives and quotas for caribou in the area covered by these proposals. Managers are concerned that continued growth of the herd may result in a population crash. As a result, failure to increase harvest could eventually present a conservation concern for this population. The NPCH is viable, growing and can sustain a longer season and increased harvest limit. Unsafe winter travel conditions have limited Federally qualified subsistence users' opportunity to harvest caribou in some years. A longer season and increased harvest limit will allow users to capitalize on favorable weather and travel conditions when they develop. Delegating authority to the manager of the Togiak National Wildlife Refuge via a delegation of authority letter allows for hunt management flexibility through in-season adjustment of hunt parameters.

The two proposals, WP16-25 and WP16-26 request the same regulatory changes. The recommendation is to take no action on WP16-26 because that request can be fully addressed through action on WP16-25.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Bristol Bay Subsistence Regional Advisory Council

Support WP16-25 **as modified by OSM**. **No action taken** on WP16-26. The Council supported WP16-25 to remove regulatory language referencing harvest quotas, limits, and number of permits available and delegate authority to determine harvest quota. The NPCH is growing and can sustain a longer season and increased harvest limit. The longer season and increased harvest limit will provide Federally qualified subsistence users additional opportunity.

Western Interior Alaska Subsistence Regional Advisory Council

No action taken on WP16-25/26. Currently, no one from the Western Interior Region is eligible for this hunt.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

Appendix 1

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

Dear Refuge Manager:

This letter delegates specific regulatory authority from the Federal Subsistence Board (Board) to the manager of the Togiak National Wildlife Refuge to issue emergency or temporary special actions if necessary to ensure the conservation of a healthy wildlife population, to continue subsistence uses of wildlife, for reasons of public safety, or to assure the continued viability of the population. This delegation only applies to the Federal public lands subject to Alaska National Interest Lands Conservation Act (ANILCA) Title VIII jurisdiction within that portion of Units 17A and 17C consisting of the Nushagak Peninsula south of the Igushik River, Tuklung River and Tuklung Hills, west to Tvativak Bay, for the management of caribou on these lands.

It is the intent of the Board that actions related to management of caribou by Federal officials be coordinated, prior to implementation, with the Alaska Department of Fish and Game (ADF&G), the Bureau of Land Management, and the Chair of the Bristol Bay 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 Togiak National Wildlife Refuge Manager is hereby delegated authority to issue emergency or temporary special actions affecting caribou on Federal lands as outlined under the **Scope of Delegation** below. Any action greater than 60 days in length (temporary special action) requires a public hearing before implementation. Special actions are governed by Federal regulation at 36 CFR 242.19 and 50 CFR 100.19.

2. 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

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harvest, specify permit requirements, and open or close specific fish or wildlife harvest seasons within frameworks established by the Board."

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

- To determine the harvest quota and set the harvest limit, and determine the number of permits to be issued, for caribou on Federal public lands in Unit 17A and 17C— that portion consisting of the Nushagak Peninsula south of the Igushik River, Tuklung River and Tuklung Hills, west to Tvativak Bay.

This delegation may be exercised only when it is necessary to conserve caribou populations, to continue subsistence uses, for reasons of public safety, or to assure the continued viability of the population.

All other proposed changes to codified regulations, such as customary and traditional use determinations, adjustments to methods and means of take, customary trade, or closures and restrictions 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 17A and 17C— that portion consisting of the Nushagak Peninsula south of the Igushik River, Tuklung River and Tuklung Hills, west to Tvativak Bay.

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

5. Guidelines for Delegation: You will become familiar with the management history of the wildlife species relevant to this delegation in the region, with current State and Federal regulations and management plans, and be up-to-date on population and harvest status information. You will 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

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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, the Bureau of Land Management, and the Chair of the Bristol Bay 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 actions 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.

6. <u>Support Services:</u> Administrative support for regulatory actions will be provided by the Office of Subsistence Management, U.S. Fish & Wildlife Service, and the Department of the Interior.

Sincerely,

Tim Towarak
Chair, Federal Subsistence Board

cc: Commissioner, Alaska Department of Fish and Game
Assistant Regional Director, Office of Subsistence Management
Deputy Assistant Regional Director, Office of Subsistence Management

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Chair, Bristol Bay Subsistence Regional Advisory Council
Subsistence Council Coordinator, Office of Subsistence Management
Federal Subsistence Liaison Team Leader, Alaska Department of Fish and Game
Federal Subsistence Board
Interagency Staff Committee
Administrative Record

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WP16-31/32 Executive Summary	
General Description	Requests a change in Federal subsistence regulations to allow same day airborne harvest of Nushagak Peninsula caribou during the winter hunt, Jan. 1 – Mar. 31. *Submitted by the Nushagak Advisory Committee and the Togiak Advisory Committee.*
Proposed Regulation	*_.26(b)(16) Take or assist in the taking of an ungulate, bear, wolf, wolverine, or other furbearer before 3:00 a.m. following the day in which airborne travel occurred (except for flights in regularly scheduled commercial aircraft). This restriction does not apply to subsistence taking of deer (except within NPS areas)* ***and of caribou on the Nushagak Peninsula (a portion of Units 17A and 17C) during Jan. 1 – Mar. 31, provided the hunter is 300 feet from the airplane,*** *the setting of snares or traps, or the removal of furbearers from traps or snares.*
OSM Conclusion	**Support**
Bristol Bay Subsistence Regional Advisory Council Recommendation	**Support** WP16-31. **No action taken** on WP16-32.
Western Interior Alaska Subsistence Regional Advisory Council Recommendation	**No action taken**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Oppose**
Written Public Comments	**None**

STAFF ANALYSIS
WP16-31/32

ISSUE

Proposals WP16-31/32, submitted by the Nushagak Advisory Committee and the Togiak Advisory Committee, respectively, request a change in Federal subsistence regulations to allow same day airborne harvest of Nushagak Peninsula caribou during the winter hunt, Jan. 1 – Mar. 31.

DISCUSSION

The proponents state that allowing same day airborne subsistence harvest of the Nushagak Peninsula caribou herd in Unit 17 would provide more opportunity for Federally qualified subsistence users during the winter hunt season. The proponents state that aircraft have traditionally been used to harvest resources in the Bristol Bay area and more recent harvests of Nushagak Peninsula animals have been below harvest objectives due in large part to poor snow cover in the winter. Both proponents state that allowing same day airborne harvesting would not impact the herd as harvest is controlled by permits issued, not by means of access. Proposals WP16-31/32 can be considered in tandem with WP-25/26 as both concern and impact the Nushagak Peninsula caribou herd.

Existing Federal Regulation

Unit 17A and 17C— Caribou

Units17A and 17C – that portion of 17A and 17C consisting of the Nushagak Peninsula south of the Igushik River, Tuklung River and Tuklung Hills, west to Tvativak Bay – up to 2 caribou by Federal registration permit. Public lands are closed to the taking of caribou except by residents of Togiak, Twin Hills, Manokotak, Aleknagik, Dillingham, Clark's Point, and Ekuk hunting under these regulations. The harvest quota, harvest limit, and the number of permits available will be announced by the Togiak National Wildlife Refuge Manager after consultation with the Alaska Department of Fish and Game and the Nushagak Peninsula Caribou Planning Committee. Successful hunters must report their harvest to the Togiak National Wildlife Refuge within 24 hours after returning from the field. The season may be closed by announcement of the Togiak National Wildlife Refuge Manager.	*Aug. 1 – Sept. 30* *Dec. 1 – Mar. 31*

Subsistence Restrictions

_.26(b)(16) Take or assist in the taking of an ungulate, bear, wolf, wolverine, or other furbearer before 3:00 a.m. following the day in

which airborne travel occurred (except for flights in regularly scheduled commercial aircraft). This restriction does not apply to subsistence taking of deer (except within NPS areas), the setting of snares or traps, or the removal of furbearers from traps or snares.

Proposed Federal Regulation

Unit 17A and 17C— Caribou

Units17A and 17C – that portion of 17A and 17C consisting of the Nushagak Peninsula south of the Igushik River, Tuklung River and Tuklung Hills, west to Tvativak Bay – up to 2 caribou by Federal registration permit. Public lands are closed to the taking of caribou except by residents of Togiak, Twin Hills, Manokotak, Aleknagik, Dillingham, Clark's Point, and Ekuk hunting under these regulations. The harvest quota, harvest limit, and the number of permits available will be announced by the Togiak National Wildlife Refuge Manager after consultation with the Alaska Department of Fish and Game and the Nushagak Peninsula Caribou Planning Committee. Successful hunters must report their harvest to the Togiak National Wildlife Refuge within 24 hours after returning from the field. The season may be closed by announcement of the Togiak National Wildlife Refuge Manager.	*Aug. 1 – Sept. 30* *Dec. 1 – Mar. 31*

Subsistence Restrictions

_.26(b)(16) Take or assist in the taking of an ungulate, bear, wolf, wolverine, or other furbearer before 3:00 a.m. following the day in which airborne travel occurred (except for flights in regularly scheduled commercial aircraft). This restriction does not apply to subsistence taking of deer (except within NPS areas) ***and of caribou on the Nushagak Peninsula (a portion of Units 17A and 17C) during Jan. 1 – Mar. 31, provided the hunter is 300 feet from the airplane,*** *the setting of snares or traps, or the removal of furbearers from traps or snares.*

Existing State Regulation

Methods and Means:

(8) a person who has been airborne may not take or assist in taking a big game animal until after 3:00 a.m. following the day in which the flying occurred; however, this paragraph does not apply to
(A) taking deer;
(B) repealed 7/1/92;

(C) a person flying on a regularly scheduled commercial airline, including a commuter airline;
(D) taking caribou from January 1 through April 15, in Unit 22 if the hunter is at least 300 feet from the airplane at the time of taking;
(E) repealed 7/1/2009;
(F) repealed 7/1/2008;
(G) a hunter taking a bear at a bait station with the use of bait or scent lures with a permit issued under 5 AAC 92.044, and if the hunter is at least 300 feet from the airplane at the time of taking;

Extent of Federal Public Lands

Federal public lands comprise approximately 87% of Unit 17A and consist entirely of Togiak National Wildlife Refuge managed lands. Federal public lands comprise approximately 26% of Unit 17C and consist of 15% U.S. Fish and Wildlife Service (FWS) managed lands and 11% Bureau of Land Management (BLM) managed lands (**Unit 17 Map**).

Customary and Traditional Use Determinations

Residents of Units 9B, 17, Lime Village, and Stony River have a customary and traditional use determination for caribou in Unit 17; however, by regulation, Federal public lands on the Nushagak Peninsula are closed to the harvest of caribou except by the residents of Togiak, Twin Hills, Manokotak, Aleknagik, Dillingham, Clark's Point, and Ekuk.

Regulatory History

Caribou were reintroduced to the Nushagak Peninsula in 1988 and were intended to provide area residents with an important subsistence resource (FWS 1994). In 1994, the Federal Subsistence Board (Board) adopted Proposal P94-42, which established a Jan. 1–Mar. 31 harvest season on the NPCH in portions of Units 17A and 17C, and instituted a closure to all users except residents of Togiak, Dillingham, Manokotak, Twin Hills, Aleknagik, Clark's Point, and Ekuk (FSB 1994). As justification, the Board recognized the growth of the herd since reintroduction and that it was approaching the carrying capacity for their range and could now support a limited and local subsistence harvest. The seven resident villages were recognized for their participation in the reintroduction and management planning for the herd. Prior to the Board action, there had been no harvest season for the Nushagak caribou population.

Special Action S95-06 extended the season from Jan. 1–Mar. 31 to Dec. 1–Mar. 31 for the 1995/1996 regulatory year. When the Board adopted Proposal P96-34 in 1996, the season extension was adopted into Federal regulations and a fall season (Aug. 1 – Aug. 30) was established in the affected area (FSB 1996).

In 1997, the Board adopted Proposal P97-47, which increased the harvest limit from one to two caribou on the Nushagak Peninsula portions of Units 17A and 17C, as there was a harvestable surplus of caribou and the previous year's harvest was well below the management objective (FSB 1997).

In 1998, the Board approved Special Action S97-10, which extended the fall season from Aug. 1–Aug. 30 to Aug. 1–Sept. 30, and this extension became permanent when the Board adopted Proposal P99-39 in 1999 (FSB 1999).

In 2001, the Board adopted Proposal WP01-18 to authorize use of a designated hunter permit. Special Action WSA03-01 reduced the harvest limit from two caribou to one caribou for the NPCH hunt and gave the Togiak National Wildlife Refuge (TNWR) Manager authority to close the season when harvest objectives have been met.

The Board adopted Proposal WP03-22 in 2003 with modification to change the harvest limit from two caribou to up to two caribou. It also gave the Togiak NWR manager authority to close the season, and required reporting harvest within 24 hours after returning from the field. The modifications allowed management flexibility and reduced the need for special actions and follow-up proposals.

Closure reviews were conducted in 2008 and 2012 (WCR08-07 and WCR12-07). The Bristol Bay Subsistence Regional Advisory Council (Council) unanimously recommended maintaining the closures during both reviews (BBSRAC 2009, 2013). Local residents were still having a hard time finding moose and Mulchatna caribou, so in spite of an increasing NPCH population, maintaining this closure was still important to help subsistence hunters harvest this important resource.

Special Action WSA15-02 was submitted by the Village of Manokotak in April of 2015 and requested a season extension to May 31 because of poor winter travel conditions and subsequent low caribou harvest. The Special Action was rejected by the Board primarily on the basis of public health concerns because of a risk of consuming caribou that were darted during a radio collaring project at the end of the hunting season. There was also concern over disturbance to cow caribou during the calving season.

Proposals to change Federal regulation to allow same day airborne subsistence harvest of Nushagak Peninsula caribou have been submitted to the Board before. In 1997 the Nushagak Peninsula Caribou Planning Committee submitted Proposal P97-48 requesting authorization of same day air-borne hunting of caribou on the Nushagak Peninsula. The Council members were split evenly on the issue and the proposal was not supported. It was recommended the proposal be resubmitted for the 1998-99 regulatory cycle. The following year Proposal P98-56 was submitted by Robert Heyano of Dillingham. The Board rejected Proposal P97-48 at its April, 1997 meeting and rejected Proposal P98-56 at its May, 1998 meeting on recommendation from the Council.

Proposals P97-48 and P98-56 both cited the customary use of airplanes for harvesting wildlife in Bristol Bay as predating that of snow machines (prior to the States passage of the Airborne Hunting Act by 1972). Both proposals emphasized the rapid growth of the herd and the low subsistence harvests which, the claimant's state, are due in part to low snow pack and poor land based transportation options. The Board rejected both proposals due to concerns over exposing the herd to harassment that may increase the harvest effort required by snow machine hunters, that airborne harvest, employed by rural residents with access to aircraft, will provide a huge advantage over those rural residents without aircraft, and that some local residents and the Bristol Bay Native Association (representing 30 villages in the region) opposed the proposal.

Cultural Knowledge and Traditional Practices

Proponents of Proposals P97-48 and P98-56, submitted in 1997, stated that aircraft and same day airborne hunting were in use before the more common use of snow machines and prior their prohibition by the Alaska Board of Game. In the Council recommendations related to Proposal P98-56, the Chair commented that some same day airborne hunting is allowed by the State in adjacent management units and that hunting in the 1940s and 1950s was conducted with the use of airplanes.

Comprehensive subsistence surveys conducted by the Alaska Department of Fish and Game, Division of Subsistence, documented the importance of caribou for the Bristol Bay communities of Aleknagik, Clarks Point, Dillingham, Manokotak, Togiak, and Twin Hills (Coley-Kenner, Krieg, Chythlook, and Jennings 2003; Fall, Schichnes, Chythlook, and Walker 1986; Holen, Stariwat, Krieg, and Lemons 2012; Schinchnes and Chythlook 1988; Seitz 1996). In all communities over each study year (ranging from 1974 to 2010) while fewer households harvested caribou, most households used caribou meat. Such a use pattern indicates the extent and significance of sharing throughout the area.

In the earlier studies, residents harvested caribou from the Mulchatna Herd and the Northern Alaska Peninsula Herd, as the Nushagak Peninsula Caribou Herd was introduced to the region in 1988. The herd typically occurred far from most of the communities, and while some residents reported harvest by boat during the fall in conjunction with moose harvest activities, many others used airplanes during the winter to reach the Mulchatna Caribou Herd and almost exclusively airplanes were used during the winter to access and harvest the Northern Alaska Peninsula Caribou Herd. This was particularly true for the community of Manokotak.

Manokotak was surveyed in 1986 for the harvest year of 1985 (Schinchnes and Chythlook 1988). During the survey 54 of 59 households were surveyed for the study, or approximately 91%. Of those 54 households 89% reported using caribou while 31% reported actually harvesting caribou. The average household harvest was 112 lbs of caribou or 22 lbs of caribou per person. The majority of the caribou hunting took place after freeze-up via either snow machine or airplane. Three households in the survey reported owning private aircraft which were used to harvest caribou; others reported chartering flights. Hunting partners of three to five parties usually shared the expense of airplane access to a herd. Upon a successful hunt, the meat was divided between the participants, and was again distributed upon return. In 1985, caribou were broadly shared within the community of Manokotak, 65% of households reported receiving caribou from others. Regardless of the methods or means of access to harvest caribou or any other resource, sharing of the harvest was and remains a critical component of the subsistence way of life in Bristol Bay and across the state.

Biological Background

In its first 10 years, the Nushagak Peninsula Caribou Herd grew from 146 animals reintroduced in 1988 to a peak of 1,399 caribou counted in March 1998. During the next decade, calf recruitment and adult female survival decreased and the population fell below 600 caribou by 2006. By 2015, the population had increased to approximately 1,300 caribou (Aderman 2015) (**Table 1**).

Table 1. Sex and age composition and minimum counts of Nushagak Peninsula caribou, southwest Alaska, 1988-2015 (Aderman 2015, Aderman 2015, pers. comm.).

Year	Bulls:100 Cows	Calves:100 Cows	Population Size (Minimum Count)
1988	11.7	10	146
1989	---	---	268
1990	---	---	383
1991	---	---	561
1992	59.8	71.6	734
1993	---	---	1,007
1994	71.3	64.6	1,106
1995	---	---	1,214
1996	---	---	1,255
1997	63.7	62.0	1,273
1998	57.4	62.6	1,281
1999	48.1	52.5	1,159
2000	51.5	38.1	1,037
2001	45.9	34.8	937
2002	42.9	36.1	810
2003	47.3	44.1	780
2004	42.5	33.8	665
2005	38.2	32.4	600
2006	31.3	35.6	550
2007	49.2	40.0	560
2008	43.8	59.6	575
2009	37.1	34.8	600
2010	42.1	45.2	801
2011	28.9	38.6	805
2012	52.0	50.2	902
2013	32.2	40.3	926
2014	43.8	52.5	1,018
2015	65.1	46.3	1,313

The causes of the decline between 1999 and 2009 are not clearly understood and are almost certainly multi-factored (Aderman and Lowe 2012). The most likely explanation for the decline is that the exceptionally high growth through 1998 produced large annual cohorts of females that survived until a relative old age, at which time they declined in productivity. This high proportion of unproductive females, combined with high harvest years in 2001 and 2002, changed the population trajectory from an increasing trend to a decreasing trend, where it remained until the ultimate replacement of older, unproductive females with younger, productive ones. Changing nutritional conditions (both short-term, such as those associated with drought or winter icing; as well as longer-term changes, such as lower overall carrying capacity due to continuous grazing on the Nushagak Peninsula since 1988) underlay and exacerbated this decline, but were not likely the primary drivers. Wolf predation could be a factor in the decline; however, a study of wolf predation from 2007–2011 found that wolf predation was not a primary driver of Nushagak Peninsula

caribou population dynamics (Walsh and Woolington 2012). Brown bears are common on the Nushagak Peninsula and likely have learned to exploit the caribou population, but their impact on the NPCH is not known (Aderman and Lowe 2012).

Since 2007, the population has increased due to improved fall calf recruitment and adult female survival (Aderman 2015). The most recent population estimate occurred in 2015, when a minimum of 1,313 caribou were observed (**Table 1**). This minimum count is above the upper end of the Nushagak Peninsula Caribou Management Plan's population objective, which is to maintain a population of 400–900 caribou and an optimum of 750 caribou (Aderman 2015). The most recent composition surveys were conducted October, 2015. These surveys estimated 65 bulls:100 cows, one of the highest bull:cow ratio on record, and 46 calves:100 cows (**Table 1**) (Aderman 2015, pers. comm.). Managers are concerned that continued growth of the herd may result in a population crash. Caribou harvest will need to increase substantially to prevent another population decline like the one experienced in the late 1990s and early 2000s (Aderman 2015).

Harvest History

Reported harvest increased during the eight years immediately following the establishment of the season in 1994/1995 only to decrease in subsequent years as the population declined (**Table 2**). Unreported harvest can be high, similar to other rural areas in Alaska, and illegal take of NPCH caribou has been documented as well (Aderman and Lowe 2012).

The original NPCH Management Plan set a harvest level of no more than 10 percent of the population when the population was over 600 caribou (FWS, et. al. 1994). In 2011, the Management Plan Committee (Committee) reviewed and updated the planned harvest strategy to make it more responsive to a dynamic caribou population. The updated strategy establishes an annual harvest goal based on population size and trend, and permits harvest when the population exceeds 200 caribou and is stable or increasing. The Committee also updated the population objective from 600 - 1,000 caribou to 400 - 900 caribou. The revised harvest strategy also calls for a liberal harvest when the population is 800 caribou or greater, at which point harvesting everything over 750 is recommended (Aderman 2015). The Committee recommended that Federal registration permits be allocated to eligible communities based on a formula in which each community receives 5% of the total permits, plus additional permits based on a percentage of the aggregate participating communities.

Hunting effort is influenced by travel conditions, availability of and opportunity to harvest Mulchatna caribou and moose, as well as economic factors (Aderman and Lowe 2012). Most of the reported harvest has occurred in February and March (**Table 2**), due to improved hunter access to the herd via snowmachines (Aderman and Lowe 2012). However, winter harvest in 2015 was low due to poor travel conditions as a result of low snowfall (Aderman 2015 pers. comm.), and included a single bull taken in February. Difficult travel conditions have limited the harvest in other years as well. Typically, annual harvest has increased as the population has recovered and harvest limits have increased (**Table 2**).

Table 2. Reported harvest of the Nushagak Peninsula caribou herd, by month, for regulatory years 1994/1995 – 2015/2016 (Aderman 2015; Aderman 2015, pers. comm.; OSM 2015).

	Month							
Regulatory year	**AUG**	**SEPT**	**DEC**	**JAN**	**FEB**	**MAR**	**Unknown**	**Total**
1994/1995	NS[a]	NS	NS	3	1	25	6	35
1995/1996	NS	NS	3	0	5	43	1	52
1996/1997	5	NS	0	0	2	13	0	20
1997/1998	5	NS	0	2	25	35	0	67
1998/1999	0	2	0	0	0	50	3	55
1999/2000	0	0	0	2	7	54	0	63
2000/2001	0	6	0	0	22	98	0	126
2001/2002	0	3	0	0	9	115	0	127
2002/2003	3	0	0	0	0	0	0	3
2003/2004	2	3	0	0	0	29	0	34
2004/2005	1	0	0	0	0	8	0	9
2005/2006	1	1	0	0	0	9	0	11
2006/2007	NS	NS	NS	NS	0	NS	0	0
2007/2008	NS	NS	NS	NS	0	0	0	0
2008/2009	NS	NS	NS	NS	5	2	1	8
2009/2010	NS	NS	NS	NS	3	14	1	18
2010/2011	NS	NS	NS	NS	18	27	0	45
2011/2012	0	2	NS	NS	20	64	0	86
2012/2013	6	3	0	5	6	89	0	109
2013/2014	3	1	0	0	0	98	0	102
2014/2015	8	7	0	0	1	0	0	16
2015/2016[b]	28	14	0	0	0	0	0	42
Total	62	42	3	12	124	773	12	1,028
% of Total	6%	4%	0%	1%	12%	75%	1%	-

[a] NS = No season
[b] Preliminary data

Effects of the Proposal

If adopted, this proposal would allow same day airborne harvest of caribou in Unit 17 on the Nushagak Peninsula during the winter hunt from Jan. 1 – Mar. 31. Allowing same day airborne harvest would provide additional opportunity for Federally qualified subsistence users, especially during winters when poor snowfall makes travel across the Nushagak Peninsula by snow machine difficult. It would also provide a disproportionate advantage to those rural residents with aircraft over those without aircraft or access to aircraft. However, as Bristol Bay community harvest and use patterns demonstrate, most hunters are generous with their success and distribute meat throughout their community regardless of methods used to access the resource.

The NPCH population is currently well above the management objectives and managers are concerned that if the herd continues to grow, it could result in a population crash. Adoption of this proposal not only increases opportunity, but might also result in additional harvest, which could help prevent a population crash.

OSM CONCLUSION

Support Proposal WP16-31/32.

Justification

The Nushagak Peninsula Caribou Herd (NPCH) has increased significantly to 1,313 animals in 2015. However, despite a harvestable surplus, local residents have not been able to reach the NPCH due to poor winter travel conditions. This proposal would provide greater opportunity to Federally qualified subsistence users in the winter hunt of Nushagak Peninsula caribou in addition to providing benefit to the herd which is already well above the management objective.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Bristol Bay Subsistence Regional Advisory Council

Support WP16-31. The Nushagak Peninsula caribou population has increased and rural residents have not been able to access the herd due to poor weather conditions. The Council supported the proposal that will provide for greater opportunity to Federally qualified subsistence users in the winter hunt of Nushagak Peninsula caribou without adversely affecting the caribou herd population. **No action taken** on WP16-32.

Western Interior Alaska Subsistence Regional Advisory Council

No action taken on WP16-31/32. Currently, no one from the Western Interior Region is eligible for this hunt, and no Customary and Traditional Use determination exists for this herd.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

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. *Submitted by Martin Nicolai of Kwethluk.*
Proposed 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.***

WP16-35 Executive Summary	
OSM Preliminary Conclusion	**Support** 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** — **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 a head lamp or a hand-held artificial light when taking a bear at a den site.***

WP16-35 Executive Summary	
OSM Conclusion	**Support**
Bristol Bay Subsistence Regional Advisory Council Recommendation	**Support**
Yukon-Kuskokwim Delta Subsistence Regional Advisory Council Recommendation	**Support**
Western Interior Alaska Regional Advisory Council Recommendation	**Support with modification.**
Seward Peninsula Regional Advisory Council Recommendation	**Support with modification.**
Interagency Staff Committee Comment	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Board action on the proposal.
ADF&G Comments	**Neutral**
Written Public Comments	**None**

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 activities[1] *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, mentioned 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, 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 km^2 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 harvested 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 black bears in 1998), followed by Holy Cross in 1990 (26 black bears) and Bethel in 2012 (21 black bears) (ADF&G 2015b). 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 was 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" (Coffing 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 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 allowing the use of artificial light for this purpose is not likely to increase participation or harvest. 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	**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 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 survey to estimate bear abundance in Unit 18 has not been conducted, which is true for many furred 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.

ANALYSIS ADDENDUM

OSM CONCLUSION

Support Proposal WP16-35.

Justification

The Yukon-Kuskokwim Delta Council and the Bristol Bay Council recommended supporting the proposal without the OSM modification. The OSM modification, to allow only a hand-held artificial light, was intended to clarify the intent of the proponent. The Yukon-Kuskokwim Delta Council said the proposed modification did not provide clarity. A Council member said that snowmachine headlights would be appropriate use of artificial light. The Yukon-Kuskokwim Delta Region encompasses Unit 18, the area that was the focus of the proposal. While the Western Interior Council and Seward Peninsula Council recommended supporting the proposal with the OSM modification citing that the modification clarified the definition of artificial light and that the method was a traditional practice, respectively, the two other Councils supported the proposal as written. The proposal as written parallels State regulations in Unit 19 and other interior Alaska wildlife management units. For these reasons, the OSM conclusion has been changed to support the proposal as written.

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

SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Bristol Bay Subsistence Regional Advisory Council

Support WP16-35. Using artificial light for the taking of a bear in a den is for the safety of the hunter. The use of light will aid the hunter to ensure a clean kill of the animal will avoid unnecessary wounding of the animal. The Council also urged the proponent to submit a similar proposal to the State of Alaska Board of Game for their consideration. The Council noted it was important to provide the opportunity to engage in this traditional practice without violating the law.

Yukon-Kuskokwim Delta Subsistence Regional Advisory Council

Support WP16-35. There are few residents who participate in harvesting bears from their dens but it is an important subsistence activity for those individuals. There are no conservation concerns and the use of artificial light provides a measure of safety to hunters. The modified language suggested by OSM does not provide clarity and is unnecessary.

Western Interior Alaska Subsistence Regional Advisory Council

Support WP16-35 **with modification** as recommended by OSM preliminary conclusion. The Council agrees with the language as modified from a safety standpoint which eliminates confusion for the public and clarifies the meaning of artificial light.

Seward Peninsula Subsistence Regional Advisory Council

Support WP16-35 **with modification** as recommended by OSM preliminary conclusion. The use of artificial light is a traditional practice for hunting bears at den sites.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Board action on the proposal.

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. *Submitted by Jack Reakoff of Wiseman.*
Proposed Regulation	**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.*** ***Up to 5 cows per day; however, calves may not be taken.*** — ***Oct. 1-Mar. 31*** ***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 1–Sept. 30, a season may be*

WP16–37 Executive Summary		
	may not be taken Oct. 15-Jan. 31.	*opened by announcement 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.~~*
	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 22D, that portion in the Pilgrim River Drainage—5 caribou per day as follows:	
	Up to 5 bulls per day; however, calves may not be taken;	***Oct. 1-Oct. 14*** ***Feb. 1-Apr. 30***
	Up to 5 cows per day; however, calves may not be taken.	***Oct. 1-Mar. 31***
	Up to 5 caribou per day; however, calves may not be taken; however, cow caribou may not be taken April 1-Aug. 31.	***May 1 – Sept. 30, season to be announced***
	*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.***	*~~No Federal open season~~* ***Season to be announced***
	Unit 23—Caribou	
	Unit 23, that portion north of and including the Singoalik River drainage~~—15~~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***

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 24**B**—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**A 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	***July 1-June 30***

WP16–37 Executive Summary	
	taken only from July 1-May 15.
	Unit 26B ***remainder*** *~~—10~~**5** caribou ~~per day~~; however, cow caribou may be taken only from Oct. 1–Apr. 30* — *July 1-~~June 30~~**Apr. 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.
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. 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*** — ***Sept. 1-Mar. 31.***

WP16–37 Executive Summary		
	However, cows accompanied by calves may not be taken Sept. 1-Oct. 15.	
	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.*~~
	However, calves may not be taken	
	Bulls may be harvested	***Oct. 1-Oct. 14*** ***Feb. 1-Apr. 30.***
	Cows may be harvested ***However, cows accompanied by calves may not be taken Oct. 1-Oct. 15.***	***Oct. 1-Mar. 31***
	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***

WP16–37 Executive Summary		
		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 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 ***However, cows accompanied by calves may not be taken Oct. 1-Oct. 15.***	***Oct. 1-Mar. 31***
	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~~—15~~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. 14.***	***July 15-Apr. 30***

WP16–37 Executive Summary		
	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.***
	Unit 24—Caribou	
	Unit 24A—south of the south bank of the Kanuti River—1 caribou	***Aug. 10-Mar. 31***
	*Unit 24**B**—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 ***However, cows accompanied by calves may not be taken July 15-Oct. 14.***	***July 15-Apr. 30***
	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***

WP16–37 Executive Summary

	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*~~—10~~ ***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—Up to 5 caribou per day. ***However, calves may not be taken***	
	Bulls may be harvested	***July 1-Oct. 14*** ***Dec. 6-June 30***
	Up to 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***

WP16–37 Executive Summary	
	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, calves may not be taken. 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*** *~~—10~~**5** caribou per day;*
	*However, c**alves 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.
OSM Conclusion	**Support** Proposal WP16-37 **with modification** to the following units (Note: hunt areas are paraphrased): Unit 21D: Remove the restriction on the take of cows with calves. Unit 22A north of Golsovia River; 22B remainder; 22D Kuzitrin River, Unit 22D Pilgrim River: Remove sex and cow with calf restrictions. 22B west of Golovnin Bay: Retain the current season. Unit 22A remainder: Establish a new hunt area with a may be announced season via delegation of authority letter. Unit 22E east: Modify hunt area boundaries. Remove sex and cow with calf restrictions. Unit 22 remainder: Clarify hunt area descriptors. Remove sex and cow with calf restrictions. Unit 23, Singoalik River hunt area: Clarify hunt area descriptor. Unit 23 Remainder:

WP16–37 Executive Summary	
	Lengthen bull and cow seasons and the restriction on the take of cows with calves. Units 24A, 24B north of Kanuti River: Remove the restriction on the take of cows with calves. Clarify hunt area descriptor. Units 24C, 24D: Remove the restriction on the take of cows with calves. Unit 26A: Lengthen the bull season in both hunt areas. Unit 26B west of Dalton Highway: Remove calf restriction. Lengthen cow season. Unit 26B remainder: Combine Unit 26B northwest portion, 26B east of the Dalton Highway, and 26B remainder hunt areas into one hunt area. Remove calf restriction. Lengthen bull and cow seasons. **See pages 663-667 for modified regulatory language.**
Western Interior Alaska Regional Advisory Council Recommendation	**Units 21D and 24 – Support** **Unit 26B –Support** WP16-64 **Units 22, 23, 26A – Take no Action**
Seward Peninsula Regional Advisory Council Recommendation	**Unit 22 – Support** WP16-37 **with modification to** extend the hunt area boundary in Unit 22E to Trout Creek, establish a To Be Announced season for Pilgrim River drainage and in Unit 22A west of the Niukluk River; create a new hunt area south of the Golsovia River in Unit 22A area with a To Be Announced season; establish year-round seasons with no sex restrictions and a 5 caribou per day harvest limit in all of Unit 22. See Council recommendations for modified language. **Units 21D, 23, 24, 26A, and 26B – No action taken**
Northwest Arctic Regional Advisory Council Recommendation	**Unit 23 – Support with modification** to mirror the regulations recommended in WP16-49 (see WP16-49 for modified language). **Units 21D, 22, 24, 26A, 26B – No action taken**

WP16–37 Executive Summary	
Eastern Interior Alaska Regional Advisory Council Recommendation	**No action taken**
North Slope Regional Advisory Council Recommendation	**No action taken**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Support**
Written Public Comments	**None**

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.***

Up to 5 cows per day; however, calves may not be taken.	***Oct. 1-Mar. 31***
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.	*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, ***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.*~~
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 22D, that portion in the Pilgrim River Drainage—5 caribou per day as follows:	
Up to 5 bulls per day; however, calves may not be taken;	***Oct. 1-Oct. 14*** ***Feb. 1-Apr. 30***
Up to 5 cows per day; however, calves may not be taken.	***Oct. 1-Mar. 31***
Up to 5 caribou per day; however, calves may not be taken; however, cow caribou may not be taken April 1-Aug. 31.	***May 1 – Sept. 30, season to be announced***
*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.***	~~*No Federal open season*~~ ***Season to be announced***
Unit 23—Caribou	
Unit 23, that portion north of and including the Singoalik River drainage ~~*—15*~~***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 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 24**B**—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**A 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***

	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***
Unit 26B ***remainder*** *~~—10~~**5** caribou ~~per day~~; however, cow caribou may be taken only from Oct. 1–Apr. 30*	*July 1-~~June 30~~**Apr. 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.	

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, 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	*Residents—5 caribou per day, as follows:*	
	Up to 5 bulls per day; however, calves may not be taken;	*Oct. 1-Oct. 14* *Feb. 1-Apr. 30*
	Up to 5 cows per day; however, calves may not be taken	*Oct. 1-Mar. 31* .
	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	*Season to be announced by emergency order*

River drainage	*emergency order; however, cow caribou may not be taken April 1-Aug. 31; bull caribou may not be taken Oct. 15-Jan. 31*	
	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*
22B 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*
22D, that portion in the Pilgrim River drainage	*Residents—5 caribou per day, as follows:*	
	Up to 5 bulls per day; however, calves may not be taken;	*Oct. 1-Oct. 14* *Feb. 1-Apr. 30*
	Up to 5 cows per day; however, calves may not be taken	*Oct. 1-Mar. 31* .
	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	*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*
22D, that portion in the Kuzitrin River drainage (excluding the Pilgrim River drainage) and the Agiapuk 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	*Sept. 1-Mar. 31.*

including tributaries	*not be taken*	
	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	*Sept. 1-Mar. 31.*

	taken	
	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*
	A portion of this area is within the DHCMA and additional restrictions apply.	
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	*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 taken	*Aug. 1-Sept. 30*
	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*
	5 bulls per day; however, calves may not be taken	*Mar. 16-June 30*
	Nonresidents—1 bull; however, calves may not be taken	*Aug. 1-Sept. 30*
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	*Residents--5 caribou per day; however, cow caribou may not be taken May 16-June 30.*	*July 1-June 30* .
	Nonresidents—5 caribou	*July 1-Apr. 30*

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		
26B, that portion south of 69° 30' N. lat. and west of the Dalton Highway	*Residents and Nonresidents--5 caribou; however, cow caribou may be taken only from July 1-Oct. 10.*	*July 1-Oct. 10* *May 16-June 30*
26B, that portion south of 69° 30' N. lat. and east of the Dalton Highway	*Residents and Nonresidents—5 caribou; however, cow caribou may be taken only from July 1-May 15.*	*July 1-June 30*
26B, Remainder	*Residents—5 caribou*	*July 1-Apr. 30*
	Nonresidents—5 caribou	*July 1-Apr. 30*
26C	*Residents—10 Caribou total; Any caribou*	*July 1-Apr. 30*
	Bull caribou	*June 23-June 30*
	Nonresidents—Two bulls	*Aug. 1-Sept. 30*

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 (FWS) 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% FWS 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% FWS 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% FWS 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% FWS 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.

All Affected Units

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 nonresidents 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. 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, the harvest seasons be reduced for bulls and cows, and the take of calves be prohibited.

Temporary Special Action WSA15-05, requested that bull caribou harvest limit in Unit 26A be reduced from 10 caribou per day to 5 caribou per day, the cow harvest limit be reduced to 3 per day, the harvest seasons for bulls and cows be reduced, 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 (Dec. 6- Dec. 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.

The Federal Subsistence Board (Board) approved Temporary Special Actions WSA15-03/04/05/06 with modification simplify and clarify the regulatory language; maintain the current hunt areas in Units 23 and 24; decrease the harvest limit from 15 to 5 caribou per day and shorten the cow and bull seasons throughout Unit 23; prohibit the harvest of cows with calves throughout the affected units; and reduce the harvest limit in Unit 26B remainder from 10 to 5 caribou per day and shorten the season. These special actions took effect on July 1, 2015.

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 2001, WACH Working Group 2011). Gunn (2001) reports the mean doubling rate for Alaskan caribou as 10 ± 2.3 years. Although the underlying mechanisms causing these fluctuations are uncertain, Gunn (2001) 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.

<u>Central Caribou Herd</u>

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).

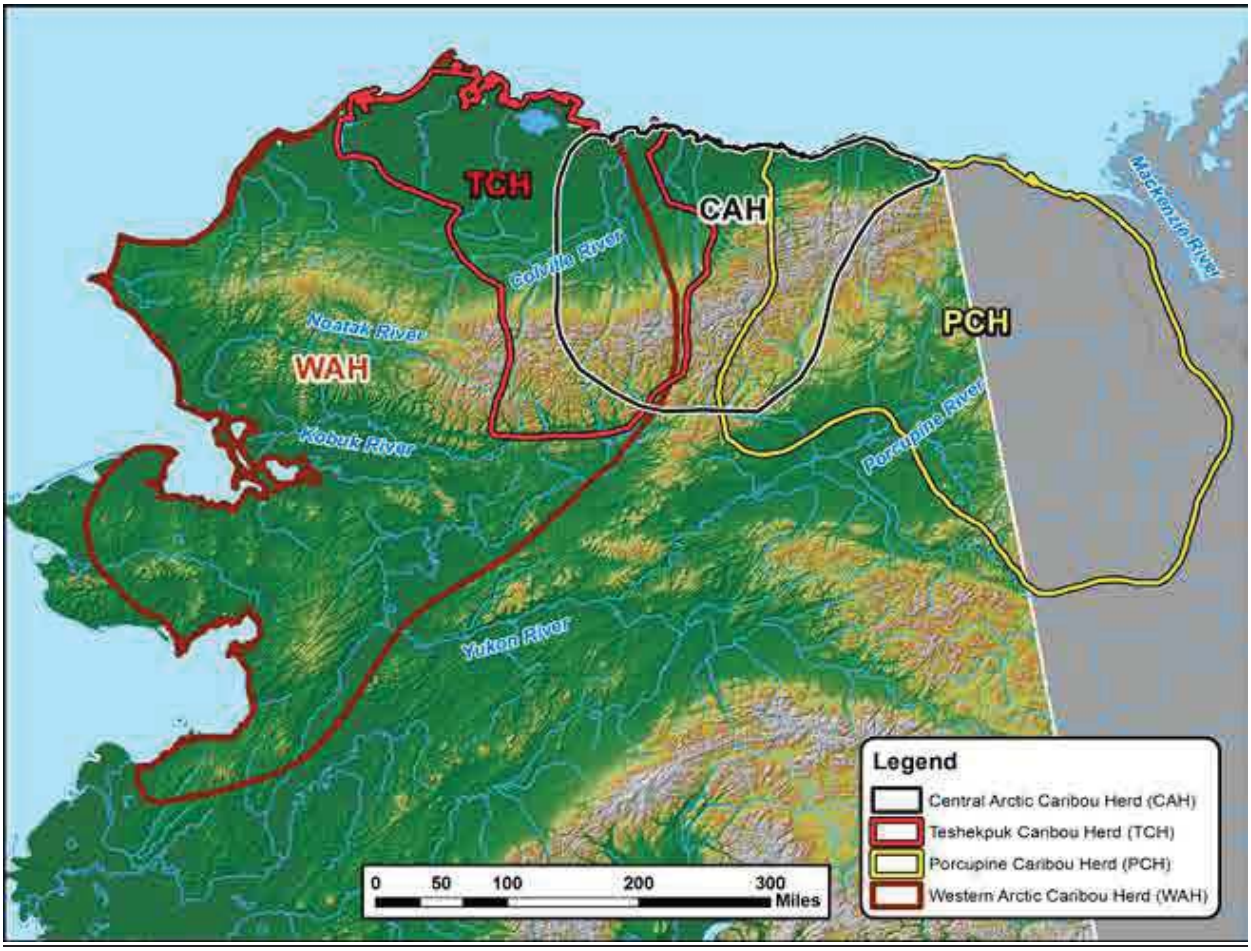

Figure 1. Herd overlap and ranges of the WACH, TCH, CACH and Porcupine caribou herds (WACH 2014).

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 Atqasuk, 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).

Survey data suggest that overwintering calf survival has declined in recent years. 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 proportion of 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.).

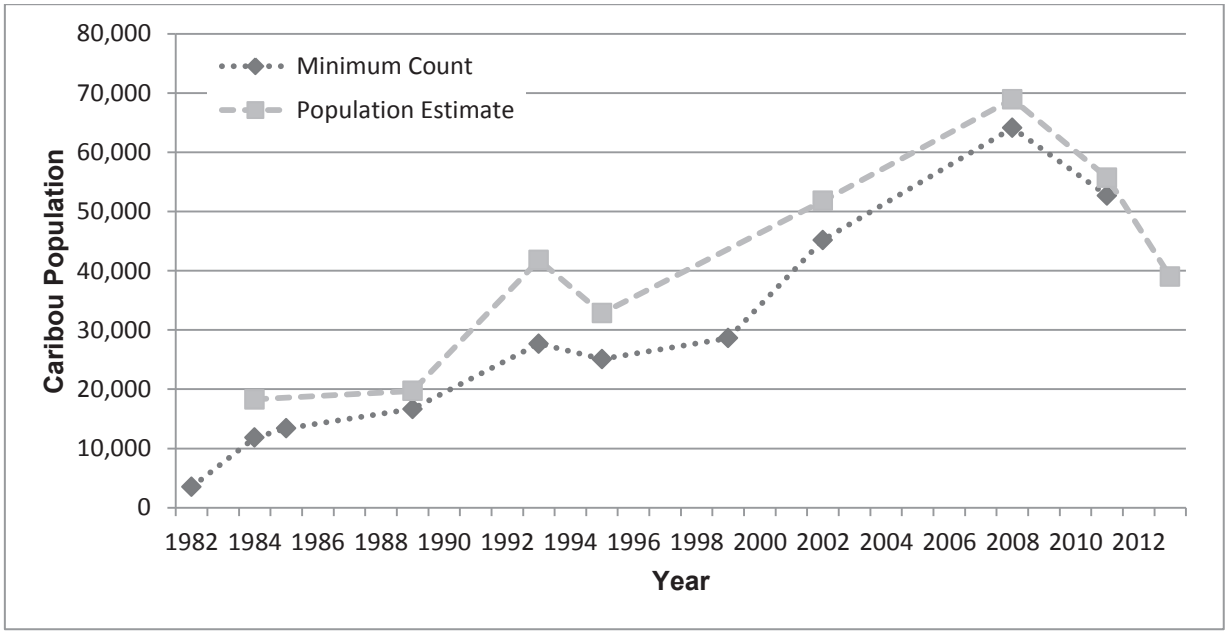

Figure 2. Minimum counts and population estimates of the Teshekpuk Caribou Herd from 1980-2014. Population estimates from 1984-2014 are based on aerial photographs of groups of caribou that contained radio–collared animals (Parrett 2011, 2013, Parrett 2015, pers. comm.).

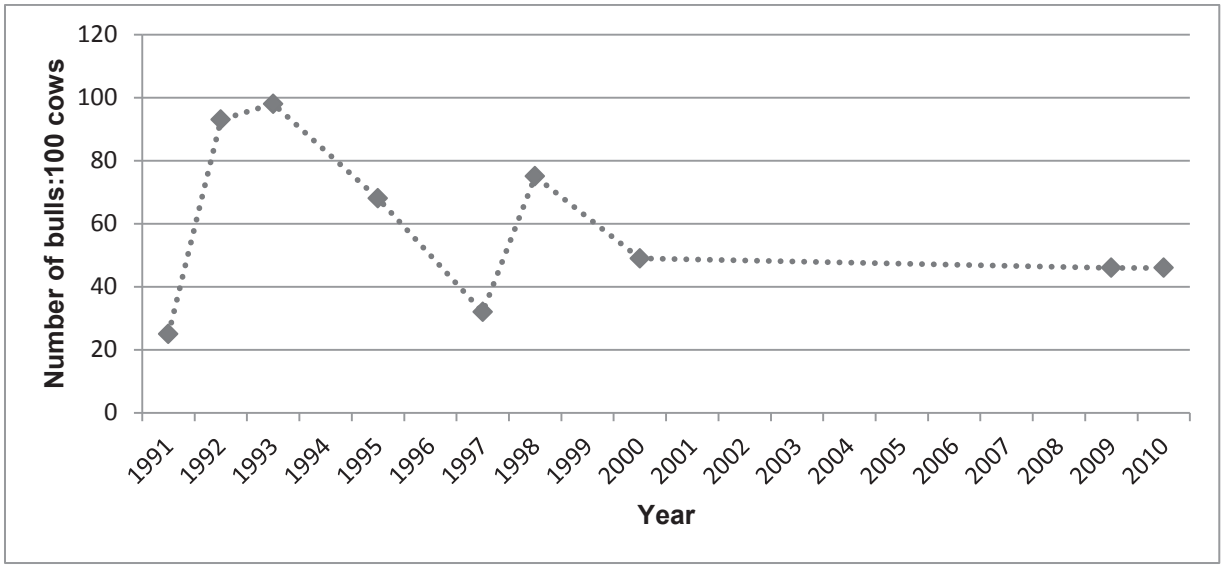

Figure 3. Bull:cow ratios of the Teshekpuk Caribou Herd (Parrett 2013).

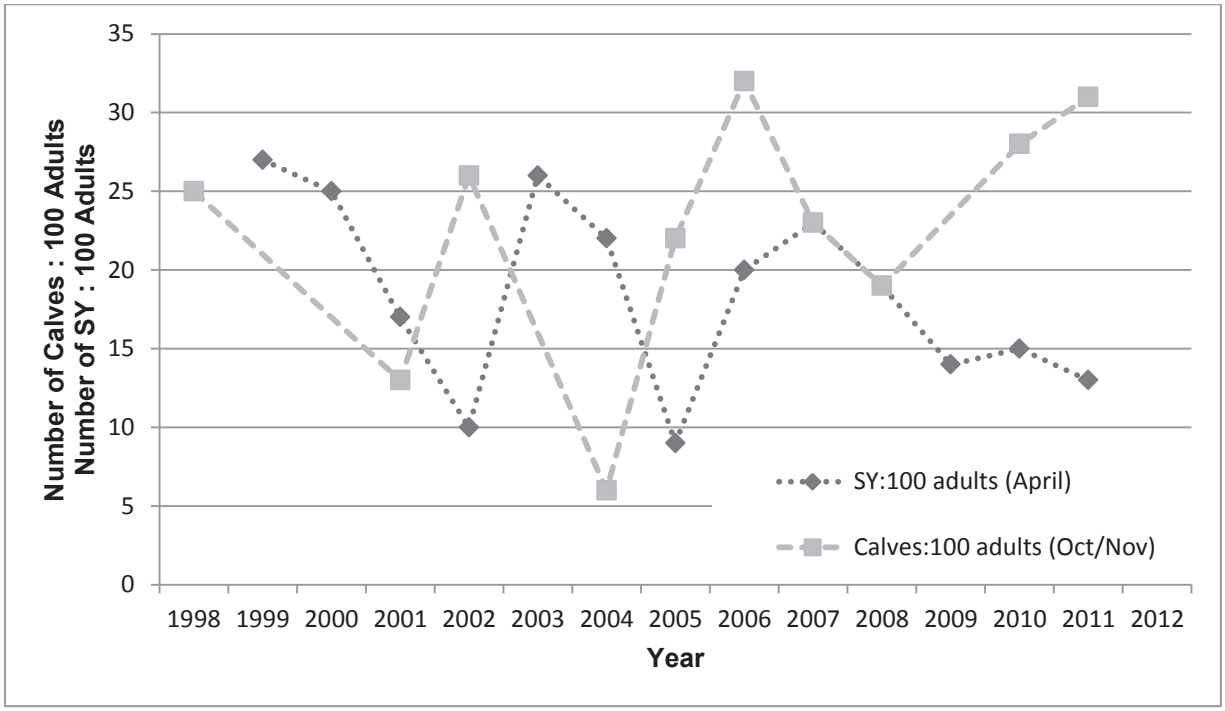

Figure 4. Calf:adult and short yearling (SY):adult ratios for the Teshekpuk Caribou Herd (Parrett 2013). Short yearlings are 10-11 months old caribou.

Western Arctic Caribou Herd

The WACH has historically been the largest caribou herd in Alaska and has a home range of approximately 157,000 mi^2 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 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 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 WACH. It is comprised of 20 voting chairs, including subsistence hunters from local villages, sport hunters, hunting guides, reindeer herders, and other stakeholders. The WACH 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 WACH population 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 WACH population was within the liberal management level prescribed by the WACH Working Group (**Table 1**). In 2013, the WACH population estimate fell below the population threshold for liberal management of a decreasing population (265,000), moving 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 (WACH Working Group 2011).

	Population Trend		
Management Level and Harvest Level	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: 12,000-18,550	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). 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).

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).

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.).

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 et al. 2012, Smith et al. 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).

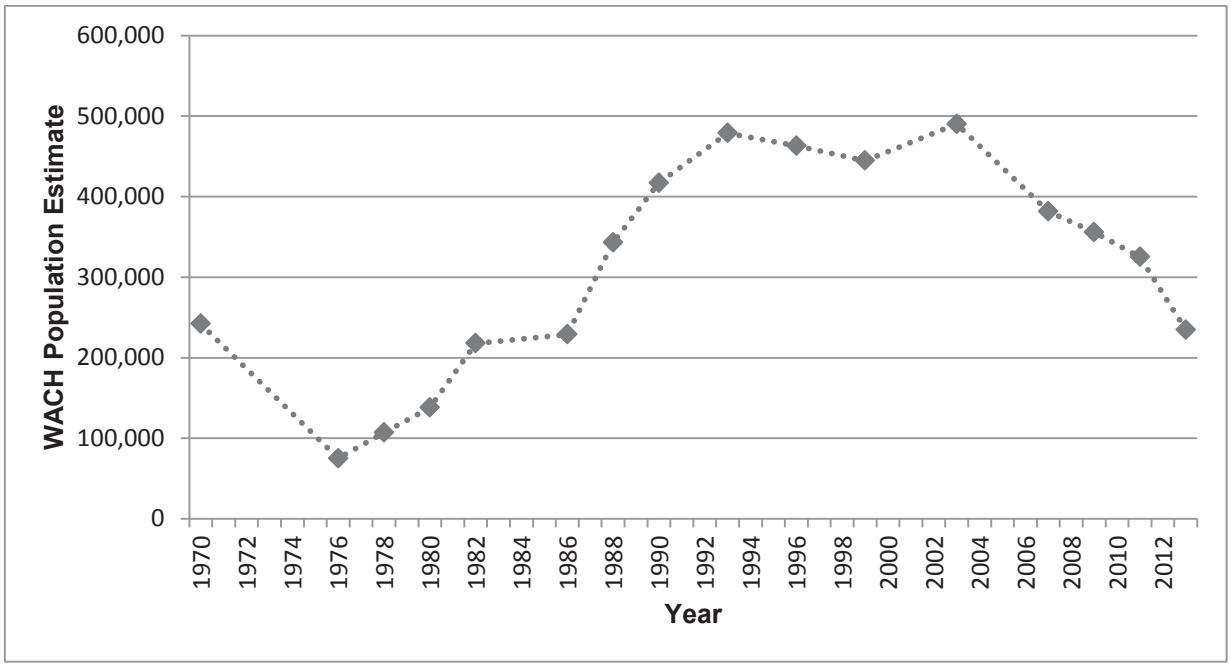

Figure 5. Western Arctic caribou herd population estimates from 1970-2013. Population estimates from 1986-2013 are based on aerial photographs of groups of caribou that contained radio–collared animals (Dau 2011, 2013, 2014).

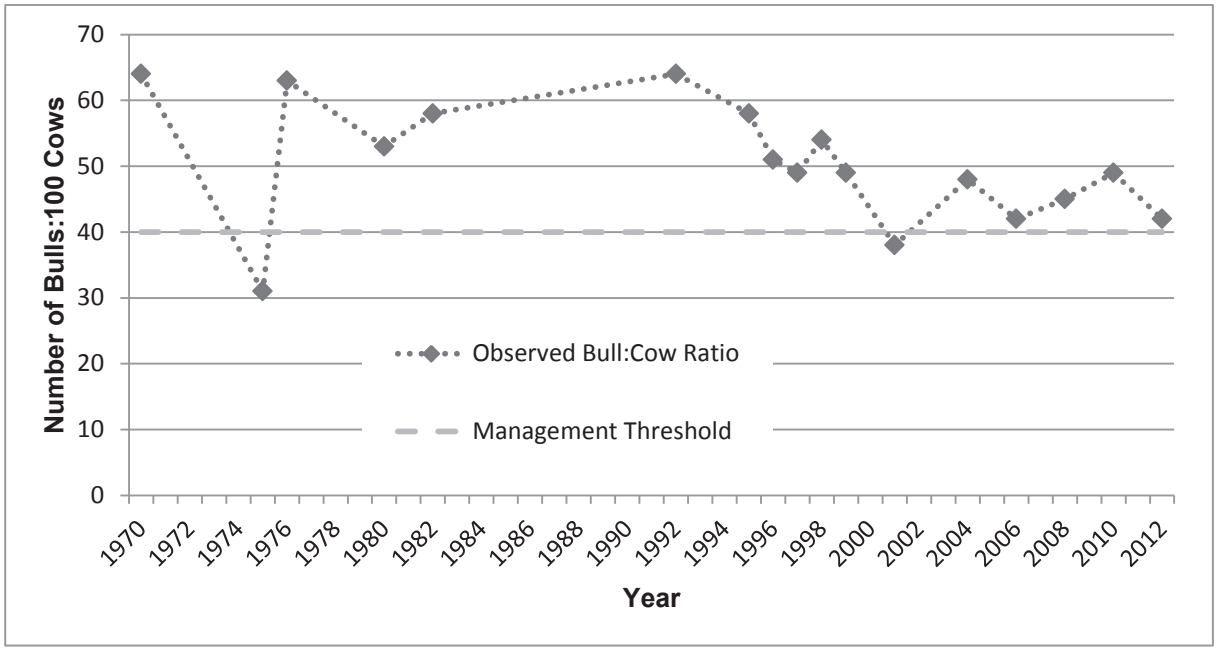

Figure 6. Bull:Cow ratios for the Western Arctic Caribou Herd (Dau 2013).

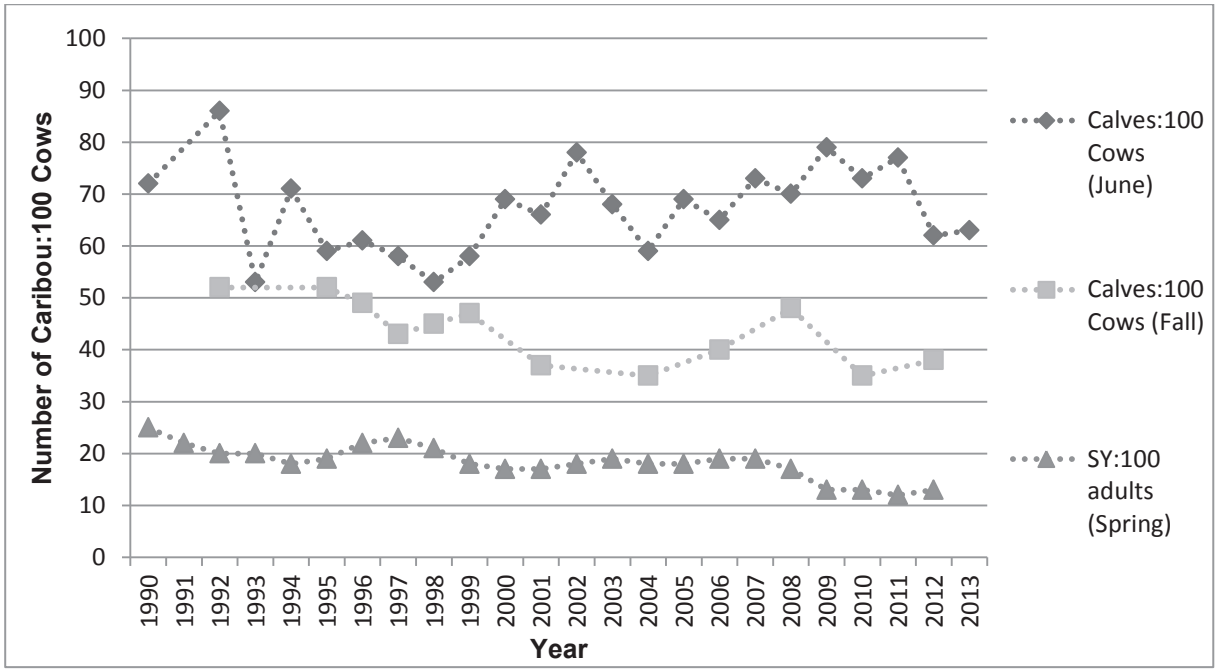

Figure 7. Calf:cow and short yearling (SY):adult ratios for the Western Arctic Caribou Herd (Dau 2013). Short yearlings are 10-11 months old caribou.

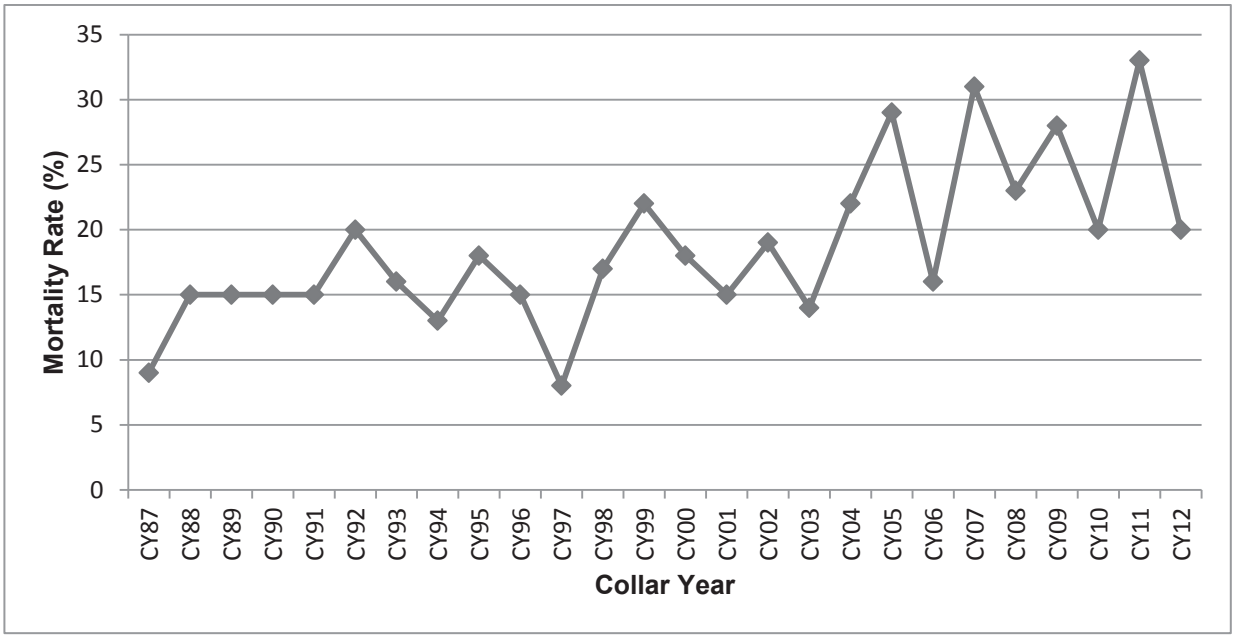

Figure 8. Mortality rate of radio-collared caribou in the Western Arctic caribou herd (Dau 2013). Collar Year = 1 Oct-30 Sept.

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
2014/2015	39[b]	[c]	[c]	[c]	[c]	[c]	[c]

[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)
[c] Data not available

Harvest History

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 ≤ 2% for all communities between 2008/09, 2009/10, and 2010/11. Total annual estimated caribou harvest by community varied with community population estimates.

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 estimated harvest is well above State objectives.

From 1999–2014, the average annual estimated harvest from the WACH was 13,450 caribou, ranging from 9,500-15,800 caribou/year (Dau 2009, Dau 2014, pers. comm., Dau 2016, 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.

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).

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 or 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)	
Atqasuk	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)

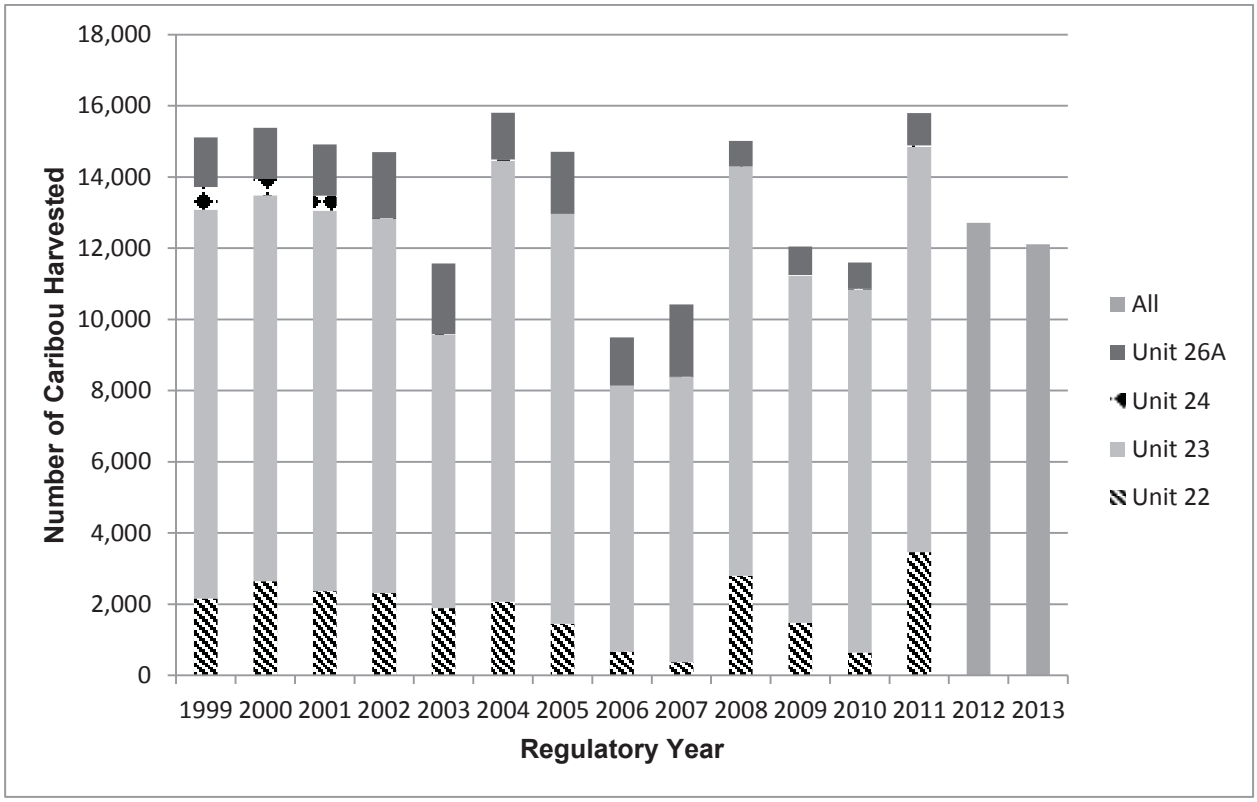

Figure 9. Total (resident and non-resident) estimated annual harvest of Western Arctic caribou by unit (Dau 2009, 2013, 2016, pers. comm.). Unit 21D not included (average harvest is 0-10 caribou/year). Harvest by unit not available for regulatory years 2012/13 and 2013/14.

Cultural Knowledge and Traditional Practices

In recent RAC meetings, some Council and community members expressed concern that the traditional uses of caribou calves were not reflected in current analyses and that if the herd were to increase in numbers, the opportunity to harvest caribou calves might be reconsidered for Federally qualified subsistence users. During public testimony before the Western Interior Subsistence Regional Advisory Council in November 2015, community and Council members recalled the value of caribou calf hide for the crafting of specific clothing (WISRAC 2015). During the North Slope meeting, one of the Council members recalled research that detailed the traditional uses of caribou calf hide for specific purposes, such as providing new skin for a drum (NSSRAC 2015). Numerous sources support these claims (i.e. Burch 1998, Burch 2012, Sharp & Sharp 2015).

Ernest Burch described the importance of caribou for the people of Northwest Alaska (Burch 1998). Depending on where they were based, most Northwest Arctic Inupiaq Nations relied upon caribou as a primary source food, but more importantly they relied upon caribou for their hides. Burch documented a unanimous preference for the late summer coats of caribou cow and calf hides, seen as providing both the softness and quality needed for high quality clothing, after the summer shedding and before acquiring a shaggy winter coat. While bulls were targeted for their fat stores and meat, cows and calves were targeted

for their hides, considered prime during the early part of August (Burch 1998). The primary objective during summer hunts was the acquisition of hides, "It reportedly took two calf skins to make one parka, and every hunter tried to get at least twenty of them" (Burch 1998:163). Not only were the hides necessary to keep a family clothed during the winter, they also served as an important trade good for coastal resources like marine mammal oil.

More recently, Henry and Karyn Sharp describe the contemporary harvest of caribou by the Denesuline people in Northern Canada (Sharp & Sharp 2015). While not describing the practice of Alaskan people, the culture and landscape are comparable. One chapter in particular describes a specific hunt that took place during the summer of 1970. The people were busy putting up and preserving caribou meat and most of their food needs had been met. However, because the group intended to stay at their camp through December, they decided caribou winter clothing was needed for the toddlers and babies. "Because of the toddler's small size and their lack of strength, these sets of clothing would have to be made from the thin hides of calf caribou." The cows and calves didn't arrive until early August, and it was then that the animals were pursued and harvested. Approximately six calves and one cow were taken (Sharp & Sharp 2015:171).

The Sharps stressed the importance of caribou hide to the Denesuline people cannot be underestimated. "The issue here is simple. Clothing and housing people in the subarctic using caribou hide means that there is a tremendous demand for caribou hides." They went on to write that aside from clothing, caribou hide was used for providing cordage for corral nets, snares, and fish nets. Caribou hides provided cover for tipis and were used to make pack sacks and travel gear. Sharp emphasized the significance of caribou hide by explaining, "The issue would not be so significant if the hides taken as a byproduct of hunting for food were sufficient to meet Denesuline needs. This is not the case (Sharp & Sharp 2015:184)." By the time fall arrived, the cows were recovering from birthing and nursing their calves but not so much that they built up the thick layers of fat found in bulls. And while bulls were targeted for human consumption, their hide was not considered optimum for winter clothing. Thus, when the bulls were prime for meat and fat, the cows and calves were prime for hides; all animals (bulls, cows, and calves) were targeted for their specific uses (Sharp & Sharp 2015).

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:***	~~*Oct. 1–Apr. 30.*~~
However, calves may not be taken	
Bulls may be harvested	***Oct. 1-Oct. 14*** ***Feb. 1-Apr. 30.***
Cows may be harvested ***However, cows accompanied by calves may not be taken Oct. 1-Oct. 15.***	***Oct. 1-Mar. 31***
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 ***However, cows accompanied by calves may not be taken Oct. 1-Oct. 15.***	***Oct. 1-Mar. 31***
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~~—15~~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. 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	***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 24**B**—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*** ~~—10~~ ***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—Up to 5 caribou per day. ***However, calves may not be taken***	
Bulls may be harvested	***July 1-Oct. 14*** ***Dec. 6-June 30***
Up to 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, calves may not be taken. 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*** ~~*10*~~***5*** *caribou per day;*	
*However, c****alves 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, Joly 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.

ANALYSIS ADDENDUM

OSM CONCLUSION

Support OSM's preliminary conclusion for Proposal WP16-37 **with modification** to the following units (Note: hunt areas are paraphrased):

Unit 21D: Remove the restriction on the take of cows with calves.

Unit 22A north of Golsovia River; 22B remainder; 22D Kuzitrin River, Unit 22D Pilgrim River: Remove sex and cow with calf restrictions. 22B west of Golovnin Bay: Retain the current season. Unit 22A remainder: Establish a new hunt area with a may be announced season via delegation of authority letter. Unit 22E east: Modify hunt area boundaries. Remove sex and cow with calf restrictions. Unit 22 remainder: Clarify hunt area descriptors. Remove sex and cow with calf restrictions.

Unit 23, Singoalik River hunt area: Clarify hunt area descriptor. Unit 23 Remainder: Lengthen bull and cow seasons and the restriction on the take of cows with calves.

Units 24A, 24B north of Kanuti River: Remove the restriction on the take of cows with calves. Clarify hunt area descriptor. Units 24C, 24D: Remove the restriction on the take of cows with calves.

Unit 26A: Lengthen the bull season in both hunt areas.

Unit 26B west of Dalton Highway: Remove calf restriction. Lengthen cow season. Unit 26B remainder: Combine Unit 26B northwest portion, 26B east of the Dalton Highway, and 26B remainder hunt areas into one hunt area. Remove calf restriction. Lengthen bull and cow seasons.

The modified regulation 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 Golovnin 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**. However, calves may not be taken**	*Oct. 1–Apr. 30*
~~***Bulls may be harvested***~~	~~***Oct. 1-Oct. 14***~~ ~~***Feb. 1-Apr. 30.***~~
~~***Cows may be harvested***~~ ~~***However, cows accompanied by calves may not be taken Oct. 1-Oct. 15.***~~	~~***Oct. 1-Mar. 31***~~
~~***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*~~ ***Tin Creek*** *drainage—5 caribou per day* ~~*; however, cow caribou may not be taken May 16–June 30.*~~ ***However, calves may not be taken.***	*July 1–June 30*
~~***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 22A remainder—5 caribou per day. However, calves may not be taken.	***July 1-June 30, a season may be announced***
Unit 22D, that portion in the Pilgrim River Drainage—5 caribou per day. However, calves may not be taken.	***Oct. 1-Apr. 30***
~~***Bulls may be harvested***~~	~~***Oct. 1-Oct. 14***~~ ~~***Feb. 1-Apr. 30***~~

~~***Cows may be harvested***~~ ~~***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.***~~	~~***Oct. 1-Mar. 31***~~ ***May 1 – Sept. 30, a season may be announced***
*Unit 22**C, 22D remainder, 22E** 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*~~ ***July 1-June 30, a season may be announced***

Unit 23—Caribou

*Unit 23**, that portion which includes all drainages north and west of, and including, the Singoalik River drainage***~~—15~~***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. 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. 31*** ***Feb. 1-June 30***
Cows may be harvested ***However, cows accompanied by calves may not be taken July 31-Oct. 14.***	***July 31-Mar. 31***

Unit 24—Caribou

Unit 24A—that portion south of the south bank of the Kanuti River—1 caribou	***Aug. 10-Mar. 31***
*Unit 24**B**—that portion south of the south bank of the Kanuti River,*	*Aug. 10–Mar. 31.*

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.

Unit 24A remainder, ***24B remainder*** ~~***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.***~~ *—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. 14.***~~	***July 15-Apr. 30***
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 ~~***However, cows accompanied by calves may not be taken Sept. 1-Oct. 14.***~~	***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*~~*.*
However, calves may not be taken	
Bulls may be harvested	***July 1-Oct. 14*** ***Dec. 6-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—Up to 5 caribou per day.
However, calves may not be taken

Bulls may be harvested	***July 1-Oct. 15*** ***Dec. 6-June 30***
Up to 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	***July 1-Apr. 30***
~~***Unit 26B, that portion south of 69° 30' N. lat. and east of the Dalton Highway—5 caribou per day; however, calves may not be taken. 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*** ~~*—10*~~***5*** *caribou per day* ***as follows****:* ~~*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*
Cows may be harvested	***July 1-May 15***

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

Justification

Caribou are generally not present in Units 21D and 24 from July-October. Therefore, the cow with calf restriction is unnecessary. This modification also aligns with the recommendation from the Western Interior Alaska Subsistence Regional Advisory Council (RAC). The hunt area descriptor for Units 24A and 24B north of the Kanuti River was incomplete. The modified descriptors, Units 24A remainder and 24B remainder, encompass the entirety of the intended hunt area and reduce regulatory complexity by aligning with the State hunt area descriptors.

Modifications in Unit 22 generally reflect the Seward Peninsula Subsistence Regional Advisory Council's concerns that the originally proposed seasons may not coincide with the presence of caribou. Unit 22 is on the periphery of the Western Arctic Caribou herd's range, resulting in greater unpredictability in caribou presence and timing, relative to the core range. The modification of regulations in Unit 22 accommodates this unpredictability by removing restrictions on sex and take of cows with calves and by allowing for seasons to be announced when caribou are present. Additionally, the beginning and end dates of the may-be-announced seasons align with the State's may-be-announced seasons for these areas, which could facilitate parallel in-season management, if needed.

Residents of Unit 22 account for approximately 12% of the total WACH harvest on average (Dau 2013). While this level of harvest is not insignificant, the changes described above are not expected to adversely affect the conservation status of the WACH, primarily due to Unit 22 land status and the expectation that much of the harvest will occur on State land and will thus be subject to the more conservative State regulations. However, maintaining more liberal Federal regulations ensures continuation of a Federal subsistence priority and acknowledges the concerns of local users.

Changes to hunt area boundaries and descriptors were made to accommodate local use patterns or to reduce regulatory complexity. Specifically, Unit 22A remainder was established as a separate hunt area to provide for in-season management independent of the other Unit 22 remainder hunt areas, as it is geographically discrete. The modified Unit 22E hunt area boundary incorporates changes proposed in Proposal WP16-45. The modified hunt area descriptor for Unit 22 remainder clarifies the areas that are part of this hunt area and reduces regulatory complexity by aligning with the State hunt area descriptors.

The Singoalik River hunt area in Unit 23 is intended to be drainage based, which allows users to more easily identify hunt area boundaries in the field. The modification in hunt area descriptor clarifies this.

The modifications to the bull and cow seasons and the cow with calf restriction in Unit 23 remainder align with the recommendation from the Northwest Arctic RAC. The bull season proposed by the Northwest Arctic RAC in Proposal WP16-49 closed on Oct. 9. The Northwest Arctic RAC observed that caribou do not pass through portions of Unit 23 until after Oct. 9 in some years, and thus supported extending the bull season to Oct. 31 to provide residents of Unit 23 (especially residents in the southern portions of Unit 23) additional opportunity to harvest caribou (NWA RAC 2015).

Similarly, the cow season proposed by the Northwest Arctic RAC in Proposal WP16-49 opened on July 1. However, the Council supported moving the opening date to July 31 in order to provide for additional protection of cows and calves. The restriction on the take of cows with calves was modified to reflect the changes made to the cow season (NWA RAC 2015).

The North Slope RAC specifically requested Dec. 6 as the re-opening date for the bull season in Unit 26A as bulls are considered edible by then. The re-opening date of the bull season in the Unit 26A Colville River hunt area was changed to Dec. 6 in order to align with the Unit 26A remainder bull season and the requests of the North Slope RAC. The bull season closing date in Unit 26A remainder was extended by one day to Oct. 15 in order to reduce regulatory complexity by aligning with the bull season closing date under State regulations.

The calf restriction in Unit 26B was removed as most caribou in this unit are part of the Central Arctic caribou herd (CACH). This modification also reduces regulatory complexity as users can harvest calves in Unit 26B under State regulations. The cow season in the Unit 26B, west of the Dalton Highway hunt area was lengthened from Oct. 14-Apr. 30 to July 1-Apr. 30 as any caribou present in this area between July and mid-October are most likely from the CACH. July 1 also aligns with the opening date for cows under State regulations, reducing regulatory complexity.

Three hunt areas (Unit 26B, Northwest portion; Unit 26B, east of the Dalton Highway; and Unit 26B remainder) were combined into one hunt area (Unit 26B remainder) because there is no Federal land in Northern Unit 26B. This hunt area was also recommended by the North Slope RAC and the Western Interior RAC. The bull and cow seasons for this area align with those for the Unit 26B, east of the Dalton Highway hunt area under State regulations. Aligning with State regulations for this hunt area is recommended to reduce regulatory complexity and because most of the caribou in this hunt area are from the CACH, enabling less restrictive seasons.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Western Interior Alaska Subsistence Regional Advisory Council

Support WP16-37 for Units 21D and 24, **Support** WP16-64 for Unit 26B, and **No action taken** on the remaining units (Units 22, 23, 26A).

Units 21D & 24: Decline of the WACH warrants the proposed season changes, and adopting the proposal as written would be more aligned with current State regulations to minimize regulatory complexity. The Council felt the proposed modifications restricting cows with calves was not warranted, as cows accompanied by calves are typically not present during the recommended closure period.

Unit 26B: The Council supported WP16-64 as submitted by the NSRAC for Unit 26B, which it deemed more appropriate for the unit. The State regulations eliminate one month of prime bull hunting in the spring, which is detrimental for subsistence users.

Remaining Units (22, 23, 26A): Proposed actions are outside of the Western Interior Region. Defer action to affected Regions.

North Slope Subsistence Regional Advisory Council

No action taken on WP16-37. The Council took no action due to its recommendations on WP16-61/62/63/64.

Northwest Arctic Subsistence Regional Advisory Council

Support WP16-37 **with modification** for Unit 23 to mirror the regulations recommended in WP16-49 (see WP16-49 for recommended language) and **No action taken** on the remaining units (Units 21D, 22, 24, 26A, and 26B). Same justification as stated in WP16-49/52. Overall, this Council is concerned about the population of the herd into the future and is adamant about protecting the herd from overharvest.

Seward Peninsula Subsistence Regional Advisory Council

Support WP16-37 **with modification** for Unit 22 to extend the hunt area boundary in Unit 22E to Trout Creek, establish a To Be Announced season for Pilgrim River drainage and in Unit 22A west of the Niukluk River; create a new hunt area (22A remainder) south of the Golsovia River in Unit 22A area with a To Be Announced season; establish year-round seasons with no sex restrictions and a 5 caribou per day harvest limit in all of Unit 22 and **No action taken** on the remaining units (21D, 23, 24, 26A, and 26B).

All caribou hunting restrictions in Unit 22 should be lifted as a result of the general lack of caribou and small percentage of harvest by subsistence users in the region. Actions taken to expand some hunt areas will not be in conflict with reindeer herders as caribou hunts will be opened on a To Be Announced basis only when caribou are in the area.

The modified regulation should read:

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**; however, calves may not be taken;**	*~~Oct. 1–Apr. 30.~~* ***July 1-June 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, **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~~ **Trout Creek** —5 caribou per day**:** ~~; however, cow caribou may not be taken May 16–June 30.;~~ **however, calves may not be taken**	*July 1–June 30.*
Unit 22A remainder—5 caribou per day. However, calves may not be taken.	***July 1-June 30, a season may be announced***
Unit 22D, that portion in the Pilgrim River Drainage—5 caribou per day; however, calves may not be taken;	***July 1-June 30, season to be announced***
*Unit 22 remainder**—5 caribou per day; however, calves may not be taken.***	*~~No Federal open season~~* ***July 1-June 30, season to be announced***

Eastern Interior Alaska Subsistence Regional Advisory Council

Take no action on WP16-37.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

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.

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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

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regulatory authority for the specific action only.

5. <u>Support Services:</u> 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

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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 Seward Peninsula 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. 30 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

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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 Seward Peninsula 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

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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

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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 Seward Peninsula 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

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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 Seward Peninsula 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.

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5. <u>Support Services:</u> 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

DRAFT

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 Seward Peninsula 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.

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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 Seward Peninsula 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.

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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

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Appendix 5

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 22A 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 Seward Peninsula 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 22A 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

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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 22A 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 Seward Peninsula 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

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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

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WP16-40 Executive Summary	
General Description	Proposal WP16-40 would allow a resident of Unit 24A, 24B, or 24C to use an artificial light when taking a black bear, including a sow accompanied by cub(s), at a den site within the portions of Gates of the Arctic National Park and Preserve that are within Unit 24A, 24B, or 24C, Oct. 15–Apr. 30. *Submitted by Gates of the Arctic National Park Subsistence Resource Commission.*
Proposed 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 24—Black Bear** **Regulation** — **Season** *3 bears* — *July 1–June 3* **§_____.26 (n)(24)(iv) Unit 24—Unit specific regulations** ***(C) If you are a resident of Unit 24A, 24B, or 24C you may use an artificial light when taking a black bear, including a sow accompanied by cub(s), at a den site within the portions of Gates of the Arctic National Park and Preserve that are within Unit 24A, 24B, or 24C, Oct. 15–Apr. 30.***

WP16-40 Executive Summary	
OSM Preliminary Conclusion	**Support** Proposal WP16-40 **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 24—Black Bear** **Regulation** **Season** *3 bears* *July 1–June 3* **§_____.26 (n)(24)(iv) Unit 24—Unit specific regulations** ***(C) If you are a resident of Unit 24A, 24B, or 24C you may use a head lamp or hand-held artificial light when taking a black bear, including a sow accompanied by cub(s), at a den site within portions of Gates of the Arctic National Park and Preserve that are within Unit 24A, 24B, or 24C, Oct. 15–Apr. 30.***
OSM Conclusion	**Support**

WP16-40 Executive Summary	
Western Interior Alaska Subsistence Regional Advisory Council Recommendation	**Support as modified by OSM**.
Interagency Staff Committee Comment	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Board action on the proposal.
ADF&G Comments	**Support**
Written Public Comments	**None**

STAFF ANALYSIS
WP16-40

ISSUES

Proposal WP16-40, submitted by the Gates of the Arctic National Park Subsistence Resource Commission, would allow a resident of Unit 24A, 24B, or 24C to use an artificial light when taking a black bear, including a sow accompanied by cub(s), at a den site within the portions of Gates of the Arctic National Park and Preserve that are within Unit 24A, 24B, or 24C, Oct. 15–Apr. 30.

DISCUSSION

The proponent writes in the proposal that this activity is currently not allowed under Federal regulations but is allowed under State regulations. The proponent notes Upper Koyukuk River residents traditionally practiced harvesting black bears at den sites and that knowledge of the practice has been passed down from one generation to the next for centuries. The proponent notes that this hunting method is particularly important during times of need when fish and other wild resources are scarce. The Commission further states that the practice is performed only by men under strict and confidential protocols to show respect for bears. The proposed regulation will allow men to use artificial lights instead of the more traditional torches.

The proponent's intent is to allow the activities in only Units 24A, 24B, and 24C in the Koyukuk River drainage within Gates of the Arctic National Park and Preserve, as documented in the transcript of the Commission's meeting that was held on March 11, 2015 (Okada 2015, pers. comm.; Bud Rice 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 24—Black Bear

Regulation	**Season**
3 bears	*July 1–June 30*

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 24—Black Bear

Regulation	**Season**
3 bears	*July 1–June 30*

§_____.26 (n)(24)(iv) Unit 24—Unit specific regulations

(C) If you are a resident of Unit 24A, 24B, or 24C you may use an artificial light when taking a black bear, including a sow accompanied by cub(s), at a den site within the portions of Gates of the Arctic National Park and Preserve that are within Unit 24A, 24B, or 24C, Oct. 15–Apr. 30.

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 activities[1] *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

(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).

[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).

Relevant Regulations

On January 1, 2016, the National Park Service amended its regulations and prohibited the use of an artificial light when hunting and the harvest of a bear cub or sow accompanied by cub(s) within any National Preserve "except for subsistence uses by local rural residents pursuant to applicable Federal law and regulation" (36 CFR Part 13.42 Taking of wildlife in national preserves).

> **36 CFR Part 13.42 Taking of wildlife in national preserves.**
>
> ****
>
> *(g) This paragraph applies to the taking of wildlife in national preserves except for subsistence uses by local rural residents pursuant to applicable Federal law and regulation. The following are prohibited*
>
> > ****
> >
> > *(8) Using any electronic device to take, harass, chase, drive, herd, or molest wildlife, including but not limited to: Artificial light; laser sights; electronically enhanced night vision scope; any device that has been airborne, controlled remotely, and used to spot or locate game with the use of a camera, video, or other sensing device; radio or satellite telephone; or motion detector*
> >
> > ****
> >
> > *(13) Taking cub bears or female bears with cubs.*

Extent of Federal Public Lands

Federal public lands of Gates of the Arctic National Park and Preserve comprise approximately 11% of Unit 24A, 38% of Unit 24B, and 3% of Unit 24C (see **Unit 24 Map**).

Customary and Traditional Use Determination

In the portions of Gates of the Arctic National Park and Preserve that are within Unit 24, residents of Unit 24 (including the communities of Allakaket, Alatna, Bettles, Evansville, Hughes, and Huslia) and Wiseman but not including any other residents of the Dalton Highway Corridor Management Area have a customary and traditional use determination for black bears.

Regulatory History

In Unit 24, the black bear hunting season has been opened year round and the harvest limit has been 3 bears per year since 1960 (Alaska 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 (ADF&G 2015a). 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.

On January 1, 2016, the National Park Service amended its regulations and prohibited the use of an artificial light when hunting and the harvest of a bear cub or sow accompanied by cub(s) within any National Preserve "except for subsistence uses by local rural residents pursuant to applicable Federal law and regulation" (36 CFR Part 13.42 Taking of wildlife in national preserves).

Harvest History

As mentioned previously, the Alaska Board of Game has not implemented an annual harvest reporting system for black bear in Unit 24. Residents of the communities affected by this proposal (residents of Units 24A, 24B, and 24C) reported harvesting black bears in periodic household harvest surveys conducted by ADF&G (**Table 1**). Estimated annual harvests by community have ranged from none to 23 black bears in Allakaket/Alatna in 1982. Of the six communities in the proposal, Alatna, Allakaket, Bettles, Evansville, Hughes, and Wiseman, all but Wiseman have documented harvests of black bear, and Wiseman was only surveyed one year, 2011, while other communities' have participated in surveys in multiple years (ADF&G 2015b).

Cultural Knowledge and Traditional Practices

Much has been written about Koyukon Athabascan understanding, knowledge, and practices regarding black bears. It is important to note that to many Koyukon Athabascans, bears, like other animals, communicate among themselves, understand human behavior and language, are constantly aware of what people say and do, and their presiding spirits are easily offended by disrespectful behavior (Nelson 1983). Nelson (1983:173) notes, "The back bear takes us near the apex of power among spirits of the natural world. Its close relative the brown bear is given almost identical regard, though it is more potent and dangerous." The black bear (*sis*; or *hulzinh,* lit. black place) is far more significant in the subsistence economy. According to Nelson, "It ranks high as a resource, esteemed as a food and as a ceremonial delicacy. And taking the animal is far more than just a way of getting food—it is a quest for prestige and a high expression of manhood" (1983:173). Nelson adds, "The Koyukon people are bear hunters without peer. Their knowledge of these animals is deep and detailed, their hunting methods sophisticated and complex" (1983:175). Depending on weather conditions, black bears enter their dens in October. The ethnographic literature contains detailed descriptions of den hunting (Nelson 1973, Nelson et al. 1982). In 1998 and 2000, residents of Koyukon communities reported that their harvest of black bears in early winter was often from dens sites (Andersen, Utermohle, and Brown 1998; Andersen, Utermohle, and Jennings 2001). Natural and artificial lights were used. For example,

> In many cases a hunter looks into the den tunnel, using a flashlight or torch to locate the animal inside. If he can see it clearly, he is able to aim and shoot effectively from the den

> entrance . . . . At the spot above the den nest, they will chop and dig a hole perhaps 6 inches in diameter. If enough light can filter through the hole, it may be possible to see the bear and to allow the hunter to shoot it in the head . . . . Or in many cases a hunter looks into the den tunnel, using a flashlight or torch to locate the animal inside. If he can see it clearly, he is able to aim and shoot effectively from the den entrance (Nelson et al. 1982:47)

Effects of the Proposal

Within the Park and Preserve, the proposed practice, harvesting black bears, including sows with cubs, from den sites with the aid of artificial light, is not allowed under National Park Service regulations. If this proposal was adopted, the proposed practice would be allowed for a resident of Unit 24A, 24B, or 24C hunting a black bear at a den site that is situated within the Gates of the Arctic National Park or Preserve. However no effects on black bear populations in the Preserve are anticipated because of 5 AAC 92.080(7)(C)(iv) and 5 AAC 92.260(1) and (2), under which primarily the six Koyukon Athabascan communities in this proposal have legally practiced the proposed activities in the Preserve from 2008 to 2016. Additionally, Preserve lands extend into only a small portion of Unit 24C, and there are no Preserve lands in Units 24A or 25B.

Activities allowed under State regulations 5 AAC 92.080(7)(C)(iv) and 5 AAC 92.260(1) and (2) within the Preserve have not been allowed within the Park, so this will be the first opportunity for Federally qualified subsistence users to legally practice the proposed activities within the Park. The portion of the Park that will be affected by the proposal is mainly in Unit 24B, and there are no Park lands in Unit 24C. If the proposal was adopted, effects on black bear populations would be unclear because no population estimates have been readily available. Harvesting a sow that is in a material den can have an impact on cub survival because the surviving cub cannot survive.

If the proposal was adopted, there would likely be no effects to sport hunters.

If the proposal was not adopted, residents of the primarily Koyukon Athabascan communities in the proposal could be cited by law enforcement officers for conducting the proposed activities in any portion of Gates of the Arctic National Park and Preserve.

OSM PRELIMINARY CONCLUSION

Support Proposal WP16-40 **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.

§_____.26 (n)(24)(iv) Unit 24—Unit specific regulations

Unit 24 Black Bear

Regulation	**Season**
3 bears	*July 1–June 30*

****

(C) If you are a resident of Unit 24A, 24B, or 24C you may use a head lamp or hand-held artificial light when taking a black bear, including a sow accompanied by cub(s), at a den site within portions of Gates of the Arctic National Park and Preserve that are within Unit 24A, 24B, or 24C, Oct. 15–Apr. 30.

Justification

Harvesting black bears, including sows with cubs, from den sites with the aid of artificial light is documented in the ethnographic literature and is a part of the Koyukon contemporary pattern of use (Andersen, Utermohle, and Brown 1998; Andersen, Utermohle, and Jennings 2001; Nelson 1973, 1983; Nelson et al. 1982).). In Gates of the Arctic National Preserve, black bear hunting with an artificial light at a den site and the harvest of a black bear sow with a cub at a den site were legal in State regulations from 2008 to 2016 (5 AAC 92.080(7)(C)(iv) and 5 AAC 92.260(1) and (2)). The National Park Service adopted regulations on January 1, 2016, outlawing the practices on all preserve lands in Alaska. The proposed regulation will allow the practices by only Federally qualified subsistence users living in six primarily Koyukon Athabascan communities in the proposal. There is a small amount of Preserve land where the proposed regulation will be in effect. In contrast, Park lands are extensive in Unit 24B. Black bear population estimates are not readily available, which is true for many furred animals in rural areas of the state. Harvest limits or seasons can be limited to conserve black bear populations, if necessary. Other Federally qualified subsistence users who may wish to participate can submit a proposal.

ANALYSIS ADDENDUM

OSM CONCLUSION

Support Proposal WP16-40.

Justification

While the Western Interior Council recommended supporting the proposal with modification in the OSM preliminary conclusion, a similar proposal (WP16-35) was supported by the Yukon-Kuskokwim Delta Council and the Bristol Bay Council without the OSM modification. Subsequently, the OSM recommendation changed to support Proposal WP16-35 without the OSM modification. Furthermore, the proposal as written would parallel State regulations in interior Alaska wildlife management units. Therefore, the proposal as written would likely provide more clarity in regulations. For these reasons, the OSM conclusion has been changed to support the proposal as written.

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Table 1. The number of black bears harvested by communities in the proposal, based on household harvest surveys, by study year.

UNIT 18 HOUSEHOLD SURVEYS					
Community	Study year	Harvest of black bears			
		Reported	Estimated	Lower estimate	Upper estimate
Alatna	2011	5	8	7	8
	2002	4	8	4	15
	2001	7	7	7	7
	1999				
	1998				
	1997	4	4	4	4
Allakaket	2011	13	18	17	18
	2002	6	11	6	15
	2001	18	18	18	18
	1999	11	11	11	12
	1998	10	11	10	14
	1997	9	10	9	11
Allakaket/Alatna	1984	17	21	-	-
	1983	7	8	-	-
	1982	21	23	-	-
Bettles	2011				
	1999	3	5	3	13
Bettles/Evansville	2002				
	1984	1	1	1	1
	1983	2	2	2	2
	1982	5	6	-	-
Evansville	2011				
	1999				
	1998				
	1997	1	1	1	3
Hughes	1982	15	17	-	-
Wiseman	2011				

Source: ADF&G 2015b.

Blank cell=0.

"-"=information not available.

SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Western Interior Alaska Subsistence Regional Advisory Council

Support WP16-40 **as modified by OSM**. The Council decided that this is a safety issue for a customary and traditional practice and the Council is agreeable with the light specification as described in the modification. These decisions should be left to those who still practice this culturally sensitive hunt, and this is already allowed under state regulations.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Board action on the proposal.

WP16–41 Executive Summary	
General Description	Proposal WP16-41 requests changing the harvest limit for sheep in that portion of Units 24A and 24B within Gates of the Arctic National Park from *3 sheep* to *3 sheep not to exceed 1 ewe*. It also requests that the horns of sheep taken within Gates of the Arctic National Park be excluded from sealing requirements. *Submitted by the Gates of the Arctic Subsistence Resource Commission.*
Proposed Regulation	**Unit 24—Sheep** *Unit 24A and 24B—(excluding Anaktuvuk Pass residents)—that portion within the Gates of the Arctic National Park—3 sheep**, no more than one of which may be a ewe. Sheep horns taken in Gates of the Arctic National Park are eliminated from any sealing requirements***. *Aug. 1–Apr. 30*
OSM Conclusion	**Support** Proposal WP16-41 **with modification** to require a Federal registration permit. **Unit 24—Sheep** *Unit 24A and 24B—(excluding Anaktuvuk Pass residents)—that portion within the Gates of the Arctic National Park—3 sheep**, no more than one of which may be a ewe, by Federal registration permit only.*** *Aug. 1–Apr. 30*
Western Interior Alaska Regional Advisory Council Recommendation	**Support** WP16-41 **with modification** to require reporting by Federal registration permit or by community household survey, in order to accommodate communities such as Allakaket that oppose individual reporting via registration permit.
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

WP16–41 Executive Summary	
ADF&G Comments	**Support** WP16-41 **with modification** to maintain current State sealing requirements.
Written Public Comments	**1 Support**

STAFF ANALYSIS
WP16-41

ISSUES

Proposal WP16-41, submitted by the Gates of the Arctic Subsistence Resource Commission, requests changing the harvest limit from *3 sheep* to *3 sheep not to exceed 1 ewe* in that portion of Units 24A and 24B within Gates of the Arctic National Park. It also requests that the horns of sheep taken within Gates of the Arctic National Park be excluded from sealing requirements.

DISCUSSION

The proponent suggests that restricting ewe harvest may ease the recent decline of sheep populations within Gates of the Arctic National Park and Preserve and will provide an opportunity for the population to recover. The proponent views this as a temporary measure, to be rescinded when the population has recovered.

The proponent states that transporting horns to Fairbanks to be sealed is an extreme burden for Federally qualified subsistence users. They assert that there is no real management benefit gained from the sealing requirement, since there is no horn size restriction for sheep harvested within Gates of the Arctic National Park under Federal regulations. As a result, they suggest that the sealing requirement be rescinded.

Existing Federal Regulation

Unit 24—Sheep

Unit 24A and 24B—(excluding Anaktuvuk Pass residents)—that portion within the Gates of the Arctic National Park—3 sheep. *Aug. 1–Apr. 30*

§100.6(a)(3) Possess and comply with the provisions of any pertinent permits, harvest tickets, or tags required by the State unless any of these documents or individual provisions in them are superseded by the requirements in subpart D of this part.

Proposed Federal Regulation

Unit 24—Sheep

*Unit 24A and 24B—(excluding Anaktuvuk Pass residents)—that portion within the Gates of the Arctic National Park—3 sheep**, no more than one of which may be a ewe. Sheep horns taken in Gates of the Arctic National Park are eliminated from any sealing requirements**.* *Aug. 1–Apr. 30*

Existing State Regulation

Unit 24—Sheep

Unit 24A

Residents and nonresidents: 1 ram with full-curl horn or larger	*Aug. 10 – Sep. 20*

Unit 24B—within the John River drainage upstream from Till Creek, and that portion within the Glacier River drainage

Residents: 3 sheep	*Aug. 1 – Apr. 30*

Unit 24B, remainder

Residents and nonresidents: 1 ram with full-curl horn or larger	*Aug. 10 – Sep. 20*

Extent of Federal Public Lands

The portion of Units 24A and 24B within Gates of the Arctic National Park is comprised of 100% Federal public lands, managed by the National Park Service (**Map1**).

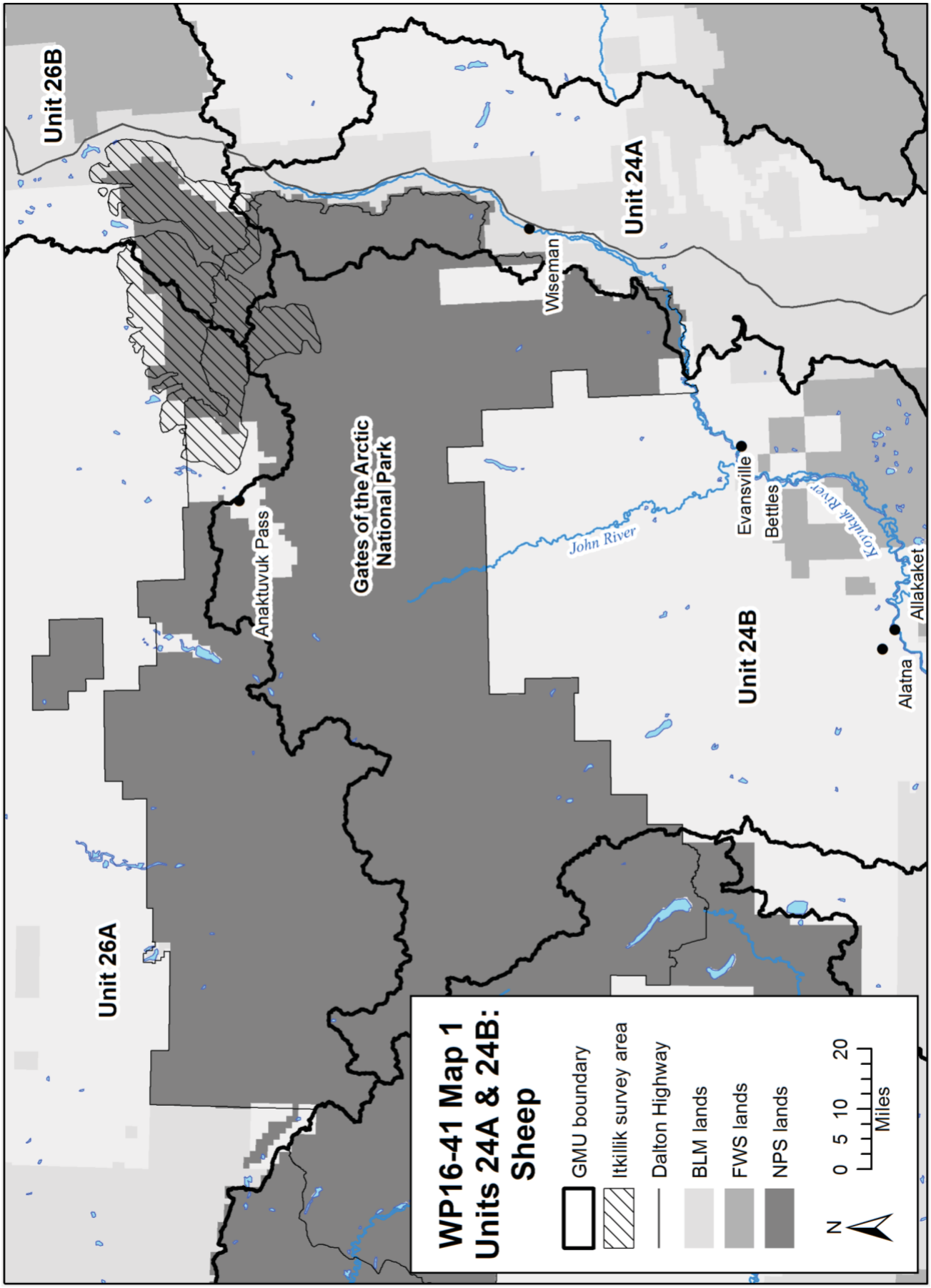
Customary and Traditional Use Determinations

Residents of Unit 24 residing north of the Arctic Circle, Allakaket, Alatna, Hughes and Huslia have a positive customary and traditional use determination for sheep in Unit 24.

Regulatory History

In 1997, Proposal WP97-60 was adopted by the Federal Subsistence Board (Board). This proposal resulted in a customary and traditional use determination for sheep in Unit 24 for the residents of Hughes and Huslia. Previously, only residents of Unit 24 residing north of the Arctic Circle and residents of Allakaket, Alatna and Anaktuvuk Pass were eligible to harvest sheep in Unit 24. Hughes is a resident zone community for Gates of the Arctic National Park and thus became eligible to hunt sheep within the Park boundary. Huslia is not a resident zone community so sheep harvest by its residents is limited to areas outside the Park boundary (FWS 1997).

In 2006, the Board adopted Proposal WP06-69, submitted by the Alaska Department of Fish and Game (ADF&G). This proposal requested that sheep regulations for Unit 24 be modified to reduce regulatory complexity. Unit 24 had recently been split into subunits under State regulations and the proposal requested incorporating the new unit description into Federal regulations. The Board's action established the current hunt area descriptor for Unit 24A and 24B within Gates of the Arctic National Park. There have been no changes in season or harvest limits since this hunt area was established (FWS 2006).


WP16-41 Map 1
Units 24A & 24B:
Sheep
GMU boundary
Itkillik survey area
Dalton Highway
BLM lands
FWS lands
NPS lands
N
0 5 10 20
Miles
Unit 26B
Unit 26A
Unit 24A
Unit 24B
Gates of the Arctic National Park
Anaktuvuk Pass
Wiseman
Evansville
Bettles
John River
Koyukuk River
Allakaket
Alatna

In 2010, ADF&G submitted Proposal WP10-39, which requested that Federal subsistence regulations be clarified to show the requirements for harvest salvage, reporting, and sealing for Dall sheep in Units 11 and 12. Analysis of this proposal demonstrated that Federal regulations had addressed sheep harvest and reporting requirements since 1992, but acknowledged that they had not been consolidated into a single location within the public booklet. The Board opted to take no action on this proposal on the basis that adding additional regulations would be redundant. However, additions were made to the public booklet to clarify that in Units 7, 9, 11 – 16, 19, 20, and 23 – 26, hunters are required to possess a State harvest ticket and comply with the sealing requirements of that ticket unless a Federal registration permit is required (FWS 2010).

Biological Background

Dall sheep are found throughout the Brooks Range. There were an estimated 13,000 sheep in the eastern Brooks Range in 1985 (Heimer 1985). Overall, populations declined during the 1990s throughout the range, most likely due to a combination of severe winters and increased predation. Although surveys were sporadic in most areas, sheep populations were thought to be relatively stable between the late 1990s and early 2010s. However, they are believed to have remained below levels observed in the 1980s (Lawler 2004; Hollis 2011; Rattenbury 2015, pers. comm.; Schmidt et al. 2012; Schmidt and Rattenbury 2013). Severe weather is known to be an important driver of sheep population dynamics (ADF&G 2014) and the winters of 2012 – 2013 and 2013 – 2014 appeared to have caused a major decline in the Brooks Range population (ADF&G 2014; Rattenbury 2015, pers. comm.).

The majority of recent sheep surveys conducted in the central Brooks Range have occurred within Gates of the Arctic National Park and Preserve (GAAR). The sheep population within GAAR was estimated to be approximately 11,000-12,000 animals in the early 1980s (Singer 1984). The population was thought to be low in the 1970s, followed by an increase from 1982 to 1987, and a dramatic decline by 1996 and 1997 (Whitten 1997, Brubaker and Whitten 1998). Estimates of the sheep population within GAAR in 2010 showed a population of just over 10,000 animals (Schmidt et al. 2012).

The most recent survey data for sheep in the central Brooks Range is from the Itkillik Preserve, which is located in the northeast corner of GAAR and occupies portions of Units 24A, 24B, 26A and 26B (**Map 1**). The Itkillik Preserve falls largely outside the geographic area addressed by this proposal. It also contains the highest known densities of sheep in GAAR (Rattenbury and Lawler 2010). However, with surveys conducted in 1983, 1996, 2005 and 2008 – 2014, the Itkillik surveys are the most comprehensive record of recent sheep population dynamics in the central Brooks Range. Distance sampling surveys from 2009 to 2014 suggest sheep abundance in the Itkillik Preserve was stable between 2009 and 2012, but declined significantly in 2013 (Schmidt and Rattenbury 2013; Rattenbury 2015, pers. comm.). Current estimates indicate that the population has declined to approximately one-third of its 2010 size (Rattenbury 2015, pers. comm.; **Table 1**). The proportion of ewe-like animals in the population appears to have remained stable during this decline. However, productivity was low in 2013 and 2014, as evidenced by the low proportion of lambs in the population. The proportion of rams in the population was higher in 2013 and 2014, due to the decline in other cohorts (Rattenbury 2015, pers. comm.; **Table 1**).

Habitat

Sheep are found at high elevations with sparse vegetation, where predation and competition for forage with other ungulates are reduced (Krausman and Bowyer 2003). Habitat quality for sheep is poorly understood in much of the species range (Caikoski 2011), although the best sheep habitat in the central Brooks Range is believed to occur within GAAR (Hollis 2011).

Table 1. Sheep abundance and age and sex composition in the Itkillik Preserve study area within Gates of the Arctic National Park and Preserve, 1983 – 2014 (Rattenbury and Lawler 2010; Schmidt et al. 2012; Schmidt and Rattenbury 2013; Rattenbury 2015, pers. comm.).

Year	Total number of sheep (95% CI)	Ewe-like[a]	Lambs	Rams	
				<Full curl	≥Full curl
1983[b]	1,965	60%	17%	18%	4%
1996[b]	1,365	-	20%	-	-
2005[b]	1,638	57%	23%	15%	4%
2008[b]	1,239	55%	22%	18%	4%
2009[c]	1,803 (1,425 – 2,407)	-	-	-	-
2010[c]	1,811 (1,347 – 2,414)	-	-	-	-
2011[c]	1,669 (1,339 – 2,120)	54%	26%	18%	2%
2012[c]	1,706 (1,297 – 2,285)	65%	14%	18%	3%
2013[c]	855 (588 – 1,217)	56%	1%	36%	7%
2014[c]	646 (459 – 902)	56%	6%	35%	3%

[a]Ewe-like sheep included adult females, yearlings, two-year old sheep of both sexes and half-curl rams.
[b]Survey methods, search intensity, and coverage differed among years. Values may not be directly comparable.
[c]Distance sampling surveys

Harvest History

Little is known about sheep harvest taken under the regulation addressed in this proposal. Federal harvest data is limited to those hunts that require a Federal registration permit, which is not required in the portion of GAAR occurring within Units 24A and 24B. However, considering harvest rates for the remaining portions of Units 24A and 24B, it assumed that harvest within the Park boundary, excluding harvest by residents of Anaktuvuk Pass, is low.

Most reported harvest is taken under State regulation. In Units 24A and 24B combined, an average of 77 hunters acquired a Federal sheep permit or hunted with a State harvest ticket between 1995 and 2014. On average, 62 used a State harvest ticket, while 15 used a Federal permit. Nearly 75% of the Federal permits were issued to residents of Wiseman, while the remainder went to residents of Coldfoot and Bettles. Harvest success was lower for those hunting by Federal permit (2 sheep annually, 16% success rate) compared to those hunting by State harvest ticket (21 sheep annually, 34% success rate). Success rates for

those hunting by Federal permit declined sharply beginning in 2011, though harvest success appears to have improved in 2014 (ADF&G 2015b, OSM 2015; **Table 2**).

Table 2. Federal and State sheep harvest in Unis 24A and 24B, 1995 – 2014 (ADF&G 2015b, OSM 2015).

	Federal			State			Total		
Year	Permits/ Harvest Tickets	Harvest	Harvest Success	Permits/ Harvest Tickets	Harvest	Harvest Success	Permits/ Harvest Tickets	Harvest	Harvest Success
1995	21	0	0%	53	12	23%	74	12	16%
1996	16	2	13%	51	18	35%	67	20	30%
1997	14	2	14%	31	15	48%	45	17	38%
1998	18	2	11%	55	18	33%	73	20	27%
1999	17	3	18%	57	20	35%	74	23	31%
2000	18	3	17%	58	21	36%	76	24	32%
2001	14	2	14%	57	18	32%	71	20	28%
2002	13	2	15%	56	19	34%	69	21	30%
2003	11	2	18%	60	17	28%	71	19	27%
2004	11	3	27%	58	22	38%	69	25	36%
2005	14	4	29%	59	20	34%	73	24	33%
2006	12	5	42%	76	23	30%	88	28	32%
2007	15	4	27%	66	22	33%	81	26	32%
2008	18	2	11%	75	32	43%	93	34	37%
2009	13	1	8%	74	27	36%	87	28	32%
2010	14	4	29%	75	29	39%	89	33	37%
2011	15	1	7%	72	24	33%	87	25	29%
2012	16	0	0%	67	23	34%	83	23	28%
2013	12	0	0%	63	18	29%	75	18	24%
2014	14	3	21%	72	19	26%	86	22	26%

Household survey data collected by ADF&G shows that 60 sheep were harvested by residents of Unit 24 in 2011. Fifty-five of these sheep were harvested by the community of Anaktuvuk Pass, which has a community harvest quota of 60 sheep within the Park boundary. The remaining five sheep were harvested by the communities of Allakaket and Wiseman (ADF&G 2015a). Only two sheep were reported harvested by residents of Unit 24 in 2011 (ADF&G 2015b, OSM 2015), suggesting that reported harvest may underestimate total harvest for this area. Regardless, harvest by Federally qualified subsistence users, as allowed by the regulation under consideration here, appears to be low.

Effects of the Proposal

If adopted, this proposal would impose restrictions on sheep harvest for the portion of Units 24A and 24B within Gates of the Arctic National Park. Although the total harvest limit would remain at three sheep, only one ewe would be allowed to be taken. This change would allow continued harvest opportunity for

Federally qualified subsistence users, while reducing harvest pressure on ewes. Given the low productivity of this population in recent years, along with the increase in the proportion of rams, restricting ewe harvest has the potential to improve recruitment and facilitate recovery of the population. If adopted, this proposal would also eliminate the sealing requirement for the horns of sheep taken in this area. This would relieve subsistence users of the burden of traveling to Fairbanks to comply with State sealing requirements.

OSM CONCLUSION

Support Proposal WP16-41 **with modification** to require a Federal registration permit.

The modified regulation should read:

> **Unit 24—Sheep**
>
> *Unit 24A and 24B—(excluding Anaktuvuk Pass residents)—that portion within the Gates of the Arctic National Park—3 sheep**, no more than one of which may be a ewe, by Federal registration permit only.* Aug. 1–Apr. 30

Justification

The sheep population in the central Brooks Range has declined sharply in recent years. Based on annual surveys within the Itkillik Preserve, the population has a smaller proportion of lambs and a higher proportion of rams since 2013. Conserving ewes is an important step in facilitating a population recovery. Restricting ewe harvest will shift the harvest pressure towards rams, while maintaining the harvest limit of three sheep will ensure continued harvest opportunity for Federally qualified subsistence users.

There has been ongoing confusion regarding the sealing requirements for sheep harvested within GAAR by Federally qualified subsistence users with State harvest tickets. Requiring a Federal registration permit for this hunt eliminates any ambiguity associated with sealing requirements for sheep taken under this regulation, while also addressing the proponent's request that sealing not be required. A Federal registration permit has the added benefit of generating harvest data for this hunt, which will provide biologists with valuable information for managing this population during a time of significant conservation concern. Although securing a Federal registration permit may be somewhat burdensome to subsistence users, it is likely less onerous than transporting horns to Fairbanks for sealing. As a result, it is a reasonable solution that confers multiple benefits for both subsistence users and managers.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Western Interior Alaska Subsistence Regional Advisory Council

Support WP16-41 **with modification** "by Federal registration permit OR by community household survey." This interim measure will protect the resource population and harvest limits can be adjusted, and this will eliminate burden of sheep horn sealing requirement. The Council's modification accommodates communities like Allakaket who are opposed to registration reporting requirements which do not fit with culturally sensitive practices.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

WRITTEN PUBLIC COMMENTS

Miki & Julie Collins
ALASKAN FREELANCE WRITERS/PHOTOGRAPHERS
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RECEIVED
MAY 26 2015
BY: Postmark 5/26/2015

Federal Subsistence Board
Office of Subsistence Management
1011 E. Tudor Road, MS-121
Anchorage
AK 99503-6199

May 14, 2015

Hi,

My comments on the 2016-2018 Wildlife Proposals:

Quite a few of the proposals align State and Federal regulations. Unless contraindicated for sound biological reasons, I support al of these. It is incredibly onerous to keep track of what-is-allowed-where-and-how-and-when, and everything you can do to help ease this burden would be appreciated by all of us. I feel very strongly about this. Reg's have become ***much*** too complicated. I support WP 16-41 for a similar reason; it does not mach sense to pay hundreds of dollars in air fare to fly to Fairbanks to get your horns seals. In some cases (e.g. WP 16-57) I only support it if fur remains prime that late in the year.

Just in general I support simplified reg's and more liberal seasons when populations are strong, and also support limiting the take (e.g.WP16-63) when populations are low or stressed in that area. I also in most situations support allowing traditional hunting methods. I am however pretty ambivalent about bear baiting because of the danger it can pose to other hunters bumbling blithely through the area, and the possibility of habituating bears.

Most of the proposals were not specific to my area so I hope you get some input from folks more familiar. Please keep in mind that usually local hunters and trappers know more about the critters and conditions in their areas than you-all do.

Thanks,

Miki Collins

WP16–42 Executive Summary	
General Description	Proposal WP16-42 requests opening a winter moose season in that portion of Unit 24B upstream of the Henshaw Creek drainage. *Submitted by Gary Hanchett of Bettles.*
Proposed Regulation	**Unit 24—Moose** *Unit 24B—that portion within the John River Drainage—1 moose* — *Aug. 1 – Dec. 31* ~~*Unit 24B—All drainages of the Koyukuk River downstream from and including the Henshaw Creek drainage—1 antlered bull by Federal registration permit*~~ — ~~*Aug. 25—Oct. 1*~~ ~~*Dec. 15—Apr. 15*~~ ~~*Federal public lands in the Kanuti Controlled Use Area, as described in Federal regulations, are closed to taking of moose, except by Federally qualified subsistence users of Unit 24, Koyukuk, and Galena hunting under these regulations*~~ *Unit 24B, remainder—1 antlered bull~~*.—A* **by** *Federal registration permit* ~~*is required for the Sept. 26–Oct. 1 period*~~ — *Aug. 25 – Oct. 1* ***Dec. 15 – Apr. 15*** *Federal public lands in the Kanuti Controlled Use Area, as described in Federal regulations, are closed to taking of moose, except by Federally qualified subsistence users of Unit 24, Koyukuk, and Galena hunting under these regulations*
OSM Conclusion	**Support**
Western Interior Alaska Regional Advisory Council Recommendation	**Support**

WP16–42 Executive Summary	
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Oppose**
Written Public Comments	**None**

STAFF ANALYSIS
WP16-42

ISSUES

Proposal WP16-42, submitted by Gary Hanchett, requests opening a winter moose season in that portion of Unit 24B upstream of the Henshaw Creek drainage.

DISCUSSION

Currently, the portion of Unit 24B upstream of the Henshaw Creek drainage is closed to moose hunting in the winter, while the downstream portion has a Dec. 15 – Apr. 15 season for Federally qualified subsistence users. The proponent requests that the regulations for the upstream portion of Unit 24B mirror those for the downstream portion. He was contacted to confirm that the intent of the proposal was to create a single regulation for all of Unit 24B, with the exception of the John River drainage.

The proponent states that local residents frequently engage in winter travel in this area for trapping, wood cutting and visiting remote allotments. He believes that opening a winter season would provide opportunities for Federally qualified subsistence users to harvest moose concurrently with these activities. He states that the winter moose season is important because it provides additional opportunities when fall hunts are unsuccessful, and that these opportunities are increasingly important given the decline in the Western Arctic and Teshekpuk caribou herds. He also believes that a winter hunt will provide better harvest opportunities for those without boats or freezers. The proponent asserts that, given the relatively small numbers of Federally qualified subsistence users and the challenges of winter hunting, there will be little impact on the moose population. He also suggests that allowing winter harvest would allow access to areas generally inaccessible outside of the winter season.

Existing Federal Regulation

Unit 24—Moose

Unit 24B—that portion within the John River Drainage—1 moose	*Aug. 1 – Dec. 31*
Unit 24B—All drainages of the Koyukuk River downstream from and including the Henshaw Creek drainage—1 antlered bull by Federal registration permit.	*Aug. 25 – Oct. 1* *Dec. 15 – Apr. 15*
Federal public lands in the Kanuti Controlled Use Area, as described in Federal regulations, are closed to taking of moose, except by Federally qualified subsistence users of Unit 24, Koyukuk, and Galena hunting under these regulations.	

Unit 24B, remainder—1 antlered bull. A Federal registration permit is required for the Sept. 26–Oct. 1 period.	*Aug. 25 – Oct. 1*
Federal public lands in the Kanuti Controlled Use Area, as described in Federal regulations, are closed to taking of moose, except by Federally qualified subsistence users of Unit 24, Koyukuk, and Galena hunting under these regulations.	

Proposed Federal Regulation

Unit 24—Moose

Unit 24B—that portion within the John River Drainage—1 moose	*Aug. 1 – Dec. 31*
~~*Unit 24B—All drainages of the Koyukuk River downstream from and including the Henshaw Creek drainage—1 antlered bull by Federal registration permit*~~	~~*Aug. 25—Oct. 1*~~ ~~*Dec. 15—Apr. 15*~~
~~*Federal public lands in the Kanuti Controlled Use Area, as described in Federal regulations, are closed to taking of moose, except by Federally qualified subsistence users of Unit 24, Koyukuk, and Galena hunting under these regulations*~~	
Unit 24B, remainder—1 antlered bull~~.—A~~ ***by*** *Federal registration permit ~~is required for the Sept. 26–Oct. 1 period~~*	*Aug. 25 – Oct. 1* ***Dec. 15 – Apr. 15***
Federal public lands in the Kanuti Controlled Use Area, as described in Federal regulations, are closed to taking of moose, except by Federally qualified subsistence users of Unit 24, Koyukuk, and Galena hunting under these regulations	

Existing State Regulation

Unit 24—Moose

Unit 24B—All drainages of the Koyukuk River upstream from the Henshaw Creek drainage, excluding the North Fork of the Koyukuk

River drainage

Residents: One bull	*Sep. 1 – Sep. 25*
Nonresidents: One bull with 50-inch antlers or antlers with 4 or more brow tines on at least one side	*Sep, 5 – Sep. 25*

Unit 24B, remainder

Residents: One bull	*Sep. 1 – Sep. 25*
OR	
Residents: One antlered bull by permit available online at http://hunt.alaska.gov or in person in Hughes, Allakaket or Fairbanks beginning Dec. 10	*Dec. 15 – Apr. 15*
Nonresidents: One bull with 50-inch antlers or antlers with 4 or more brow times on at least one side	*Sep. 5 – Sep. 25*

Extent of Federal Public Lands

Federal public lands comprise approximately 59% of Unit 24B, and consist of 38% National Park Service (NPS) managed lands, 14% U.S. Fish and Wildlife Service managed lands, and 7% Bureau of Land Management (BLM) managed lands. **See Map 1**.

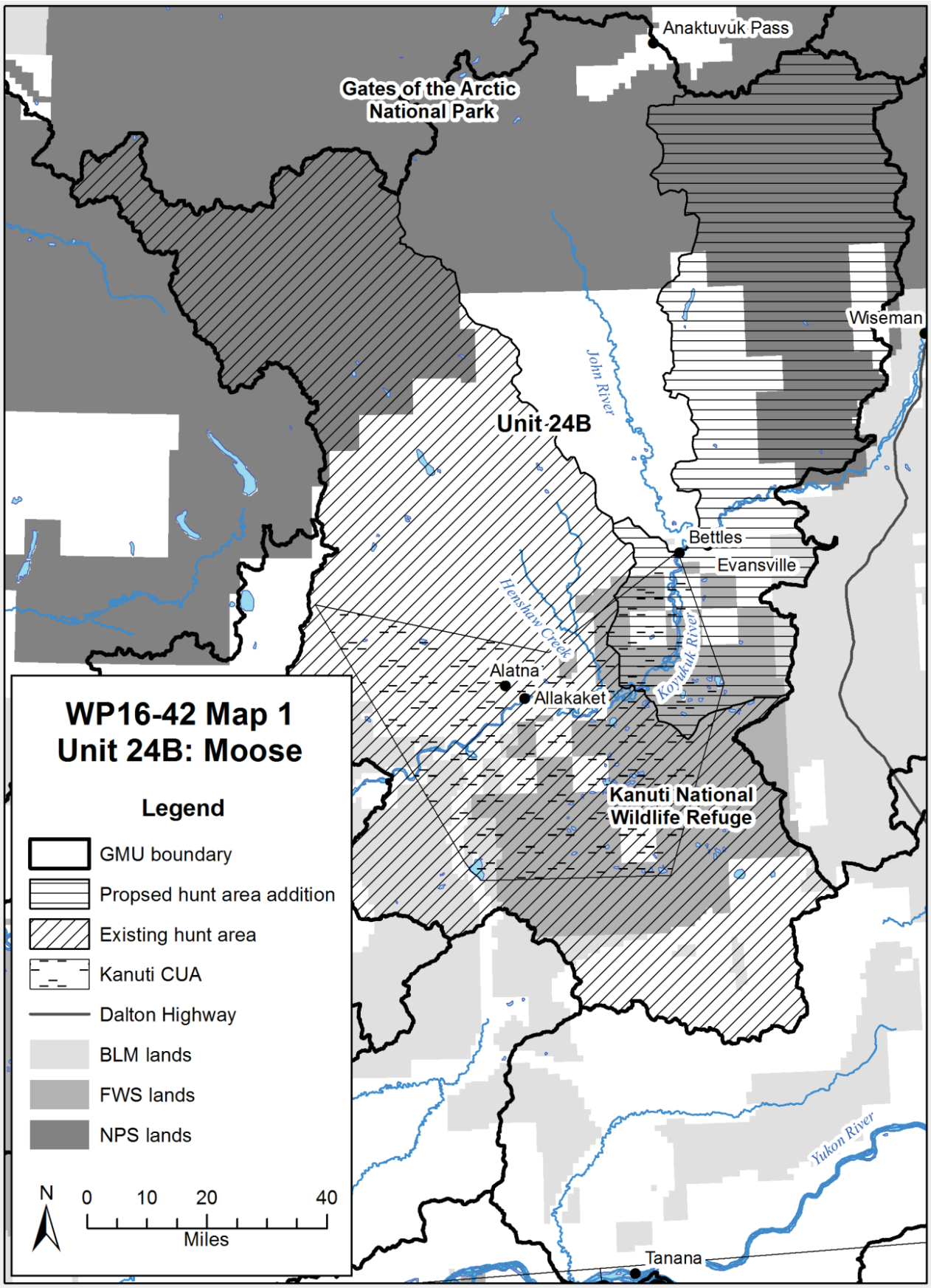
Customary and Traditional Use Determinations

Rural residents of Unit 24, Koyukuk, and Galena have a positive customary and traditional use determination for moose in Unit 24.

Regulatory History

Prior to 2000, the State had a 10-day winter antlerless moose hunt (Mar. 1 – 10) that included drainages north of the Koyukuk River near Bettles and Evansville. However, the hunt was eliminated after the 2000/2001 season in response to low moose densities. A Mar. 1 – 10 Federal moose season existed from 1990, when regulations were adopted from the State, through 2005, when the Federal Subsistence Board (Board) adopted Proposal WP05-12 with modification and established a Mar. 1 – 5 "to-be-announced" bulls-only season. The new hunt applied only to lands within the Kanuti National Wildlife Refuge, adjacent BLM lands, and nearby NPS lands. Harvest success during the five-day "to-be-announced" seasons was low due to low moose densities, users being restricted to Federal public lands, and inclement weather.

Both the Alaska Board of Game and the Federal Subsistence Board (Proposal WP06-36) adopted regulations in 2006 to divide Unit 24 into Subunits A, B, C, and D. These changes were adopted in


Anaktuvuk Pass
Gates of the Arctic National Park
Wiseman
John River
Unit 24B
Bettles
Evansville
Henshaw Creek
Koyukuk River
Alatna
Allakaket
Kanuti National Wildlife Refuge
Yukon River
Tanana
WP16-42 Map 1
Unit 24B: Moose
Legend
GMU boundary
Propsed hunt area addition
Existing hunt area
Kanuti CUA
Dalton Highway
BLM lands
FWS lands
NPS lands
N
0 10 20 40
Miles

response to the complexities of managing wildlife populations in large game management units, such as Unit 24. In addition, the Federal Subsistence Board also adopted regulatory changes for the hunt area descriptions and seasons for moose in the areas now designated as Units 24A, B, C, and D.

Due to extremely cold weather conditions, extensions for the 2007 and 2008 Federal moose seasons were granted by Special Actions WSA06-08 and WSA07-09. In 2010, Special Action WSA09-15 was approved to shift the five-day season from Mar. 1 – 5 to Mar. 27 – 31 in the Kanuti Controlled Use Area, in order to provide harvest opportunity under better weather and daylight conditions.

In 2010, the Alaska Board of Game adopted Proposal 90A to replace the existing Dec. 1–10 moose season with the Dec. 15 – Apr. 15 season in Unit 24B downstream of and including the Henshaw Creek drainage. The newly established winter season was adopted with a stipulation that it would sunset at the end of the 2013/2014 season. Similarly, the Board adopted Proposal WP10-67 with modification to expand the Dec. 15 – Apr. 15 moose season to all Kanuti National Wildlife Refuge and BLM lands of Unit 24B, and stipulated that the season would sunset at the end of the 2013/2014 season.

The Alaska Board of Game adopted Proposal 94 in 2010 as well, which reduced the size of the Kanuti CUA under State regulations. However, the Kanuti CUA boundaries have not been changed under Federal regulations. As a result, the boundary of the State CUA is currently out of alignment with Federal regulations.

In response to these boundary changes, the Board adopted Proposal WP12-57 in 2012, which reduced the hunt area for the Federal winter moose season in Unit 24B and resulted in alignment of the State and Federal winter hunt areas. As a result, winter moose harvest was allowed in all drainages of the Koyukuk River downstream from and including the Henshaw Creek drainage under both Federal and State regulations. In conjunction with its action on Proposal WP12-57, the Board adopted Proposal WP12-58 with modification to create a Federal registration permit for all Federal public lands downstream from and including the Henshaw Creek drainage (FSB 2012).

In 2014, the Alaska Board of Game adopted modified Proposal 70 (RC 3) to reauthorize the winter moose registration hunt in Unit 24B. The same year, the Board adopted WP14-29, which placed the Federal winter moose season 24B into permanent regulation as well.

Biological Background

The Koyukuk River Moose Management Plan (Management Plan; ADF&G 2001) set the management goals and objectives for the Koyukuk River moose population. It prescribed ratios of up to 30-40 bulls:100 cow moose to allow for adequate breeding in this low-density population, and 30-40 calves:100 cows to support population growth (ADF&G 2001). Population surveys have been conducted at different intervals within Unit 24B, as described below. All recent surveys have used the GeoSpatial Population Estimator technique (Kellie and Delong 2006), which generates population and composition estimates.

Surveys were conducted on the Kanuti National Wildlife Refuge (Refuge) from 1999 to 2013. The moose population on the Refuge appears to have remained relatively stable but at a low density since 1999 (Craig

and Stout 2014; **Table 1**). Results from the 2013 survey were the lowest on record, although poor survey conditions are believed to have contributed to the apparent decline (Churchwell 2015, pers. comm.; Craig and Stout 2014). Overall, these density estimates, which include all age and sex classes, are typical of Western Interior moose populations (Stout 2008).

Table 1. Summary statistics for moose population estimates in the Kanuti National Wildlife Refuge Survey Area, Unit 24B, Alaska (Craig and Stout 2014).

						Composition			
Year	Survey area (mi^2)[a]	Population estimate (90% CI)	Moose density ($moose/mi^2$)	Cows	Bulls	Bulls: 100 cows	Yearling bulls: 100 cows	Calves: 100 cows	Calves: 100 adults
1999	2,715	1,003 (794–1211)	0.37	542	320	59	4	30	19
2004	2,710	842 (602–1,083)	0.31	403	252	62	9	46	28
2005	2,710	1,025 (581–1,470)	0.38	471	331	70	20	43	25
2007	2,714	588 (463–714)	0.22	276	167	60	13	53	33
2008	2,715	872 (669–1,075)	0.32	432	199	46	14	58	40
2010	2,714	1,068 (946–1,191)	0.39	569	293	51	7	33	22
2011	2,714	797 (644–951)	0.29	388	268	69	10	41	24
2013	2,714	551 (410-693)	0.20	283	183	65	11	36	22

[a]Survey areas vary among years depending on how survey units are delineated.

Bull:cow ratios on the Refuge have been 46–70 bulls:100 cows (**Table 1**), which is relatively high and exceeds the Management Plan's objectives. However, high bull:cow ratios may be required for this low density population to allow for adequate breeding (ADF&G 2001). Calf:cow ratios, which have been above or within the objective for adequate recruitment in all survey years since 1993 (**Table 1**), suggest that this population is sufficiently productive to support population growth (Craig and Stout 2014). However, recruitment is lower than expected, and predation by bears and wolves is suspected to limit subadult survival in this population (Craig and Stout 2014).

In conjunction with Refuge surveys, additional surveys were conducted in portions of Unit 24B that lie outside of the Refuge boundaries in 2010, 2011 and 2013 (Craig and Stout 2011, 2012, 2014). In 2011, estimated calf:cow ratios on the Refuge were similar to the total survey area (41 and 43 calves:100 cows, respectively; Craig and Stout 2012). The estimated bull:cow ratios were lower on the Refuge compared to the total survey area (69 and 78 bulls:100 cows; Craig and Stout 2012).

Surveys were conducted in Gates of the Arctic National Park (GAAR) in 2004 and 2015. The 2004 surveys were conducted during the fall, while the 2015 surveys were conducted during the spring. Although the seasonal difference in survey timing confounds between-year comparisons, the population, age structure, and calf ratios are believed to be stable (Sorum et al. 2015; **Table 2**). In 2015, population parameters were calculated for both the entire GAAR survey area, and for the Koyukuk River Drainage (KRD), the portion of the survey area most relevant to this proposal. Current moose densities in both survey areas are low, similar to those in the rest of Unit 24B (Sorum et al. 2015). Calf:adult ratios are lower for the GAAR survey areas compared to the Refuge survey area (**Table 2**), indicating lower productivity and lower potential for growth. While calf:cow ratios were not reported for these surveys, they are assumed to be below the goals for population growth set forth in the Management Plan.

Table 2. Summary statistics for moose population estimates in the Gates of the Arctic National Park (GAAR) and Koyukuk River Drainage (KRD), Unit 24B, Alaska (Sorum et al. 2015).

				Composition
Year	**Survey unit**	**Population estimate (90% CI)**	**Moose density (moose/mi^2)**	**Calves:100 adults**
2004	GAAR	968 (737-1,199)	0.18	14
2015	GAAR	833 (710-957)	0.16	10
2015	KRD	430 (354-505)	0.20	10

Habitat

Habitat studies are limited in Unit 24B. However, habitat does not appear to be limiting the moose population in this unit. Biomass of production and browse removal were measured at browse plots in Unit 24B in 2007 (Stout 2010). The assessment found little brooming of shrub species and indicated that 51% of sampled plants had no evidence of past browsing by moose (Stout 2010). Browse conditions throughout Unit 24 have been described as excellent (Stout 2010), and twinning rates (an indicator of nutritional status) were high in radio-collared cows (35%–60%) from 2007 to 2013 (Craig and Stout 2012, Craig and Stout 2014).

Harvest History

Moose are an important subsistence resource for residents Unit 24B. Household surveys conducted in 2002 and 2003 estimated that 92% of households in Middle Yukon and Koyukuk River communities utilized moose (Brown et al. 2004). However, between 2000 and 2014, local residents (defined as residents of those communities with a customary and traditional use determination) harvested only 22% of the moose harvested under State regulation (**Figure 1**). During this time period, 51% of the harvest was

taken by non-local Alaska residents while 26% was taken by nonresidents. The proportion of unsuccessful hunts by Federally qualified subsistence users hunting under State regulation appears to have increased in recent years. Between 2000 and 2006, 60% of hunts were unsuccessful. This increased to 67% between 2007 and 2014 (**Figure 2**).

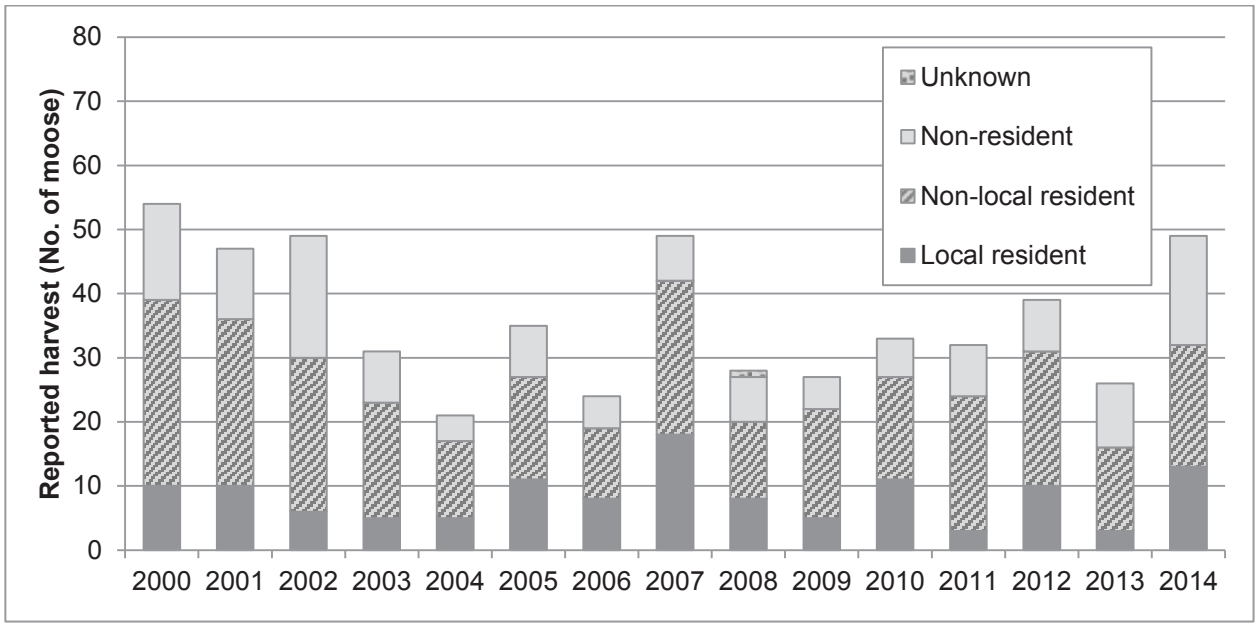


Figure 1. Moose harvest in Unit 24B under State regulation, 2000-2014 (ADF&G 2015).

Over 95% of reported moose harvest in Unit 24 occurs under State regulation during the Sep. 1 – 25 season (Stout 2010). The winter seasons provide harvest opportunities for residents who are unable to harvest a moose in the fall. Federal moose seasons have been primarily used by residents of Allakaket, while use among residents of Alatna and Bettles/Evansville has been low. On average, between 2006 and 2014, 31 Federal permits were issued annually, but fewer than three moose were harvested each year in fall and winter hunts combined (OSM 2015).

Effects of the Proposal

If this proposal is adopted, a winter moose season would be open Dec. 15 – Apr. 15 in all of Unit 24B except for the John River drainage. Although winter harvest has been low in the adjacent areas, expanding the geographic coverage of the winter season would provide additional opportunities for those Federally qualified subsistence users who were not able to harvest a moose during the fall season.

The new winter season is not likely to have an adverse impact on the moose population. While moose occur at low density, the population appears to be stable throughout Unit 24B. In the portion of Unit 24B downstream of and including the Henshaw Creek drainage, where a winter season currently exists, the population has been able to sustain recent harvest levels. Given the similar population parameters, the low winter harvest pressure, and the antlered bull restriction, it is expected that the upstream population will also be able to sustain a winter season.

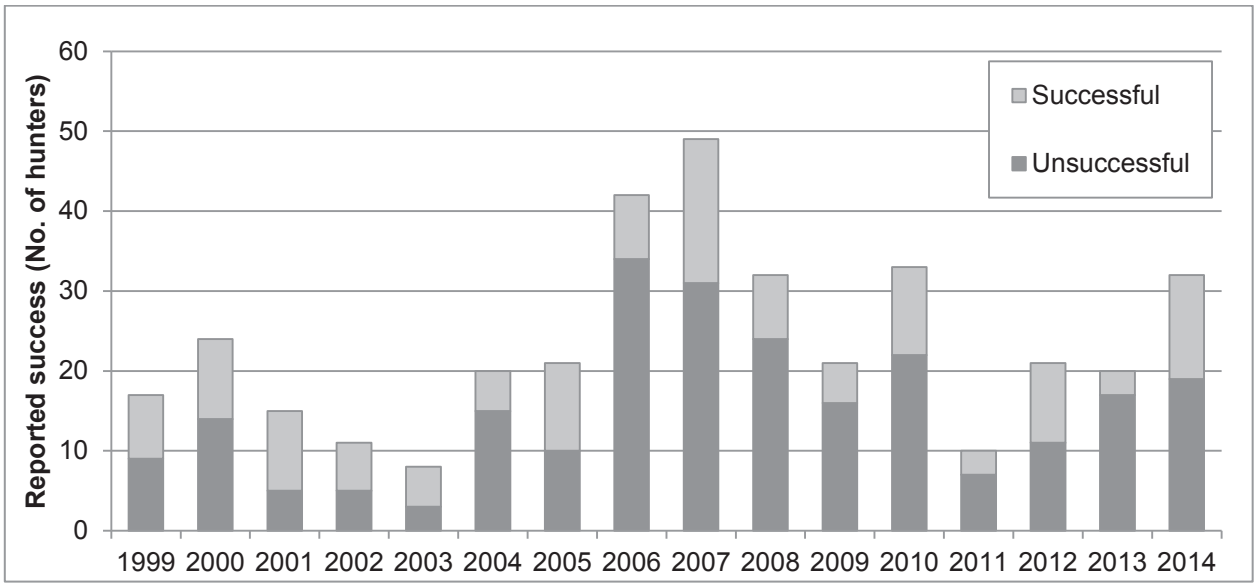


Figure 2. Unit 24B moose harvest success by local residents hunting under State regulation, 2000-2014 (ADF&G 2015). Local residents are those who have a positive customary and traditional use determination.

OSM CONCLUSION

Support Proposal WP16-42.

Justification

Establishing a winter season in Unit 24B upstream of the Henshaw Creek drainage is not expected to have an appreciable impact on the moose population. Downstream of Henshaw Creek, where a winter season already exists, winter harvest rates have been low and the winter season has had little effect on the moose population. Given that the population status of moose upstream of Henshaw Creek is similar to the downstream population, a winter season can be expected to have a similar minimum effect. Despite low harvest rates, winter seasons in the area do provide an important opportunity for Federally qualified subsistence users, particularly considering the relatively low success rate of fall hunts and the importance of this resource to local users.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Western Interior Alaska Subsistence Regional Advisory Council

Support WP16-42. The need for a winter moose hunt in this area has increased as the Teshekpuk herd has been in a state of decline since 2013; the take will be minimal. Subsistence users who were not able to harvest a moose in the fall will benefit from this additional opportunity and winter bull moose harvest has historically been low. Good bull:cow ratios indicate a harvestable surplus, making this a sustainable hunt.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

WP16- 44 Executive Summary	
General Description	Proposal WP16-44 requests that the brown bear season in 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. *Submitted by the Seward Peninsula Subsistence Regional Advisory Council.*
Proposed 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***
OSM 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, revise the season dates to reflect the regulatory year and require the use of a Federal registration permit. **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*** — ***Jul. 1 – Jun. 30***

WP16- 44 Executive Summary	
	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
Seward Peninsula Regional Advisory Council Recommendation	**Support** WP16-44 **with modification** to change to a year-round season for brown bear in Unit 22C. 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* — ***Jul. 1 – Jun. 30*** ***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*** — ***Jul. 1 – Jun. 30***
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Support** WP16-44 **with modification** to retain the split season in Unit 22C, extend the spring season dates in Unit 22C [from May 10-May 25] to May 1-May 31, revise the hunt area descriptor for Unit 22D to clearly identify the new Federal hunt area, require the use of a Federal registration permit in the new Unit 22D hunt area, and give the in-season Federal manager the delegated authority to set quotas as needed.
Written Public Comments	**1 Neutral**

STAFF ANALYSIS
WP16-44

ISSUES

Proposal WP16-44, submitted by the Seward Peninsula Subsistence Regional Advisory Council, requests that the brown bear season in 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

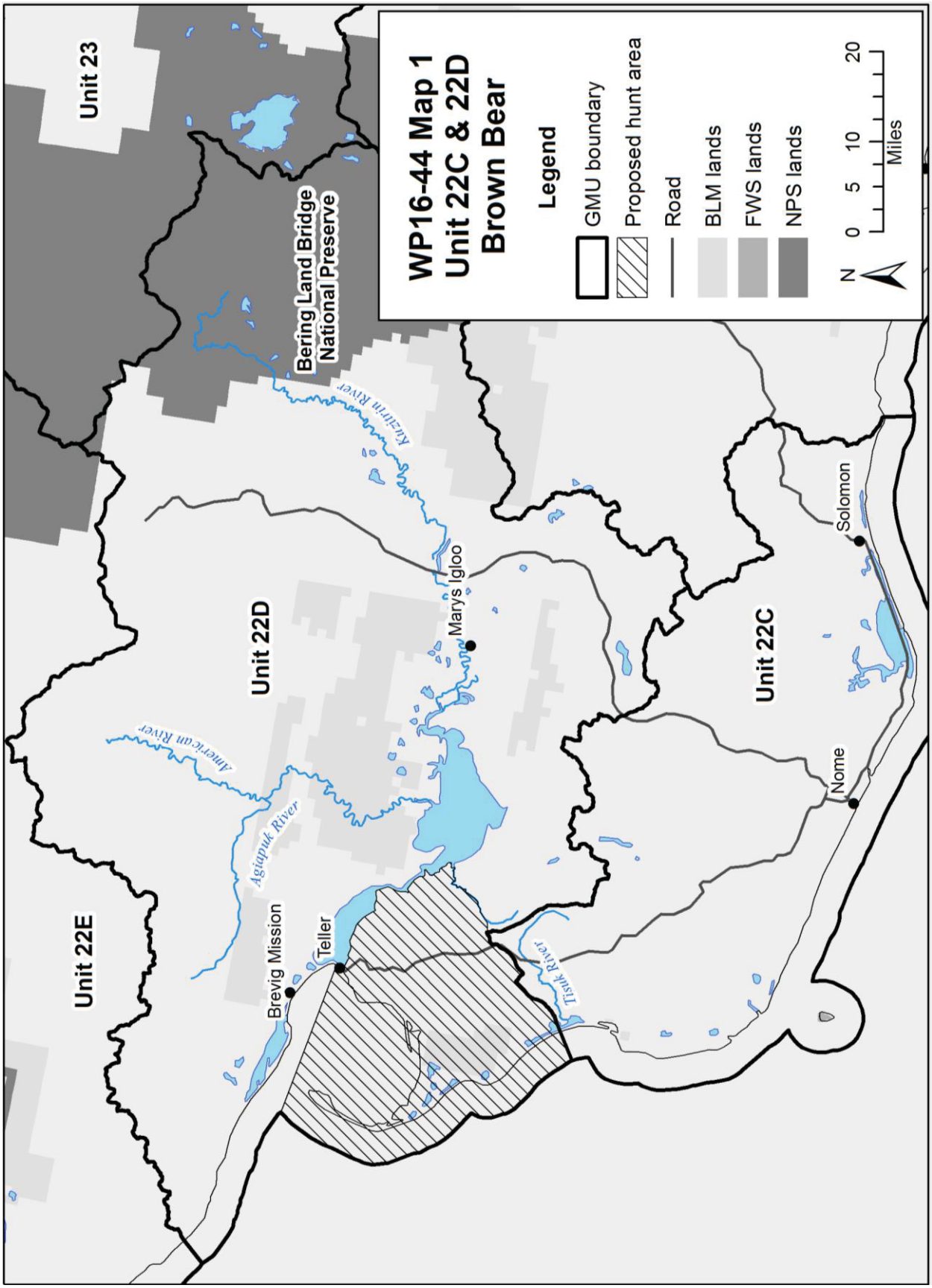
Federal public lands comprise only 0.1% of Unit 22C (approximately 1 mi^2). These lands are located on barrier islands in Safety Sound and are managed by the U.S. Fish and Wildlife Service. Unit 22D is comprised of approximately 20% Federal public lands, consisting of 11% National Park Service managed lands and 9% 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.


WP16-44 Map 1
Unit 22C & 22D
Brown Bear
Legend
GMU boundary
Proposed hunt area
Road
BLM lands
FWS lands
NPS lands
N
0 5 10 20
Miles
Unit 23
Bering Land Bridge National Preserve
Kuzitrin River
Unit 22D
Mary's Igloo
American River
Agiapuk River
Unit 22E
Brevig Mission
Teller
Tisuk River
Unit 22C
Solomon
Nome

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. In 2012, the Alaska Board of Game provided additional harvest opportunity in Unit 22C by extending the spring season from May 10 – May 25 to May 1 – May 31. In 2014, the Board of Game 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 decline 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 that time, bear density in Units 22C and 22D was estimated to be 1 bear/27 mi^2 (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 have been 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 were 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 (Hughes 2015, pers. comm.).

Effects of the Proposal

If adopted, this proposal would eliminate the split season in Unit 22C, allowing harvest on Federal public 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 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 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 May 1. 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.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Seward Peninsula Subsistence Regional Advisory Council

Support WP16-44 **with modification** to change to a year-round season for brown bear in Unit 22C.

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	***Jul. 1 – Jun 30***
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	***Jul. 1 – Jun. 30***

The proposal as modified would provide more subsistence opportunities and better spring access for bear harvest.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

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.

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. S*ubmitted by the Seward Peninsula Subsistence Regional Advisory Council.*
Proposed 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*
OSM Conclusion	**Support** Proposal WP16–45 **with modification** to eliminate the restriction on cow harvest, add the restriction on calf harvest, and modify the hunt area descriptor. The modified regulation should read: **Unit 22—Caribou** *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~~* ***Tin Creek*** *drainage—5 caribou per day ;~~ however, cow caribou may not be taken May 16–June 30;~~* ***however, calves may not be taken.*** — *Jul. 1 – Jun. 30*
Western Interior Alaska Regional Advisory Council	**No action taken**

WP16–45 Executive Summary	
Recommendation	
Seward Peninsula Regional Advisory Council Recommendation	**Support with modification** to extend the Unit 22E caribou hunt area boundary to Trout Creek. The modified regulation should read: **Unit 22—Caribou** *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~~ **Trout Creek**~~—~~5 caribou per day ; ~~however, cow caribou may not be taken May 16–June 30.~~ **however, calves may not be taken.*** *Jul. 1 – Jun. 30*
Northwest Arctic Regional Advisory Council Recommendation	**Support**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Neutral**
Written Public Comments	**1 Support**

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 indicated that Clifford Weyiouanna, who holds reindeer grazing permits east of the Nuluk River (Reindeer Research Program, 2015), was consulted and did not object to the proposed boundary changes, there was 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.

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. The outcome of that proposal may affect the outcome of this proposal.

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:

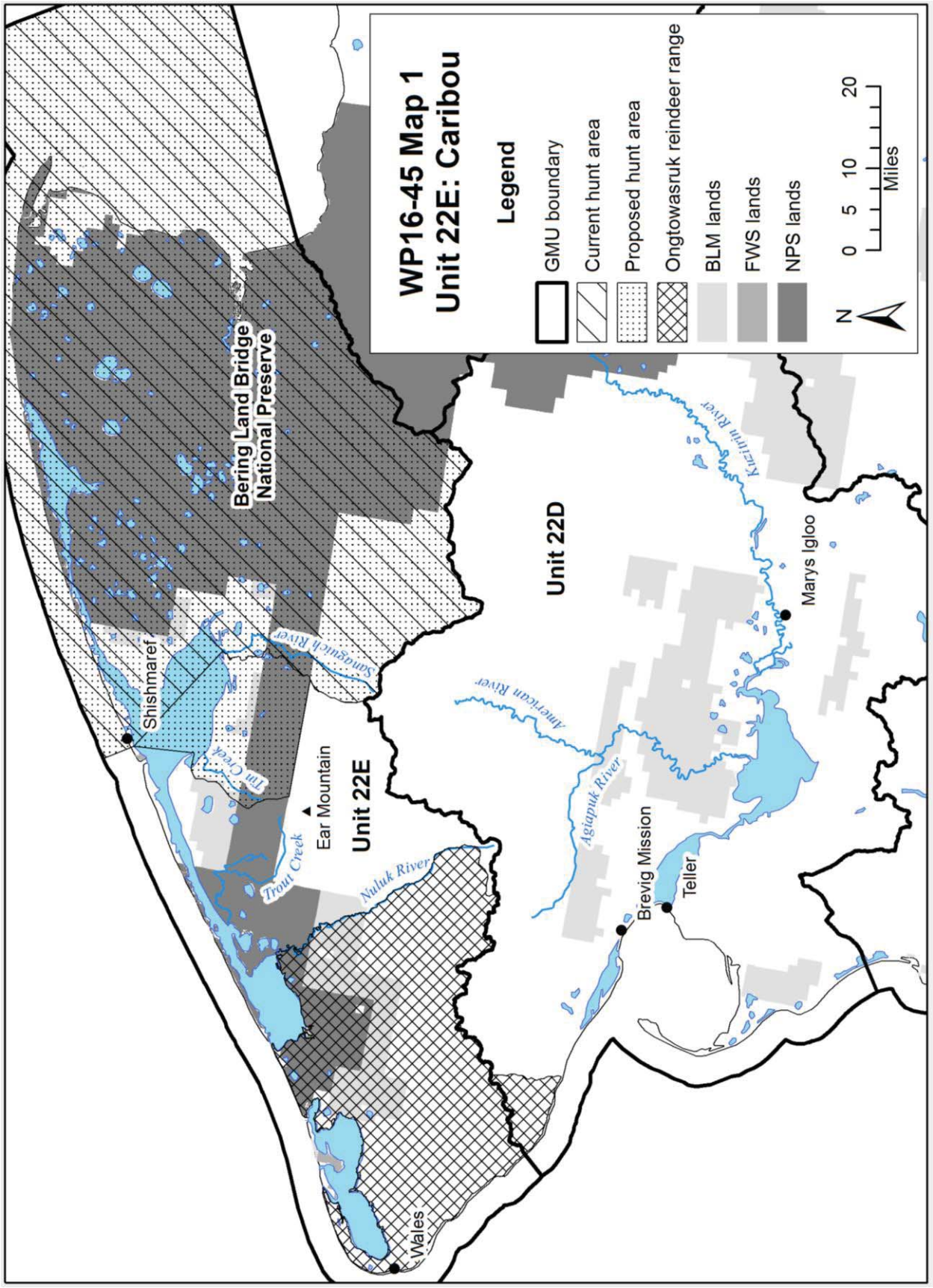
Up to 5 bulls per day; however, calves may not be taken	*Jul. 1 – Oct. 14* *Feb. 1 – Jun. 30*
Up to 5 cows per day; however, calves may not be taken	*Sept. 1 – Mar. 31*
Nonresident hunters: 1 bull; however, calves may not be taken	*Aug. 1 – Sept. 30*

Unit 22, remainder – Caribou

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**.


WP16-45 Map 1
Unit 22E: Caribou
Legend
GMU boundary
Current hunt area
Proposed hunt area
Ongtowasruk reindeer range
BLM lands
FWS lands
NPS lands
N
0 5 10 20
Miles
Bering Land Bridge National Preserve
Unit 22D
Unit 22E
Shishmaref
Ear Mountain
Tin Creek
Trout Creek
Sinuguich River
Nuluk River
Agiapuk River
Ahnewetak River
Kuzitrin River
Marys Igloo
Brevig Mission
Teller
Wales

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 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 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).

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.

Biological Background

The WACH, the largest herd in Alaska, has a home range of approximately 157,000 mi^2 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.

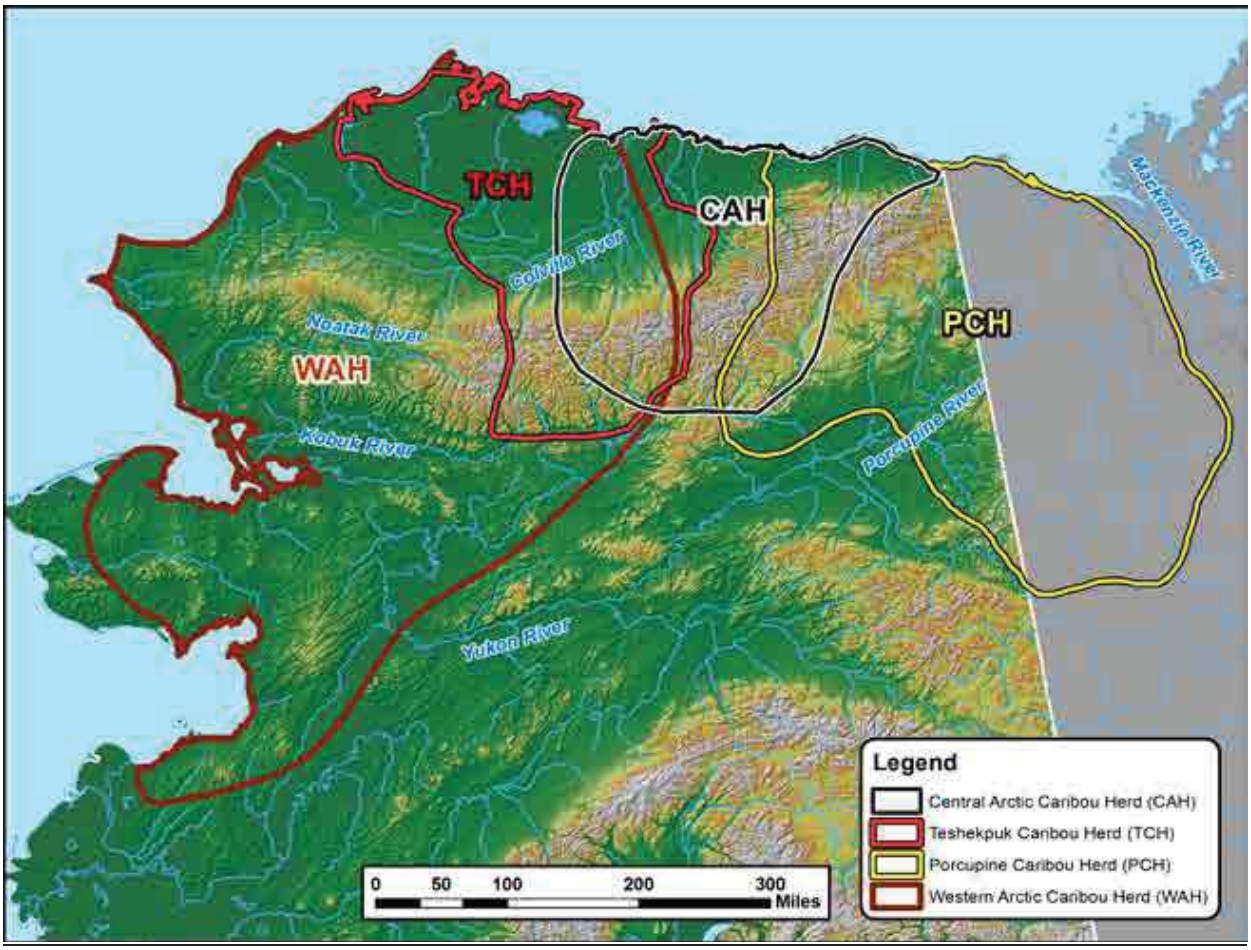


Figure 1. Herd overlap and ranges of the Western Arctic, Teshekpuk, Central Arctic and Porcupine caribou herds (WACH 2014).

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 (Joly 2015, pers. comm).

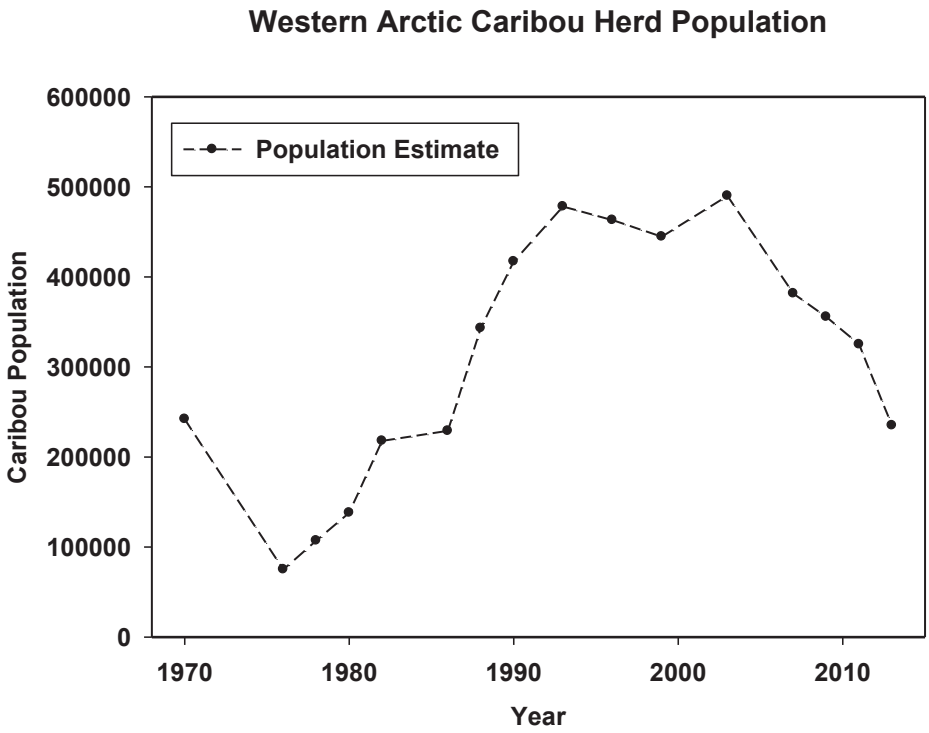


Figure 2. Maximum estimated population estimates of the Western Arctic Caribou Herd from 1970-2013. Population estimates from 1986-2013 are based on aerial photographs of groups of caribou that contained radio–collared animals (Dau 2011, 2014)

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 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**).

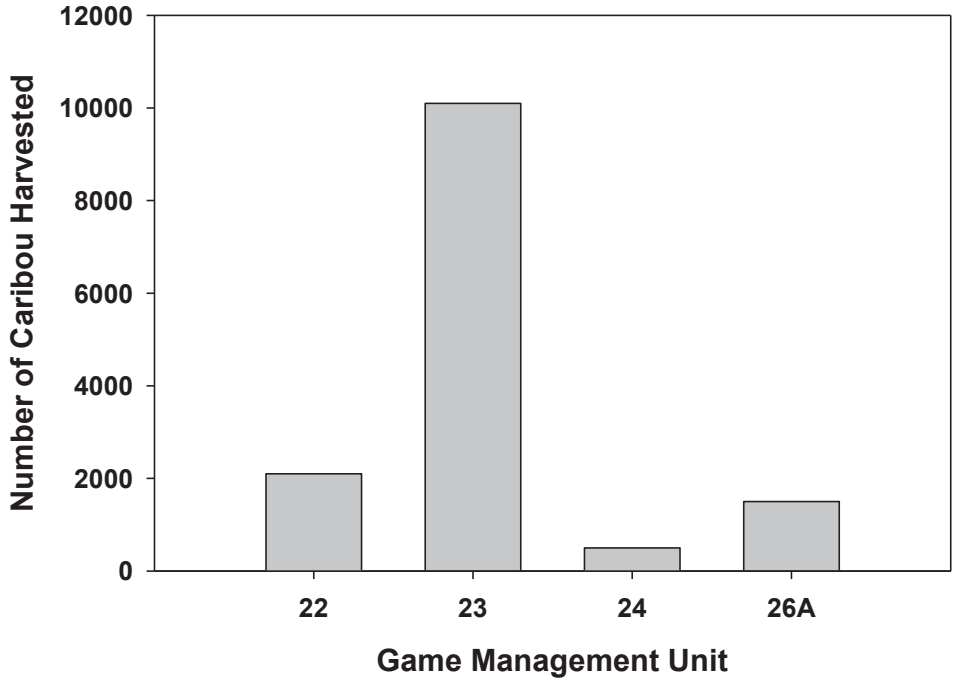


Figure 3. Average annual harvest by residents within the WACH range, RY1998-RY2012 (Dau 2014).

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 Ongtowasruk 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.

A second alternative was considered following the fall Council meeting, when the Council voiced support for moving the hunt area boundary westward, from the Tin Creek drainage to Trout Creek. This boundary would be approximately midway between Tin Creek and the Nuluk River (**Map 1**). After consultation with the staffers from the Reindeer Herder's Association (administered by Kawerak, Inc.) and local reindeer herders from Units 22D and 22E, this alternative was rejected. Delineating the boundary at Trout

Creek provides a small buffer between the Ongtowasruk reindeer grazing range and caribou hunt areas. However, there is still concern that creating an open season in proximity to reindeer herds will result in increased reindeer losses. The manager of the Ongtowasruk reindeer herd acknowledged the importance of providing local subsistence users access to caribou, but felt that a may be announced season would be a more appropriate approach at this time, given the limited presence of caribou in the area. The current State regulations, as well the Federal regulations under consideration in Proposal WP16-37, allow for the area in question to be opened when caribou are present, providing a reasonable balance between subsistence access and protection of reindeer.

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 CONCLUSION

Support Proposal WP16-45 **with modification** to eliminate the restriction on cow harvest, add the restriction on calf harvest, and modify the hunt area descriptor.

The modified regulation should read:

Unit 22—Caribou

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~~* ***Tin Creek*** *drainage—5 caribou per day; ~~however, cow caribou may not be taken May 16–June 30.~~* ***however, calves may not be taken.***	*Jul. 1 – Jun. 30*

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, while minimizing conflicts with reindeer.

In order to align the OSM conclusions for WP16-37 and WP16-45, the two caribou proposals affecting Unit 22, restrictions on cow harvest were removed and restrictions on calf harvest were added. For the same reason, the hunt area descriptor was modified, most notably to exclude the portion of Unit 22A south of the Golsovia River. These changes are consistent with the Council's recommendations.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Western Interior Alaska Subsistence Regional Advisory Council

No action taken on Proposal WP16-45. This council defers to the Seward Peninsula Subsistence Regional Advisory Council.

Seward Peninsula Subsistence Regional Advisory Council

Support Proposal WP16-45 **with modification** to expand the hunt area to Trout Creek, which will provide better caribou hunting opportunities for local subsistence users.

The modified regulation should read:

Unit 22—Caribou

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~~* ***Trout Creek*** *~~—~~5 caribou per day****:*** *~~; however, cow caribou may not be taken May 16–June 30.;~~* ***however, calves may not be taken.***	*Jul. 1 – Jun. 30*

Northwest Arctic Subsistence Regional Advisory Council

Support Proposal WP16-45 to increase harvest opportunity for Unit 22 Federally qualified subsistence users.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

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.

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. *Submitted by the Seward Peninsula Subsistence Regional Advisory Council.*
Proposed Regulation	**Unit 22E—Moose** *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.*
OSM Conclusion	**Support**
Seward Peninsula Regional Advisory Council Recommendation	**Oppose**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Support**
Written Public Comments	**1 Support**

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). The Council also submitted WP16-47, which requests the establishment of an antlerless moose season in Unit 22E.

Existing Federal Regulation

Unit 22E—Moose

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.*

Proposed Federal Regulation

Unit 22E—Moose

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.*

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 (**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 closed Federal public lands to the harvest of moose, except by 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 moose in 2003 to 701 moose in 2014 (90% C.I. ± 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). The percentage of yearlings has ranged between 10-19% since 2003 and appears to be stable (Gorn 2014).

Harvest History

Reported moose harvest has been relatively low in Unit 22E, averaging 15 moose annually between 2004 and 2014 (**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 53% of the reported harvest between 2004 and 2014 (**Table 1**). However, accounting for unreported harvest, local harvest averages an estimated 86% of the total harvest between 2004 and 2014, 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 beginning 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
2014	6	5	7	2	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 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. Since 2004, nonlocal residents have taken only a fraction of the total estimated harvest, and non-resident harvest will be subject to ADF&G's 10 bull quota. While lifting the closure will provide additional harvest opportunities for nonsubsistence users, it is not expected to be detrimental to the moose population, nor to subsistence users.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Seward Peninsula Subsistence Regional Advisory Council

Oppose WP16-46. Current moose population data suggest that increased harvest could negatively impact herd growth.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

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.

Kawerak, Inc.
Melanie Bahnke, President

WP16-48 Executive Summary	
General Description	Proposal WP16-48 requests to allow a Federally qualified subsistence user to use a snowmachine to position a caribou, wolf, or wolverine for harvest so long as the hunter does not shoot these animals from a moving snowmachine. **S***ubmitted by the Native Village of Kotzebue.*
Proposed Regulation	**50 CFR 100.4 and 36 CFR 242.4 Definitions** *Take or taking as used with respect to fish or wildlife, means to pursue, hunt, shoot, trap, net, capture, collect, kill, harm, or attempt to engage in any such conduct.* **§____.26 Subsistence taking of wildlife** **** *(b) Except for special provisions found at paragraphs (n)(1) through (26) of this section, the following methods and means of taking wildlife for subsistence uses are prohibited:* **** *(4) Taking wildlife from a motorized land or air vehicle when that vehicle is in motion, or from a motor-driven boat when the boat's progress from the motor's power has not ceased;* *(5) Using a motorized vehicle to drive, herd, or molest wildlife.* **§_____.26(n)(23)(iv) Unit 23—Unit-specific regulations** **** *(E) A snowmachine may be used to position a hunter to select individual caribou,* ***or position a caribou, wolf, or wolverine*** *for harvest provided that* ***in either case*** *the animals are not shot from a moving snowmachine.*
OSM Conclusion	**Support**
Northwest Artic Subsistence Regional Advisory Council	**Support with modification** to add furbearers, moose, sheep, and bear.
North Slope Subsistence Regional Advisory Council Recommendation	**Support**

Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Board action on the proposal. **See ISC Comment on Page XX of this booklet.**
ADF&G Comments	**Support**
Written Public Comments	**1 support**

STAFF ANALYSIS
WP16-48

ISSUES

Proposal WP16-48, submitted by the Native Village of Kotzebue, requests modification of the unit-specific provision regulating how a hunter may use a snowmachine to harvest caribou, wolves, and wolverines in Unit 23.

DISCUSSION

In Unit 23, Federally qualified subsistence users may legally use a snowmachine to position a hunter to select and harvest a caribou so long as the hunter does not take the animal from a moving snowmachine. The proponent asks the Federal Subsistence Board (Board) to allow a Federally qualified subsistence user to use a snowmachine to position a caribou, wolf, or wolverine for harvest so long as the hunter does not shoot these animals from a moving snowmachine.

The proposed regulation is consistent with the State regulation that went into effect July 1, 2014, on lands in Units 22, 23 and 26(A). The proponent stated that there was public and tribal support for the new State regulation, and local fish and game advisory committees and the Western Arctic Caribou Herd Working Group supported the new State regulation (Alaska Board of Game 2014).

The proponent believes the proposed regulatory change allows for consistency across unmarked and immediately adjacent State-Federal boundaries, avoids confusion by subsistence hunters on the land and unintentional violations, and benefits law enforcement officers by eliminating opposing rules.

The proponent states that harvesting these animals in the manner proposed is an integral part of local tradition and way of life for many residents of the region. The proponent states that using a snowmachine to pursue these animals is the only practical way to hunt them during winter in most parts of Unit 23. The proponent believes the proposed change rectifies a longstanding conflict between regulatory prohibitions and common local practices.

Existing Federal Regulation

50 CFR 100.4 and 36 CFR 242.4 Definitions

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

§____.26 Subsistence taking of wildlife

****

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

****

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

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

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

****

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

Proposed Federal Regulation

50 CFR 100.4 and 36 CFR 242.4 Definitions

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

§____.26 Subsistence taking of wildlife

****

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****

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

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

****

*(E) A snowmachine may be used to position a hunter to select individual caribou**, or position a caribou, wolf, or wolverine** for harvest, provided that **in either case** the animals are not shot from a moving snowmachine.*

Existing State Regulation

Sec. 16.05.940. Definitions.

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

5 AAC 92.080. Unlawful methods of taking game; exceptions

The following methods of taking game are prohibited:

****

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

****

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

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

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

5 AAC 92.990. Definitions

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

****

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

Note: The full text of 5 AAC 92.080(4)(B), above, is in **Appendix A**.

Relevant Regulation

There is a conflict between the proposed regulation and agency-specific regulations. Adopting the proposed regulatory change would not resolve the existing conflict with agency-specific regulations. Agency-specific regulations are the following:

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

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

****

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

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

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

****

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

> *(1) In compliance with applicable State and Federal law;*
>
> *(2) In such a manner as to prevent waste or damage to the park areas; and*
>
> *(3) In such a manner as to prevent the herding, harassment, hazing or driving of wildlife for hunting or other purposes.*

43 CFR 8341.1 (Bureau of Land Management)

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

Extent of Federal Public Lands

Federal public lands comprise approximately 69% of Unit 23 and consist of 42% National Park Service (NPS) managed lands, 17% Bureau of Land Management (BLM) managed lands, and 10% U.S. Fish and Wildlife Service (USFWS) managed lands (**Unit 23 map**).

Customary and Traditional Use Determinations

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

Residents of Units 6, 9, 10 (Unimak Island only), 11–13, Chickaloon, and Units 16–26 have a customary and traditional use determination for wolf in Unit 23.

The Board has not made a customary and traditional use determination for wolverine in Unit 23; therefore, all rural residents may harvest wolverines in Unit 23.

Regulatory History

In 2000, the Board adopted Proposal 00-53 with modification allowing the use of snowmachines to position a hunter and select individual caribou for harvest in Units 22 and 23. The Board did this to recognize a longstanding customary and traditional practice in the region (FWS 2000). In Proposal 00-53, the proponent asked to position a caribou, not a hunter. The Board provided a rationale for the modification:

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

In 2012, the Board adopted proposal WP12-53 with modification and prohibited the pursuit with a motorized vehicle of an ungulate that was at or near a full gallop in Unit 18 (FWS 2012).

At its March 2014 meeting, the Alaska Board of Game adopted Proposal 177, which allowed a hunter to use a snowmachine in Units 22, 23 and 26(A) to position a caribou, wolf, or wolverine for harvest, so long as these animals were shot from a stationary snowmachine. The purpose of the proposal was to change hunting restrictions to allow the use of snowmachines to track and pursue these animals without the prohibition against driving, herding, harassing, or molesting game in Unit 23 while hunting these species (see **Appendix B**).

Cultural Knowledge and Traditional Practices

Caribou

Before the introduction of snowmachines in the 1960s, people in Unit 23 travelled either on foot or by dog team to hunt caribou during winter months (Anderson et al. 1998). In winter, there were advantages to using dog teams, and now snowmachines, for hunting caribou. When caribou were not present near a village or hunt camp, hunters needed to be mobile and travel long distances to locate bands of caribou. Sleds and snowmachines are now used together and allow transport of more hunters, gear, meat, and hides.

Anderson et al. (1998:203) clearly described winter caribou hunts with dog teams:

> The usual technique was to drive across open, wind-packed areas and stop on rises to scan the terrain. If trees, brush, or large rocks were within a half mile of caribou, the hunter usually took his [dog] team there, secured it, and stalked the animals on foot. . . . Occasionally, circumstances did not allow tethering the dogs or stalking on foot, so the man drove his team directly at the herd, hoping to come close enough for firing. Some teams ran to within 150 yards of a herd. Just before the animals started to run, the hunter would stop his dogs, anchor the sled, and fire a few shots. As the caribou ran away, he pulled up the sled anchor and gave chase. Caribou can easily outdistance a dog team. However, they tend to run away at an angle and will stop once or twice to look back, so the hunter could guide his team to intersect their path of flight. . . . when the caribou paused, the driver would again stop his team and fire.

Anderson et al. (1998:209) clearly described winter caribou hunts using snowmachines:

> Today, well over 90 percent of all winter caribou hunting . . . is done with snowmachines. Whereas in the past this was largely an individualistic affair, men now prefer to travel in pairs or small groups. . . . Under most circumstances, using two or more machines will greatly increase the chances of success in a hunt. In open areas, hunters generally spread out as they travel but keep each other in view, so they can survey the greatest area possible. When game is spotted the drivers come together and decide the best approach. If the terrain, number of caribou, and number of machines warrants it, one group of hunters circles behind the caribou while the other group moves ahead. Usually this maneuver causes the caribou to run directly across the path of the forward hunters. Another way to hunt most effectively is by having two men on each machine, so the driver can concentrate on maneuvering close to the caribou while the other (who usually rides behind on the sled) can shoot as soon as the machine stops.

In the context of caribou hunting, the Iñupiaq word *inillak* means "the *hunter positions himself* close to where the caribou would pass or cross depending on the way the wind is blowing . . . to the Iñupiat, *inillak* is quite different from herding and it is used specifically in caribou hunting. Herding means to gather animals such as reindeer into an enclosed area" (FWS 2000:19). Iñupiaq hunters position both themselves and caribou during a hunt. During the discussions in 2000, Mike Patkotak from the North Slope Regional Advisory Council said, "When you are *positioning caribou*, you're out in the open; you're not putting them into an enclosed corral. . . . You're not trapping them into an enclosed area." (FWS 2000:19).

Whether using dog team, snowmachine, or stalking, it is customary for "a hunter to go on one side of the herd and *unu* them towards the hunter waiting on the other side. This is also called *unuraq*, driving the caribou. This gives them a better position to be successful in their harvesting of the caribou that they want" (FWS 2000:22). The Iñupiaq word *unu* means to "cooperatively push or move the caribou. One or more hunters wait on one section of the hunting area and young runners go around behind the herd to make them head in the shooters' direction" (FWS 2000:19). This remains a common practice in Unit 23, and the current preferred method of positioning both hunters and animals in winter is by snowmachine.

Wolves

Wolves are highly prized for making ruffs for locally made parkas and other items of clothing and handicrafts. Wolf pelts are sold locally to help acquire cash used to defray the high cost of gasoline. Taking a wolf is a sign of prestige for a hunter. Local hunters are revered for taking both wolves and wolverines; this serves as an important social aspect of taking wolves that is insensitive to the price of fur or wolf availability (Westing 2011).

During winter months, wolves are hunted in Unit 23 by snowmachine (Westing 2011). Most wolves are shot in Unit 23 rather than trapped (Westing 2011). Some local hunters are quite skilled at tracking wolves using a snowmachine and predicting the behavior of wolves during pursuit, which enables them to approach wolves close enough for accurate shooting (Anderson et al. 1998).

Wolverines

Wolverine is a highly valued, prestigious subsistence resource in Unit 23 (Westing 2009). Most wolverine taken in the Kobuk River drainage are used locally or traded to people on the coast; wolverine fur is valuable as trim material for parkas, boots, and mittens (Westing 2009; Anderson 1998:226).

As in past years, snowmachines were the primary form of transportation used by hunters and trappers for taking furbearers in Unit 23 during 2008 through 2011 (Westing 2009). Most local residents shoot wolverines rather than trap them because much of the region is open tundra and is conducive to tracking and ground shooting using snowmachines and rifles (Westing 2009).

Biological Background

Caribou

The Western Arctic Caribou Herd, in recent years, has been the largest caribou herd in Alaska with a home range of approximately 157,000 mi^2 in northwestern Alaska (FWS 2015). In the spring, most mature cows move north to calving grounds in the Utukok Hills, while bulls and immature cows stay behind and move toward summer range in the Wulik Peaks and Lisburne Hills. After calving, 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. 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 Western Alaska caribou herd to protect the population and its habitat, provide for subsistence and other hunting opportunities on the basis of sustained yield, and provide for other uses of caribou (Dau 2011). Specific State management objectives for the herd include (WACH Working Group 2011):

1. Encourage cooperative management of the western Alaska caribou herd and among State, Federal, local entities, and all stakeholders of the herd.

2. Manage for healthy populations using management strategies adapted to fluctuating population levels and trends.

3. Promote consistent and effective State and Federal regulations for the conservation of the herd.

4. Integrate scientific information, traditional ecological knowledge of Alaska Native users, and knowledge of all users into management of the herd.

5. Increase understanding and appreciation of the western Alaska caribou herd through the use of scientific information, traditional ecological knowledge of Alaska Native peoples, and knowledge of other stakeholders.

The Western Alaska Caribou Herd population declined rapidly in the early 1970s to a low of about 75,000 animals in 1976. Managers and biologists have observed a 50% decline in the herd population since 2003 (Dau 2014, pers. comm.). Although factors contributing to the decline are not known with certainty, increased adult cow mortality and decreased calf recruitment and survival most likely played a substantial role (Dau 2011). Other contributing factors include fall and winter icing events, predation, harvest, climate change, and diseases (Dau 2014, pers. comm.). Degradation in range conditions is not thought to be a primary factor in the decline because animals in the herd have generally maintained good body condition since the decline began (Dau 2011; 2014, 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) (FWS 2015). 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, pers. comm.). Estimated mortality includes all causes of death including hunting. 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 2004, 2005, 2007, 2008, and 2009. As the western Alaska caribou herd 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% (Dau 2014, pers. comm.).

Research on winter recreation and hunting has documented evidence of both positive and negative biological effects in ungulates related to snowmachine use in their habitats (Harris et al. 2014; Webster 1997). Results of these studies and similar recreational use studies may not be directly relevant to winter caribou hunting in Unit 23 because the majority of Federally qualified subsistence hunters do not operate snowmachines in the same manner as recreational users or sport hunters during subsistence hunts for caribou.

Wolves

Wolves occur throughout Unit 23. Local residents report that the abundance, movements, and distribution of wolves depend to some degree on caribou during winter months (Westing 2011). The Alaska Department of Fish and Game has no data to determine the wolf population in Unit 23 (Westing 2011).

Wolverines

In 2006 through 2009, opportunistic sightings by staff and reports from residents suggested the number of wolverines in Unit 23 were low (Westing 2009). The majority of sealed wolverines were male for the regulatory period 2006–2009 (Westing 2009).

Harvest History

Caribou

From 1999–2014 the average annual harvest from the western Alaska caribou herd was approximately 13,600 caribou (9500–15,800) (Units 21, 22, 23, 24, and 26A) (Dau 2009; 2014, pers. comm.). Local residents take approximately 94% of the caribou harvest within the range of the herd, with residents of Unit 23 taking the vast majority of the harvest (FWS 2015). The State of Alaska manages the herd to maximize a harvestable surplus of animals. In recent years, as the population has declined, the State's total harvestable surplus for the herd, which is estimated as 2% of the cows and 15% of the bulls, has declined (Dau 2011; 2014, pers. comm). Harvest from the herd, 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 harvest restrictions for the herd in March 2015.

Wolves

Most wolves are harvested by snowmachine between December and April in Unit 23. For regulatory years 2005 through 2010, a total of 291 wolves were harvested in Unit 23 (Westing 2011). Wolf harvest levels have decreased from those recorded in earlier periods. For example, in regulatory years 1991 through 1996, a total of 374 wolves were harvested (Westing 2011).

Wolverines

Most wolverines are harvested by snowmachine between January and March in Unit 23. More than 50% of sealed wolverines were harvested in the Kobuk River drainage (Westing 2009). For regulatory years 1999

through 2004, a total of 170 wolverines were harvested. Hunters and trappers harvested a total of 73 wolverines in Unit 23 in regulatory years 2005 through 2009 (Westing 2009).

Alternative Considered

Because conflicts may exist between the proposed regulation and existing agency-specific regulations, staff considered recommending that the Board defer taking any action on the proposal until a later date. Deferring action on the proposal would allow agencies to discuss with the proponent and Regional Advisory Councils possible modifications to existing regulations that may conflict with the proposal. This alternative was dismissed because all available evidence supports the hunting practice proposed by the proponent.

Effects of the Proposal

If adopted, Proposal WP16-48 would accommodate local hunting practices that have been used since snowmachines were first introduced in Unit 23 (Native Village of Kotzebue 2015; WACH Working Group 2015). The proposed change would rectify a longstanding conflict between regulatory prohibitions and common local practices by recognizing the customary and traditional practice of using snowmachines to efficiently and effectively pursue and harvest caribou, wolves and wolverines in Unit 23. This would demonstrate to local people that the Federal Subsistence Management Program is responsive to their customs and traditional hunting practices.

This proposal would address the need for Federally qualified subsistence users to be able to use the most efficient and effective methods to take wild resources important for their livelihood, particularly with consideration to the high price of food and fuel in Northwest Alaska (WACH Working Group 2015).

The proposed regulation change would also make Federal hunting regulations consistent with State of Alaska regulations in Unit 23 that went into effect July 1, 2014. However, adopting this Federal regulatory change would not resolve the conflict with existing agency-specific regulations.

If the proposal is adopted, hunter behavior is not anticipated to change. The proposed changes are not expected to result in population changes for caribou, wolves, or wolverines as they will merely accommodate longstanding traditional hunting methods that are already in practice by Federally qualified subsistence users in Unit 23. Harvest rates are not expected to increase with these proposed changes for caribou, wolves, or wolverines.

The biological effects of winter hunting with snowmachines on these species in Unit 23 are largely unknown. Any biological effects, positive or negative, that may occur in these species related to traditional, winter hunting practices are anticipated to remain constant if this proposal is adopted.

OSM CONCLUSION

Support Proposal WP16-48.

Justification

The proposed regulatory changes would align Federal regulations with the customary and traditional practice of using snowmachines as a means to efficiently and effectively harvest caribou, wolves, and wolverines during winter months in Unit 23. This proposal would parallel State regulations regarding this practice. The proposed changes would have little to no effect on current hunting behavior, and no changes in the population status of caribou, wolves, and wolverines are anticipated. Supporting customary and traditional practices that provide for continued subsistence opportunities would benefit Federally qualified subsistence users.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Northwest Arctic Subsistence Regional Advisory Council

Support WP16-48 **with modification** to add furbearers, moose, sheep, and bear. This proposal reflects a customary and traditional way of harvesting resources—this action provides for a legal means of taking animals using a snow-machine (which have replaced dogs in recent times). This is how we take game—this is our culture. We want to protect our people who harvest resources in this way by preventing citations and negative consequences. The recommended modification is to utilize snow-machines only with the intent to harvest for subsistence purposes—there is no intention of allowing the use of snow-machines for harassing, herding, etc.

Deferment was suggested as an option by NPS representatives, but the Council maintained its position that action is needed now to protect the users and their way of life.

North Slope Subsistence Regional Advisory Council

Support WP16-48. Testimony from the Council supported the analysis that the use of snowmachines to position animals was a customary and traditional practice. The Council discussed that for many subsistence hunts for different animals you are moving all the time in order to pursue the animal. The Council also noted that moving to position allowed for a closer clean shot and is more humane than trapping. The Council concluded that these are traditional practices using modern technology and that Federal regulations are just now catching up to recognize traditional methods.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

The ISC discussed options that the Board could take to address Proposal 48; however, regardless of the Board's decision on the Proposal, the use of snowmachines to position caribou, wolves and wolverine would not be allowed on NPS- or FWS-managed lands unless conflicts with agency-specific regulations are resolved. If the NPS or FWS decides to address their identical regulatory conflicts, they would have to initiate separate Federal rulemakings, which could take considerable time. Whichever option the Board chooses, outreach will be necessary to ensure that all users are aware of where the State and Federal regulations regarding the use of snowmachines for positioning animals apply.

The first option for the Board would be to defer action on Proposal 48 to provide the NPS and FWS time to explore alternatives for amending agency regulations to address how subsistence hunters may use snow-machines to harvest caribou, wolves, and wolverines. The Northwest Arctic Regional Advisory Council was not in favor of deferral because it would delay implementation of a Federal regulation allowing the positioning of caribou, wolves and wolverines consistent with what is allowed under State regulations. To address time concerns, the Board could defer action on this proposal to a time prior to the next wildlife regulatory cycle (e.g., defer action for one year).

A second option the Board could consider is modifying the proposal to include only BLM-managed lands in Unit 23. Unlike NPS and FWS regulations, BLM agency-specific regulation (referenced below) is not necessarily incompatible with the intent of the original proposal as written. This option could serve as an interim measure to allow time to address the conflict with NPS and FWS regulations.

If the Board chooses to adopt the proposal as written, agency specific regulations, cited below, would preclude the use of snowmachines to pursue or position animals on NPS and FWS managed lands. It would also result in greater confusion among subsistence hunters trying to determine whether State of Alaska, Federal Subsistence Program, NPS or FWS regulations apply to their hunting activities using snow machines.

When looking at the Unit 23 map, the scattered footprint of BLM-managed lands, their shared boundaries with ANCSA corporate lands, State-managed lands, and proximity to a number of villages would make it preferable for Federally qualified subsistence users by providing a more seamless management and regulatory structure and avoiding jurisdictional issues over this particular harvest method. Currently, the State hunting regulation books do not distinguish private and BLM managed lands in the region. Nevertheless, there remains significant discomfort among biologists and agency law enforcement personnel regarding how the proposal, if adopted, would be interpreted and employed by users. The specter of multiple high powered snowmachines harassing too many animals to harvest a few is one recurrent scenario. The Board's challenge is to balance subsistence users' desire for efficient harvesting methods with the current conservation concerns over the Western Arctic Caribou Herd and the real potential for significant harassment of non-targeted caribou by employing this practice. Management agencies need to have a better understanding of how this hunting practice is generally conducted in Unit 23 and assurance that the benefit that comes to the subsistence user is not negated by significant disturbances to non-targeted animals.

Agency-specific regulations:

36 CFR 13.460 (Alaska National Park System)

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

43 CFR 8341.1 (Bureau of Land Management)

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

50 CFR 36.12 (Alaska National Wildlife Refuges)

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

WRITTEN PUBLIC COMMENTS

Western Arctic Caribou Herd Working Group

Goal: To work together to ensure the long-term conservation of the Western Arctic Caribou Herd and the ecosystem on which it depends, to maintain traditional and other uses for the benefit of all people now and in the future.

Chair: Vern Cleveland, Sr. Vice-Chair: Cyrus Harris

P.O. Box 175, Nome, AK 99762

May 27, 2015

Office of Subsistence Management
Attn: Regulations Specialist
1011 East Tudor Road, Mail Stop 121
Anchorage, AK 99503
Via email: subsistence@fws.gov

SUBJECT: WP16-48 (2016-2018 Wildlife Proposal, Northwest Arctic)

To the Federal Subsistence Board:

On behalf of the Western Arctic Caribou Herd Working Group, the group's Executive Committee is submitting a **comment in support of the Proposal WP16-48** to allow the use of snow machines to position a caribou, wolf, or wolverine for harvest, provided that the animals are not shot from a moving snow machine. This proposed regulation change would be consistent with the State of Alaska Game Regulation that went into effect as of July 1, 2014, on State managed lands (5 AAC 92.080(40(B)(i)).

The Working Group does not believe that this regulation change would affect the abundance or population trend of the Western Arctic Caribou Herd. This change would accommodate local hunting practices that have been used since snow machines first arrived in Game Management Unit 23, and addresses the need for rural subsistence users to be able to use the most efficient methods to take wild resources important for their livelihood, particularly with consideration to the high price of food and fuel in northwest Alaska.

Thank you for this opportunity to comment.

On behalf of the Western Arctic Caribou Herd Working Group,

Vern Cleveland Sr.

Vern Cleveland, Sr., Chair

Appendix A

5 AAC 92.080. Unlawful methods of taking game; exceptions

The following methods of taking game are prohibited:

. . .

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

. . .

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

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

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

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

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

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

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

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

APPENDIX B

During the 2014 Arctic/Western Region meeting, the Board of Game requested this proposal be scheduled for the 2014 Statewide Regulations meeting.

PROPOSAL 177 - 5 AAC 92.080(4) & (5). Unlawful methods of taking game; exceptions, and 92.990 (70) Definitions. Modify the restriction for using snow machines for taking wolves and wolverine.

Change the general hunting restriction to allow the use of snow machines to track and pursue caribou, wolves and wolverines so that the prohibition against driving, herding, harassing, or molesting game with a snow machine will not apply in Unit 23, or other units as determined by the board, while hunting these species.

WHAT IS THE ISSUE YOU WOULD LIKE THE BOARD TO ADDRESS AND WHY? During the Arctic/Western Region Board of Game (board) meeting in January 2014, the board listened to comments from the public concerning the use of snow machines in remote areas for taking wolves, wolverine, and caribou. Currently, hunters can use snow machines to position themselves for taking caribou in Units 22 and 23, and wolves in Units 9, 17, 18, 19, 21, 22, 24, 25C and 25D excluding some federal lands. It is currently illegal to drive, herd, harass, or molest game with any motorized vehicle including snow machines.

In response to the testimony, the Board of Game requested that local users draft language the board could use to address the issue. In response, the Kotzebue Sound Advisory Committee submitted the following language which the board will use as a board generated proposal, scheduled for consideration at its Statewide Regulations meeting in March 2014.

"Currently, the restrictions against driving, herding, harassing, or molesting game, in addition to the absence of Unit 23 in the excepted allowance for the use of snow machines to position hunters to select individual wolves, and the absence of wolverines in the excepted allowance for snow machine positioning, conflicts with the long standing local caribou, wolf, wolverine hunting practices which is the only practical way to hunt caribou, wolves, and wolverines in Unit 23 during the winter. Also, the allowance for snow machine use to position a hunter does not satisfactorily address this issue, as it does not clarify whether this includes actually tracking down caribou, wolves, or wolverine, including pursuing fleeing animals, until close enough to shoot. Since it is clear from a recent example in Unit 23 that wildlife protection officers intend to enforce the restrictions against driving, herding, harassing, or molesting game, then it is in incumbent upon changes intended to allow for pursuit of fleeing animals to be clearly elucidated in the regulations to prevent any confusion by all parties about what is allowable.

If the board does not change the regulation, local people hunting these species with snow machines will continue to live with the threat of prosecution for hunting with snow machines in the only way practical, making people feel like criminals and interfering with the ability to freely pursue these animals for critical and irreplaceable food and fur products. These animals are critical to the local economy and way of life and

enforcement of current regulations will be viewed as a direct attack on the culture, economy and food security in the region.

Allowing a hunter to use a snow machines to get within range of fleeing caribou, wolves, and wolverines will allow the precise shot placement (head shot) which will minimize unnecessary waste of meat and fur and is the most humane method of killing an animal with a rifle. Wildlife enforcement officers will also have a clear understanding of the intent to allow for the pursuit of these species, reducing unnecessary conflicts and increasing the cooperation of the people on the other enforcement issues where local cooperation is necessary to the mission to protect all species in the areas.

The local people will appreciate the Board of Game and the Department of Fish and Game being responsive to the needs of the people and by correcting this issue will put integrity back in the system by getting rid of a longstanding conflict between regulatory prohibitions and common local practices that are the only practical way to pursue these species in the winter. In addition, the future cooperative management strategies and goals will be more likely to succeed as the people will have increased faith that the system takes their needs into account and is responsive to them."

PROPOSED BY: Board of Game at the request of the Kotzebue Advisory Committee

(HQ-SW14-01)

****

WP16–49/52 Executive Summary	
General Description	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. *Submitted by Northwest Arctic Subsistence Regional Advisory Council.* Proposal WP16-52 requests that in Unit 23 the caribou harvest limit be reduced from 15 to 7 per day. *Submitted by Upper and Lower Kobuk Fish and Game Advisory Committee.*
Proposed Regulation	WP16-49 **Unit 23—Caribou** *~~15~~**5** caribou per day; however, cow caribou may not be taken ~~May 16~~**April 1** – June 30* ***and no harvesting of cows with calves July1-Oct. 10. No harvesting of bulls Oct. 10-Jan. 31.*** — *July 1–June 30* WP16-52 **Unit 23—Caribou** *~~15~~7 caribou per day; however, cow caribou may not be taken May 16 – June 30* — *July 1–June 30*
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 **Take No Action** on Proposal WP16-52. The modified regulation should read: **Unit 23—Caribou** ***Unit 23, that portion north of and including the Singoalik River drainage~~—15~~5*** *caribou per day* ***as follows:*** *~~; however, cow caribou may not be taken May 16–June 30~~* — *~~July 1–June 30.~~*

WP16–49/52 Executive Summary	
	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.***
OSM Conclusion	**Support** the OSM preliminary conclusion for Proposal WP16-49 **with modification** to clarify the Singoalik River hunt area descriptor and to lengthen the bull and cow seasons and the restriction on the take of cows with calves in Unit 23 remainder; and **Take No Action** on Proposal WP16-52. The modified regulation would read: **Unit 23—Caribou** *Unit 23**, that portion which includes all drainages north and west of, and including, the Singoalik River drainage~~—15~~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***

WP16–49/52 Executive Summary	
	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. 31*** ***Feb. 1-June 30*** ***Cows may be harvested*** — ***July 31-Mar. 31*** ***However, cows accompanied by calves may not be taken July 31-Oct. 14.***
Western Interior Alaska Regional Advisory Council Recommendation	**No action taken**
Seward Peninsula Regional Advisory Council Recommendation	**No action taken**
Northwest Arctic Regional Advisory Council Recommendation	**Support** WP16-49 **with modification** to extend the closing date of the bull season to Oct. 31, change the opening date of the cow season to July 31, modify the restriction on the take of cows with calves, and prohibit the take of calves. The modified regulation should read: **Unit 23—Caribou** ~~*15*~~***5*** *caribou per day; however, cow caribou may not be taken* ~~*May 16*~~***April 1*** *–* ~~*June 30*~~ ***July 30 and no harvesting of cows with calves July 31-Oct. 10. No harvesting of bulls Nov. 1-Jan. 31. The take of calves is prohibited.*** — *July 1–June 30*

WP16–49/52 Executive Summary	
North Slope Regional Advisory Council Recommendation	**Support as modified by OSM**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Support** WP16-49 **as modified by OSM** and **Take No Action** on WP16-52.
Written Public Comments	**None**

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.

Related Proposals: Two other proposals – WP16-37 and WP16-61 – concerning caribou regulations in Unit 23 were submitted for the 2016-2018 regulatory cycle. The outcome of these proposals may affect the outcome of this proposal.

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

*~~15~~**5** caribou per day; however, cow caribou may not be taken ~~May 16~~**April 1** – June 30* ***and no harvesting of cows with calves July1-Oct. 10. No harvesting of bulls Oct. 10-Jan. 31.***	*July 1–June 30*

WP16-52

Unit 23 - Caribou

~~15~~7 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	*July1 – 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: 1bull; however, calves may not be taken *Aug. 1 – Sept. 30*

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).

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 nonresidents 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 took 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 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).

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

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 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.

Biological Background

Caribou abundance naturally fluctuates over decades (Gunn 2001, WACH Working Group 2011). Gunn (2001) reports the mean doubling rate for Alaskan caribou as 10 ± 2.3 years. Although the underlying mechanisms causing these fluctuations are uncertain, Gunn (2001) 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 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). 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 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).

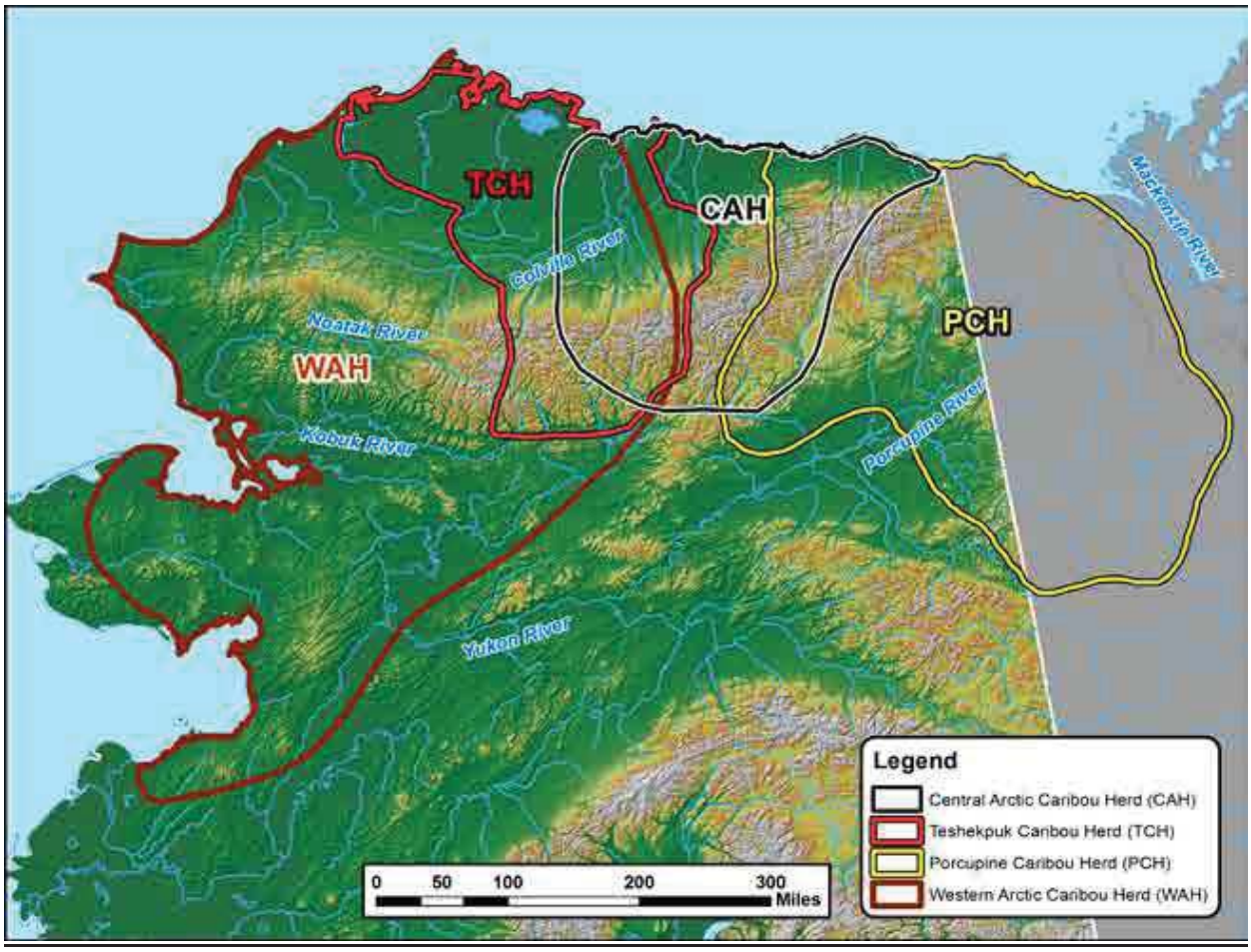

Figure 1. Herd overlap and ranges of the WACH, TCH, CACH and Porcupine caribou herds (WACH 2014).

Western Arctic Caribou Herd

The WACH has historically been the largest caribou herd in Alaska and has a home range of approximately 157,000 mi^2 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 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 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 WACH. It is comprised of 20 voting chairs, including subsistence hunters from local villages, sport hunters, hunting guides, reindeer herders, and other stakeholders. The WACH 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 WACH population increased throughout the 1980s, and 1990s, peaking at 490,000 animals in 2003 (**Figure 2**). 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 2**).

Between 1982 and 2011, the WACH population was within the liberal management level prescribed by the WACH Working Group (**Table 1**). In 2013, the WACH population estimate fell below the population threshold for liberal management of a decreasing population (265,000), moving into the conservative management level (**Table 1, Figure 2**).

Between 1970 and 2012, the bull:cow ratio has exceeded critical management levels (see **Table 1**) in all years, except 1975 and 2001 (**Figure 3**). 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 (WACH Working Group 2011).

	Population Trend		
Management Level and Harvest Level	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: 12,000-18,550	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 4**). 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 4**).

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 4, 5**).

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 4**). 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 4**). 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 4**).

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 5**). 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 5**) 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 5**).

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). 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).

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).

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.).

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 et al. 2012, Smith et al. 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).

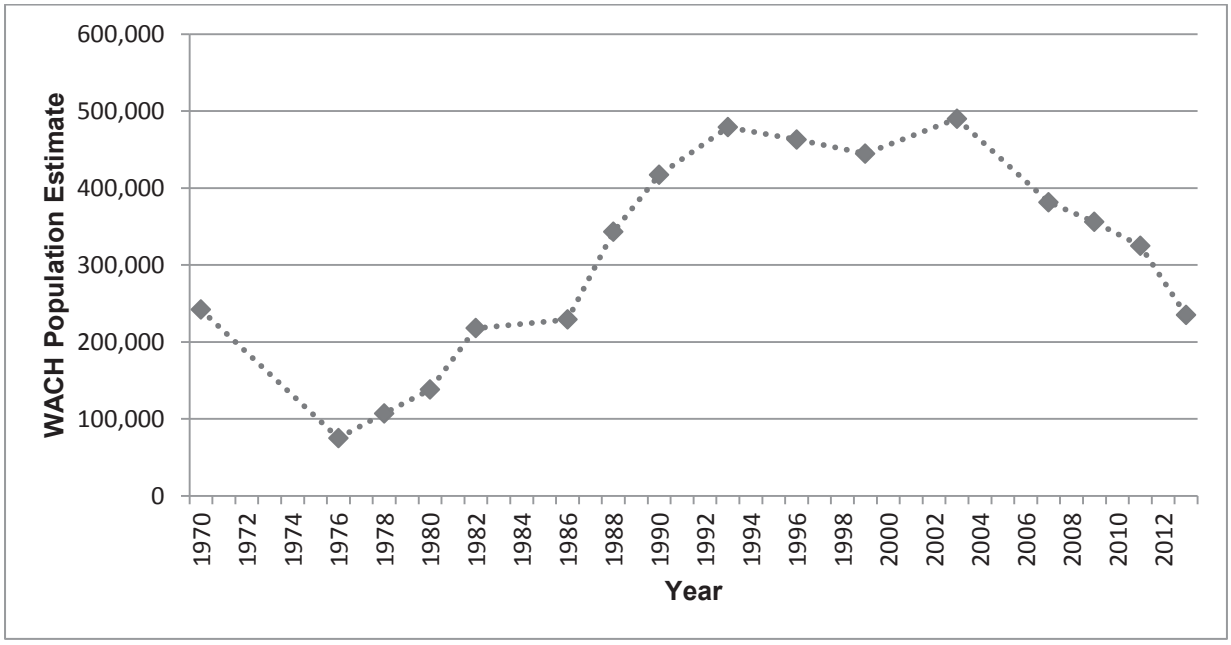

Figure 2. Western Arctic caribou herd population estimates from 1970-2013. Population estimates from 1986-2013 are based on aerial photographs of groups of caribou that contained radio–collared animals (Dau 2011, 2013, 2014).

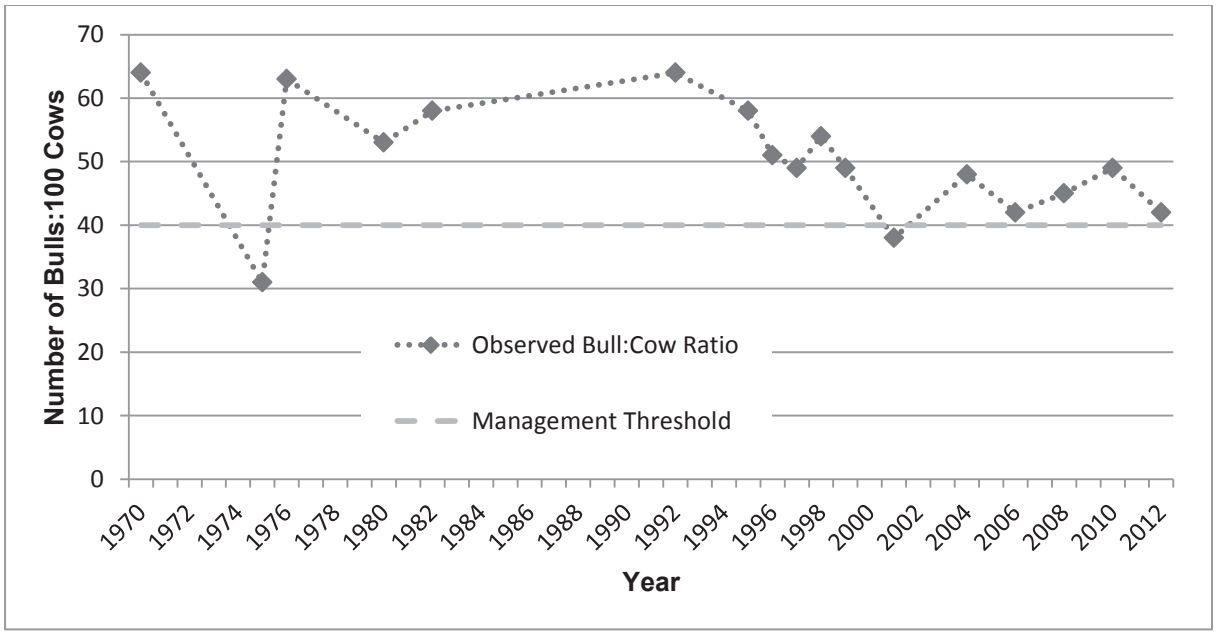

Figure 3. Bull:Cow ratios for the Western Arctic Caribou Herd (Dau 2013).

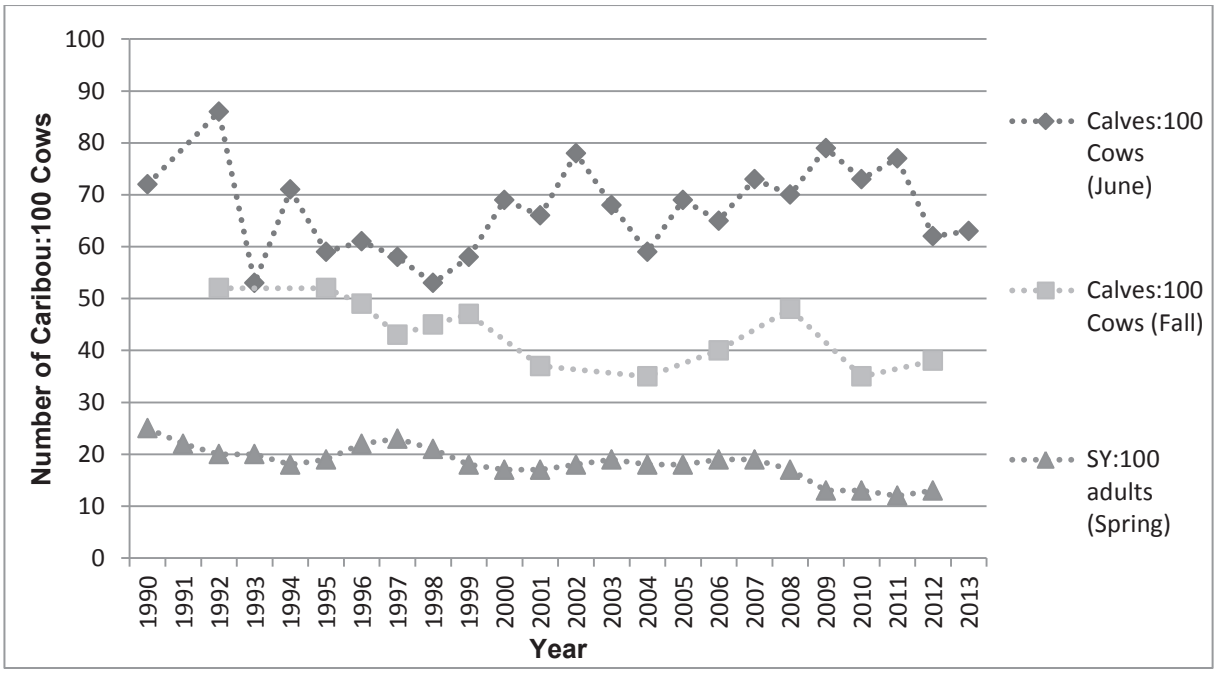

Figure 4. Calf:cow and short yearling (SY):adult ratios for the Western Arctic Caribou Herd (Dau 2013). Short yearlings are 10-11 months old caribou.

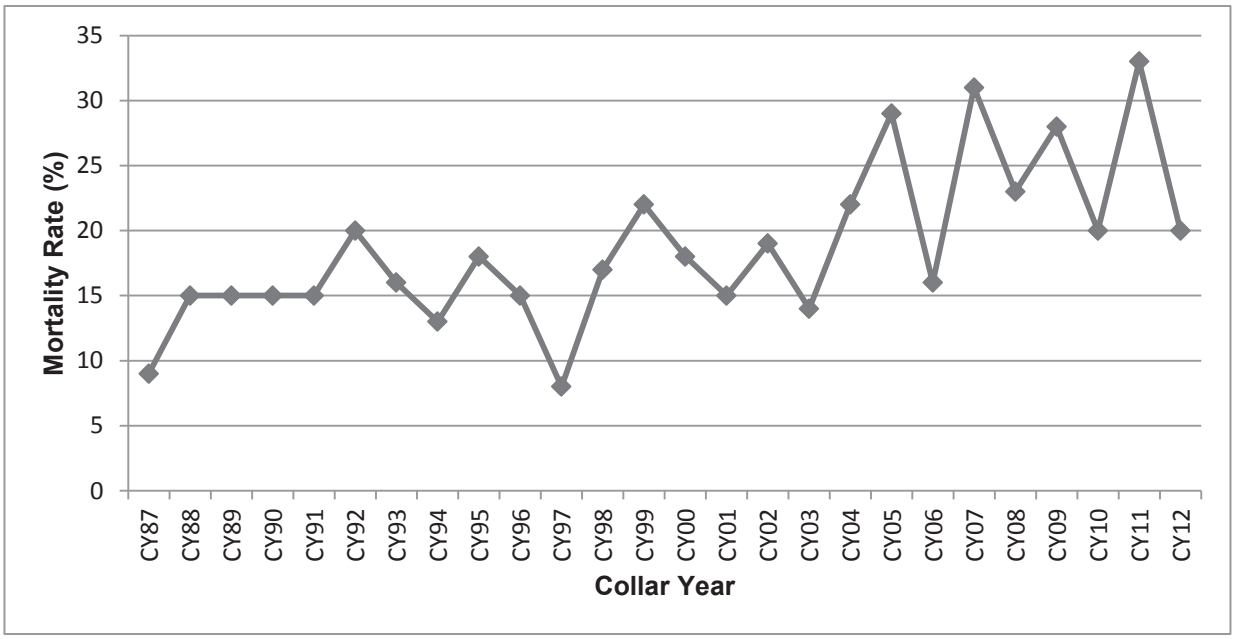

Figure 5. Mortality rate of radio-collared caribou in the Western Arctic caribou herd (Dau 2013). Collar Year = 1 Oct-30 Sept.

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
2014/2015	39[b]	[c]	[c]	[c]	[c]	[c]	[c]

[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)
[c] Data not available

Harvest History

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 ≤ 2% for all communities between 2008/09, 2009/10, and 2010/11. Total annual estimated caribou harvest by community varied with community population estimates.

From 1999–2014, the average annual estimated harvest from the WACH was 13,450 caribou, ranging from 9,500-15,800 caribou/year (Dau 2009, Dau 2014, pers. comm., Dau 2016, pers. comm., **Figure 6**). 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 6**).

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.

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).

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 or 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)	
Atqasuk	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)

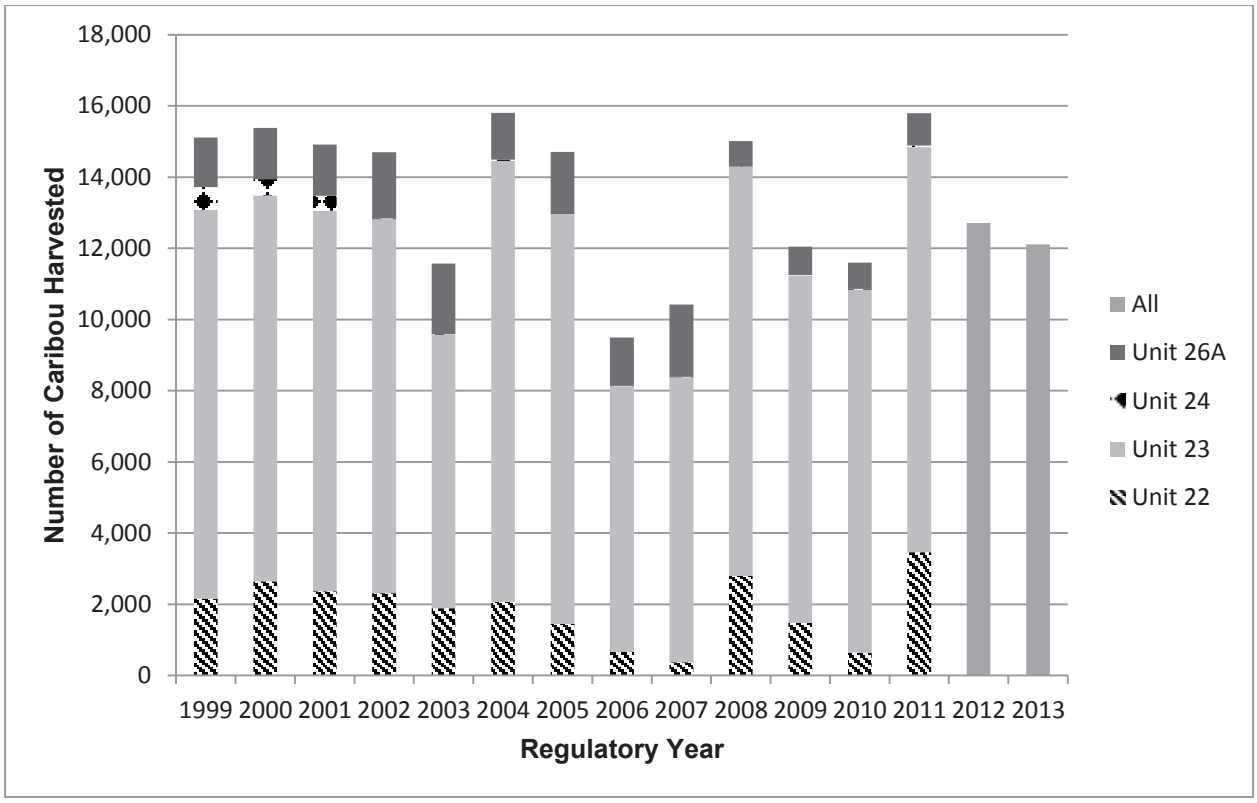

Figure 6. Total (resident and non-resident) estimated annual harvest of Western Arctic caribou by unit (Dau 2009, 2013, 2016, pers. comm.). Unit 21D not included (average harvest is 0-10 caribou/year). Harvest by unit not available for regulatory years 2012/13 and 2013/14.

Cultural Knowledge and Traditional Practices

In recent RAC meetings, some Council and community members expressed concern that the traditional uses of caribou calves were not reflected in current analyses and that if the herd were to increase in numbers, the opportunity to harvest caribou calves might be reconsidered for Federally qualified subsistence users. During public testimony before the Western Interior Subsistence Regional Advisory Council in November 2015, community and Council members recalled the value of caribou calf hide for the crafting of specific clothing (WISRAC 2015). During the North Slope meeting, one of the Council members recalled research that detailed the traditional uses of caribou calf hide for specific purposes, such as providing new skin for a drum (NSSRAC 2015). Numerous sources support these claims (i.e. Burch 1998, Burch 2012, Sharp & Sharp 2015).

Ernest Burch described the importance of caribou for the people of Northwest Alaska (Burch 1998). Depending on where they were based, most Northwest Arctic Inupiaq Nations relied upon caribou as a primary source food, but more importantly they relied upon caribou for their hides. Burch documented a unanimous preference for the late summer coats of caribou cow and calf hides, seen as providing both the softness and quality needed for high quality clothing, after the summer shedding and before acquiring a shaggy winter coat. While bulls were targeted for their fat stores and meat, cows and calves were targeted for their hides, considered prime during the early part of August (Burch 1998). The primary objective

during summer hunts was the acquisition of hides, "It reportedly took two calf skins to make one parka, and every hunter tried to get at least twenty of them" (Burch 1998:163). Not only were the hides necessary to keep a family clothed during the winter, they also served as an important trade good for coastal resources like marine mammal oil.

More recently, Henry and Karyn Sharp describe the contemporary harvest of caribou by the Denesuline people in Northern Canada (Sharp & Sharp 2015). While not describing the practice of Alaskan people, the culture and landscape are comparable. One chapter in particular describes a specific hunt that took place during the summer of 1970. The people were busy putting up and preserving caribou meat and most of their food needs had been met. However, because the group intended to stay at their camp through December, they decided caribou winter clothing was needed for the toddlers and babies. "Because of the toddler's small size and their lack of strength, these sets of clothing would have to be made from the thin hides of calf caribou." The cows and calves didn't arrive until early August, and it was then that the animals were pursued and harvested. Approximately six calves and one cow were taken (Sharp & Sharp 2015:171).

The Sharps stressed the importance of caribou hide to the Denesuline people cannot be underestimated. "The issue here is simple. Clothing and housing people in the subarctic using caribou hide means that there is a tremendous demand for caribou hides." They went on to write that aside from clothing, caribou hide was used for providing cordage for corral nets, snares, and fish nets. Caribou hides provided cover for tipis and were used to make pack sacks and travel gear. Sharp emphasized the significance of caribou hide by explaining, "The issue would not be so significant if the hides taken as a byproduct of hunting for food were sufficient to meet Denesuline needs. This is not the case (Sharp & Sharp 2015:184)." By the time fall arrived, the cows were recovering from birthing and nursing their calves but not so much that they built up the thick layers of fat found in bulls. And while bulls were targeted for human consumption, their hide was not considered optimum for winter clothing. Thus, when the bulls were prime for meat and fat, the cows and calves were prime for hides; all animals (bulls, cows, and calves) were targeted for their specific uses (Sharp & Sharp 2015).

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 **Take No Action** on 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.

ANALYSIS ADDENDUM

OSM CONCLUSION

Support the OSM preliminary conclusion for Proposal WP16-49 **with modification** to clarify the Singoalik River hunt area descriptor and to lengthen the bull and cow seasons and the restriction on the take of cows with calves in Unit 23 remainder.

Unit 23—Caribou

Unit 23, ***that portion which includes all drainages north and west of, and including, the Singoalik River drainage~~—15~~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. 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. 31*** ***Feb. 1-June 30***
Cows may be harvested ***However, cows accompanied by calves may not be taken July 31-Oct. 14.***	***July 31-Mar. 31***

Justification

The Singoalik River hunt area in Unit 23 is intended to be drainage based, which allows users to more easily identify hunt area boundaries in the field. The modification in hunt area descriptor clarifies this.

The modifications to the bull and cow seasons and the cow with calf restriction in Unit 23 remainder align with the recommendation from the Northwest Arctic Subsistence Regional Advisory Council (Council). The bull season proposed by the Council in Proposal WP16-49 closed on Oct. 9. The Council observed that caribou do not pass through portions of Unit 23 until after Oct. 9 in some years, and thus supported extending the bull season to Oct. 31 to provide residents of Unit 23 (especially residents in the southern portions of Unit 23) additional opportunity to harvest caribou (NWA RAC 2015).

Similarly, the cow season proposed by the Council in Proposal WP16-49 opened on July 1. However, the Council supported moving the opening date to July 31 in order to provide for additional protection of cows and calves. The restriction on the take of cows with calves was modified to reflect the changes made to the cow season (NWA RAC 2015).

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Northwest Arctic Subsistence Regional Advisory Council

Support WP16-49 **with modification** to extend the closing date of the bull season to Oct. 31, change the opening date of the cow season to July 31, modify the restriction on the take of cows with calves, and prohibit the take of calves.

The modified regulation should read:

Unit 23—Caribou

*~~15~~**5** caribou per day; however, cow caribou may not be taken ~~May 16~~**April 1** – ~~June 30~~ **July 30 and no harvesting of cows with calves July 31-Oct. 10. No harvesting of bulls Nov. 1-Jan. 31. The take of calves is prohibited.***	*July 1–June 30*

WP16-49 as written could put a hardship on the users and the resource, including not providing enough protection of cows with calves. Amending the bull season dates would make it easier for users to harvest bull caribou, especially in areas where bulls are not available until after October 9th; due to warming trends, it is staying warmer longer and with the dates as written bulls are not yet in rut. The modified dates for the cow season, and associated portion that is closed to the take of cows with calves, would also allow for additional protection of cows and calves to help ensure a better chance of survival. Starting the cow season on July 31 will make it easier to identify cows with calves. Overall, this Council is concerned about the population of the herd into the future and is adamant about protecting the herd from overharvest.

Western Interior Alaska Subsistence Regional Advisory Council

No action taken on WP16-49/52. Outside of Western Interior Region. Defer action to the NWARAC.

Seward Peninsula Subsistence Regional Advisory Council

No action taken on WP16-49/52. The proposal does not affect units within Region 7.

North Slope Subsistence Regional Advisory Council

Support WP16-49/52 **as modified by OSM**. The Council is primarily concerned about the Singoalik River drainage added in the OSM modification since that is within the North Slope RAC region but also agrees on OSM modification to keep the regulations consistent throughout the Unit to avoid confusion for

those who hunt in the region. The Council supports the knowledge and recommendations of the Northwest Arctic RAC that submitted proposal WP16-49 and agrees with the conservation effort to help the caribou herd recover, including protections for calves and cows with calves.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

WP16–51 Executive Summary	
General Description	Proposal WP16-51 requests that the portion of Unit 23 north and west of the Kobuk River drainage be opened to the harvest of 1 bull muskox, Aug. 1 – Mar. 15. *Submitted by the Northwest Arctic Subsistence Regional Advisory Council.*
Proposed Regulation	**Unit 23—Muskox** ***Unit 23—that portion north and west of the Kobuk River drainage — 1 bull by Federal registration permit*** ***Aug. 1 – Mar. 15*** *Unit 23, remainder* *No open season*
OSM Conclusion	**Support** Proposal WP16-51 **with modification** to specify that harvest would be by State or Federal permit and to delegate authority to NPS to close the season, determine annual harvest quotas, and determine the number of Federal permits to be issued, by delegation of authority letter only. **Unit 23—Muskox** ***Unit 23—that portion north and west of the Kobuk River drainage —1 bull by State or Federal registration permit*** ***Aug. 1 – Mar. 15*** *Unit 23, remainder* *No open season*
Northwest Arctic Subsistence Regional Advisory Council Recommendation	**Support as modified by OSM**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Oppose**

WP16–51 Executive Summary	
Written Public Comments	**None**

STAFF ANALYSIS
WP16-51

ISSUES

Proposal WP16-51, submitted by the Northwest Arctic Subsistence Regional Advisory Council, requests that the portion of Unit 23 remainder occurring north and west of the Kobuk River drainage be opened to the harvest of 1 bull muskox, Aug. 1 – Mar. 15.

DISCUSSION

Currently, the portion of Unit 23 north and west of the Kobuk River drainage is closed to muskox harvest under Federal regulation, although harvest is allowed by a State Tier II permit. The proponent states that adoption of this proposal will provide additional harvest opportunities to Federally qualified subsistence users. The proponent also states that the proposed changes will reduce regulatory complexity and improve management by creating parallel Federal and State seasons and harvest limits for muskox.

Existing Federal Regulation

Unit 23—Muskox

Unit 23, remainder	*No open season*

Proposed Federal Regulation

Unit 23—Muskox

Unit 23—that portion north and west of the Kobuk River drainage — 1 bull by Federal registration permit	***Aug. 1 – Mar. 15***
Unit 23, remainder	*No open season*

Existing State Regulation

Unit 23—Muskox

Unit 23, that portion north and west of the Kobuk River drainage—1 bull by permit	*Aug. 1 – Mar. 15*

Unit 23, remainder	*No open season*

Extent of Federal Public Lands

Federal public lands comprise approximately 69% of Unit 23 and consist of 42% National Park Service (NPS) managed lands, 17% Bureau of Land Management managed lands, and 10% U.S. Fish and Wildlife Service managed lands. The NPS manages 65% of the new proposed hunt area. See **Map 1**.

Customary and Traditional Use Determinations

Residents south of Kotzebue Sound and west of and including the Buckland River drainage have a positive customary and traditional use determination for muskox in the portion of Unit 23 south of Kotzebue Sound and west of and including the Buckland River drainage.

Residents of Unit 23 east and north of the Buckland River drainage have a positive customary and traditional use determination for muskox in Unit 23 remainder.

Regulatory History

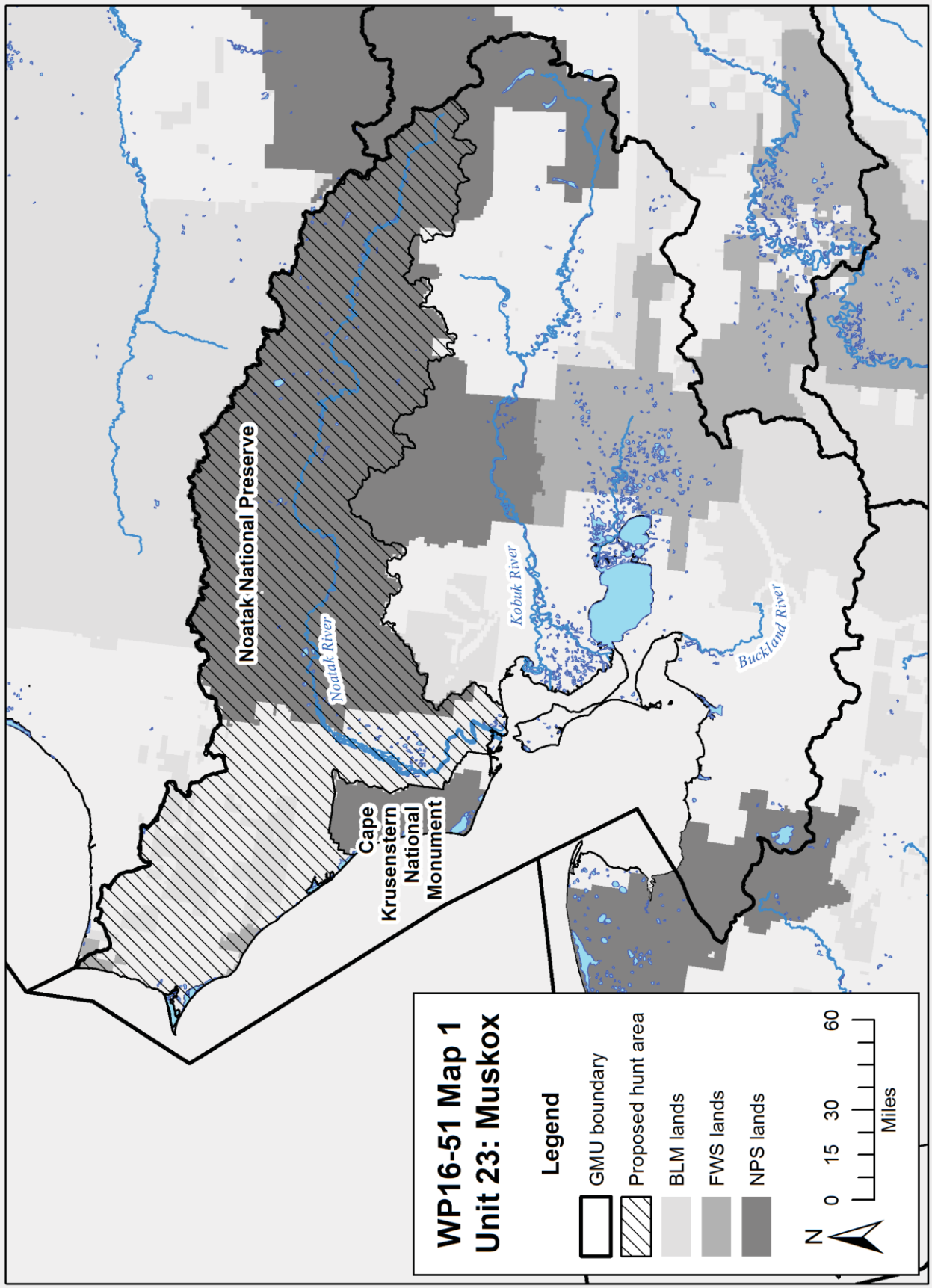
There have been few changes in the Federal regulations for muskox in Unit 23 north of Buckland drainage. In 2005, the Federal Subsistence Board approved Proposal WP05-19, which limited muskox harvest in the Cape Krusenstern National Monument to resident zone community members with permanent residence within the Monument or the immediately adjacent Napaktuktuk Mountain area (FWS 2005).

State regulations for muskox harvest in this region have not changed since a Tier II hunt was established in 2000 (Westing 2013).

Biological Background

Although muskoxen are native to northwest Alaska, the current muskox populations in Unit 23 are the result of several translocations that occurred in the 1970s. These translocations, which occurred near Teller and Cape Thompson, have resulted in two distinct populations in the region. The portion of Unit 23 south and west of the Buckland drainage is inhabited by muskox belonging to the Seward Peninsula population. These animals are managed with Unit 22 muskoxen, where the harvest quota is jointly managed by State and Federal agencies (Gorn and Dunker 2013). The Cape Thompson population primarily inhabits the portion of Units 23 and 26A between the mouth of the Noatak River and Corwin Bluff. This population has grown more modestly than the Seward Peninsula population. In addition to these two distinct populations that occupy core ranges, smaller groups of muskox occur throughout Unit 23 (Westing 2013).

Surveys to estimate minimum size of the Cape Thompson population occurred between 1987 and 2010. These surveys focused on the core range, the area within approximately 12 miles of shore, between the mouth of the Noatak River and Corwin Bluff (Westing 2013). As a result of increased incidental observation of muskoxen outside the core range, along with survey results suggesting a population decline within the core range, extensive surveys of the known range and other potential habitat were initiated in


WP16-51 Map 1
Unit 23: Muskox
Legend
GMU boundary
Proposed hunt area
BLM lands
FWS lands
NPS lands
N
0 15 30 60
Miles
Noatak National Preserve
Noatak River
Kobuk River
Buckland River
Cape Krusenstern National Monument

2011. Based on 2012 survey results, there are estimated to be 244-355 muskoxen (95% CI) in Unit 23 remainder (Westing 2013). Due to the changes in animal distribution and survey methodologies, it is difficult to ascertain the population trend. However, it is believed to be relatively stable (Adkisson 2015, pers. comm.).

There is considerable annual variation in calf production and yearling survival in the Cape Thompson population. In general, calf production is low, typically below 15%. Fall 2012 composition surveys revealed 20 calves:100 cows (≥2 years old). Between 2010 and 2012, the number of yearlings per 100 cows fell from 39 to 8, the lowest number of yearlings recorded since 2004. Bull:cow ratios differ between spring and fall surveys, due to differential bull sightability between seasons. Based on spring surveys, the bull:cow ratio declined between 2010 and 2012. In 2012, there were 32 bulls, including 19 mature bulls, per 100 cows (Westing 2013).

State management goals for muskox in Unit 23 are to 1) allow for growth and expansion of muskoxen into historic ranges, 2) provide for subsistence hunting and eventually for recreational hunting of muskoxen on a sustained yield basis, and 3) provide for nonconsumptive uses of muskoxen (Westing 2013).

Harvest History

Currently, the annual harvest quota for Cape Thompson muskox in Unit 23 remainder is eight bulls. Two permits are allocated to residents of Cape Krusenstern National Monument by Federal permit. Harvest of muskox in the remaining portion of Unit 23 north and west of the Kobuk drainage is allowable with a State Tier II permit (Adkisson 2015, pers. comm.), with up to six permits issued annually since harvest began in 2000. Through 2003, muskoxen harvested under Tier II permits were taken exclusively by residents of Point Hope, Kivalina and Noatak. Since 2004, Tier II permits have increasingly been issued to residents of Kotzebue. As a result, all recent harvest has occurred in a small area between the Noatak River and Cape Krusenstern National Monument (Westing 2013). Because the Tier II permitting process favors users with a history of consistent and successful hunts, it is difficult for new users to have an opportunity to harvest muskox in Unit 23 under the State system (Westing 2013, Adkisson 2015, pers. comm.).

Most muskoxen are harvested August through September and December through March. Nearly all muskox harvested in Unit 23 remainder since 2000 have been bulls. Only three animals have been harvested from the Cape Krusenstern National Monument under Federal regulation since 2000. The remainder have been harvested under a State Tier II permit (**Figure 1**). Since 2000, harvest has averaged three animals per year (Westing 2013; OSM 2015). This level of harvest is considered appropriate for this population, as it provides harvest opportunity for subsistence users without jeopardizing the population (Westing 2013).

Effects of the Proposal

This proposal would establish a Federal subsistence season and harvest limit for muskox in the portion of Unit 23 north and west of the Kobuk River drainage. Currently, harvest in this area is allowed by State Tier II permit. Opening a Federal season where a State season already exists would require collaborative establishment of harvest quotas by State and Federal managers, as occurs in Unit 22 and the in southern

portion of Unit 23. As a result of the quota, the impacts on the muskox population are expected to be negligible. Adoption of this proposal would likely result in more equitable distribution of harvest permits, since the Tier II system favors previously successful hunters and limits participation by users who do not apply or hunt consistently.

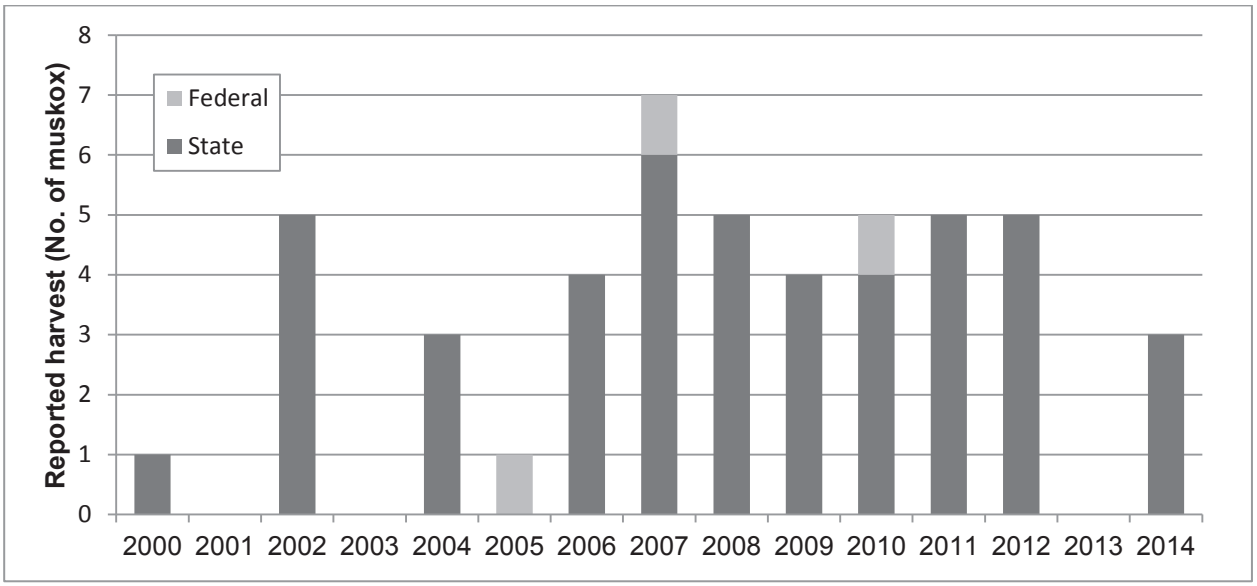


Figure 1. Annual reported harvest of muskoxen in Unit 23 remainder, 2000-2014, under State (Tier II) and Federal regulation. Federal harvest is limited to Cape Krusenstern National Monument, by residents of the Monument. (Westing 2013; ADF&G 2015; Adkisson 2015, pers. comm.; OSM 2015)

OSM CONCLUSION

Support Proposal WP16-51 **with modification** to specify that harvest would be by State or Federal permit and to delegate authority to NPS to close the season, determine annual harvest quotas, and determine the number of Federal permits to be issued, by delegation of authority letter only (**Appendix A**).

The modified regulation should read:

Unit 23—Muskox

Unit 23—that portion north and west of the Kobuk River drainage —1 bull by State or Federal registration permit	***Aug. 1 – Mar. 15***
Unit 23, remainder	*No open season*

Justification

The Cape Thompson muskox population has exhibited modest growth relative to the Seward Peninsula population and is not currently believed to be growing. However, current levels of harvest are believed to be sustainable, and the harvest quota will continue to be managed based on the most recent biological data.

Consequently, adoption of this proposal does not present any conservation concerns. Allowing harvest by State or Federal permit will provide additional opportunities for Federally qualified subsistence users, as Federal permits have fewer restrictions than the State's Tier II permits. This approach would likely result in a more equitable distribution of permits, and is consistent with other muskox regulations in Units 22 and 23. Delegation of Authority to the Superintendent of the Western Arctic National Parklands will serve to clarify regulations and allow for hunt management flexibility through in-season adjustment of hunt parameters.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Northwest Arctic Subsistence Regional Advisory Council

Support WP16-51 **as modified by OSM**. This proposed action will provide additional harvest opportunities for Federally qualified subsistence users in Unit 23, reduces regulatory complexity, and creates parallel Federal and State seasons and harvest limits for Muskox. Under the current State Tier II system, the Council and communities observe the same individuals successfully obtaining a permit, and a better opportunity for users is needed throughout the region as muskox may be depended on more in the future.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

APPENDIX A

Superintendent
Western Arctic National Parklands
P.O. Box 1029
Kotzebue, Alaska 99752

Dear Superintendent:

This letter delegates specific regulatory authority from the Federal Subsistence Board (Board) to the Superintendent of the Western Arctic National Parklands 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 the population. This delegation only applies to the Federal public lands subject to Alaska National Interest Lands Conservation Act (ANILCA) Title VIII jurisdiction within Unit 23 north and west of the Kobuk River drainage for the management of muskox on these lands.

It is the intent of the Board that actions related to management of muskox by Federal officials be coordinated, prior to implementation, with the Alaska Department of Fish and Game (ADF&G), the Bureau of Land Management, and the Chair of the Northwest Arctic Subsistence Regional Advisory Council (Council) to the extent possible. Federal managers are expected to work with State managers, 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 Superintendent of the Western Arctic National Parklands is hereby delegated authority to issue emergency or temporary special actions affecting muskox on Federal lands as outlined under **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:

- To set closing dates for the muskox season on Federal public lands in Unit 23 north and west of the Kobuk River drainage as it applies to muskox on these lands.

- As needed, set or adjust annual harvest quotas and the number of Federal registration

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permits to be issued annually for muskox on Federal public lands in Unit 23 south of Kotzebue Sound and west of and including the Buckland River drainage.

This delegation may be exercised only when it is necessary to conserve muskox 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 restrictions 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 23 north and west of the Kobuk River drainage.

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

5. Guidelines for Delegation: You will become familiar with the management history of the wildlife species relevant to this delegation in the region, with current State and Federal regulations and management plans, and be up-to-date on population and harvest status information. You will 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-subsistence 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, the Bureau of Land Management (Anchorage Field Office) and the Chair of the Northwest Arctic 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 members. If an action is to supersede a State action not yet in effect, the decision will be communicated to the public, the 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 actions 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.

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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.

6. <u>Support Services:</u> 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: Commissioner, Alaska Department of Fish and Game
Assistant Regional Director, Office of Subsistence Management
Deputy Assistant Regional Director, Office of Subsistence Management
Field Manager, Bureau of Land Management Anchorage Field Office
Chair, Northwest Arctic Subsistence Regional Advisory Council
Federal Subsistence Liaison Team Leader, Alaska Department of Fish and Game
Subsistence Council Coordinator, Office of Subsistence Management
Federal Subsistence Board
Interagency Staff Committee
Administrative Record

DRAFT

WP16–53/54 Executive Summary	
General Description	Proposal WP16–53 requests a revision of the harvest limits and closure of the Federal subsistence season for sheep in the Baird and DeLong hunt areas of Unit 23. Proposal WP16-54 requests that the Federal subsistence season for sheep within Unit 23 remainder (Schwatka Mountains), be split into two areas by establishing a new hunt area. A revision of harvest limits and seasons is also requested. *Submitted by the National Park Service.*
Proposed Regulation	WP16-53 **Unit 23—Sheep** *Units 23- south of Rabbit Creek, Kiyak Creek and the Noatak River, and west of the Cutler and Redstone Rivers (Baird Mountains)* ***Harvest quotas will be announced annually by the Superintendent of Western Arctic National Parklands.*** *~~1 sheep by Federal registration permit . The total allowable harvest of sheep is 21, of which 15 may be rams and 6 may be ewes.~~* *Federal public lands are closed to the taking of sheep except by Federally qualified subsistence users.* — ***No Federal open season****~~Aug. 10 – Apr. 30~~* *~~If the allowable harvest levels are reached before the regular season closing date, the Superintendent of the Western Arctic National Parklands will announce early closure.~~* *Units 23- north of Rabbit Creek, Kiyak Creek and the Noatak River, and west of the Aniuk River (DeLong Mountains)* ***Harvest quotas will be announced annually by the Superintendent of Western Arctic National Parklands.*** *~~1 sheep by Federal registration permit. The total allowable harvest of sheep for the DeLong Mountains is 8, of which 5 may be rams and 3 may be ewes.~~* — ***No Federal open season****~~Aug. 10 – Apr. 30~~* *~~If the allowable harvest levels are reached before the regular season closing date, the Superintendent of the Western Arctic National Parklands will announce early closure.~~*

WP16–53/54 Executive Summary	
	WP16-54 **Unit 23—Sheep** *Unit 23, remainder (Schwatka Mountains)**, that portion within Gates of the Arctic National Park and Preserve** – 1 ram with 7/8 curl or larger horn* — *Aug. 10 – Sept. 20* *Unit 23, remainder (Schwatka Mountains)**, that portion within Gates of the Arctic National Park and Preserve** – 1 sheep* — *Oct. 1 – Apr. 30* ***Unit 23, remainder (Schwatka Mountains) except for that portion within Gates of the Arctic National Park and Preserve – 1 sheep by Federal registration permit. Annual harvest quotas will be announced by the Superintendent of Western Arctic National Parklands*** — ***No Federal open season***
OSM Conclusion	**Support** Proposal WP16-53/54 **with modification** to establish a May-be-announced season, remove regulatory language referencing harvest quotas and delegate authority to open and close the season, and determine annual harvest quotas and limits, via a delegation of authority letter. The modified regulation should read: **Unit 23— Sheep** *Units 23 south of Rabbit Creek, Kiyak Creek and the Noatak River, and west of the Cutler and Redstone Rivers (Baird Mountains) —1 sheep by Federal registration permit. ~~The total allowable harvest of sheep is 21, of which 15 may be rams and 6 may be ewes.~~* *Federal public lands are closed to the taking of sheep except by Federally qualified subsistence users.* ***May be announced*** *~~Aug. 10 – Apr. 30~~* *~~If the allowable harvest levels are reached before the regular season closing date, the Superintendent of the Western Arctic National Parklands will announce early closure.~~*

WP16–53/54 Executive Summary		
	Units 23 north of Rabbit Creek, Kiyak Creek and the Noatak River, and west of the Aniuk River (DeLong Mountains) —1 sheep by Federal registration permit. ~~*The total allowable harvest of sheep for the DeLong Mountains is 8, of which 5 may be rams and 3 may be ewes.*~~	***May be announced*** ~~*Aug. 10 – Apr. 30*~~ ~~*If the allowable harvest levels are reached before the regular season closing date, the Superintendent of the Western Arctic National Parklands will announce early closure.*~~
	Unit 23 remainder (Schwatka Mountains) except for that portion within Gates of the Arctic National Park and Preserve - 1 sheep by Federal registration permit.	***May be announced*** ~~*Aug. 10 – Sept. 20*~~
	Unit 23 remainder (Schwatka Mountains) ***– that portion within Gates of the Arctic National Park and Preserve –*** *1 ram with 7/8 curl horn or larger*	*Aug. 10 – Sept. 20*
	Unit 23 remainder (Schwatka Mountains) – ***that portion within Gates of the Arctic National Park and Preserve –*** *1 sheep*	*Oct. 1 – Apr. 30*
Northwest Arctic Subsistence Regional Advisory Council Recommendation	**Support with modification** to close the sheep season in all of Unit 23 (including Gates of the Arctic National Park and Preserve). See Council recommendations for modified language.	
North Slope Subsistence Regional Advisory Council Recommenda-tion	**Support as modified by OSM.**	
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal. Since 2011, the sheep population in the Baird and DeLong mountains has declined between 60-80%. This decline in the sheep population, in addition to	

WP16–53/54 Executive Summary	
	the low numbers of large rams and apparent very low recruitment rate, suggest that sustained harvest could prolong or worsen the current decline, and hamper recovery. Establishing a May-be-announced Federal sheep season in Unit 23 that excludes lands within Gates of the Arctic National Park and Preserve (GAAR) is necessary to assure the continued viability of the sheep population as mandated under Section 816 of the Alaska National Interest Lands Conservation Act. Delegating authority to the Western Arctic National Parklands Superintendent to open and close the season and set annual harvest quotas and limits will provide management flexibility to protect the Unit 23 sheep population and provide subsistence hunting opportunities when sheep population numbers recover sufficiently to support a harvest. Establishing new hunt area descriptors for the Schwatka Mountains within the current Unit 23 remainder will define those lands inside Gates of the Arctic National Park and Preserve from those outside GAAR to help clarify management responsibility. These new hunt areas reflect differences in hunter access and potential hunting pressure on sheep populations within and outside GAAR lands. People residing in the GAAR resident zone communities of Ambler, Kobuk and Shungnak are the only people eligible to hunt sheep in the park under Federal subsistence regulations. This small pool of prospective hunters and the difficulty of accessing sheep hunting areas in the park greatly reduces potential hunting pressure on sheep inside GAAR. In addition, the relatively high lamb:ewe-like sheep ratio, total ram:ewe-like sheep ratio and greater overall abundance suggest that the Schwatka Mountain sheep population is not in severe decline and can support a limited subsistence harvest.
ADF&G Comments	**Support as modified by OSM.**
Written Public Comments	**None**

STAFF ANALYSIS
WP16-53/54

ISSUES

Proposal WP16-53, submitted by the National Park Service (NPS), requests a revision of the harvest limits and closure of the Federal subsistence season for sheep in the Baird and DeLong hunt areas of Unit 23 (**Map 1**).

Proposal WP16-54, submitted by the NPS, requests that the Federal subsistence season for sheep within Unit 23 remainder (Schwatka Mountains), be split into two areas by establishing a new hunt area. A revision of harvest limits and seasons is also requested (**Map 1**).

DISCUSSION

The proponent states that the proposed changes are necessary due to conservation concerns for sheep across all of Unit 23. Severe weather and snow conditions over the last several years have resulted in population declines of 50% in the Baird Mountains and 82% in the DeLong Mountains since 2011. Similar declines are suspected in the Schwatka Mountains, though surveys were not conducted there recently. The proponent feels that the severe declines in sheep abundance across all age classes, in addition to very low lamb recruitment, make the proposed changes necessary in order to aid in the recovery of the sheep population. In addition, the proponent states that the changes proposed in Unit 23 remainder will improve management by addressing complex biological and jurisdictional issues in the Schwatka Mountains hunt area. These proposals are a follow-up from Wildlife Special Action WSA15-07 and are also related to Proposal WP16-66 concerning sheep in Unit 26A.

Existing Federal Regulation

<u>WP16-53</u>

Unit 23 – Sheep

Unit 23 - south of Rabbit Creek, Kiyak Creek and the Noatak River, and west of the Cutler and Redstone Rivers (Baird Mountains) —1 sheep by Federal registration permit. The total allowable harvest of sheep is 21, of which 15 may be rams and 6 may be ewes. *Federal public lands are closed to the taking of sheep except by Federally qualified subsistence users.*	*Aug. 10 – Apr. 30* *If the allowable harvest levels are reached before the regular season closing date, the Superintendent of the Western Arctic National Parklands will announce an early closure.*
Units 23- north of Rabbit Creek, Kiyak Creek and the	*Aug. 10 – Apr. 30*

Noatak River, and west of the Aniuk River (DeLong Mountains) —1 sheep by Federal registration permit. The total allowable harvest of sheep for the DeLong Mountains is 8, of which 5 may be rams and 3 may be ewes.	*If the allowable harvest levels are reached before the regular season closing date, the Superintendent of the Western Arctic National Parklands will announce an early closure.*

Proposed Federal Regulation

Unit 23 – Sheep

Units 23- south of Rabbit Creek, Kiyak Creek and the Noatak River, and west of the Cutler and Redstone Rivers (Baird Mountains) ***Harvest quotas will be announced annually by the Superintendent of Western Arctic National Parklands.*** *~~—1 sheep by Federal registration permit . The total allowable harvest of sheep is 21, of which 15 may be rams and 6 may be ewes.~~* *Federal public lands are closed to the taking of sheep except by Federally qualified subsistence users.*	***No Federal open season****~~Aug. 10 – Apr. 30~~* *~~If the allowable harvest levels are reached before the regular season closing date, the Superintendent of the Western Arctic National Parklands will announce early closure.~~*
Units 23- north of Rabbit Creek, Kiyak Creek and the Noatak River, and west of the Aniuk River (DeLong Mountains) ***Harvest quotas will be announced annually by the Superintendent of Western Arctic National Parklands.*** *~~—1 sheep by Federal registration permit . The total allowable harvest of sheep for the DeLong Mountains is 8, of which 5 may be rams and 3 may be ewes.~~*	***No Federal open season****~~Aug. 10 – Apr. 30~~* *~~If the allowable harvest levels are reached before the regular season closing date, the Superintendent of the Western Arctic National Parklands will announce early closure.~~*

Existing State Regulation

Unit 23 – Sheep

Unit 23 – north of Rabbit Creek, Kiyak Creek and the Noatak River, and west of Aniuk River (DeLong Mountains)	*Resident Hunters: One sheep by permit, available in person at license vendors within Unit 23 or ADF&G in Barrow. No aircraft use allowed*	*RS388*	*No open season*
	Nonresident Hunters		*No open season*
Unit 23 – south of Rabbit Creek, Kiyak Creek and Noatak River, and west of Cutler and Redstone Rivers (Baird Mountains)	*Resident and Nonresident Hunters*		*No open season*

Existing Federal Regulation

WP16-54

Unit 23 - Sheep

Unit 23, remainder (Schwatka Mountains) – 1 ram with 7/8 curl or larger horn	*Aug. 10 – Sept. 20*
Unit 23, remainder (Schwatka Mountains) – 1 sheep	*Oct. 1 – Apr. 30*

Proposed Federal Regulation

Unit 23 - Sheep

*Unit 23, remainder (Schwatka Mountains)**, that portion within Gates of the Arctic National Park and Preserve** – 1 ram with 7/8 curl or*	*Aug. 10 – Sept. 20*

larger horn	
*Unit 23, remainder (Schwatka Mountains)**, that portion within Gates of the Arctic National Park and Preserve** – 1 sheep*	*Oct. 1 – Apr. 30*
Unit 23, remainder (Schwatka Mountains) except for that portion within Gates of the Arctic National Park and Preserve – 1 sheep by Federal registration permit. Annual harvest quotas will be announced by the Superintendent of Western Arctic National Parklands	***No Federal open season***

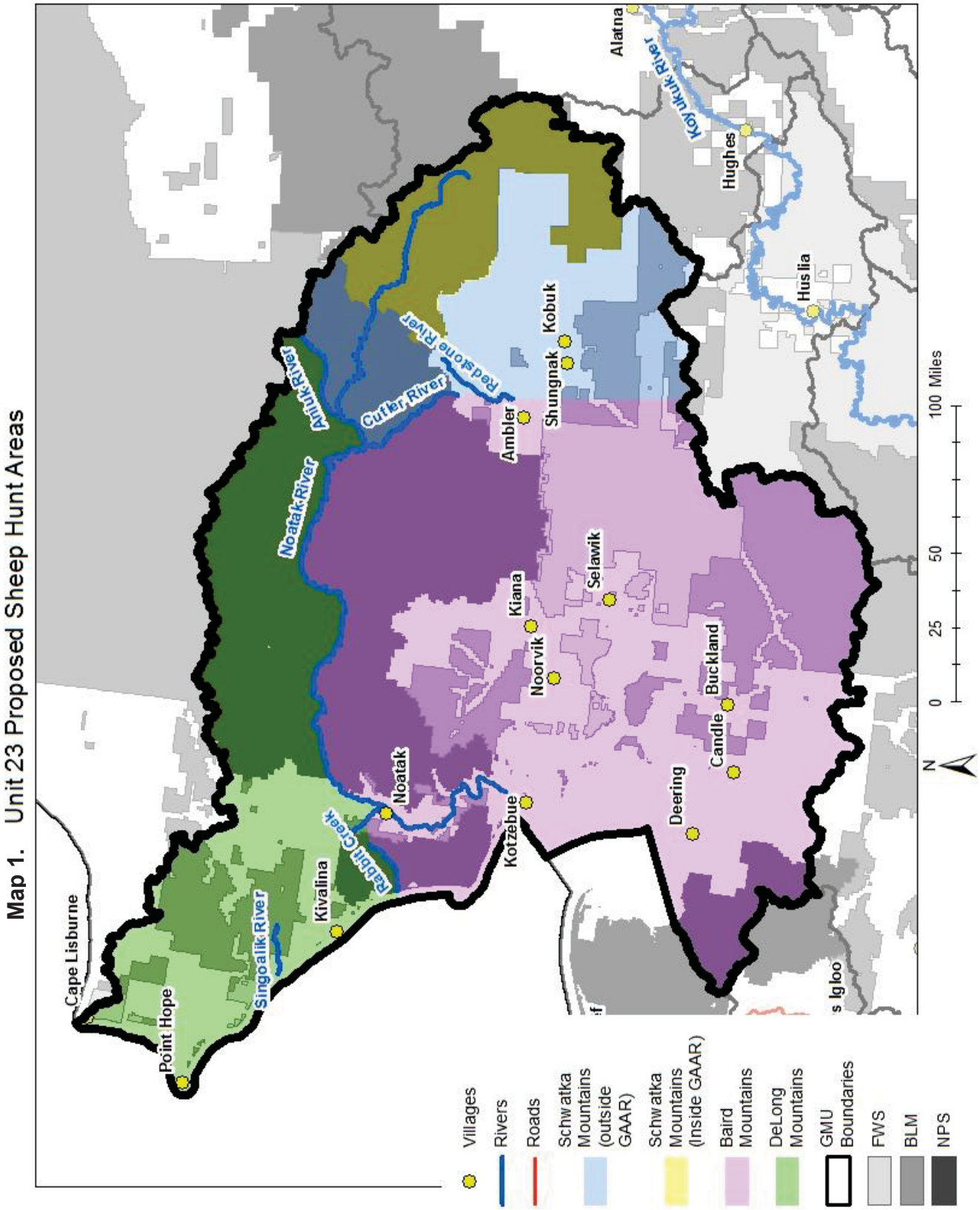
Existing State Regulation

Unit 23 - Sheep

Unit 23 – remainder (Schwatka Mountains)	*Resident Hunters: Three sheep by permit, available in person at license vendors in Unit 23 or ADF&G in Barrow. No aircraft use allowed.*	*RS389*	*No open season*
	Or		
	One ram with full-curl horn or larger	*Harvest Ticket*	*No open season*
	***Nonresident Hunters:** One ram with full-curl horn or larger*	*Harvest Ticket*	*No open season*

Extent of Federal Public Lands

Federal public lands comprise approximately 69% of Unit 23 and consists of 42% NPS managed lands, 18% Bureau of Land Management (BLM) managed lands, and 9% US Fish and Wildlife Service managed lands.


Map 1. Unit 23 Proposed Sheep Hunt Areas
Cape Lisburne
Point Hope
Singoalik River
Kivalina
Rabbit Creek
Noatak
Noatak River
Anuk River
Cutler River
Redstone River
Kotzebue
Kiana
Noorvik
Ambler
Shungnak
Kobuk
Selawik
Deering
Candle
Buckland
Hughes
Huslia
Alatna
Koyukuk River
Villages
Rivers
Roads
Schwatka Mountains (outside GAAR)
Schwatka Mountains (Inside GAAR)
Baird Mountains
DeLong Mountains
GMU Boundaries
FWS
BLM
NPS
0
25
50
100 Miles
N

Customary and Traditional Use Determinations

Residents of Point Lay and Unit 23 north of the Arctic Circle have a positive customary and traditional use determination for sheep in Unit 23.

Residents of Ambler, Kobuk and Shungnak are eligible to hunt sheep within Gates of the Arctic National Park.

Regulatory History

Declining sheep populations during the late 1980s prompted a series of State harvest closures. The requirement for State registration permits for sheep hunting in the Baird and DeLong Mountains was established in 1982. The initial Federal subsistence hunting regulations in 1991 were established by adopting the existing State harvest limit of one ram with 7/8 curl in the fall hunt and one sheep with a harvest quota of 30 animals in the winter hunt. However, in 1991, low sheep numbers in the Baird Mountains prompted State emergency hunt closures, which continued through 1997. In 1993, season restrictions (full curl rams only) were enacted by the Alaska Department of Fish and Game (ADF&G) in the DeLong Mountains, with emergency closures following in 1995-1997. In 1991 and 1992, special actions adopted by the Federal Subsistence Board (Board) closed the sheep harvest south and east of the Noatak River (Baird Mountains), which was repeated by Special Actions through 1997/98 (FWS 1991, 1992, 1993, 1994). In 1993, the Board shortened the subsistence harvest season in the DeLong Mountains by special action, and subsequently closed the season by Special Action in 1994, and repeated the closures through 1997/98 (FWS 1993, 1994).

The Alaska Board of Game met in November 1997 and revisited sheep regulations in Unit 23. The western portion was re-described, dividing it into the Baird and Delong Mountain ranges. The number of sheep needed for subsistence was investigated by the State and determined to be 1-9 sheep for the DeLong Mountains and 18-47 sheep for the Baird Mountains. Based on that information and the fact that the surveys showed the first increase in sheep numbers in several years, the Alaska Board of Game preliminarily decided to not close the 1998/99 State season by Emergency Order and proceed with a Tier I harvest of 20 sheep in the Baird Mountains and a combination hunt (9 Tier I and 11 drawing permits) in the DeLong Mountains, with the final decision based on the results of the 1998 sheep surveys. Both State seasons were scheduled to run August 10-April 30.

In July 1998, the Board approved a Special Action S98-04 adopting the State's sheep harvest zones in Unit 23 (Baird, Delong, and Schwatka Mountains), closing Federal public lands to non-Federally qualified sheep hunters in the Baird and DeLong Mountains, and setting up an August-April season for one full-curl ram (maximum of 20 for each mountain range). The DeLong Mountain harvest quota was divided with ADF&G, providing half for their use through registration permits. In May 1999, the Board adopted Proposal P99-48, putting the Special Action changes into the permanent regulations with the addition of allowing the Superintendent of the Western Arctic National Parklands to annually announce the harvest quota and divide the harvest into two seasons (fall and winter).

In May 2002, the Board adopted ProposalWP02-39, which implemented regulations for sheep harvest in

Units 23 and 26A, including the requirement for trophy destruction of the harvested sheep horns. This proposal for trophy destruction was made at the request of the Northwest Arctic Regional Advisory Council.

In 2004, the Board adopted Proposal WP04-72/73 with modification to eliminate the trophy destruction requirement, and adopt a mixed-sex hunt with fixed quotas.

On August 8, 2014, the State of Alaska issued an Emergency Order closing sheep seasons in Units 23 and 26A for all resident and nonresident hunters. This was done in response to severe declines in sheep numbers in the Delong and Schwatka Mountains. The State initially issued no permits for its drawing hunt (DS384) in 2014 and the hunt was closed by Emergency Order later that year (Saito 2014, pers. comm.).

On August 25, 2014, the Board approved Temporary Special Action WSA14-03, which closed the sheep season on Federal public lands in Unit 23 and Unit 26A, that portion west of Howard Pass and the Etivluk River for the 2014/2015 season. This was done due to the same conservation concerns detailed in the State's Emergency Order.

In March of 2015, the Alaska Board of Game adopted Proposal 203, which closed all sheep seasons in Unit 23 and Unit 26A west of Howard Pass and the Etivluk River in response to the drastic population declines in the area. Hunt areas and hunt types were retained so that similar hunt regimes could be restored once the population recovered.

Designated Hunter Permit System

In 1999, the Board adopted Proposal P99-48, which instituted a designated hunter permit system for sheep in the Baird and DeLong Mountain hunt areas of Units 23 and 26A. In 2002, Proposal WP02-38, submitted by the Northwest Arctic Subsistence Regional Advisory Council, requested that the designated hunter permit system be discontinued due to hunters abusing the system. The Board denied this request, but adopted Proposal WP02-39, which implemented the destruction of the horns for trophy value as a way to address the problems of one hunter taking too many sheep. The Board felt that removing the designated hunter permit system would have a detrimental effect on subsistence users.

Designated hunter permits are distributed by the NPS in their Kotzebue office to anyone who qualifies. To qualify, the person must be a rural resident of Unit 23 from any of the communities north of the Arctic Circle (all communities in Unit 23 except Deering and Buckland). In addition, the person must have a hunting license and a permit to hunt sheep. There is no limit to the number of sheep permits distributed. The hunt is closed once the quota has been reached.

Current Events Involving Species

Special Action WSA15-07, was submitted by NPS to close sheep seasons for the 2015/2016 regulatory year in the remainder portion of Unit 23, outside of Gates of the Arctic National Park and Preserve (GAAR), and in Unit 26A and was necessary to assure the continued viability of the population. The NPS also requested creation of new hunt area descriptors within the current Unit 23 remainder (Schwatka Mountains) will

separate those lands within and outside of GAAR to help clarify management responsibility. The hunt areas also reflect differences in hunter access and potential hunting pressure on sheep populations within and outside GAAR lands. People residing in the GAAR resident zone communities of Ambler, Kobuk and Shungnak are the only people eligible to hunt sheep in the park under Federal subsistence regulations. This small pool of prospective hunters and the difficulty of accessing sheep hunting areas in the park greatly reduce potential hunting pressure on sheep inside GAAR.

Proposal WP16-66, submitted by Western Arctic National Parklands (WEAR), requests removal of regulatory language referencing harvest quotas, closure of the harvest season for the DeLong Mountains in a portion of Unit 26A, and to delegate authority to the Superintendent of the Western Area Parklands to determine annual harvest quotas and limits. The proposal is in response to the severely declining sheep population in the DeLong Mountains.

Biological Background

Sheep in the DeLong Mountains populate both Unit 23 and western Unit 26A (**Map 1**). The Dall's sheep in Units 23 and 26A are at the northwestern margin of their range in Alaska and because of this, stochastic weather events affect their populations more than sheep populations in areas with more abundant habitat and stable range conditions (Shults 2004, Westing 2011). In addition, the declining presence of caribou from the large Western Arctic herd may also impact the Unit 23 sheep population as wolves prey more on sheep than caribou.

Sheep densities in Units 23 and western 26A are low compared to other areas of the State (Singer 1984). Severe winters in the 1990s resulted in high natural mortality, dramatically reduced sheep numbers in the area, and caused the closure of the general and subsistence hunts between 1991 and 1995 (Shults 2004). Sheep hunting in the Baird Mountains has been administered by the NPS since 1995.

ADF&G management objectives for sheep in Units 23 and western 26A are to monitor sheep with the NPS within each area at least once every 3 years to detect changes in population status. In addition, harvest is also monitored through harvest tickets, permits, and community-based harvest surveys (Westing 2011).

NPS management objectives for Dall's sheep include monitoring sheep abundance and sex-age composition across WEAR and Gates of the Arctic National Park and Preserve (GAAR) by conducting surveys every five years across these parklands and every other year in the western Baird Mountains subarea of WEAR and the Itkillik subarea of GAAR every other year (Lawler et al. 2009). The Park Service now intends to try and monitor sheep on an annual basis, when funding and weather conditions allow.

The NPS, in coordination with ADF&G, completed sheep surveys in the Baird and DeLong Mountains in 2011 and 2014. In 2015, the NPS completed sheep surveys in the Baird and Schwatka Mountains. Overall sheep abundance, lamb:ewe-like sheep ratios, and large rams (full curl or double broomed): ewe-like sheep ratios declined substantially in the Baird and DeLong Mountains (**Figures 1-2,** Schmidt and Rattenbury 2013, Rattenbury 2015). Specifically, the Baird Mountains sheep population declined approximately 62% between 2011 and 2015. Between 2011 and 2014, the DeLong Mountain sheep

population declined approximately 80% (**Figure 1**, Schmidt and Rattenbury 2013, NPS 2014).

Between 2011 and 2014, the lamb:100 ewe-like sheep ratio declined approximately 90% in both the Baird and DeLong Mountains (**Figure 2**). The low lamb productivity in 2013 was partially attributed to the long and cold 2012-2013 winter and record cold temperatures in May 2013(NPS 2014, unpublished data).

During the same time period, the large ram:ewe-like sheep ratio declined approximately 65% and 60% in the Baird and DeLong Mountains, respectively (Schmidt and Rattenbury 2013, NPS 2014). These low ratios indicate there are very few to no large rams available for harvest (NPS 2014, unpublished data).

The total number of rams:100 ewe-like sheep ratio did not change between 2011 and 2014 in both the Baird and DeLong Mountains (**Figure 3**). This is likely due to relatively even declines in all cohorts (Schmidt and Rattenbury 2013, NPS 2014).

No comparisons are currently available for the sheep populations in the Schwatka Mountains (Rattenbury 2015). However, the relatively high lamb:ewe-like sheep and total ram:ewe-like sheep ratios as well as greater overall abundance suggest that this population is not experiencing severe declines (**Figures 1-3**).

The decline in the Baird and DeLong Mountains are likely greater than when a full State and Federal closure was implemented from 1991-1997 in the DeLong and Baird Mountains following a 50% decline in adult sheep (Shults 2004). Surveys in Gates of the Arctic National Park and Preserve, BLM land, and State land in the eastern Brooks Range also show significantly declining numbers in 2014.

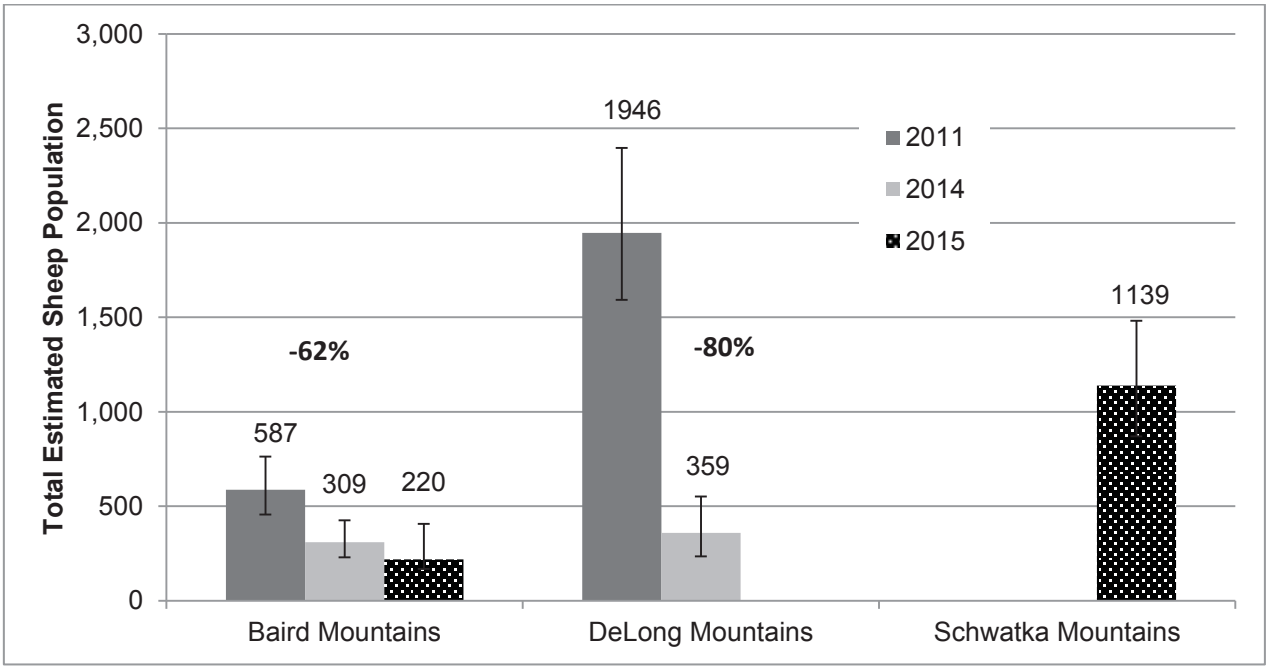


Figure 1. Total estimated sheep population (Schmidt and Rattenbury, NPS 2014, Rattenbury 2015).

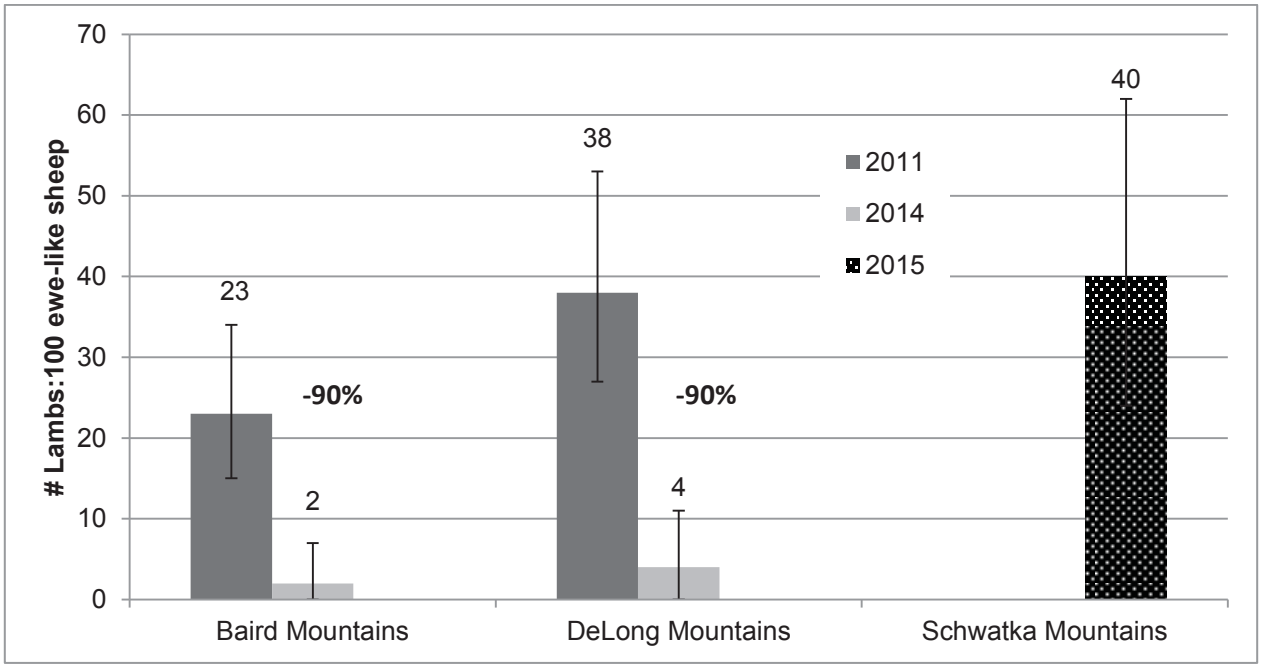


Figure 2. Number of lambs:100 ewe-like sheep (Schmidt and Rattenbury, NPS 2014, Rattenbury 2015).

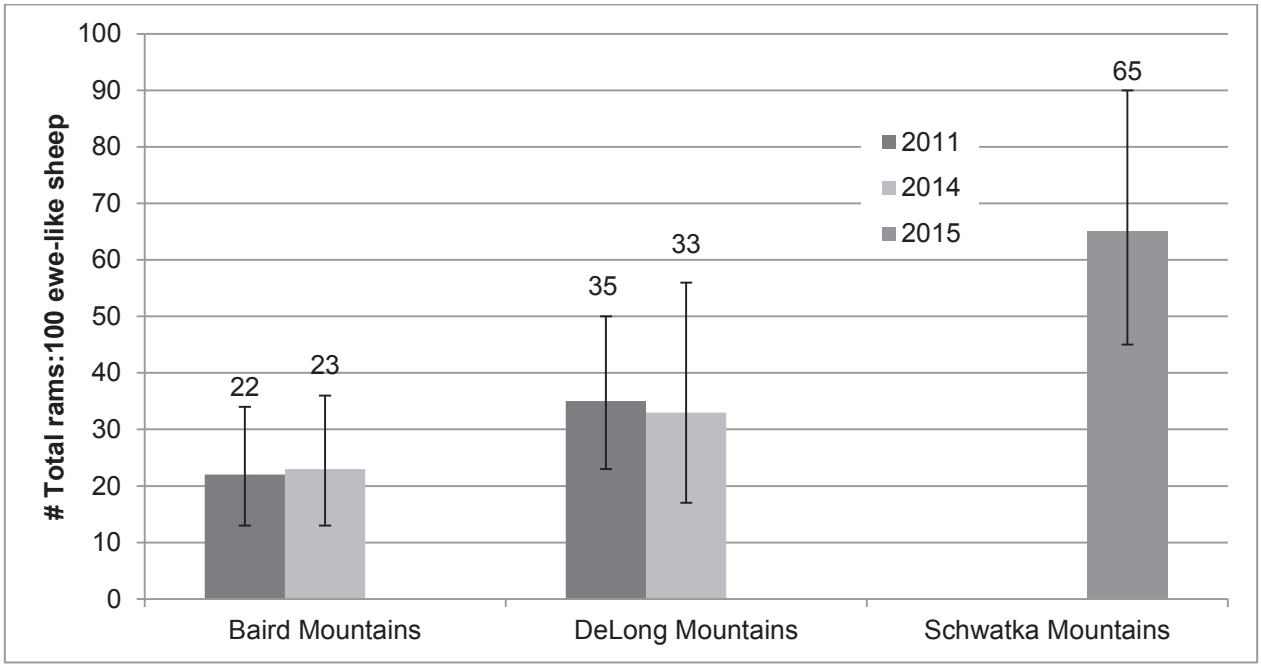


Figure 3. Number of total rams:100 ewe-like sheep (Schmidt and Rattenbury, NPS 2014, Rattenbury 2015).

Harvest History

Currently, the sheep harvest in Unit 23 is divided into a drawing hunt (DS384 – DeLong Mountains), two subsistence registration hunts (RS388 – DeLong Mountains and RS389 – Schwatka Mountains) under State regulations and registration hunts (FS2301 – Baird Mountains and FS2304 – DeLong Mountains) under

Federal subsistence regulations. There is no State hunt in the Baird Mountains and no reporting requirements under Federal regulations in the Schwatka Mountains, including GAAR.
Between 2004 and 2014, the annual reported sheep harvest in Units 23 and 26A averaged 23 animals under both State hunting and Federal subsistence regulations, ranging from 17-31 (**Table 1**). The majority of harvest came from Federal subsistence registration hunts FS2301 and FS2304 in Unit 23.

Sheep harvest by residents of the communities eligible to hunt sheep within GAAR (Ambler, Kobuk and Shungnak) is very low. In 2012, only 3 Ambler households reported harvesting sheep. However, it is unknown whether the sheep were taken within GAAR or not as the households did not disclose their hunting areas (Braem et al. 2015).

Table 1. State and Federal sheep harvest in Unit 23 and Unit 26A, 2004-2014 (ADF&G 2014, OSM 2014, Johnson 2014, pers. comm.).

Year	State General Harvest	DS384*	RS388*	RS389*	FS2301* and FS2304*	Total Harvest
2004	4	8	1	0	15	28
2005	1	3	0	2	14	20
2006	6	4	1	0	8	19
2007	4	8	0	0	8	20
2008	2	10	2	0	8	22
2009	4	6	3	0	12	25
2010	5	5	5	0	16	31
2011	5	3	1		17	26
2012	4	3			10	17
2013	0	2			15	17
2014	-	-	-	-	-	-
2015***	-	-	-	-	-	-

*Closed by emergency order in 2014 and in regulation by the Alaska Board of Game in March of 2015.
***All State and Federal hunts were closed in August of 2014 for the 2014/2015 season.

Effects of the Proposal

If these Proposals are adopted, all sheep hunting under Federal subsistence regulations will be closed in Unit 23, except for those portions within Gates of the Arctic National Park and Preserve. This would limit harvest opportunities for Federally qualified subsistence users. Currently, the State resident and nonresident seasons are closed. Limiting sheep harvest in the Baird and DeLong Mountains may facilitate the recovery and prevent further decline of the sheep population in these areas.

OSM CONCLUSION

Support Proposal WP16-53/54 **with modification** to establish a May-be-announced season rather than the closure language, remove regulatory language referencing harvest quotas and delegate authority to open and close the season, and determine annual harvest quotas and limits, via a delegation of authority letter (**Appendix 1**).

The modified regulation should read:

Unit 23— Sheep

Units 23 south of Rabbit Creek, Kiyak Creek and the Noatak River, and west of the Cutler and Redstone Rivers (Baird Mountains) —1 sheep by Federal registration permit. ~~*The total allowable harvest of sheep is 21, of which 15 may be rams and 6 may be ewes.*~~ *Federal public lands are closed to the taking of sheep except by Federally qualified subsistence users.*	***May be announced*** ~~*Aug. 10 – Apr. 30*~~ ~~*If the allowable harvest levels are reached before the regular season closing date, the Superintendent of the Western Arctic National Parklands will announce early closure.*~~
Units 23 north of Rabbit Creek, Kiyak Creek and the Noatak River, and west of the Aniuk River (DeLong Mountains) —1 sheep by Federal registration permit.- ~~*The total allowable harvest of sheep for the DeLong Mountains is 8, of which 5 may be rams and 3 may be ewes.*~~	***May be announced*** ~~*Aug. 10 – Apr. 30*~~ ~~*If the allowable harvest levels are reached before the regular season closing date, the Superintendent of the Western Arctic National Parklands will announce early closure.*~~
Unit 23 remainder (Schwatka Mountains) except for that portion within Gates of the Arctic National Park and Preserve - 1 sheep by Federal registration permit.	***May be announced*** ~~*Aug. 10 – Sept. 20*~~
Unit 23 remainder (Schwatka Mountains) ***– that portion within Gates of the Arctic National Park and Preserve*** *– 1 ram with 7/8 curl horn or larger*	*Aug. 10 – Sept. 20*
Unit 23 remainder (Schwatka Mountains) – ***that portion within Gates of the Arctic National Park and Preserve*** *– 1 sheep*	*Oct. 1 – Apr. 30*

Justification

Since 2011, sheep populations have declined between 50-80% in the area affected by Proposal WP16-53/54. In addition to the decline in the overall population, low numbers of rams, and the apparent very low recruitment rate suggest that any harvest could be detrimental to the population, could prolong or worsen the current decline, and hamper recovery. The State responded to this population concern by closing all resident and nonresident hunting under their regulations for the 2015/2016 season. Closure of sheep hunting under Federal regulations in the Baird and DeLong Mountains is necessary to assure the continued viability of the population.

Splitting the Schwatka Mountain or Unit 23 remainder hunt area into those portions within and outside of GAAR will facilitate management. Maintaining sheep hunting within GAAR is supported due to extremely low harvest within Park boundaries and the adequate status of the Schwatka Mountain sheep population.

Establishing a May-be-announced season and delegating authority to determine quotas and harvest limits will provide the Federal land manager the flexibility to adjust hunt parameters once the sheep population in the affected areas recovers to the point that harvest is possible. Having a May-be-announced season will preclude the need in the future for the Board to take action to authorize opening a hunt area that is closed by regulation.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Northwest Arctic Subsistence Regional Advisory Council

Support WP16-53/54 **with modification** to close the sheep season in all of Unit 23 (including Gates of the Arctic National Park and Preserve).

The modified regulation should read:

Unit 23— Sheep

Units 23- south of Rabbit Creek, Kiyak Creek and the Noatak River, and west of the Cutler and Redstone Rivers (Baird Mountains)~~— 1 sheep by Federal registration permit . The total allowable harvest of sheep is 21, of which 15 may be rams and 6 may be ewes.~~ ~~*Federal public lands are closed to the taking of sheep except by Federally qualified subsistence users.*~~	***No Federal open season***~~*Aug. 10 – Apr. 30*~~ ~~*If the allowable harvest levels are reached before the regular season closing date, the Superintendent of the Western Arctic National Parklands will announce early closure.*~~
Units 23- north of Rabbit Creek, Kiyak Creek and the Noatak River, and west of the Aniuk River (DeLong Mountains) ~~--1 sheep by Federal registration permit . The total allowable harvest of sheep for the DeLong Mountains is 8, of which 5 may be rams and 3 may be ewes.~~	***No Federal open season***~~*Aug. 10 – Apr. 30*~~ ~~*If the allowable harvest levels are reached before the regular season closing date, the Superintendent of the Western Arctic National Parklands will announce early closure.*~~
*Unit 23, remainder (Schwatka Mountains)**, that portion within Gates of the Arctic National Park and Preserve*** – ~~*1 ram with 7/8 curl or larger horn*~~	***No Federal open season*** ~~*Aug. 10 – Sept. 20*~~
*Unit 23, remainder (Schwatka Mountains)**, that portion within Gates of the Arctic National Park and Preserve*** – ~~*1 sheep*~~	***No Federal open season*** ~~*Oct. 1 – Apr. 30*~~
Unit 23, remainder (Schwatka Mountains) except for that portion within Gates of the Arctic National Park and Preserve	***No Federal open season***

The entire range needs to be protected and harvest should stop completely until the numbers recover and a sustainable and harvestable population level is achieved. When those levels are achieved, federally eligible subsistence harvesters should be allowed to hunt before any other user groups.

Rapidly occurring extreme weather changes, hunting pressure, and predators have put this stock at a critical level. Also even though the NPS has announced plans for annual population counts, these counts are contingent on weather conditions and availability of funding (p. 88 of the meeting book); accurate counts are necessary and conservative efforts must be made to protect the future stock of this resource and for the continuation of subsistence use.

North Slope Subsistence Regional Advisory Council

Support WP16-53/54 **as modified by OSM**.

The Council supports WP16-53/54 with the caveat that the Council gets a regular report from the Western Arctic Parklands on the status of the sheep and communications with the affected communities. Closure of this region affects Point Hope which is within the North Slope RAC region. The Council noted that Point Hope has expressed concern that they are often left out of communications on subsistence management affecting Unit 23. The Council would like to hear about the Park Service plans for outreach to Point Hope and other affected communities on the status of the sheep population, updates on the current subsistence closure or possible subsistence hunt opportunities.

The Council supports the proposal with the modification by OSM to open by "May be announced" season so that if in the future the sheep population indicates a subsistence hunt can be supported that it can be opened, closed, and harvest limits set with more flexibility then the full federal subsistence regulatory process.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

Since 2011, the sheep population in the Baird and DeLong mountains has declined between 60-80%. This decline in the sheep population, in addition to the low numbers of large rams and apparent very low recruitment rate, suggest that sustained harvest could prolong or worsen the current decline, and hamper recovery. Establishing a May-be-announced Federal sheep season in Unit 23 that excludes lands within Gates of the Arctic National Park and Preserve (GAAR) is necessary to assure the continued viability of the sheep population as mandated under Section 816 of the Alaska National Interest Lands Conservation Act. Delegating authority to the Western Arctic National Parklands Superintendent to open and close the season and set annual harvest quotas and limits will provide management flexibility to protect the Unit 23 sheep

population and provide subsistence hunting opportunities when sheep population numbers recover sufficiently to support a harvest.

Establishing new hunt area descriptors for the Schwatka Mountains within the current Unit 23 remainder will define those lands inside Gates of the Arctic National Park and Preserve from those outside GAAR to help clarify management responsibility. These new hunt areas reflect differences in hunter access and potential hunting pressure on sheep populations within and outside GAAR lands. People residing in the GAAR resident zone communities of Ambler, Kobuk and Shungnak are the only people eligible to hunt sheep in the park under Federal subsistence regulations. This small pool of prospective hunters and the difficulty of accessing sheep hunting areas in the park greatly reduces potential hunting pressure on sheep inside GAAR. In addition, the relatively high lamb:ewe-like sheep ratio, total ram:ewe-like sheep ratio and greater overall abundance suggest that the Schwatka Mountain sheep population is not in severe decline and can support a limited subsistence harvest.

Appendix 1

Superintendent
Western Arctic National Parklands
PO Box 1029
Kotzebue, Alaska 99752

Dear Superintendent:

This letter delegates specific regulatory authority from the Federal Subsistence Board (Board) to the National Park Service Superintendent of Western Arctic National Parklands 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 the population. This delegation only applies to the Federal public lands subject to Alaska National Interest Lands Conservation Act (ANILCA) Title VIII jurisdiction within Unit 23 and Unit 23 remainder, except for that portion of Unit 23 remainder (Schwatka Mountains) within Gates of the Arctic National Park and Preserve for the management of sheep on these lands.

It is the intent of the Board that actions related to management of sheep by Federal officials be coordinated, prior to implementation, with the Alaska Department of Fish and Game (ADF&G), the National Park Service (Superintendent of the Gates of the Arctic National Park and Preserve, the Bureau of Land Management Arctic Field Office, the Bureau of Land Management Anchorage Field Office, the Chair of the North Slope Subsistence Regional Advisory Council, and the Chair of the Northwest Arctic Subsistence Regional Advisory 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 Superintendent of Western Arctic National Parklands is hereby delegated authority to issue emergency or temporary special actions affecting sheep 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:

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- To set opening and closing dates for the sheep season on Federal public lands in Unit 23 and Unit 23 remainder, except for that portion of Unit 23 remainder (Schwatka Mountains) within Gates of the Arctic National Park and Preserve.

- As needed, set or adjust the annual harvest quotas and limits for sheep on Federal public lands in Unit 23 and Unit 23 remainder, except for that portion of Unit 23 remainder (Schwatka Mountains) within Gates of the Arctic National Park; and that portion of Unit 26A west of Howard Pass and the Etivluk River (DeLong Mountains). This delegation may be exercised only when it is necessary to conserve the sheep population, to continue subsistence uses, for reasons of public safety, or to assure the continued viability of the population.

This delegation may be exercised only when it is necessary to conserve sheep 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 restrictions 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 23 and Unit 23 remainder, except for that portion of Unit 23 remainder (Schwatka Mountains) within Gates of the Arctic National Park.

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

5. Guidelines for Delegation: You will become familiar with the management history of the wildlife species relevant to this delegation in the region, with current State and Federal regulations and management plans, and be up-to-date on population and harvest status information. You will 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, the National Park Service (Superintendent, Gates of the Arctic National Park and Preserve, the BLM Arctic Field Office, the BLM Anchorage field Office, the Chair of the Northwest Arctic Subsistence Regional Advisory Council, and the Chair of the North Slope Subsistence Regional Advisory Council regarding special actions under consideration. You will issue decisions in a timely manner. Before the

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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 actions 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.

6. 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: Commissioner, Alaska Department of Fish and Game
Assistant Regional Director, Office of Subsistence Management
Deputy Assistant Regional Director, Office of Subsistence Management
Superintendent, Gates of the Arctic National Park and Preserve
Chair, Northwest Arctic Subsistence Regional Advisory Council
Chair, North Slope Subsistence Regional Advisory Council
Manager, BLM Arctic Field Office
Manager, BLM Anchorage Field Office
Federal Subsistence Liaison Team Leader, Alaska Department of Fish and Game
Subsistence Council Coordinators, Office of Subsistence Management
Federal Subsistence Board
Interagency Staff Committee
Administrative Record

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WP16-58 Executive Summary	
General Description	Proposal WP16-58 requests that the wolverine trapping season in Unit 25C be extended from Nov. 1 – Feb. 28 to Nov. 1 – Mar. 31. *Submitted by the Eastern Interior Alaska Subsistence Regional Advisory Council*
Proposed Regulation	**Unit 25 — Wolverine (Trapping)** *Unit 25C – No limit.* *Nov. 1 – ~~Feb. 28~~* ***Mar. 31*** *Unit 25, remainder – No limit.* *Nov. 1 – Mar. 31*
OSM Conclusion	**Support**
Eastern Interior Alaska Regional Advisory Council Recommendation	**Support**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Oppose**
Written Public Comments	**None**

STAFF ANALYSIS
WP16-58

ISSUES

Proposal WP16-58, submitted by the Eastern Interior Alaska Subsistence Regional Advisory Council (Council), requests that the wolverine trapping season in Unit 25C be extended from Nov. 1 – Feb. 28 to Nov. 1 – Mar. 31.

DISCUSSION

The proponent states that expanding the wolverine trapping season in Unit 25C will align Unit 25C regulations with the remainder of Unit 25 regulations and would therefore reduce confusion and increase trapping opportunity for Federally qualified subsistence users.

Related Proposals: WP16-57 requests the lynx trapping season in Unit 25 be lengthened from Nov. 1 – Feb. 28 to Nov. 1 – Mar. 31.

Existing Federal Regulation

Hunting

Unit 25 — Wolverine

1 wolverine	*Sept. 1 – Mar. 31*

Trapping

Unit 25 — Wolverine

Unit 25C – No limit.	*Nov. 1 – Feb. 28*
Unit 25, remainder – No limit.	*Nov. 1 – Mar. 31*

Proposed Federal Regulation

Hunting

Unit 25 — Wolverine

1 wolverine	*Sept. 1 – Mar. 31*

Trapping

Unit 25 — Wolverine

Unit 25C – No limit.	*Nov. 1 – ~~Feb. 28~~* ***Mar. 31***

Unit 25, remainder – No limit.	*Nov. 1 – Mar. 31*

Existing State Regulation

Hunting

Unit 25 — Wolverine

Residents and Non-residents—1 wolverine	*Sept. 1 – Mar. 31*

Trapping

Unit 25 — Wolverine

Unit 25C – No limit.	*Nov. 1 – Feb. 28*
Unit 25A, 25B, and 25D – No limit.	*Nov. 1 – Mar. 31*

Extent of Federal Public Lands

Federal public lands comprise approximately 74% of Unit 25C and consists of 63% Bureau of Land Management (BLM) managed lands, 9% National Park Service (NPS) managed lands, and 2% U.S. Fish and Wildlife Service (FWS) managed lands.

Customary and Traditional Use Determinations

The Federal Subsistence Board (Board) has not made a customary and traditional use determination for wolverine in Unit 25. Therefore, all Federally qualified users may harvest this species in this unit.

Regulatory History

The Federal subsistence trapping regulations for wolverine in Unit 25 were adopted from State regulations in 1990 and have remained unchanged. The wolverine trapping season in Unit 25C has been a month shorter than the remainder of Unit 25 (see regulations listed above) due to greater access, including road access, and higher trapper density in Unit 25C (Young 2015a, pers. comm.). There have been no proposals to change the wolverine trapping regulations in Unit 25C until the current proposal.

Current Events

WP16-57 requests that the lynx trapping season in Unit 25 be extended from Nov. 1-Feb. 28 to Nov. 1-Mar. 31. Currently, the lynx and wolverine trapping seasons are aligned in Unit 25C. In Units 25A, 25B, and 25D, the wolverine trapping season currently runs a month longer than the lynx trapping season.

If both WP16-57 and WP16-58 are adopted, the lynx and wolverine Federal subsistence trapping seasons in all of Unit 25 would be aligned. If one proposal is adopted and not the other or if both proposals are opposed, the season closing dates for these species will continue to be misaligned in portions of Unit 25.

Biological Background

State management goals and objectives for wolverines in Unit 25C are as follows (Hollis 2010):

- Provide the greatest opportunity for harvesting furbearers
- Manage for a 3-year mean annual harvest >50% males by subunit for the Fairbanks area (Units 20A, 20B, 20C, 20D, 20F, and 25C).

Wolverines are distributed across Alaska. Male wolverines have exceptionally large home ranges of 1,000 km^2 (386 mi^2); resident female home ranges average 100-400 km^2 (39-154 mi^2), and the home range of transient and subordinate individuals is between the two (Gardner et al. 2010).

Wolverines are generally solitary outside of the breeding season (May et al. 2006). Breeding season occurs between May and August; however, the species exhibits delayed implantation, occurring between December and February, followed by a gestation of 30-50 days (Inman et al. 2012; Rausch & Pearson 1972). Female wolverines usually give birth to 1-2 young between February and April (Inman et al. 2012). Females utilize two different dens prior to weaning their young: a natal den (birth location) and a maternal den (used after birthing but before weaning). Females vacate dens in late April to mid-May, moving to rendezvous sites where mothers leave their young while acquiring food (Inman et al. 2012).

Wolverines have low reproductive rates, averaging <1 weaned kit/adult female annually (Krebs et al 2004). Female wolverines are capable of aborting or reabsorbing fetuses if food availability is too low to support pregnancy and lactation. The size of winter food caches likely influences the outcome of wolverine pregnancies (Inman et al 2012).

Wolverine population estimates are difficult to determine as the species' large home ranges cause them to naturally occur in low densities. Gardner et al. (2010) conducted a coarse (large)-scale aerial survey of Interior Alaska in 2006 to estimate wolverine occurrence and distribution. The survey covered an estimated 180,000 km^2 (69,500 mi^2) which included all of the Eastern Interior region as well as portions of Units 24 and 21. Gardner et al (2010) observed wolverine tracks in 66% of the units sampled and occupancy modelling indicated 83% of the study area as core wolverine habitat, illustrating that wolverines are widely distributed throughout Interior Alaska (Gardner et al. 2010).

Krebs et al. (2004) found trapped wolverine populations to likely be maintained by immigration of wolverines from untrapped areas, termed refugia. Krebs et al (2004) asserted the establishment and/or preservation of refugia twice the size of trapped areas may be necessary to ensure long-term viability of trapped wolverine populations.

Hollis (2010) states there are adequate refugia surrounding areas in the Interior with low wolverine numbers, citing Gardner et al (2010). However, Gardner et al (2010) does not address the adequacy of refugia in Interior Alaska in their results, discussion, or conclusion. Additionally, as all lands in the Fairbanks area are open to the take of wolverine, there are technically no refugia. However, as most of this area is difficult to access, some areas may not be trapped and essentially serve as refugia.

Since regulatory year 1996/97, ADF&G trapper questionnaires have provided furbearer abundance and population trends based on responses from area trappers. While qualitative, this information is useful for tracking population changes over time and is the best available for many furbearer populations, including wolverines in Unit 25C.

From 1996/97 to 2012/13, wolverine abundance in the lower Tanana Basin (Units 20A, 20B, 20C, 20D, 20F and 25C) has been reported as scarce, except in 1999/00 and 2007/08 when wolverines were reported as common. Wolverine population trends in the lower Tanana Basin have consistently been reported as "no change" (ADF&G 2013a, 2013b, 2012, 2010a, 2010b, 2010c, 2007, 2006, 2005, 2002, 2001, 2000, 1998, 1997).

Habitat

Wolverines utilize subalpine, high-elevation habitats (Gardener et al. 2010, Copeland et al. 2007). Copeland et al (2010) found a positive correlation between wolverine distribution and persistent spring snow cover. This association can be explained by several factors: wolverines den beneath the snow; large feet give wolverines a morphological advantage over ungulates in deep snow, improving food availability; food caches are more secure from competitors and less prone to spoilage; and human influences are generally absent (Inman et al 2012, Gardener et al. 2010, Copeland et al 2010).

Wolverine presence is also positively correlated with elevation and negatively associated with human infrastructure and disturbance (Gardner et al 2010, May et al 2006). Gardner et al (2010) identified two areas in Interior Alaska that did not support resident wolverines: Fairbanks vicinity in Units 20AB and around Circle in Unit 25C. However, wolverines in Interior Alaska may occupy lowland habitats where harvest pressure and human influences are limited (Gardner et al 2010).

Other than the Circle vicinity, Unit 25C contains primarily high elevation areas, indicating suitable wolverine habitat occurs in the unit.

Harvest History

Low reproductive rates, inherently low population densities, and susceptibility to harvest pressure indicate that conservative harvest strategies are warranted for wolverines (Krebs et al 2004).

All harvested wolverines are required to be sealed by the State. Wolverine harvest in Unit 25C has historically been low. Between 1990/91 and 2014/15, 0-8 wolverines were sealed/year in Unit 25C with an average of 3 sealed/year (**Figure 1**, Young 2015b, pers. comm.).
Trappers are also asked to voluntarily report harvested furbearers via the annual trapper questionnaires administered by ADF&G. Since 2004/05, ADF&G has reported this information by unit. Between 2004/05 and 2012/13, reported wolverine harvest in Unit 25C ranged from 0-5/year (**Figure 1**). An interesting note is that while sealing records typically reflect more harvested animals than voluntary reporting, more harvested wolverines were voluntarily reported than were sealed in 2007/08 and 2008/09 (**Figure 1**).

Unit 25C has historically yielded a small percentage of the total wolverines harvested in the Fairbanks Area. Between 1990/91 and 2008/09, wolverine harvest from Unit 25C comprised 0-29% of the annual wolverine harvest from the Fairbanks Area, averaging 9% of the harvest/year (Units 20ABCDF, 25C, Young 2015b, pers. comm., Hollis 2010).

As male wolverines range widely over greater distances than females, males are more susceptible to trapping. Therefore, if the percent of males harvested consistently falls below 50%, overharvesting may be occurring (Hollis 2010). The 3-year average of the percent of males harvested in the Fairbanks area between regulatory years 1991/92 and 2008/09 exceeded management objectives in all years (**Figure 2**, Hollis 2010). The 3-year average of the percent of males harvested in Unit 25C only met or exceeded management objectives in 16 of 23 years between 1992/93 and 2014/15 (**Figure 2**, Young 2015b, pers. comm.). The percentage of males harvested suggests the wolverine harvest in Unit 25C may be unsustainable over the long-term. However, due to the very low sample size and annual fluctuation in harvest, it is difficult to make any definitive conclusions concerning overharvesting in this unit.

Regional populations of some wildlife species are characterized by areas of varying productivity and population densities due to local differences in habitat, harvest pressure, and/or other factors. Areas of high productivity may act as a "source" for new individuals in low productivity areas, which can act as a population "sink" (Pulliam 1988). Unit 25C may be acting as a sink for the regional wolverine population. That is, as wolverines are removed from Unit 25C through harvest, wolverines from surrounding areas immigrate into the unit and then are harvested. As this cycle repeats through time, the regional wolverine population could decline.

Unit 25C is much more accessible than the rest of Unit 25. A road connects Circle, which is roughly in the center of Unit 25C with Fairbanks whereas the remainder of Unit 25 is roadless. The greater accessibility and proximity to Fairbanks results in higher trapper density in Unit 25C than in Unit 25 remainder and is the reason the trapping season in Unit 25C has been a month shorter (Young 2015a, pers. comm.).

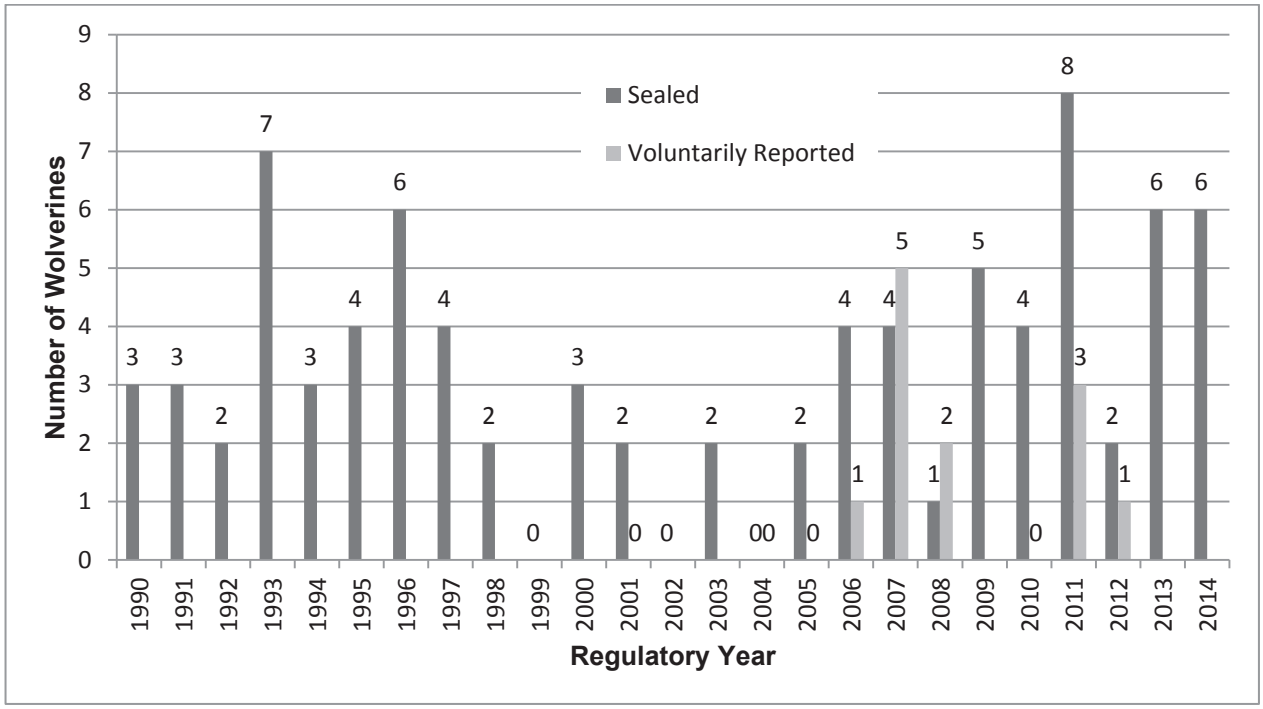

Figure 1. Number of wolverines sealed (1990/91 to 2014/15) and voluntarily reported (2004/05 to 2012/13) in Unit 25C (Young 2015b, pers. comm., ADF&G 2006, 2007, 2010a, 2010b, 2010c, 2012, 2013a, 2013b). No reported harvest data available for 2009/10.

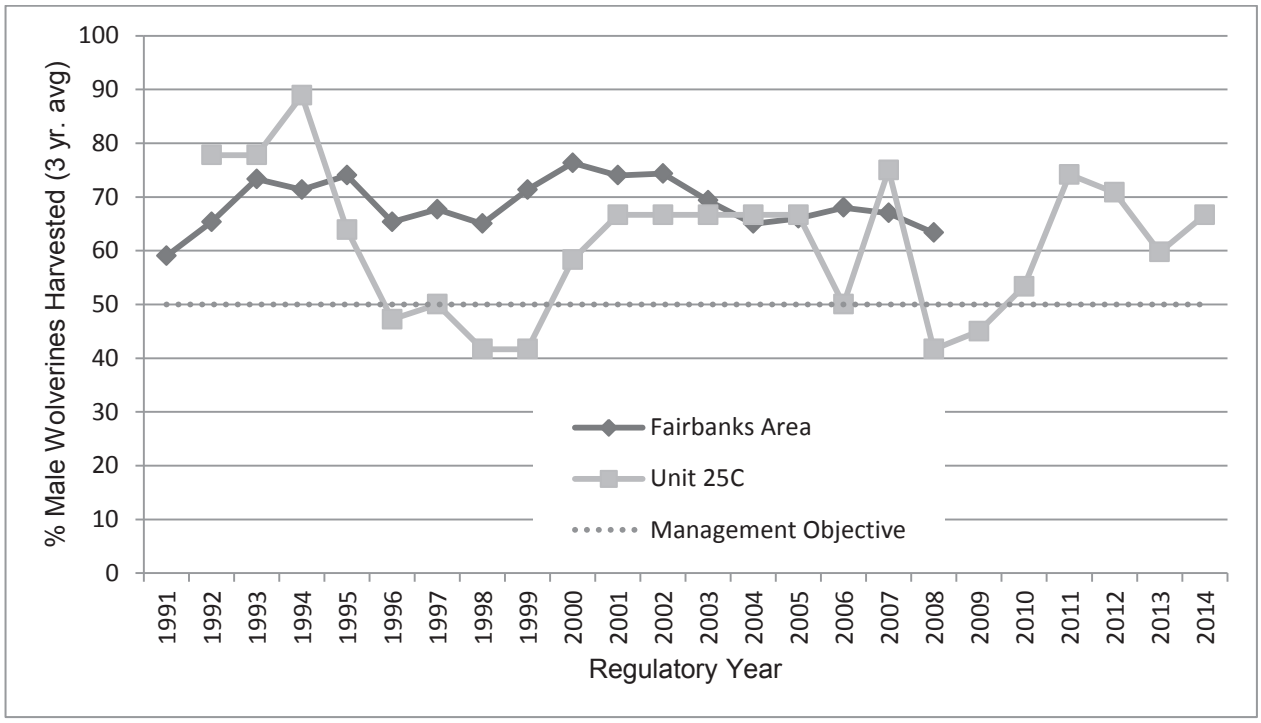

Figure 2. 3-year average of the percent of male wolverines harvested in the Fairbanks area and Unit 25C (Hollis 2010, Young 2015b, pers. comm.).

Effects of the Proposal

If adopted, this proposal would add an additional 31 days to the wolverine trapping season in Unit 25C. Extension of this season would allow more trapping opportunities for Federally qualified subsistence users.

The biological impact of adopting this proposal to the wolverine population is uncertain. The best available information (trapper questionnaires) indicates wolverine abundance across the Lower Tanana Basin has been consistently scarce, although stable.

If this proposal is adopted, the total annual harvest of wolverines in Unit 25C is expected to slightly increase. While harvest pressure fluctuates annually with fur prices and environmental conditions, it is relatively high in Unit 25C due to road accessibility and proximity to Fairbanks (Young 2015a, pers. comm.). However, as only Federally qualified subsistence users (does not include Fairbanks residents) would be able to trap during the extended season in March, trapping pressure may be much less during that time period. However, as harvest data indicates that the wolverine population in Unit 25C may already be overharvested, coupled with low reproductive rates and population densities, even a slight increase in harvest may result in (or exacerbate an already existing) population decline.

Adoption of this proposal would extend harvest into the denning period. While females likely only leave dens for short periods of time to access food caches or for other feeding opportunities, the risk of litter loss is slightly increased.

Lynx and wolverine are often trapped in the same types of sets. Proposal WP16-57 requests that the closing date for the lynx trapping season by extended to Mar. 31. If both WP16-57 and this proposal are adopted, the Federal subsistence lynx and wolverine trapping seasons in all of Unit 25 would be aligned, which would reduce incidental take issues (i.e. trapping a wolverine out of season when targeting lynx or vice versa). However, incidental take is rarely reported, so it is difficult to determine how much incidental take actually occurs (Young 2015a, pers. comm.).

Extending the wolverine trapping season in Unit 25C would align Federal subsistence wolverine trapping season dates throughout Unit 25, simplifying Federal regulations. If this proposal is adopted, the closing date of the Federal subsistence hunt, State hunt, and Federal subsistence trapping season for wolverine in all of Unit 25 would also be aligned (March 31). However, this proposed change would result in misalignment between the Federal subsistence and State wolverine trapping seasons for Unit 25C, potentially resulting in law enforcement concerns.

OSM CONCLUSION

Support Proposal WP16-58.

Justification

Extending the wolverine trapping season provides Federally qualified subsistence users with additional trapping opportunity and reduces Federal regulatory complexity. As the season will only be open to Federally qualified subsistence users, the increase in harvest and trapping pressure is expected to be small. Additionally, if the closing date of the Unit 25 lynx season is extended (WP16-57) while the Unit 25C wolverine season is not, incidental take may occur. Regardless of any conservation concerns, reporting legal harvests is preferable to not reporting incidental takes and will allow any increases in harvest to be evaluated.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Eastern Interior Alaska Subsistence Regional Advisory Council

Support WP16-58. The Council didn't feel that there is a conservation concern for wolverine because trapping is in decline but the extended season would support those subsistence hunters who do make the effort. The Council is concerned about the possibility of incidental harvest if WP16-57 is adopted but this proposal isn't and don't want trappers to get into trouble by accidentally catching a wolverine during an extended lynx season and would be best to have both supported for less complexity. They also felt an extension of the season for one month should not pose an issue for the species as trapping pressure probably wouldn't increase substantially as a result. While 25C is in close proximity to Fairbanks the federal subsistence hunt is only relevant to rural residents in the area. Changing the wolverine season as proposed would align 25C with other Units in the area.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

WP16–61/62/63/64 Executive Summary	
General Description	Proposal WP16–61 requests establishment 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. *Submitted by North Slope Subsistence Regional Advisory Council.* Proposal WP16-62, requests establishment of a new hunt area for caribou in Unit 24 where the harvest seasons for bulls and cows would be shortened, and the take of calves would be prohibited. *Submitted by North Slope Subsistence Regional Advisory Council.* Proposal WP16-63, requests 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 calves with cows be prohibited. *Submitted by North Slope Subsistence Regional Advisory Council.* Proposal WP16-64, requests establishment 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. *Submitted by the North Slope Subsistence Regional Advisory Council.*
Proposed Regulation	**Unit 23 - Caribou** ***Unit 23 – that portion north of a line from the mouth of the Singoalik River east to the boundary of the Noatak National Preserve, north to the Unit 26A boundary*** — ***5 caribou per day as follows:*** ~~*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***

WP16–61/62/63/64 Executive Summary			
	Unit 23 ***remainder***	*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 – that portion north of the south bank of the Kanuti River downstream from the Kanuti-Kilolitna River	***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***
	Unit 24 remainder– 5 caribou per day; however, cow caribou may not be taken May16–June 30		*July 1– June 30*

WP16–61/62/63/64 Executive Summary			
	Unit 26A—Caribou		
		Up to 5 caribou per day; however no more than 3 cows per day; calves may not be taken~~10 caribou per day; however, cow caribou may not be taken May 16 – June 30~~	***~~July 1–June 30~~*** ***Dec. 6 – Mar. 15***
		Up to 5 bulls per day; calves may not be taken	***Mar. 16 – July 15***
		Up to 5 caribou per day; however no more than 3 cows per day; cows accompanied by calves may not be taken	***July 16 – Oct. 15***
		Up to 3 cows per day; however calves may not be taken	***Oct. 16 – Dec. 5***
	You may not transport more than 5 caribou per regulatory year from Unit 26 except to the community of Anaktuvuk Pass.		
	Unit 26B—Caribou		
	Unit 26B - that portion south of 69°30' N. Lat. and west of the Dalton Highway	***5 caribou per day as follows:***	
		Up to 5 bulls per day; however calves may not be taken	***Dec. 10 – Oct. 14***
		Up to 5 cows per day; however calves may not be taken	***July 15 – Apr. 30***

WP16–61/62/63/64 Executive Summary			
	Unit 26B remainder	*10 caribou per day; however, cow caribou may be taken only from Oct. 1 – Apr. 30*	***July 1 – June 30.***
	You may not transport more than 5 caribou per regulatory year from Unit 26 except to the community of Anaktuvuk Pass.		
OSM Preliminary Conclusion	**Support** Proposal WP16-61/62/63/64 **with modification** to the hunt area descriptor changes for Units 23 and 24; decrease the harvest limit in Unit 23 remainder from 15 to 5 caribou per day, as well as shortening the cow and bull seasons and prohibiting the harvest of cows with calves, prohibit the harvest of cows with calves in Unit 24A and 24B north of the Kanuti River, 24C and 24 D; shorten the cow season and prohibit the harvest of cows with calves in Unit 26B; and reduce the harvest limit in Unit 26B remainder from 10 to 5 caribou per day, shorten the season, and prohibit the harvest of calves. The language for the modified regulations was simplified to make it easier for those using the Federal Subsistence regulations. The modified regulations should read: WP16-61 **Unit 23 – Caribou**		
	Unit 23 *– ~~that portion north of a line from the mouth of the Singoalik River east to the boundary of the Noatak National Preserve, north to the Unit 26A boundary~~* ***that portion north of and including the Singoalik River drainage***	***5 caribou per day as follows: however calves may not be taken*** *~~15 caribou per day; however, cow caribou may not be taken May 16 – June 30~~*	*~~July 1 – June 30~~*
		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 – Apr. 30***

WP16–61/62/63/64 Executive Summary			
		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; however cows accompanied by calves may not be taken Sept. 1–Oct. 14	***Sept. 1 – Mar. 31***
	WP16-62		
	Unit 24—Caribou		
	Unit 24A–south of the south bank of the Kanuti River - 1 caribou		***Aug. 10 -Mar. 31***
	*Unit 24**B** – 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 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 Koyukuk River downstream from the confluence with the Kanuti River in Unit 24B to the Unit 24C boundary	***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 July 15 -Oct. 14	***July 15 – Apr. 30***

WP16–61/62/63/64 Executive Summary			
	Units 24C and 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; however cows accompanied by calves may not be taken Sept. 1 -Oct. 14	***Sept. 1 – Mar. 31***
	WP16-63		
	Unit 26—Caribou		
	Unit 26A—Caribou		
		Up to 5 caribou per day; however calves may not be taken~~10 caribou per day; however, cow caribou may not be taken May 16 – June 30~~	~~*July 1–June 30*~~
		Bulls may be harvested;	***July 1– Oct. 14*** ***Dec. 6 -June 30***
		Up to 3 cows per day; however cows accompanied by calves may not be taken July 16 -Oct. 15	***July 16–Mar. 15***

WP16–61/62/63/64 Executive Summary	
	WP16-64 **Unit 26B** ***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 ~~July 15~~*** ***Unit 26B remainder –*** — ***5~~10~~*** *caribou per day* — *July 1 – ~~June 30~~**Apr. 30*** ***Bulls may be harvested*** — ***July 1 -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.*
OSM Conclusion	**Support** Proposal WP16-61/62/63/64 **with modification** to: modify the hunt area descriptors for Units 23, 24, and 26A; reduce the harvest limit for caribou in Units 23, 26A, and 26B; establish bull and cow seasons; shorten the caribou seasons; and provide for protection of cows with calves and calves. The language for the modified regulations was simplified to make it easier for those using the Federal Subsistence regulations. Specific changes from the proposed regulations are as follows. Unit 23: Decrease the harvest limit in Unit 23 remainder from 15 to 5 caribou per day, as well as shortening the cow and bull seasons and prohibiting the harvest of cows with calves for that portion of Unit 23 which includes the drainages north and west of and including the Singoalik River drainage from July 15–October 14 and for Unit 23 remainder July 31–October 14; Unit 24: Split Unit 24 into 4 hunt areas; establish season and harvest restrictions;

WP16–61/62/63/64 Executive Summary	
	remove the restriction on the take of cows with calves in OSM's preliminary conclusion for Unit 24 because they are not present from June to October. Unit 26A: Split Unit 26A into two hunt areas to reflect the primary range of the TCH and WACH within Unit 26A; decrease the harvest limit in Unit 26A from 10 to 5 caribou per day; and establish bull and cow seasons for the two hunt areas in Unit 26A. Unit 26B: Reduce the harvest limit in Unit 26B from 10 to 5 caribou per day and establish bull and cow seasons; extend the cow season in Unit 26B, south of 69°30' and west of the Dalton Hwy, to allow for the take of cows from the CACH, which are present from June to mid-October, and cows from the TCH, which are present mid-October to May; extend the cow season for Unit 26B remainder to allow take from the CACH and extend the bull season to year-round to provide more opportunity for Federally qualified subsistence users. **See pages 902-905 for modified regulatory language.**
North Slope Subsistence Regional Advisory Council Recommendation	**Support** WP16-61, WP16-63, and WP16-64 **as modified by OSM.** **Support** WP16-62 **with modification** to accept only the OSM Unit descriptor changes.
Northwest Arctic Subsistence Regional Advisory Council Recommendation	**Support** WP16-61 **with modification** to extend the closing date of the bull season to Oct. 31, change the opening date of the cow season to July 31, modify the restriction on the take of cows with calves, and prohibit the take of calves. **No action taken on other proposals.** The modified regulation should read: **Unit 23—Caribou** *~~15~~**5** caribou per day; however, cow caribou may not be taken ~~May 16~~**April 1** – ~~June 30~~ **July 30 and no harvesting of cows with calves July 31-Oct. 10. No harvesting of bulls Nov. 1-Jan. 31. The take of calves is prohibited.* *July 1–June 30*

WP16–61/62/63/64 Executive Summary	
Western Interior Alaska Subsistence Regional Advisory Council	**Support WP16-64 for Unit 24B. Defer** action on remaining Units to affected Regions
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Support** with **modification** to agree with State regulations
Written Public Comments	**1 Support**

STAFF ANALYSIS
WP16-61/62/63/64

ISSUE

The North Slope Subsistence Regional Advisory Council (Council) submitted four Proposals to change caribou hunting regulations in Units 23, 24, and 26.

Proposal WP16-61, requests establishment 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 (**Map 1**).

Proposal WP16-62, requests establishment of a new hunt area for caribou in Unit 24 where the harvest seasons for bulls and cows would be shortened, and the take of calves would be prohibited (**Map 2**).

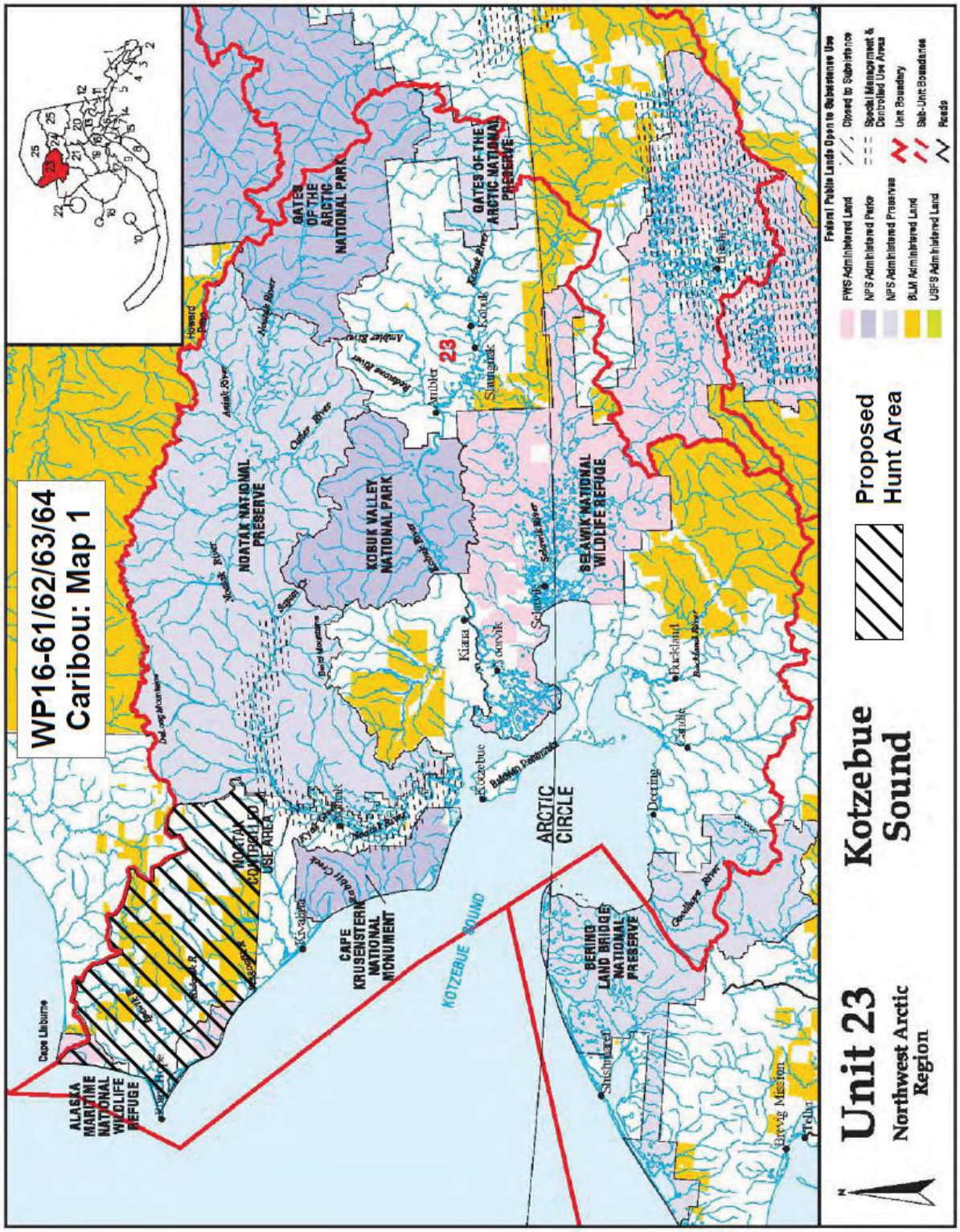
Proposal WP16-63, requests that caribou harvest limit in Unit 26A be reduced from 10 caribou per day to 5 caribou per day, the harvest seasons for bulls and cows be shortened, and the take of calves and calves with cows be prohibited. Compared to the new State caribou regulations it requests 3 additional weeks to the bull harvest season from Dec. 6-31.

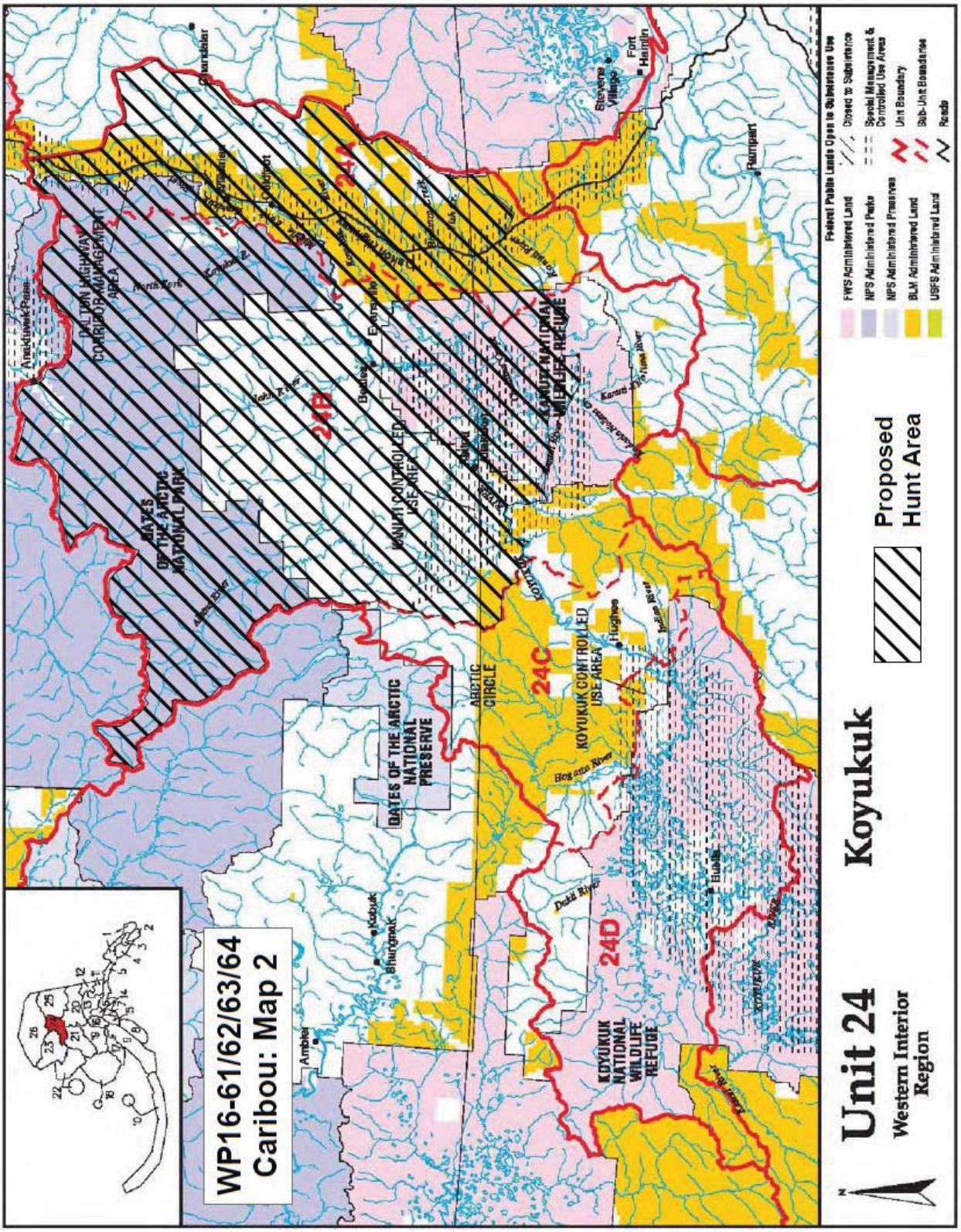
Proposal WP16-64, requests establishment of a new hunt area for caribou in Unit 26B where the harvest limit would be reduced from 10 caribou per day to 5 caribou per day, the harvest season would be shortened, and the take of calves would be prohibited (**Map 3**).

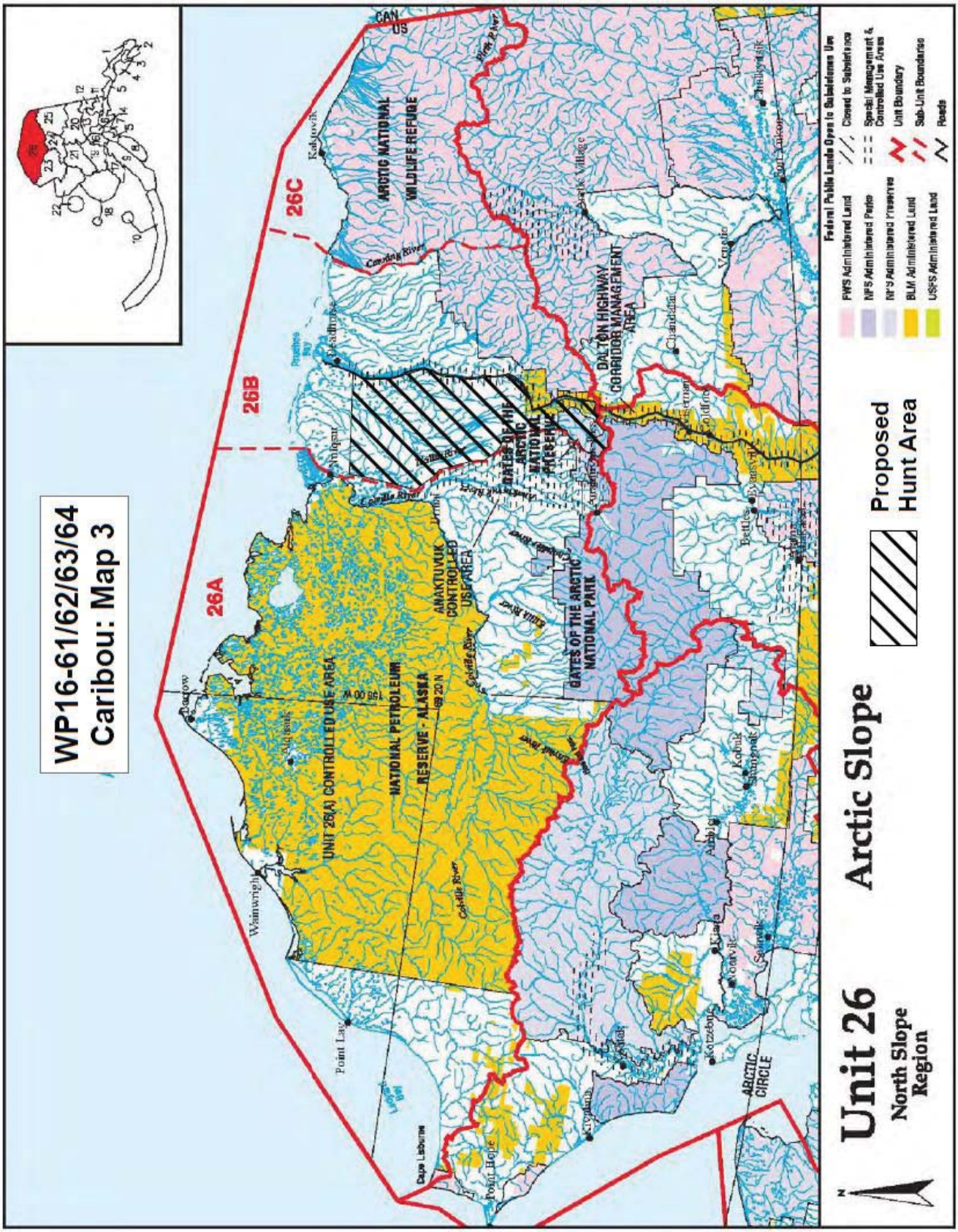
DISCUSSION

The proponent states that changes to harvest regulations are required to reverse or slow the decline in the Western Arctic Caribou Herd (WACH) and the Teshekpuk Caribou Herd (TCH). Both populations have experienced declines of approximately 50% over the last decade. It is the intent of the Council to parallel changes made to State regulations when the Alaska Board of Game adopted modified State Proposal 202 (RC76) at its March 13-17, 2015 meeting.

However, not all the changes requested are consistent with the newly adopted State regulations. For Proposal WP16-63, the proponent requested Oct. 16 to Dec. 31 for the closure of the bull season in Unit 26A to align with the State regulations. However, based on further discussion with the proponent it was determined that the intent of the Council was to allow for the hunting of bulls after Dec. 5th because they are considered edible by then. The season date change would give Federally qualified subsistence users an extra three weeks to harvest bull caribou in Unit 26A.


WP16-61/62/63/64
Caribou: Map 1
Unit 23
Northwest Arctic Region
Kotzebue Sound
Proposed Hunt Area
Federal Public Lands Open to Subsistence Use
FWS-Administered Land
NPS-Administered Parks
NPS-Administered Preserves
BLM Administered Land
USFS Administered Land
Closed to Subsistence
Special Management & Controlled Use Areas
Unit Boundary
Sub-Unit Boundaries
Roads
ALASKA MARITIME NATIONAL WILDLIFE REFUGE
CAPE KRUSENSTERN NATIONAL MONUMENT
NOATAK NATIONAL PRESERVE
KOBUK VALLEY NATIONAL PARK
GATES OF THE ARCTIC NATIONAL PARK
GATES OF THE ARCTIC NATIONAL PRESERVE
SELAWIK NATIONAL WILDLIFE REFUGE
BERING LAND BRIDGE NATIONAL PRESERVE
NORTH COMMERCIAL USE AREA
KOTZEBUE SOUND
ARCTIC CIRCLE
Kotzebue
Kiana
Noorvik
Selawik
Buckland
Deering
Shishmaref
Brevig Mission
Teller
Ambler
Shungnak
Kobuk
23


WP16-61/62/63/64
Caribou: Map 2
Unit 24
Western Interior Region
Koyukuk
Proposed Hunt Area
Federal Public Lands Open to Subsistence Use
FWS Administered Land
NPS Administered Parks
NPS Administered Preserves
BLM Administered Land
USFS Administered Land
Closed to Subsistence
Special Management & Controlled Use Area
Unit Boundary
Sub-Unit Boundaries
Roads
24A
24B
24C
24D
GATES OF THE ARCTIC NATIONAL PARK
DALTON HIGHWAY CORRIDOR MANAGEMENT AREA
KANUTI CONTROLLED USE AREA
KANUTI NATIONAL WILDLIFE REFUGE
KOYUKUK CONTROLLED USE AREA
GATES OF THE ARCTIC NATIONAL PRESERVE
KOYUKUK NATIONAL WILDLIFE REFUGE
ARCTIC CIRCLE
Anaktuvuk Pass
Chandalar
Coldfoot
Bettles
Evansville
Allakaket
Hughes
Alatna
Ambler
Kobuk
Shungnak
Stevens Village
Fort Hamlin
Rampart


WP16-61/62/63/64
Caribou: Map 3
26A
26B
26C
CAN
US
ARCTIC NATIONAL WILDLIFE REFUGE
DALTON HIGHWAY CORRIDOR MANAGEMENT AREA
GATES OF THE ARCTIC NATIONAL PARK
GATES OF THE ARCTIC NATIONAL PRESERVE
NATIONAL PETROLEUM RESERVE - ALASKA
UNIT 26(A) CONTROLLED USE AREA
ANAKTUVUK CONTROLLED USE AREA
ARCTIC CIRCLE
Kaktovik
Deadhorse
Prudhoe Bay
Atqasuk
Barrow
Wainwright
Point Lay
Point Hope
Kivalina
Noatak
Kotzebue
Kiana
Noorvik
Selawik
Ambler
Kobuk
Shungnak
Bettles
Coldfoot
Wiseman
Chandalar
Venetie
Arctic Village
Chalkyitsik
Fort Yukon
Cape Lisburne
Federal Public Lands Open to Subsistence Use
FWS Administered Land
NPS Administered Parks
NPS Administered Preserves
BLM Administered Land
USFS Administered Land
Closed to Subsistence
Special Management & Controlled Use Areas
Unit Boundary
Sub-Unit Boundarie
Roads
Proposed Hunt Area
Arctic Slope
Unit 26
North Slope Region
N

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

Unit 23 - Caribou

Unit 23 – that portion north of a line from the mouth of the Singoalik River east to the boundary of the Noatak National Preserve, north to the Unit 26A boundary	***5 caribou per day as follows:***	~~*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 23 ***remainder***	*15 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	*July1 – Oct. 14*

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

WP16-62

Existing Federal Regulation

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 many not be	*July 1 - June 30*

taken May 16 -June 30

Proposed Federal Regulation

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 – that portion north of the south bank of the Kanuti River downstream from the Kanuti -Kilolitna River	***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***
Unit 24 remainder– 5 caribou per day; however, cow caribou may not be taken May16–June 30		*July 1– June 30*

Existing State Regulation

Unit 24—Caribou

Unit 24A, south of the south bank of the Kanuti	*Resident Hunters:* *1 caribou*	*Aug. 10–Mar. 31*

River	*Nonresident Hunters: 1 caribou*	*Aug. 10–Sept. 30*
Unit 24A remainder, that portion north of the south bank of the Kanuti River	*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 24B, 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	*Resident Hunters: 1 caribou*	*Aug. 10–Mar. 31*
	Nonresident Hunters: 1 caribou	*Aug.10–Sept. 30*
Unit 24B remainder, that portion north of the south bank of the Kanuti River downstream from the Kanuti–Killitna River drainage	*Resident Hunters: 5 caribou per day, as follows:*	
	Up to 5 bulls per day; however, no calves may 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: 1bull; however, calves may not be taken	*Aug. 1 – Sept. 30*

Units 24C and 24D	*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, calves may not be taken	*Aug. 1–Sept. 30*

WP16-63

Existing Federal Regulation

Unit 26A —Caribou

10 caribou per day; however, cow caribou may not be taken May 16 – June 30	*July 1–June 30*
You may not transport more than 5 caribou per regulatory year from Unit 26 except to the community of Anaktuvuk Pass.	

Proposed Federal Regulation

Unit 26A—Caribou

Up to 5 caribou per day; however no more than 3 cows per day; calves may not be taken*~~10 caribou per day; however, cow caribou may not be taken May 16 – June 30~~*	~~*July 1–June 30*~~ ***Dec. 6 - Mar. 15***

	Up to 5 bulls per day; calves may not be taken	***Mar. 16 - July 15***
	Up to 5 caribou per day; however no more than 3 cows per day; cows accompanied by calves may not be taken	***July 16 - Oct. 15***
	Up to 3 cows per day; however calves may not be taken	***Oct. 16 - Dec. 5***

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

Existing State Regulation

Unit 26A—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	*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 26A–remainder	*Resident Hunters: 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*
Nonresident Hunters: 1bull; however, calves may not be taken	*Aug. 1 – Sept. 30*

WP16-64

Existing Federal Regulation

Unit 26B —Caribou

10 caribou per day; however, cow caribou may be taken only from Oct. 1 – Apr. 30	*July 1–June 30*
You may not transport more than 5 caribou per regulatory year from Unit 26 except to the community of Anaktuvuk Pass.	

Proposed Federal Regulation

Unit 26B—Caribou

Unit 26B - that portion south of 69°30' N. Lat. and west of the Dalton Highway	***5 caribou per day as follows:***

	Up to 5 bulls per day; however calves may not be taken	***Dec. 10 – Oct. 14***
	Up to 5 cows per day; however calves may not be taken	***July 15 – Apr. 30***
Unit 26B remainder	*10 caribou per day; however, cow caribou may be taken only from Oct. 1 – Apr. 30*	***July 1 – June 30.***

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

Existing State Regulation

Unit 26B—Caribou

Unit 26(B), Northwest portion north of the 69º 30' N. lat. and west of the east bank of the Kuparuk River to a point at 70º 10' N. lat., 149º 04' W. long., then following the east bank of the Kalubik River to the Arctic Ocean	*Resident Hunters: 5 caribou per day; however, cow caribou may not be taken May 16–June 30*	*July 1–June 30*
	Nonresident Hunters: 5 caribou	*July 1–Apr. 30*
Unit 26(B), that portion south of 69º30' N.lat.and west of the Dalton Highway	*Resident Hunters: 5 caribou; however, cow caribou may be taken only from July 1–Oct. 10*	*July 1–Oct. 10* *May 16–June 30*
	Nonresident Hunters: 5 caribou; however, cow	*July 1–Oct. 10* *May 16–June 30*

	caribou may be taken only from July 1–Oct. 10	
Unit 26(B), that portion south of 69°30'N. lat. and east of the Dalton Highway	*Resident Hunters: 5 caribou; however, cow caribou may be taken only from July 1–May 15*	*July 1– July 30*
	Nonresident Hunters: 5 caribou; however, cow caribou may be taken only from July 1–May 15	*July 1–June 30*
Remainder of Unit 26(B)	*Resident Hunters: 5 caribou*	*July 1–Apr. 30*
	Nonresident Hunters: 5 caribou	*July 1–Apr. 30*

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**).

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

Federal public lands comprise approximately 65% of Unit 26 and consist of 45.2% BLM managed lands, 17.3% FWS managed lands, and 5% NPS managed lands (See **Unit 26 Map**).

Customary and Traditional Use Determinations

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 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, Anaktuvuk Pass, and Point Hope have a customary and traditional use determination for caribou in Unit 26A.

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

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 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 and TCH. The restrictions proposed by these wildlife proposals for the WACH are also supported by management recommendations outlined in the Western Arctic Herd Management Plan (WACH Working Group 2011).

Unit 23

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 (FWS 1995a).

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

In 2000, the Board adopted Proposal P00-053 with modification allowing the use of snowmachines to position hunters 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).

Proposal WP16-48, which requests to allow Federally qualified subsistence users to use snowmachines to position caribou, wolf, and wolverine, was submitted for the 2016-2018 wildlife cycle.

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 (FWS 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 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 (FWS 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 (FWS 2006). The 1995 closure was lifted for several reasons. First, due to changes in land status, lands formerly managed by BLM were transferred to Alaska Native corporations or the State of Alaska pursuant to the Alaska Native Claims Settlement Act or the Statehood Act, respectively. However, only the lands east of Anaktuvuk Pass were affected by the closure, making the closure less effective. Second, the population level was at a point where it could support both subsistence and non–subsistence uses.

The North Slope Subsistence Regional Advisory Council submitted four temporary wildlife special actions (WSA) for Units 23, 24, 26A, and 26B to change the caribou harvest regulations on Federal public lands for the 2015/2016 regulatory year starting on July 1, 2015. The Board approved Temporary Special Actions WSA15-03/04/05/06, which are similar to the changes made to State regulations by the Alaska Board of Game for the 2015/2016 regulatory year in an attempt to reverse or slow the decline of the WACH and TCH. To address two primary factors contributing to the decline, low calf survival and high adult cow mortality, restrictions to protect females with calves, a prohibition on the harvest of calves, a reduction of the harvest limit to 5 caribou per day, and shortening the cow and bull seasons were incorporated in WSA15-03/04/06/06. Some of the requested hunt areas are not included in the Special Action WSA15-03/04/05/06 because there was not sufficient time for the councils to review the proposed changes before the start of the regulatory year.

Current Events

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 Unit. The Council, as well as the other Councils affected by this proposal, will have the opportunity to review the original proposal, changes to the State caribou regulations, and OSM modifications, at the upcoming fall meeting cycle.

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 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. Gunn (2001) suggests climatic oscillations as the primary factor, exacerbated by predation and density-dependent reduction in forage availability, resulting in poorer body condition. 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 these wildlife proposals 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 caribou, which was similar to the peak count in 2010 (Lenart 2011). 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 would indicate that the CACH may have declined by about 20% since 2010 (Lenart 2011, 2013; Caribou Trails 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 Atqasuk, 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 2008/2009, the TCH used many of these widely disparate areas in a single year (Parrett 2011).

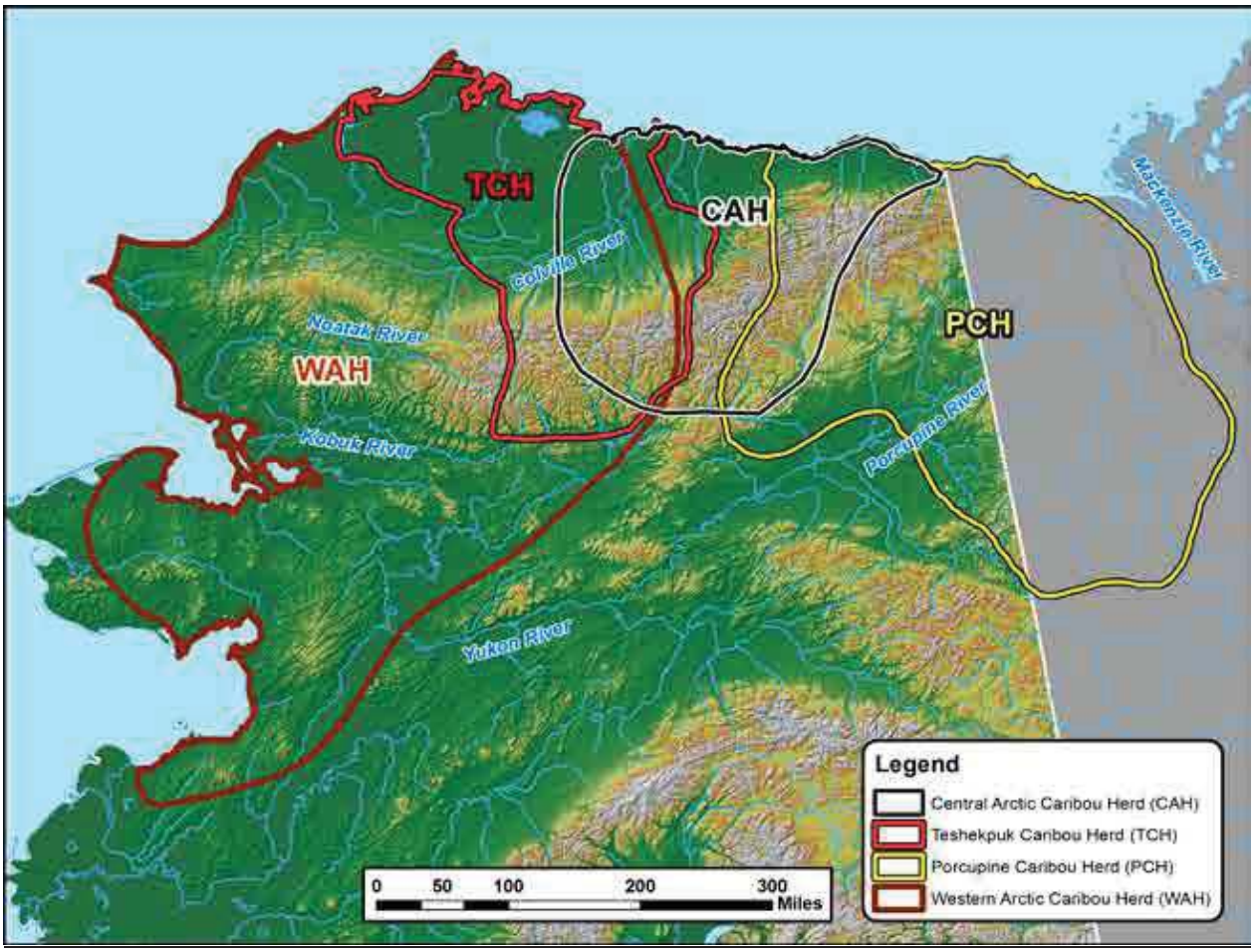


Figure 1. Herd overlap and ranges of the WACH, TCH, CACH and Porcupine caribou herds (WACH 2014).

The State manages 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 2011). Specific State management objectives for the TCH are as follows (Parrett 2011):

- 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 per 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 from aerial photo censuses and radio-telemetry data. 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. Based on these methods 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 caribou (**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 made the decision to manage the TCH based on the minimum count because the bulk of the animals that were estimated rather than counted were with the WACH at the time of the photo census (Parrett 2015, pers, comm).

Based on the fall composition counts in 2009 (Parrett 2011), which was considered a good year for herd separation, calf:cow ratios declined from an average of 62 calves:100 cows (range 39-80 calves:100 cows) for the 7 surveyed years between 1991 and 2000, to 18 calves:100 cows (Parrett 2009). The number of bulls declined during the same time period from 62 bulls:100 cows (range 25-98 bulls:100 cows, Parrett 2009) to 46 bulls:100 cows (Parrett 2011, 2013). In addition, the number of short–yearlings:adults based on spring composition surveys, which is a measure of recruitment, declined from an average of 20 short–yearlings:100 adults between 1999 and 2008 to 14 short–yearlings :100 adults in 2009. In 2010, the number of calves:100 cows increased from 18 in 2009 to 29 and the number of bulls:100 cows remained the same at 46 (Parrett 2013). In 2010 and 2011, the number of short–yearlings:100 adults was 15 and 13, respectively (Parrett 2013).

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.). As the TCH has declined, calf weights declined indicating that poor nutrition may be having a significant effect on this herd (Carroll 2015, pers. comm., Parrett 2015, pers. comm.). In contrast, the body condition of individuals from the WACH which also declined dramatically, has remained relatively good, and indicates caribou are still finding enough food within their range (Caribou Trails 2014, Dau 2014).

Western Arctic Caribou Herd

The WACH, the largest herd in Alaska, has a home range of approximately 157,000 mi^2 in northwestern Alaska (**Figure 1**). In the spring, most mature cows move north to calving grounds in the Utukok Hills,

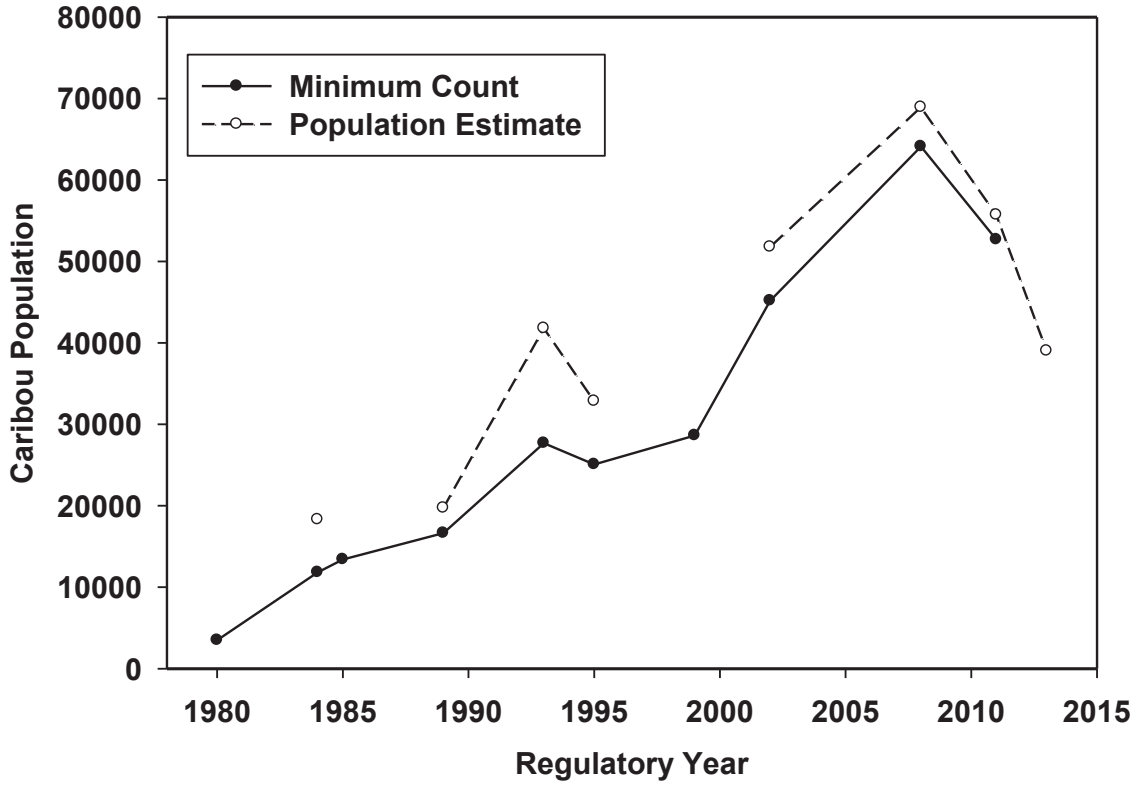


Figure 2. Minimum counts and population estimates of the Teshekpuk Caribou Herd from 1980-2014. Population estimates from 1984-2013 are based on aerial photographs of groups of caribou that contained radio–collared animals (Parrett 2011, 2013, Parrett 2015, pers. comm.).

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 listed 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.

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**). Potential management actions and harvest recommendations for each management level can be found in Appendix 2 of the Western Arctic Caribou herd Cooperative Management Plan (WACH 2011).

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

	Population Trend		
Management Level and Harvest Level	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

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 7.1% from approximately 490,000 in 2003 to 235,000 in 2013 (Dau 2011, 2013, 2014, Caribou Trails 2014,) (**Figure 3**). Between 1982 and 2011, the WACH population was within the liberal management level prescribed by the WACH Working Group (**Table 1**). In 2013, the WACH population estimate fell below the population threshold for liberal management of a decreasing population (265,000), slipping into the conservative management level. 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 (Gunn 2001, Dau 2013, 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.).

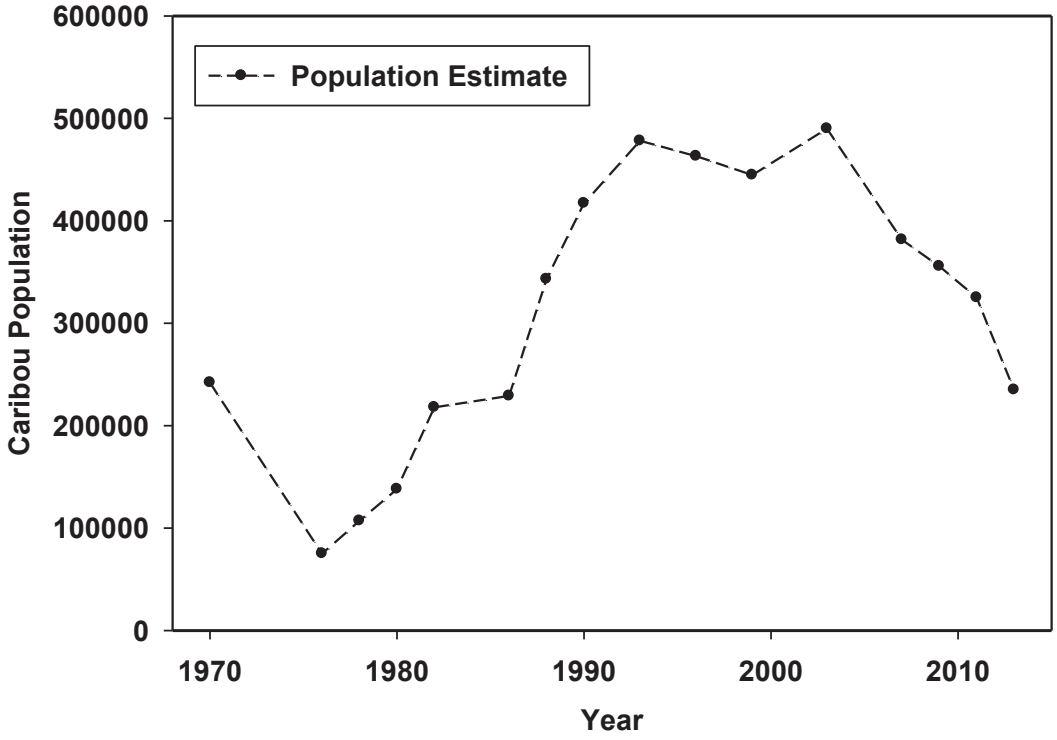


Figure 3. Maximum estimated population estimates of the Western Arctic Caribou Herd from 1970-2013. Population estimates from 1986-2013 are based on aerial photographs of groups of caribou that contained radio–collared animals (Dau 2011, 2013, 2014)

During periods of rapid population growth (1976–1982), fall calf:cow ratios were generally higher than periods of herd decline (1992–2013) (**Table 2**). The average number of bulls:100 cows was greater during the period of population growth (54:100 between 1976-2001) than during the recent period of decline (45:100 between 2004-2014) (Dau 2011, 2013, 2014). However, it should be noted that bull: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 (Dau 2011, 2013).

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
2014/2015	39[b]	[c]	[c]	[c]	[c]	[c]	[c]

[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)
[c] Data not available

The annual mortality rate of collared adult cows has increased, from an average of 15% from 1987-2003, to 25% from 2004–2012 (Dau 2011, 2013, 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 (Dau 2011).

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 et al. 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, Cameron et al. 2005, BLM2008, Arthur and Del Vecchio 2009).

Harvest History

From 1999–2014, the average annual harvest from the WACH was approximately 13,600 caribou (9,500-15,800) (Units 21, 22, 23, 24, and 26A) (Dau 2009, 2013, 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 4**). 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

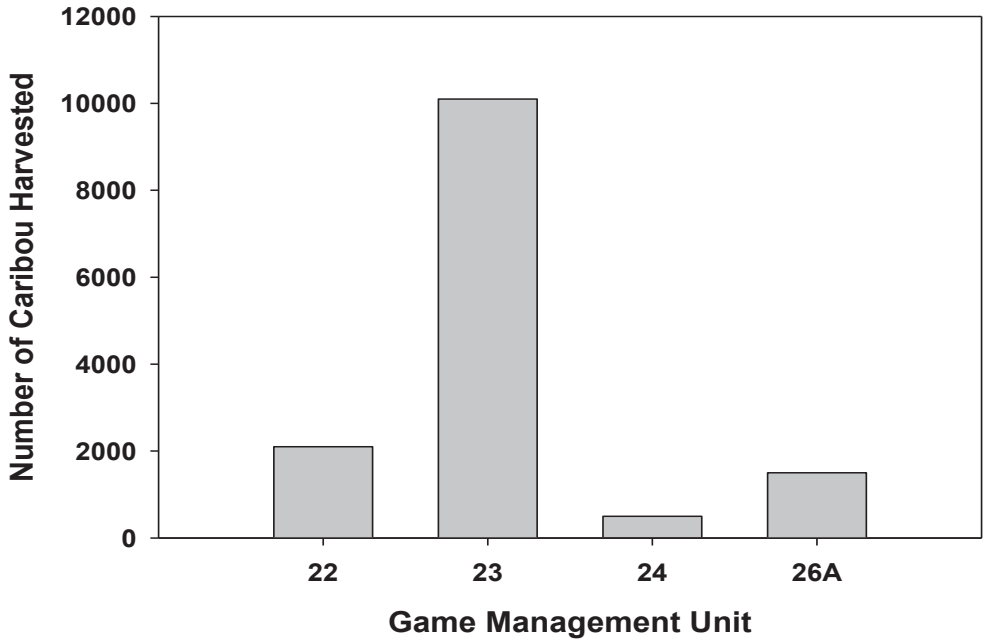


Figure 4. Average annual harvest by residents within the WACH range, RY1998–RY2012 (Dau 2014)

2011, Dau 2014, pers. comm.). Harvest from the WACH, which has remained fairly consistent since one of the factors that prompted the Alaska Board of Game to enact restrictions to WAC and TCH caribou harvest in March 2015.

The TCH supports a large subsistence harvest by Federally qualified subsistence users and a smaller harvest by non-locals and non-residents of 4,000–5,000 caribou per year (**Table 3**) (Parrett 2011, Parrett 2015, pers. comm.). Reliance on caribou from a particular herd varies by community. 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 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). Residents of Nuiqsut, which is on the northeast corner of Unit 26A, harvest approximately 13% of their caribou from the CACH (Lenart 2011). Harvest pressure on the CACH is less than 2% of the herd (Lenart 2013).

Table 3. Estimated caribou harvest of the Teshekpuk, Western Arctic and Central Arctic caribou herds during the 2008/2009 regulatory years by residents within Unit 26A by Federally qualified users (community population size based on 2007 estimates) (Parrett 2011, Dau 2011, Lenart 2011, Sutherland 2005). 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	Per capita caribou harvest[ab]	Approximate total community harvest	Estimated annual TCH harvest (%)	Estimated annual WACH harvest (%)	Estimated annual CACH harvest (%)
Anaktuvuk Pass	298	1.8	524	157 (30)	431 (82)	
Atqasuk	218	0.9	201	197 (98)	6 (2)	
Barrow	4,127	0.5	2,063	2,002 (97)	62 (3)	
Nuiqsut	396	1.1	451	388 (86)	3 (1)	58 (13)
Point Lay	226	1.3	292	58 (20)	210 (40)	
Point Hope	689	0.3	220	0	220 (100)	
Wainwright	547	1.3	695	417 (60)	48 (15)	
Total Harvest				3,219	980	58

[a] Citations associated with per-capita caribou harvest assessment by community can be found in Table 5 (Parrett 2011).
[b] Sutherland (2005)

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 for the communities from July 1, 2008 to June 30, 2010, is presented in **Table 3** (Parrett 2011, Dau 2011, and Lenart 2011). The total estimated annual harvest from the TCH during 2010/2011 regulatory year (3387 caribou) (Parrett 2015, pers. comm.) was similar to the 2008/2009 regulatory year **(Table 3**).

Cultural Knowledge and Traditional Practices

In recent RAC meetings, some Council and community members expressed concern that the traditional uses of caribou calves were not reflected in current analyses and that if the herd were to increase in numbers, the opportunity to harvest caribou calves might be reconsidered for Federally qualified subsistence users. During public testimony before the Western Interior Subsistence Regional Advisory Council in November 2015, community and Council members recalled the value of caribou calf hide for the crafting of specific clothing (WISRAC 2015). During the North Slope meeting, one of the Council members recalled research that detailed the traditional uses of caribou calf hide for specific purposes, such as providing new skin for a drum (NSRAC 2015). Numerous sources support these claims (Burch 1998, Burch 2012 , Sharp and Sharp 2015).

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

More recently, Henry and Karyn Sharp describe the contemporary harvest of caribou by the Denesuline people in Northern Canada (Sharp & Sharp 2015). While not describing the practice of Alaskan people, the culture and landscape are comparable. One chapter in particular describes a specific hunt that took place during the summer of 1970. The people were busy putting up and preserving caribou meat and most of their food needs had been met. However, because the group intended to stay at their camp through December, they decided caribou winter clothing was needed for the toddlers and babies. "Because of the toddler's small size and their lack of strength, these sets of clothing would have to be made from the thin hides of calf caribou." The cows and calves didn't arrive until early August, and it was then that the animals were pursued and harvested. Approximately six calves and one cow were taken (Sharp & Sharp 2015:171).

The Sharps stressed the importance of caribou hide to the Denesuline people cannot be underestimated. "The issue here is simple. Clothing and housing people in the subarctic using caribou hide means that there is a tremendous demand for caribou hides." They went on to write that aside from clothing, caribou hide was used for providing cordage for corral nets, snares, and fish nets. Caribou hides provided cover for tipis and were used to make pack sacks and travel gear. Sharp emphasized the significance of caribou hide by explaining, "The issue would not be so significant if the hides taken as a byproduct of hunting for food were sufficient to meet Denesuline needs. This is not the case (Sharp & Sharp 2015:184)." By the time fall arrived, cows were recovering from birthing and nursing their calves but not so much that they built up the thick layers of fat found in bulls. And while bulls were targeted for human consumption, their hide was not considered optimum for winter clothing. Thus, when the bulls were prime for meat and fat, the cows and calves were prime for hides; all animals (bulls, cows, and calves) were targeted for their specific uses (Sharp & Sharp 2015).

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 Units 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 restricted harvest seasons for bulls and cows could reduce the potential harvest opportunities for Federally qualified subsistence users when caribou are available.

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 prohibition 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 the cow mortality are recommended.

In Unit 23, that portion north of and including the Singoalik River drainage, the bull season does not start until February 1 (current State regulations), which is seven weeks later than the December 6 date recommended by the North Slope Subsistence Rural Advisory Council for the adjacent area in Unit 26A. The longer bull season in Unit 26A provides more opportunity for Federally qualified subsistence users.

Federally qualified subsistence users would have an extended cow season in the proposed hunt area compared to those users in Unit 23 remainder. Thus, Federally qualified subsistence users from locations outside of the hunt area may take advantage of this longer season resulting in increased competition with local subsistence users.

OSM Preliminary Conclusion

Support Proposal WP16-61/62/63/64 **with modification** to the modify hunt area descriptor changes for Units 23 and 24; decrease the harvest limit in Unit 23 remainder from 15 to 5 caribou per day, as well as

shortening the cow and bull seasons and prohibiting the harvest of cows with calves, prohibit the harvest of cows with calves in Unit 24A and 24B north of the Kanuti River, 24C and 24 D; shorten the cow season and prohibit the harvest of cows with calves in Unit 26B; and reduce the harvest limit in Unit 26B remainder from 10 to 5 caribou per day, shorten the season, and prohibit the harvest of calves for that portion south of 69°30' and west of the Dalton Highway. The language for the modified regulations was simplified to make it easier for those using the Federal Subsistence regulations.

The modified regulations should read:

WP16-61

Unit 23 – Caribou

Unit 23 – ~~*that portion north of a line from the mouth of the Singoalik River east to the boundary of the Noatak National Preserve, north to the Unit 26A boundary*~~ ***that portion north of and including the Singoalik River drainage***	***5 caribou per day as follows: however calves may not be taken*** ~~*15 caribou per day; however, cow caribou may not be taken May 16 – June 30*~~	~~*July 1 – June 30*~~
	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***

WP16-62

Unit 24—Caribou

Unit 24A–south of the south bank of the Kanuti River - 1 caribou		***Aug. 10 -Mar. 31***
*Unit 24**B** – 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 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 Koyukuk River downstream from the confluence with the Kanuti River in Unit 24B to the Unit 24C boundary	***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 July 15 -Oct. 14	***July 15 – Apr. 30***
Units 24C and 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; however cows accompanied by calves may not be taken Sept. 1 -Oct. 14	***Sept. 1 – Mar. 31***

WP16-63

Unit 26—Caribou

Unit 26A—Caribou

	Up to 5 caribou per day; however calves may not be taken~~10 caribou per day; however, cow caribou may not be taken May 16 – June 30~~	~~*July 1–June 30*~~
	Bulls may be harvested;	***July 1– Oct. 14*** ***Dec. 6–June 30***
	Up to 3 cows per day; however cows accompanied by calves may not be taken July 16–Oct. 15	***July 16–Mar. 15***

WP16-64

Unit 26B

Unit 26B – that portion south of 69º30' 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 ~~July 15~~***
Unit 26B remainder –	*5~~10~~ caribou per day*	*July 1 – ~~June 30~~**Apr. 30***
	Bulls may be harvested	***July 1 – 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 Teshekpuk and Western Arctic caribou populations in northern and western Alaska have declined approximately 50% since 2008. Low calf survival and recruitment, high adult cow mortality, and human harvest are all 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 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. These proposals 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 Units 23, 24, 26A, and 26B.

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. In addition, the proposed reduction in the harvest limit throughout Unit 23, not just hunt area north of the Singoalik River, mirrors reductions requested by the Northwest Arctic Subsistence Regional Advisory Council

(NWARAC) in its Proposal for the 2016-2018 regulatory cycle, including proposed prohibition against taking cow caribou accompanied by calves (WP16-49).

Modification of the hunt area descriptor in Units 24A and 24B, north of the Kanuti River, clarifies which parts of Units24A and 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. This area is referred to as Unit 25A remainder and Unit 24B remainder in the proposed regulations.

The modified opening date of Dec. 6 for caribou in Unit 26A was specifically requested by the North Slope Subsistence Regional Advisory Council (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 for Unit 26B, south of 69°30 N. lat. west of the Dalton Highway, 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 Unit 26B from 5 caribou/season (current State regulations) to 5 caribou/day provides 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. Reduction of the caribou harvest limit from 10 to 5 caribou per day for Unit 26B remainder reduces regulatory complexity between hunt areas in the subunit.

These proposed caribou harvest regulation changes generally track with the State's regulations but they are not in full alignment. 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 TCH and WACH.

ANALYSIS ADDENDUM

OSM CONCLUSION

Support Proposal WP16-61/62/63/64 **with modification** to: modify the hunt area descriptors for Units 23, 24, and 26A; reduce the harvest limit for caribou in Units 23, 26A, and 26B; establish bull and cow seasons; shorten the caribou seasons; and provide for protection of cows with calves and calves. The

language for the modified regulations was simplified to make it easier for those using the Federal Subsistence regulations. Specific changes from the proposed regulations are as follows.

Unit 23: Decrease the harvest limit in Unit 23 to 5 caribou per day; shortening the cow and bull seasons; prohibiting the harvest of cows with calves for that portion of Unit 23, which includes the drainages north and west of and including the Singoalik River drainage, from July 15–October 14; and for Unit 23 remainder from July 31–October 14.

Unit 24: Split Unit 24 into 4 hunt areas; establish bull and cow seasons; prohibit the take of calves; and remove the restriction on the take of cows with calves in OSM's preliminary conclusion for Unit 24 because they are not present from June to October.

Unit 26A: Split Unit 26A into two hunt areas to reflect the primary range of the TCH amd WACH within Unit 26A; decrease the harvest limit in Unit 26A from 10 to 5 caribou per day; and establish bull and cow seasons for the two hunt areas in Unit 26A.

Unit 26B: Reduce the harvest limit in Unit 26B from 10 to 5 caribou per day; establish bull and cow seasons; extend the cow season in Unit 26B, south of 69°30' and west of the Dalton Hwy, to allow for the take of cows from the CACH, which are present from June to mid-October, and cows from the TCH, which are present mid-October to May; and extend the cow season for Unit 26B remainder to allow take from the CACH and extend the bull season to year-round to provide more opportunity for Federally qualified subsistence users.

The modified regulations should read:

WP16-61

Unit 23—Caribou

Unit 23— ~~*that portion north of a line from the mouth of the Singoalik River east to the boundary of the Noatak National Preserve, north to the Unit 26A boundary*~~ ***that portion which includes all drainages north and west of, and including, the Singoalik River drainage***	***5 caribou per day as follows: however calves may not be taken*** ~~*15 caribou per day; however, cow caribou may not be taken May 16 – June 30*~~	~~*July 1 – June 30*~~
	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. 31*** ***Feb. 1 – June 30***
	Cows may be harvested; however cows accompanied by calves may not be taken July 31–Oct. 14	***July 31– Mar. 31***

WP16-62

Unit 24—Caribou

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

Units 24A remainder and 24B 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 July 15 -Oct. 14~~	***July 15 – Apr. 30***

Units 24C and 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; ~~however cows accompanied by calves may not be taken Sept. 1–Oct. 14~~	***Sept. 1 – Mar. 31***

WP16-63

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; however calves may not be taken~~10 caribou per day; however, cow caribou may not be taken May 16 – June 30~~***	***~~July 1–June 30~~***
	Bulls may be harvested;	***July 1– Oct. 14*** ***Dec. 6–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	***5 caribou per day; however calves may not be taken~~10 caribou per day; however, cow caribou may not be taken May 16 – June 30~~***	***~~July 1–June 30~~***
	Bulls may be harvested;	***July 1– Oct. 15*** ***Dec. 6–June 30***

	Up to 3 cows per day may be harvested; however cows accompanied by calves may not be taken July 16–Oct. 15	***July 16–Mar.15***

WP16-64

Unit 26B

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	***July 1–Apr 30~~July 15~~***
Unit 26B remainder	*5~~10~~ caribou per day*	*~~July 1 – June 30~~*
	Bulls may be harvested	***July 1–June 30***
	Cows may be harvested	***July 1–May 15***

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

Justification

The Teshekpuk and Western Arctic caribou populations in northern and western Alaska have declined approximately 50% since 2008. Low calf survival and recruitment and high adult cow mortality are contributing factors to the overall population decline, with the human harvest now constituting the majority of the adult mortality. 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 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. These proposals 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 Units 23, 24, 26A, and 26B.

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. In addition, the proposed reduction in the harvest limit throughout Unit 23, not just hunt area north of the Singoalik River, mirrors reductions requested by the NWARAC in its Proposal for the 2016-2018 regulatory cycle, including proposed prohibition against taking cow caribou accompanied by calves (WP16-49).

The Singoalik River hunt area in Unit 23 is intended to be drainage based, which allows users to more easily identify hunt area boundaries in the field. The modification in hunt area descriptor clarifies this.

The modifications to the bull and cow seasons and the cow with calf restriction in Unit 23 remainder align with the recommendation from the NWARAC. The bull season proposed by the NWARAC in Proposal WP16-49 closed on Oct. 9. The NWARAC observed that caribou do not pass through portions of Unit 23 until after Oct. 9 in some years, and thus supported extending the bull season to Oct. 31 to provide residents of Unit 23 (especially residents in the southern portions of Unit 23) additional opportunity to harvest caribou (NWARAC 2015).

Similarly, the cow season proposed by the NWARAC in Proposal WP16-49 opened on July 1. However, the Council supported moving the opening date to July 31 in order to provide for additional protection of cows and calves. The restriction on the take of cows with calves was modified to reflect the changes made to the cow season (NWARAC 2015).

The hunt area descriptor for Units 24A and 24B north of the Kanuti River was incomplete. The modified descriptors, Units 24A remainder and 24B remainder, encompass the entirety of the intended hunt area and reduce regulatory complexity by aligning with the State hunt area descriptors for this area. Caribou are generally not present in Unit 24 from July-October. Therefore, the cow with calf harvest restriction is

unnecessary. This modification also aligns with the recommendation from the Western Interior Alaska Subsistence Regional Advisory Council.

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. Unit 26A was split up into two hunt areas based on the range and migration patterns of the TCH and the WACH. The TCH and WACH occur primarily in the north and the south half of Unit 26A, respectively. The cow season for the north half of Unit 26A reflects the need to protect cow-calf bonds early in the breeding season and because more protection is needed due to the population status, high natural cow mortality, and low recruitment of the TCH. To avoid reduced survival of calves through abandonment by hunter-harvested cows, the harvest limit excludes cows accompanied by calves during the period July 16–Oct. 15. After Oct.15, calves are more independent and have a better chance of survival if they become separated from their mother. The longer cow season for the south half reflects the availability of the WACH to Federally qualified subsistence hunters on Federal public lands.

The change in the cow season for Unit 26B, south of 69°30' N. lat. and west of the Dalton Highway, from the proposed Oct 14-Apr. 30 to the modified July 1-Apr. 30 allows for the take of cows by Federally qualified subsistence users from the CACH from June to October and from the TCH, which occur in this area from mid-October to May. The prohibition on the take of calves was removed for the hunt area, south of 69°30' N. lat. west of the Dalton Highway, because the harvest during the spring and summer, based on season restrictions, will be primarily from the CACH and during the fall, when the TCH is present, calves are more independent and likely to survive if the cow-calf relationship ends. In addition, Federally qualified subsistence users rarely target calves.

Three hunt areas in the State caribou regulations (Unit 26B, Northwest portion; Unit 26B, east of the Dalton Highway; and Unit 26B remainder) were combined into one hunt area (Unit 26B remainder) because there is no Federal land in Northern Unit 26B. This hunt area was also recommended by the North Slope RAC and the Western Interior RAC. The cow caribou season for Unit 26B remainder was changed from Oct. 14–Apr. 30 to Jul. 1–May 15 because most of the subsistence harvest in Unit 26B by Federally qualified subsistence users occurs in the summer from Aug. to Sept. and during the spring during Mar. and Apr. The bull season was changed to a year-round season, as most of the harvest on Federal public lands is in the southwest corner of Unit 26B, where the harvest is primarily from the CACH.

The change in the harvest limit for Unit 26B from 5 caribou/season (current State regulations) to 5 caribou/day provides 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.

These proposed caribou harvest regulation changes generally track with the State's regulations but they are not in full alignment. 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

TCH and WACH.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

North Slope Subsistence Regional Advisory Council

Support WP16-61, WP16-63, and WP16-64 **as modified by OSM**. The Council noted that their proposal WP16-61 for Unit 23 only made a request to change the regulations for the area affecting Point Hope based on their feedback (from consultations some Council members had been involved with over the past year) so as not to make a recommendation affecting communities outside of the North Slope RAC region. However, the Council supported the OSM modification to make changes to Unit 23 remainder so that regulations would be consistent throughout the Unit and simplify hunt area descriptors and Northwest Arctic Council had already provided their recommendation in support of this.

The Council disagreed with the NWARAC modification to extend the bull season to October 31 due to the poor quality of meat during the rut.

The Council discussed Inupiaq ways of knowing caribou, noting that there are two Inupiaq words to describe a bull caribou, differentiating a young bull from a mature bull. The Council suggested modifying the language in the regulation to specify a "mature bull" may be helpful for clarification but did not add this specifically as an amendment.

The Council supported their proposal WP16-63 for Unit 26A with the modification by OSM. The Council supports any additional opportunity to take bulls and supports extended protection of cows with calves. The Council did express some concern about the wording on take of cows with calves and recognition of traditional conservation measures that are already practices that avoid leaving a calf orphaned when it can't protect itself. The discussion of the OSM modification cows accompanied by calves may not be taken July 16 – October 15 was reviewed again that is was assumed the calves would be weaned by October 15 and fully developed enough be able to be on their own and therefore no longer consider a calf. The Council discussed Inupiaq knowledge of recognizing when a calf is grown up enough to be on its own, elaborating that it is evident when the calf is on own because they are fattened up with good meat.

The Council supported their proposal WP16-64 for Unit 26B with the modification by OSM. The Council supports any additional opportunity to take bulls when they are good to eat, while supporting conservation measures for cow and calves. The Council also supports reducing regulatory complexity between hunt areas for local hunters. They Council further supports the hunt boundary description that was developed in order to protect the Teshekpuk Caribou Herd but allow more liberal harvest of the healthy Central Arctic Herd in the area when the two herds do not overlap.

Support WP16-62 **with modification** to accept only the OSM Unit descriptor changes. The Council supported their proposal WP16-62 for Unit 24 affecting Anaktuvuk Pass north of the Kanuti River with only the OSM modification specifying the unit descriptor. The Council again discussed concern that they did not want to make regulatory recommendations effecting communities outside of the North Slope RAC

region and in this case Units 24C and 24D have a distinct boundary so the Council deferred to the Western Interior RAC to make recommendations for that area in their region.

The Council did discuss concerns about the restriction on the take of cows with calves only extended until October 15 and that a young caribou could still face difficulty to survive on its own if orphaned after that date. The Council stressed that local practice would not take a cow only to leave a calf to fend for itself from predators and this may only happen inadvertently on rare occasion. The Council stressed that current conservation efforts are to protect the calf and cows with calves to best support the rebound of the caribou population. The Council also discussed local knowledge of Inupiaq ways of identifying cows that are no longer bearing as opposed to "*kuvuluk*" (check spelling) which is able to bear calves.

There were specific concerns discussed about restricting the opportunity to harvest calves for the people of Anaktuvuk Pass due to the traditional use of calf skins in the making of drums; however the Council supported the proposal for conservation reasons due to the benefits of supporting calf recruitment for the caribou population to rebound.

Northwest Arctic Subsistence Regional Advisory Council

Support WP16-61 **with modification** to extend the closing date of the bull season to Oct. 31, change the opening date of the cow season to July 31, modify the restriction on the take of cows with calves, and prohibit the take of calves. **No action taken on other proposals.**

The modified regulation should read:

Unit 23—Caribou

*~~15~~**5** caribou per day; however, cow caribou may not be taken ~~May 16~~**April 1** – ~~June 30~~ **July 30 and no harvesting of cows with calves July 31-Oct. 10. No harvesting of bulls Nov. 1-Jan. 31. The take of calves is prohibited.***	*July 1–June 30*

Same justification as stated in WP 16-49/52. Overall, this Council is concerned about the population of the herd into the future and is adamant about protecting the herd from overharvest.

Western Interior Alaska Subsistence Regional Advisory Council

Support WP16-64. **Defer** action on remaining Units to affected Regions. Elimination of one month of prime bull harvest is detrimental for subsistence users and WP 16-61 as proposed is more appropriate for Unit 26B. The remaining proposals are outside of the Western Interior Region. Defer action to affected Regions.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.

WRITTEN PUBLIC COMMENTS

Miki & Julie Collins
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Federal Subsistence Board
Office of Subsistence Management
1011 E. Tudor Road, MS-121
Anchorage
AK 99503-6199

May 14, 2015

Hi,

My comments on the 2016-2018 Wildlife Proposals:

Quite a few of the proposals align State and Federal regulations. Unless contraindicated for sound biological reasons, I support al of these. It is incredibly onerous to keep track of what-is-allowed-where-and-how-and-when, and everything you can do to help ease this burden would be appreciated by all of us. I feel very strongly about this. Reg's have become ***much*** too complicated. I support WP 16-41 for a similar reason; it does not mach sense to pay hundreds of dollars in air fare to fly to Fairbanks to get your horns seals. In some cases (e.g. WP 16-57) I only support it if fur remains prime that late in the year.

Just in general I support simplified reg's and more liberal seasons when populations are strong, and also support limiting the take (e.g.WP16-63) when populations are low or stressed in that area. I also in most situations support allowing traditional hunting methods. I am however pretty ambivalent about bear baiting because of the danger it can pose to other hunters bumbling blithely through the area, and the possibility of habituating bears.

Most of the proposals were not specific to my area so I hope you get some input from folks more familiar. Please keep in mind that usually local hunters and trappers know more about the critters and conditions in their areas than you-all do.

Thanks,

Miki Collins

Alaska Department of Fish and Game
Comments to the Federal Subsistence Board

Wildlife Proposal WP16-09: This proposal, submitted by the Alaska Department of Fish and Game (ADF&G), requests a closure of the federal subsistence marten trapping season on Kuiu Island in Game Management Unit 3 (Unit 3).

Introduction: This proposal would close the federal subsistence trapping season for marten on Kuiu Island in Unit 3. The current subsistence trapping regulations for martens in Unit 3(§.26(n)(3)(iii)) allow a December 1 to February 15 trapping season throughout Unit 3 (including Kuiu Island) with no harvest limit.

Impact on Subsistence Users: The proposed closure of the federal marten trapping season would prevent the subsistence harvest of marten on Kuiu Island until the population increases.

Impact on Other Users: None.

Opportunity Provided by State: Marten

Area	Open season	Limit
Unit 3, Kuiu Island…….…..		No open season

Source: ADF&G. 2015. 2015-2016 Alaska trapping regulations. Effective: July 1, 2015-June 30, 2016. Alaska Department of Fish and Game, Division of Wildlife Conservation, Juneau.

Conservation Issues: More than a decade of ADF&G research indicates that the Kuiu Island marten population has remained at chronically low levels since at least 2001 (Flynn et al. 2004; Lowell 2007; Flynn and Dawson 2008). A recently completed 7-year study of Kuiu Island marten indicates that the island's marten population remains stagnant at low levels (Flynn et al. 2013). The state marten trapping season on Kuiu Island was closed by emergency order in 2008 and has remained closed by regulation since 2009. The closure of the state trapping season was in direct response to chronically low marten abundance, low marten survival (particularly of juveniles), low prey (vole) abundance, and low recruitment of juvenile martens into the breeding population. Any additional mortality resulting from trapping harvest could be additive to already high natural mortality, further exacerbating the current conservation concerns for Kuiu Island marten.

Flynn, R. W., C. H. Koch, and N. G. Dawson. 2013. Population dynamics, movement, and habitat selection of martens on Kuiu Island, Southeast Alaska. Interim wildlife research report. ADF&G, Juneau, AK.

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Flynn, R. W., T. V. Schumacher, and M. Ben-David. 2004. Abundance, prey availability, and diets of American marten: Implications for the management of old-growth reserves in Southeast Alaska. Final Report. ADF&G, Douglas, AK.

Lowell, R. E. 2007. Unit 3 furbearer. Pages 52-63 in P. Harper, editor. Furbearer management report of survey and inventory activities, 1 July 2003-30 June 2006. ADF&G. Project 7.0. Juneau, AK.

Recommendation: The department's recommendation is to SUPPORT proposal WP16-09.

This proposal requests a closure of marten trapping on Kuiu Island. The department has done extensive research on this population and recommends a complete closure of the trapping season, mirroring state regulations.

OSM proposed a modification to this proposal that would keep the marten trapping season open during the month of December. The department does not agree with the assessment that the December season provides adequate protection for the marten population or that the benefits of collecting harvest statistics to monitor the population are sufficient justification to disregard the expressed biological concern.

The federal interagency staff committee (ISC2) also supports a month long season to provide subsistence opportunity and to monitor the population. We disagree on the basis of a conservation concern and do not think that it provides a tool for monitoring the marten population.

This action is necessary to conserve the marten population on Kuiu Island. Adopting this proposal will also reduce regulatory complexity for users by aligning state and federal regulations.

Alaska Department of Fish and Game
Comments to the Federal Subsistence Board

Wildlife Proposal WP16-13: This proposal, submitted by Andy McLaughlin (SC RAC member/Chenega Bay), requests that federally qualified users be required to obtain a federal registration permit to harvest Unit 6D black bear on federal public lands from Sept 10-June 30.

Introduction: The proponent would prefer to hunt Unit 6D black bear on federal public lands under a federal permit that is good for the entire federal open season. Currently the federal permit is required only from Jun 11-Jun 30.

Impact on Subsistence Users: Qualified rural residents will be required to obtain a federal permit to harvest black bear in Unit 6D under federal regulations.

Impact on Other Users: None anticipated.

Opportunity Provided by State:

		Open Season (Permit/Hunt #)	
Unit/Area	Bag Limit	Resident	Nonresident
Unit 6D	One bear *every regulatory year, by permit*[1]	Sept 10-Jun 10 RL065	Sept 10-Jun 10 RL065

Special instructions: Black bear may not be taken from a boat in Unit 6D. See pages 24-28 for bear information and salvage requirements. Evidence of sex must remain naturally attached as required.

Source: ADF&G. 2015. 2015-2016 Alaska hunting regulations. Effective July 1, 2015-June 30, 2016. Alaska Department of Fish and Game. Division of Wildlife Conservation, Anchorage.

Conservation Issues: Concern over a prolonged black bear population decline in Prince William Sound led area wildlife managers to close the 2015 spring hunting season two weeks earlier than usual to prevent overharvest. Black bear harvest in Subunit 6D, which encompasses coastal areas surrounding Whittier, Valdez, and Cordova, nearly tripled from the late 1990s to 2007 and has steadily declined since. Records also indicate that harvests in regulatory years 2012 and 2013 fell 25% and 47%, respectively, below the previous regulatory year. Black bear sows are also increasingly being taken by hunters. The percentage of females in the harvest has increased to over 40% the last three regulatory years and has exceeded the management objectives each year since 2006. Anecdotal reports from a diverse group of users suggest a decline in bears during the last decade. In addition, milder weather during three of the last five years may have impacted black bear behavior, availability, and possibly survival. Managers are asking hunters to help conserve bears by avoiding harvesting sows and selectively taking boars only.

[1] Available online at http://hunt.alaska.gov or in person in Anchorage, Cordova, Fairbanks, Glennallen, Palmer, or Soldotna beginning Aug 10.

Source: ADF&G press release: May 19, 2015 entitled "Reminder: Prince William Sound Black Bear Season Closes May 27." Contact: Charlotte Westing, Area Wildlife Biologist, Cordova.

Enforcement Issues: Permit programs help law enforcement determine legal hunters in the field.

Jurisdiction Issues: Federal public lands, managed almost entirely by the U.S. Forest Service (USFS), comprise approximately 67% of Unit 6D (M. Burcham, Wildlife Biologist, USFS, Cordova, personal communication)[2].

Recommendation: The department's recommendation for proposal WP16-13 is to SUPPORT with Modification to require a state registration permit.

This proposal recommends the use of a federal registration permit to hunt black bears in Unit 6D. The department supports the use of a registration permit, but recommends that federal users utilize the state registration permit (RL065) that was recently established by the Board of Game. This simplifies permit requirements and use for federal subsistence users. The department's recommendation makes use of the state permit system which has been demonstrated to be more effective in collecting hunt reports that are used to manage populations. ISC2 is recommending the use of a federal registration permit.

The state reminds hunters that all black bears harvested in Unit 6 are required to be sealed, regardless of which permit structure is utilized (ADF&G 2015, p. 24).

Note: The General Provision of the 2014-2016 Federal subsistence wildlife regulations includes a sealing requirement for black bear in Unit 6.

Source: Federal Subsistence Management Program. 2014. Subsistence management regulations for the harvest of wildlife on federal public lands in Alaska. Effective 1 July 2014-30 June 2016. Office of Subsistence Management, Anchorage. p. 19.

[2] OSM draft staff analysis for WP16-14, RAC review, Sept 14, 2015.

Alaska Department of Fish and Game
Comments to the Federal Subsistence Board

Wildlife Proposal WP16-15: This proposal, submitted by the Hope Village Council, requests an increase in the caribou harvest limit in a portion of Unit 7 [from five caribou] to 10 caribou with five caribou for the community of Hope and five caribou for the community of Cooper Landing by federal registration permit.

Introduction: Caribou were extirpated from the Kenai Peninsula by the early twentieth century, most likely from a series of large-scale fires in the late 1880s and unregulated hunting. Reintroductions in 1965 and 1966 established the Kenai Mountain (KMCH) and Kenai Lowlands caribou herds. Between 1972 and 1976 the KMCH fluctuated between 200 and 400+ animals, and the population declined twice after it exceeded 400 animals. A limited drawing permit system for KMCH was implemented in 1997 and it remains in effect today.

Source: Selinger, J. 2013. Units 7 and 15 caribou management report. Pages 1-12 [In] P. Harper, editor. Caribou management report of survey and inventory activities 1 July 2010-30 June 2012. Alaska Department of Fish and Game, Species Management Report ADF&G/DWC/SMR-2013-3, Juneau. http://www.adfg.alaska.gov/static/home/library/pdfs/wildlife/mgt_rpts/2013_caribou_management_report_survey_inventory_activities.pdf

Impact on Subsistence Users: If this proposal is adopted it would double the Unit 7 federal subsistence harvest quota from five to ten caribou and allocate the harvest equally between the communities of Hope and Cooper Landing.

Opportunity Provided by State:

		Open Season (Permit/Hunt #)	
Unit/Area	Bag Limit	Resident	Nonresident
Unit 7 north of Sterling Highway and west of Seward Highway	One caribou by permit	Aug 10-Dec 31 DC001	Aug 10-Dec 31 DC001
Unit 7 remainder		no open season	no open season

Special instructions: In bag limit, "caribou" means an animal of either sex.

Source: ADF&G. 2015. 2015-2016 Alaska hunting regulations. Effective July 1, 2015-June 30, 2016. Alaska Department of Fish and Game. Division of Wildlife Conservation, Anchorage.

Unit 7 is within the state's Anchorage-Matsu-Kenai Peninsula nonsubsistence area (5 AAC 99.015).
Source: The Alaska Administrative Code, Title 5 Fish and Game, Part 7. Subsistence Hunting, Fishing, and Trapping (5 AAC 99), Section 16. Joint Board nonsubsistence areas.

Conservation Issues: The management objective for Kenai Mountains caribou is to maintain a post-hunt population of 300-400 animals (Selinger 2013). However, since this is an introduced

population with an objective of providing animals to harvest, a limited drawing hunt was continued.

Jurisdiction Issues: Federal public lands comprise approximately 78% of Unit 7 and consists of 50% U.S. Forest Service (USFS) managed lands, 23% National Park Service (NPS) managed lands and 5% U.S. Fish and Wildlife Service (USFWS) managed lands (T. Kron, Biologist, OSM, Anchorage, personal communication)[3].

Recommendation: The department's recommendation is to OPPOSE increasing the harvest quota as proposed in WP16-15.

This proposal increases the caribou quota for the KMCH (Unit 7) from 5 to 10 caribou. The KMCH is an introduced herd that is currently below population objectives. We recommend status quo for this population. In conjunction with this proposal there was a request to close federal lands to nonfederally qualified resource users that we are opposed to. Current harvests are sustainable and managed through a permit system that can be used to regulate harvest as needed. There is no justification for closing federal lands at this point in time.

The department also OPPOSES OSM's preliminary recommendation for proposal WP16-15 to SUPPORT with Modification[4] to close caribou hunting on federal lands in Unit 7.

The most recent KMCH counts (late fall 2013 and early winter 2015) of 130 caribou and 194 caribou respectively were both considered minimal counts due to poor or limited light conditions. Consequently some animals may have been missed and there were likely more animals out there. Continuing a limited drawing hunt (with a very small take) is acceptable until ADF&G has better information.

For the 2015/2016 state Kenai Mountains caribou hunt in Unit 7 (DC001) 25 permits were issued. All 25 permitees reported: nine reported hunting, and one harvested a bull caribou. Therefore, the total harvest (state plus federal) of two caribou was not detrimental to the Kenai Mountains caribou herd. All hunters should be allowed to harvest when it does not have a negative impact on the herd.

[3] OSM draft staff analysis for WP16-15, ISC1 Review, June 30, 2015.

[4] After consulting with their legal counsel (i.e., Ken Lord, Solicitor/DOI Dept of Law/Anchorage) the Interagency Staff Committee (ISC2) was advised to change OSMs **WP16-15** recommendation from [SUPPORT with Modification to close Federal lands to the harvest of caribou to allow the Kenai Mt caribou herd to rebuild] to OPPOSE WP16-15 as submitted. Since the Southcentral RAC has not heard and been able to comment on this change, the ISC postponed their WP16-15 recommendation until they hear feedback from the Southcentral RAC which meets next during the 7-11 Mar 2016 All-Councils Meeting. The Solicitor also advised USFWS that if they feel that it is necessary to close federal public lands for hunting Kenai Mt caribou, this should be pursued via Special Action.

Alaska Department of Fish and Game
Comments to the Federal Subsistence Board

Wildlife Proposal WP16-22: This proposal, submitted by the Alaska Peninsula/Becharof National Wildlife Refuge, requests that a federal registration permit be required to hunt moose in Unit 9C—that portion draining into the Naknek River from the south, during the Aug 20-Sept 20 seasons. In addition, the proponent requests that hunters also acquire a state permit and report their hunt via that permit.

Introduction: In Unit 9C, the Federal subsistence fall moose hunt season starts 12 days before and continues 5 days beyond the State season. This hunt is only open on Federal public lands of Unit 9C within the Becharof National Wildlife Refuge. A State registration permit is required for the fall portion of the Federal hunt; however, federally qualified subsistence users in Unit 9C are currently hunting with a permit whose dates differ from that of the Federal subsistence season.

The proponent is concerned that the use of a State permit causes confusion because of the differing Federal and State season dates. The proponent states that a Federal subsistence registration permit would create a consistent requirement for both the fall and winter hunts, and give hunters a permit which accurately reflects the season dates of the hunt in which they are participating.

The proponent also states that State and Federal biologists agreed that requiring hunters to report via the State harvest system yields more accurate data, due to penalties imposed for non-reporting, and that it would be beneficial to have the reporting for Unit 9 in one system to the extent possible. To avoid confusion, the proponent suggests that the Federal subsistence permit should clearly indicate that reporting should be done via the State permit.

Source: T. Jennings, Wildlife Biologist, OSM, Anchorage, personal communication[5].

Impact on Subsistence Users: If adopted, this proposal would require federally qualified subsistence users to use a federal registration permit for hunting on federal public lands during the fall moose hunt in Unit 9C – that portion draining into the Naknek River from the south.

[5] OSM draft staff analysis for WP16-22, RAC review, Sept 15, 2015.

Opportunity Provided by State:

Unit/Area	Bag Limit	Open Season (Permit/Hunt #) Resident	Nonresident
Unit 9C that draining into Naknek River[a]	One bull by permit[b]	Sept 1-Sept 15 RM272	--
	Or		
	One antlerless bull by permit[c]	Dec 1-Dec 31 RM272	--
	One bull with 50 inch antlers with 3 or more brow tines on at least one side by permit[b]	--	Sept 5-Sept 15 RM282
Unit 9C remainder[a]	One bull by permit[b]	Sept 1-Sept 15 RM272	--
	Or		
	One antlerless bull by permit[c]	Dec 15-Jan 15 RM272	--
	One bull with 50 inch antlers with 3 or more brow tines on at least one side by permit[b]	--	Sept 5-Sept 15 RM282

[a] Federal restrictions exist, see page 8.
[b] Permit available in person in King Salmon beginning Aug 14.
[c] Permit available in person in King Salmon beginning Nov 13.

Special instructions: In bag limit, "moose" means an animal of either sex; "bull" means a male moose. 50-inch antlers and brow tines are defined on pages 30-31. In all hunts limited to one sex, evidence of sex must remain naturally attached to the meat.

Source: ADF&G. 2015. 2015-2016 Alaska hunting regulations. Effective July 1, 2015-June 30, 2016. Alaska Department of Fish and Game. Division of Wildlife Conservation, Anchorage.

Enforcement Issues: The request is for an additional permit, thus increasing complexity for law enforcement.

Jurisdiction Issues: Federal public lands comprise approximately 86% of Unit 9C; consisting of 78% National Park Service managed lands, 4% U.S. Fish and Wildlife Service managed lands, and 4% Bureau of Land Management managed lands, and <1% Alagnak Wild River. Katmai

National Park manages the Alagnak Wild River and subsistence hunting is not authorized within the park boundaries (T. Jennings, Wildlife Biologist, OSM, Anchorage, personal communication)[6].

Other Issues: A Federal subsistence permit requirement will supersede the currently used State permit and void the proponent's request for reporting harvest using a State permit. Under Federal regulation 100.6 (3) (a) users cannot be required to report via the State permit.

Source: T. Jennings, Wildlife Biologist, OSM, Anchorage, personal communication[2].

Recommendation: The department's recommendation is to OPPOSE proposal WP16-22.

This proposal recommends the use of a federal registration permit to hunt moose in Unit 9C. The department recommends the continued use of the state registration permit, which is currently required. The issue largely stems from a previous decision to not include federal season dates on state permits out of concern that they might be misapplied by hunters who were not aware of the differences between state and federal regulatory systems and who qualifies for each. ADF&G has recently changed this position and can now accommodate federal seasons on the state permit. The use of the state permit simplifies permit requirements for federal subsistence users. The state permit system has also been demonstrated to be more effective in collecting hunt reports that are used to manage populations. The ISC2 supports the use of a federal permit.

The department can address the concerns expressed in this proposal by listing Federal season dates on the state registration permit. Increased regulatory complexity would not benefit users or law enforcement.

[6] OSM draft staff analysis for WP16-22, RAC review, Sept 15, 2015.

Alaska Department of Fish and Game
Comments to the Federal Subsistence Board

Wildlife Proposal WP16-25/26:

Proposal WP16-25, submitted by Jonathan Forsling (Chairman, Togiak Fish & Game Advisory Committee) requests that the open season for hunting caribou in Units 17A and 17C, that portion of 17A and 17C consisting of the Nushagak Peninsula south of Igushik River, Tuklung River, and Tuklung Hills, west of Tvativak Bay be increased [from Aug 1-Sept 30 and Dec 1-Mar 31] to Aug 1-Mar 31. In addition, this proposal also requests an increase in the harvest limit [from up to 2 caribou by federal registration permit (FC1702)] to up to 3 caribou by federal registration permit. As before, federal public lands would remained closed to the harvest of caribou except by the residents of Togiak, Twin Hills, Manokotak, Aleknagik, Dillingham, Clark's Point, and Ekuk.

Proposal WP16-26 was submitted on behalf of the Nushagak Fish and Game Advisory Committee by Southwest Regional Coordinator, Board Support Section, Alaska Department of Fish and Game (ADF&G). Proposals WP16-26 and WP16-25 request the same changes, therefore the ADF&G comments have been combined for these proposals.

Introduction: The two aspects of these proposals, to lengthen the caribou season and to increase the bag limit from 2 to 3 caribou, are both meant to provide more caribou hunting opportunity for permit holders. These changes not only provide additional opportunity for hunters to fill their freezers, but would hopefully increase harvest and help meet harvest and management objectives for the Nushagak Peninsula caribou herd.

Impact on Subsistence Users: Subsistence hunters with a customary and traditional use determination for Nushagak Peninsula caribou would have a longer season (open season increased from 6 months to 8 months) and opportunity to harvest more caribou (bag limit increased from 2 caribou to 3 caribou) on federal public lands.

Impact on Other Users: Because federal public lands would remain closed to the harvest of caribou except by the residents of Togiak, Twin Hills, Manokotak, Aleknagik, Dillingham, Clark's Point, and Ekuk, no additional opportunities to harvest Nushagak Peninsula caribou would be afforded to other users at a time when the population can support harvest by nonfederally qualified users and would benefit from the additional harvest as well.

Opportunity Provided by State:

Unit/Area	Bag Limit	Open Season (Permit/Hunt #) Resident[a]	Nonresident
Unit 17A[b] all drainages that terminate east of Right Hand Point	Two caribou	may be announced (RC501)[c]	No open season
Units 17A remainder, 17B, and 17C east of the east banks of Wood River, Lake Aleknagik, Agulowak River, Lake Nerka, and Agulukpak River	Two caribou	Aug 1-Mar 31 (RC503)[c]	No open season
Unit 17 C remainder[b]	Two caribou	may be announced (RC501)[c]	No open season

Sources: ADF&G 2014 and BOG 2015.
[a] Subsistence and General Hunts.
[b] Federal restrictions exist, check federal regulations
[c] Permit available online at http://hunt.alaska.gov and in person in Anchorage, Bethel, Dillingham, Fairbanks, Homer, King Salmon, Palmer, Soldotna, and local license vendors beginning July 17.

ADF&G. 2014. 2014-2015 Alaska hunting regulations. Effective July 1, 2014 through June 30, 2015. Alaska Department of Fish and Game, Anchorage.

Conservation Issues: At present, this caribou herd is above the population objective and there is concern that this herd will exceed the carrying capacity of the habitat, which would be detrimental to the short and long term health of this herd.

Recommendation: The department's recommendation is to SUPPORT proposal WP16-25 with modification to remove the closure for nonfederally qualified hunters on federal public lands in the affected portions of Units 17A and 17C, and take no action on proposal WP16-26.

This proposal increases the bag limit for the Nushagak Peninsula caribou herd (NPCH). The NPCH was originally transplanted to the area by the state, but has been closed to caribou hunting by nonfederally qualified users since the herd was introduced. The population is now above objective and at a size that has historically been unsustainable due to habitat limitations. The current federal harvest is not sufficient to regulate the population. The department supports liberalizing the caribou season, but firmly requests that the federal land closure be rescinded. The ISC2 does not recommend rescinding the federal land closure.

The department requests that the hunting restriction be removed to allow all Alaska residents to participate in the hunting of caribou on the Nushagak Peninsula. Restricting hunting opportunity for nonfederally qualified users limits the harvest unnecessarily at a time when additional harvest is needed to manage the population and could be detrimental to the long-term use of this caribou herd if the population declines due to limited food resources.

The department supports increasing hunting opportunity to meet management objectives and considers this a necessary goal for the management of this caribou herd. However, the opportunity should be extended to all resource users. On page 78 of the *Subsistence Management Regulations for the Harvest of Wildlife on Federal Public Lands in Alaska*, the following restriction is listed for this caribou hunt: "Federal public lands are closed to the harvest of caribou except by the residents of Togiak, Twin Hills, Manokotak, Aleknagik, Dillingham, Clark's Point, and Ekuk". This restriction prevents hunters outside of these communities from participating in the Nushagak Peninsula caribou hunt.

BOG. 2015. Alaska Board of Game Meeting Information, Central/Southwest Regions, February 13-20, 2015, Wasilla, AK. http://www.adfg.alaska.gov/index.cfm?adfg=gameboard.meetinginfo&date=02-13-2015&meeting=wasilla. Preliminary Actions (PDF 51 kB), for Dillingham Area – Unit 17, Proposal 47. Accessed May 12, 2015.

Alaska Department of Fish and Game
Comments to the Federal Subsistence Board

Wildlife Proposal WP16-31/32: Proposal WP16-31, submitted by the Nushagak Fish and Game Advisory Committee, and proposal WP16-32, submitted by the Togiak Fish and Game Advisory Committee, both request a change in federal subsistence regulations to allow same day airborne harvest of Nushagak Peninsula caribou during the Jan 1-Mar 31 winter hunt.

Introduction: If this proposal is adopted, it would alter methods and means in federal regulation to allow same day airborne harvest of Unit 17 caribou on the Nushagak Peninsula from Jan 1-Mar 31.

Impact on Subsistence Users: Allowing same day airborne harvest would provide additional opportunity for federally qualified users to harvest caribou on the Nushagak Peninsula during the winter hunt in Unit 17.

Impact on Other Users: Under current federal regulations, nonlocal hunters are not allowed to participate in this hunt on federal public lands, with or without the use of aircraft.

Opportunity Provided by State:

Methods and Means. 5 AAC 92.085. Unlawful methods of taking big game, exceptions.
(8) a person who has been airborne may not take or assist in taking a big game animal until after 3:00 a.m. following the day in which the flying occurred; however, restrictions in this paragraph do not apply to (A) taking deer, (C) a person flying on regularly scheduled commercial airlines, including a commuter airline.

Source: The Administrative Code on the Alaska Legislature website
http://www.legis.state.ak.us/basis/folioproxy.asp?url=http://wwwjnu01.legis.state.ak.us/cgi-bin/folioisa.dll/aac
Accessed 23 Sept 2015.

Conservation Issues: At present, this caribou herd is above the population objective and there is concern that this herd will exceed the carrying capacity of the habitat, which would be detrimental to the short and long term health of this herd.

Jurisdiction Issues: Federal public lands comprise approximately 87% of Unit 17A and consist entirely of Togiak National Wildlife Refuge managed lands. Federal public lands comprise approximately 26% of Unit 17C and consist of 15% U.S. Fish and Wildlife Service (USFWS) managed lands and 11% Bureau of Land Management (BLM) managed lands (R. La Vine, Anthropologist, OSM, Anchorage, personal communication)[7].

[7] OSM draft staff analysis for WP16-31/32, RAC review, Sept 15, 2015.

Recommendation: The department's recommendation is to OPPOSE proposal WP16-31/32.

This proposal allows the use of aircraft same day airborne when hunting the Nushagak Peninsula caribou herd (NPCH). The NPCH was originally transplanted to the area by the state, but has been closed to caribou hunting by nonfederally qualified users since the herd was introduced. The population is now above objective and at a size that has historically been unsustainable due to habitat limitations. The current federal harvest is not sufficient to regulate the population. The department opposes the use of this extremely liberal method until the federal land closure is rescinded. The ISC2 does not recommend rescinding the federal land closure.

Even though the department supports the concept of liberalizing hunting opportunity to meet management objectives and considers this a necessary goal for the management of this caribou herd, same day airborne (SDA) hunting is the most liberal method of taking caribou employed in Alaska, and it has only been used when populations cannot be controlled through more standard methods in unrestricted hunting opportunity for all user groups. Recent survey data and the inability to achieve an adequate harvest under federal regulations indicate that the NPCH can support additional harvest by nonfederally qualified users. An alternative to SDA would be to remove the restriction that limits opportunity to federally qualified users and allow all State of Alaska hunters to participate in this hunt through a state season.

To help meet current management harvest objectives for the Mulchatna caribou herd the department requests that the closure on federal public lands in Units 17A and 17C be removed before SDA opportunity is provided.

Alaska Department of Fish and Game
Comments to the Interagency Staff Committee

Wildlife Proposal WP16-37: This proposal, submitted by Jack Reakoff (Western Interior Subsistence Regional Advisory Council Chair, Wiseman) requests changes to caribou hunting regulations in Units 21D, 22, 23, 24, 26A, and 26B. It would reduce harvest limits, reduce seasons for bulls and cows, create new hunt areas and a to-be-announced season, and prohibit the take of calves and cows with calves.

Introduction: The Alaska Board of Game changed the regulations for all Units associated with the Western Arctic caribou herd (WAH) and Teshekpuk caribou herd (TCH) at their 13-17 March 2015 meeting in Anchorage. To aid in conservation of the herd, these regulatory changes to reduce harvest will begin in RY2015.

The intent of this proposal is to align federal subsistence hunting regulations with recently adopted state regulations for WAH and TCH.

Impact on Subsistence Users: Adoption of this proposal will restrict caribou harvest at certain times of the year on federal public lands in Units 21D, 22, 23, 24, 26A and 26B. It will also reduce daily caribou harvest limits [from 15 per day] to 5 per day in Units 21D and 23 and [from 10 per day] to 5 per day in Units 26A and 26B.

Impact on Other Users: None anticipated.

Opportunity Provided by State:

			Open Season (Permit/Hunt #)	
Unit/Area	Bag Limit		Resident[a]	Nonresident
Unit 21D *north of Yukon R and east Koyukuk R*	Two caribou *may be taken during winter season*		may be announced HT[b]	_
Unit 21D *remainder*	Five caribou/day *however, calves may not be taken*	Bulls	Jul 1-Oct 14 HT[b]	_
			Feb 1-Jun 30 HT[b]	_
		Cows	Sept 1- Mar 31 HT[b]	_
	One bull *however, calves may not be taken*		_	Aug 1-Sept 30 HT

Unit/Area	Bag Limit		Open Season (Permit/Hunt #) Resident[a]	Nonresident
Unit 22A *north of Golsova R drainage*	Five caribou/day *however, calves may not be taken*	Bulls	Jul 1-Oct 14 HT[b]	_
			Feb 1-Jun 30 HT[b]	_
		Cows	Sept 1- Mar 31 HT[b]	_
	One bull *however, calves may not be taken*		_	Aug 1-Sept 30 HT

Unit/Area	Bag Limit		Open Season (Permit/Hunt #) Resident[a]	Nonresident
Unit 22A *remainder*	Five caribou/day *however, calves may not be taken, bulls may not be taken Oct 15-Jan 31, & cows may not be taken Apr 1-Aug 31*	Bulls	may be announced HT[b]	_
	One bull *however, calves may not be taken*		_	may be announced HT

Unit/Area	Bag Limit		Open Season (Permit/Hunt #) Resident[a]	Nonresident
Unit 22B *west of Golovin Bay, west of the west banks of Fish & Niukluk R below Libby R, & excluding Niukluk R drainage above & including Libby R drainage*	Five caribou/day *however, calves may not be taken*	Bulls	Oct 1-Oct 14 HT[b]	_
			Feb 1-Apr 30 HT[b]	_
		Cows	Oct 1-Mar 31 HT[b]	_
	Five caribou/day *however, calves may not be taken, bulls may not be taken Oct 15-Jan 31, & cows may not be taken Apr 1-Aug 31*		may be announced HT[b]	_
	One bull *however, calves may not be taken*		_	may be announced HT

Unit/Area	Bag Limit		Open Season (Permit/Hunt #) Resident[a]	Nonresident
Unit 22B *remainder*	Five caribou/day *however, calves may not be taken*	Bulls	Jul 1-Oct 14 HT[b]	_
			Feb 1-Jun 30 HT[b]	_
		Cows	Sept 1-Mar 31 HT[b]	_
	One bull *however, calves may not be taken*		_	Aug 1-Sept 30 HT

Unit/Area	Bag Limit	Open Season (Permit/Hunt #) Resident[a]	Nonresident
Unit 22C	Five caribou/day *however, calves may not be taken, bulls may not be taken Oct 15-Jan 31, & cows may not be taken Apr 1-Aug 31*	may be announced HT[b]	_
	One bull *however, calves may not be taken*	_	may be announced HT

Unit/Area	Bag Limit		Open Season (Permit/Hunt #) Resident[a]	Nonresident
Unit 22D *Pilgrim R drainage*	Five caribou/day *however, calves may not be taken*	Bulls	Oct 1-Oct 14 HT[b]	_
			Feb 1-Apr 30 HT[b]	_
		Cows	Oct 1-Mar 31 HT[b]	_
	Five caribou/day *however, calves may not be taken, & cows may not be taken Apr 1-Aug 31*		may be announced HT[b]	_
	One bull *however, calves may not be taken*		_	may be announced HT

Unit/Area	Bag Limit		Open Season (Permit/Hunt #) Resident[a]	Nonresident
Unit 22D i*n Kuzitrin R drainage (excluding Pilgrim R* drainage) *& Agiapuk R drainage*	Five caribou/day *however, calves may not be taken*	Bulls	Jul 1-Oct 14 HT[b]	_
			Feb 1-Jun 30 HT[b]	_
		Cows	Sept 1- Mar 31 HT[b]	_
	One bull *however, calves may not be taken*		_	Aug 1-Sept 30 HT

Unit/Area	Bag Limit	Open Season (Permit/Hunt #) Resident[a]	Nonresident
Unit 22D *remainder*	Five caribou/day *however, calves may not be taken, bulls may not be taken Oct 15-Jan 31, & cows may not be taken Apr 1-Aug 31*	may be announced HT[b]	_
	One bull *however, calves may not be taken*	_	may be announced HT

Unit/Area	Bag Limit		Open Season (Permit/Hunt #) Resident[a]	Nonresident
Unit 22E *east of and including the Sanaguich River drainage*	Five caribou/day *however, calves may not be taken*	Bulls	Jul 1-Oct 14 HT[b]	_
			Feb 1-Jun 30 HT[b]	_
		Cows	Sept 1-Mar 31 HT[b]	_
	One bull *however, calves may not be taken*		_	Aug 1-Sept 30 HT

Unit/Area	Bag Limit	Open Season (Permit/Hunt #) Resident[a]	Nonresident
Unit 22E *remainder*	Five caribou/day *however, calves may not be taken, bulls may not be taken Oct 15-Jan 31, & cows may not be taken Apr 1-Aug 31*	may be announced HT[b]	_
	One bull *however, calves may not be taken*	_	may be announced HT

Special instructions: In all hunts limited to one sex, evidence of sex must remain naturally attached to the meat. In bag limit, "caribou" means an animal of either sex; "bull" means male caribou; "cow" means a female caribou.

Unit/Area	Bag Limit		Open Season (Permit/Hunt #) Resident[a]	Nonresident
Unit 23[c] *north of & including Singoalik R drainage*	Five caribou/day *however, calves may not be taken*	Bulls	Jul 1-Oct 14 HT[b]	_
			Feb 1-Jun 30 HT[b]	_
		Cows	Jul 15-Apr 30 HT[b]	_
	One bull *however, calves may not be taken*		_	Aug 1-Sept 30 HT

Unit/Area	Bag Limit		Open Season (Permit/Hunt #) Resident[a]	Nonresident
Unit 23 *remainder*	Five caribou/day *however, calves may not be taken*	Bulls	Jul 1-Oct 14 HT[b]	_
			Feb 1-Jun 30 HT[b]	_
		Cows	Sept 1-Mar 31 HT[b]	_
	One bull *however, calves may not be taken*		_	Aug 1-Sept 30 HT

Special instructions: Meat taken in Unit 23 prior to Oct 1 must remain on the bones of the front quarters, hindquarters and ribs until removed from the field or processed for human consumption. In all hunts limited to one sex, evidence of sex must remain naturally attached to the meat. In bag limit, "caribou" means an animal of either sex; "bull" means male caribou; "cow" means a female caribou.

Unit/Area	Bag Limit		Open Season (Permit/Hunt #) Resident[a]	Nonresident
Unit 24A[d] *south of south bank of Kanuti R*	One caribou		Aug 10-Mar 31 HT	Aug 10-Sept 30 HT
Unit 24AB *remainder*[d]	Five caribou/day *however, calves may not be taken*	Bulls	Jul 1-Oct 14 HT[b]	_
			Feb 1-Jun 30 HT[b]	_
		Cows	Jul 15- Apr 30 HT[b]	_
	One bull *however, calves may not be taken*		_	Aug 1-Sept 30 HT

Unit/Area	Bag Limit	Open Season (Permit/Hunt #) Resident[a]	Nonresident
Unit 24B *south South of the south bank of Kanuti R, upstream from & including that portion of Kanuti-Kilolitna R drainage, bounded by the southeast bank of the Kodosin-Nolitna Ck, then downstream along the east bank of the Kanuti-Kilolitna R to its confluence With Kanuti R*	One caribou	Aug 10-Mar 31 HT	Aug 10-Sept 30 HT

Unit/Area	Bag Limit		Open Season (Permit/Hunt #) Resident[a]	Nonresident
Unit 24CD	Five caribou/day *however, calves may not be taken*	Bulls	Jul 1-Oct 14 HT[b]	_
			Feb 1-Jun 30 HT[b]	_
		Cows	Sept 1- Mar 31 HT[b]	_
	One bull *however, calves may not be taken*		_	Aug 1-Sept 30 HT

Special instructions: In bag limit, "caribou" means an animal of either sex; "bull" means male caribou. Unit 24 meat-on-bones salvage requirements page 22. In all hunts limited to one sex, evidence of sex must remain naturally attached to the meat. Portions of Unit 24 are within the Denali Highway Corridor Management Area (DHCMA) and additional restrictions apply; see page 126.

Unit/Area	Bag Limit		Open Season (Permit/Hunt #) Resident[a]	Nonresident
Unit 26A[c] *Colville R drainage upstream from Anaktuvuk R, & drainages of Chukchi Sea south & west of, & including Utukok R drainage*	Five caribou/day *however, calves may not be taken*	Bulls	Jul 1-Oct 14 HT[b]	_
			Feb 1-Jun 30 HT[b]	_
		Cows	Jul 15- Apr 30 HT[b]	_
	One bull *however, calves may not be taken*		_	Jul 15-Sept 30 HT

Unit/Area	Bag Limit	Open Season (Permit/Hunt #) Resident[a]	Nonresident
Unit 26A *remainder*[e]	Five bulls/day *however, calves may not be taken*	Jul 1-Jul 15 HT[b]	_
		Mar 16-Jun 30 HT[b]	_
	Five caribou/day *three of which may be cows; calves may not be taken*	Jul 16-Oct 15 HT[b]	_
	Three cows/day *however, calves may not be taken & cows may not be taken*	Oct 16-Dec 31 HT[b]	_
	Five caribou/day *three of which may be cows; calves may not be taken*	Jan 1-Mar 15 HT[b]	_
	One bull *however, calves may not be taken*	_	may be announced HT

Unit/Area	Bag Limit		Open Season (Permit/Hunt #) Resident[a]	Nonresident
Unit 26B *Northwest portion: north of 69°30' & west of the east bank of Kuparuk R 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 follow the east bank of Kalubik Ck to Arctic Ocean*	Five caribou/day	Bulls	no closed season HT[b]	_
		Cows	Jul 1-May 15 HT[b]	_
	Five caribou total		_	Jul 15-Apr 30
Unit 26B[d] *South of 69°30' N. lat. & west of Dalton Hwy*	Five caribou total	Bulls	Jul 1-Oct 10 HT[b]	_
			May 16-Jun 30 HT[b]	_
		Cows	Jul 1-Oct 10 HT[b]	_

Unit/Area	Bag Limit	Open Season (Permit/Hunt #) Resident[a]		Nonresident
Unit 26B[d] *South of 69°30' N. lat. & east of Dalton Hwy*	Five caribou total	Bulls	no closed season HT[b]	_
		Cows	Jul 1-May 15 HT[b]	_
Unit 26B[d] remainder	Five caribou total		Jul 1-Apr 30 HT[b]	_

[a] Subsistence and General Hunts.
[b] If you live north of the Yukon River and hunt caribou in that area, you do not need caribou harvest tickets/reports but you must register with ADF&G or an authorized representative within the area.
[c] Federal restrictions exist, see page 8 and check federal regulations.
[d] A portion of this area is within the Dalton Highway Corridor Management Area and additional restrictions apply. See page 126.
[e] In Anaktuvuk Pass Control Use Area the use of aircraft for caribou hunting is prohibited from Aug 15-Oct 15.

Source: ADF&G. 2015. 2015-2016 Alaska hunting regulations. Effective July 1, 2015-June 30, 2016. Alaska Department of Fish and Game. Division of Wildlife Conservation, Anchorage.

Conservation Issues: Population estimates as of July 2013 for the WAH and TCH indicate that they are in decline.

Census results for the WAH show a 27% decline from 2011 to 2013, and a 50% decline from 2003 to 2013. Long term trends of increasing adult cow mortality and decreasing recruitment suggest that the herd will likely continue to decline into the near future.

Population counts of the TCH as of July 2013 show trends with steeper declines than the WAH, with a 42% reduction since 2011, and a 53% decline since 2008. Based on observed adult mortality (>20%), low parturition rates (<60%), low calf survival (<30%), low yearling recruitment (12-15:100 adults), and reduced bull:cow ratios, the population decline appears likely to continue into the near future.

The degree of decline in each herd was higher than expected and consistently supported through population metrics measured in each herd. Since both herds have significant range overlap during their seasonal movements, both herds were considered simultaneously when considering regulatory changes to reduce harvests.

Source: ADF&G, Alaska Board of Game webpage for 13-17 March 2015 meeting in Anchorage http://www.adfg.alaska.gov/index.cfm?adfg=gameboard.meetinginfo&date=03-13-2015&meeting=anchorage under Meeting Materials, Additional Proposals, Proposal 202 (PDF 125 kB). Accessed 13 Aug 2015.

Recommendation: The department's recommendation is to SUPPORT proposal WP16-37.

This proposal modifies caribou seasons and bag limits for the Western Arctic Herd (WAH). The department supports this effort to reduce harvest during this period of population decline and recommends that the seasons and bag limits be aligned with state seasons to simplify the regulations for hunters. The department is opposed to the OSM modification which removes the restriction on taking cows with calves from July through October. Calves have been demonstrated to have reduced survival rates if separated from their cow prior to weening (Sept) and to have reduced survival if separated before reaching one year of age (May). We view this as a conservation concern and do not support the ISC2 position.

This proposal will change bag limits and open season for caribou in Units 21D, 22, 23, 24, 26A, and 26B to agree with state regulations.

Alaska Department of Fish and Game
Comments to the Federal Subsistence Board

Wildlife Proposal WP16-42: This proposal, submitted by Gary Hanchett, requests opening a winter moose season in that portion of Unit 24B upstream of Henshaw Creek drainage.

Introduction: Currently, the portion of Unit 24B upstream of Henshaw Creek drainage is closed to moose hunting in winter and the downstream portion has a Dec 15-Apr 15 season for federally qualified subsistence hunters. The proponent requests that the regulation for the upstream portion of Unit 24B mirror those for the downstream portion, creating a single regulation for all of Unit 24B, with the exception of John River drainage.

Opportunity Provided by State:

		Open Season (Permit/Hunt #)	
Unit/Area	Bag Limit	Resident	Nonresident
Unit 24B[1] all drainages of Koyukuk R upstream from Henshaw Ck drainage, excluding North Fork of Koyukuk R drainage	One bull	Sept 1-Sept 25 HT	--
	OR		
	One bull with 50-inch antlers or with 4 or more brow tines on at least one side	--	Sept 5-Sept 25 HT
Unit 24B[1] remainder	One bull	Sept 1-Sept 25 HT	--
	OR		
	One antlered bull by permit[2]	Dec 15-Apr 15 RM833	--
	One bull with 50-inch antlers or with 4 or more brow tines on at least one side	--	Sept 5-Sept 25 HT

[1] Federal regulations exist, see page 8.
[2] Permit available online at http://hunt.alaska.gov or in person in Hughes, Allakaket or Fairbanks beginning Dec 9

Special instructions: Proxy hunting restrictions apply, see page 12. 50-inch antlers and brow tines are defined on pages 30-31. Meat taken in Unit 24 prior to Oct 1 must remain on the bones of the front quarters, hindquarters and ribs until removed from the field or processed for human consumption. In all hunts limited to one sex, evidence of sex must remain naturally attached to the meat.

Source: ADF&G. 2015. 2015-2016 Alaska hunting regulations. Effective July 1, 2015-June 30, 2016. Alaska Department of Fish and Game. Division of Wildlife Conservation, Anchorage.

Jurisdiction Issues: Federal public lands comprise approximately 59% of Unit 24B; consisting of 38% National Park Service (NPS) managed lands, 14% U.S. Fish and Wildlife Service managed lands, and 7% Bureau of Land Management (BLM) managed lands (S. Worker, Wildlife Biologist, OSM, Anchorage, personal communication)[8].

Recommendation: The department's recommendation is to OPPOSE proposal WP16-42.

This proposal would open a winter moose season in that portion of Unit 24B upstream of Henshaw Creek drainage. The department opposes this proposal because there is no current documentation that the harvestable surplus has increased in this area to justify the additional harvest opportunity. The ISC2 currently supports this request.

[8] OSM draft staff analysis for WP16-42, RAC review, Sept 24, 2015.

Alaska Department of Fish and Game
Comments to the Federal Subsistence Board

Wildlife Proposal WP16-46: This proposal submitted by the Seward Peninsula Subsistence Regional Advisory Council (SP RAC) requests that the Unit 22E moose closure to nonfederally qualified users be rescinded.

Introduction: The SP RAC states that the moose population in Unit 22E has been increasing and therefore the closure is no longer justified.

Impact on Other Users: Rescinding the closure will provide more opportunity for all users.

Opportunity Provided by State:

		Open Season (Permit/Hunt #)	
Unit/Area	Bag Limit	Resident	Nonresident
Unit 22E[a]	One bull	Aug 1-Dec 31 HT	--
	Or		
	One antlerless bull	Jan 1-Mar 15 HT	--
	One bull with 50 inch antlers with 4 or more brow tines on at least one side by permit[b]	--	Sept 1-Sept 14 RM855

[a] Federal regulations apply, see page 8.
[b] Permit available online or in person at Nome ADF&G beginning July 24. Harvest quota to be announced. Season closed by emergency order when up to 13 bulls taken.

Special instructions: In bag limit, "moose" means an animal of either sex; "bull" means a male moose. 50-inch antlers and brow tines are defined on pages 30-31. In all hunts limited to one sex, evidence of sex must remain naturally attached to the meat.

Source: ADF&G. 2015. 2015-2016 Alaska hunting regulations. Effective July 1, 2015-June 30, 2016. Alaska Department of Fish and Game. Division of Wildlife Conservation, Anchorage.

Conservation Issues: There are no conservation concerns for moose in Unit 22E.

The management goals for Unit 22E are to increase and stabilize the population at 200-250 moose and maintain a minimum bull:cow ratio of 30:100 (Gorn 2012). A 2011 census in Unit 22E estimated 669 moose (90% C.I. ± 15.7%). Gorn (2012) stated the objective for Unit 22E was to reduce the population to the upper threshold of the management goal of 250 moose.

Gorn, T. 2012. Unit 22 moose management report. Pages 534-559 [In] P. Harper, editor. Moose management report of survey and inventory activities 1 July 2009-30 June 2011. Alaska Department of Fish and Game, Species Management Report, ADF&G/DWC/SMR-2012-5, Juneau. http://www.adfg.alaska.gov/static/home/library/pdfs/wildlife/mgt_rpts/moose_12.pdf Accessed 27 Aug 2015.

In 2014, the population survey estimate for Unit 22E was 701 moose (90% C.I. ± 14.0%), a negligible increase between 2011 and 2014, though inference is difficult due to the lack of sightability correction. Absent any significant changes in adult age structure, the recruitment rate appears to be stable, with 13% calves observed.

Jurisdiction Issues: Approximately 60% of Unit 22E is comprised of Federal public lands; 54% is National Park Service managed lands and 6% is Bureau of Land Management managed lands.

Source: S. Worker, Wildlife Biologist, USFWS-OSM, Anchorage, personal communication[9].

Other Issues: Closures to hunting, trapping, and fishing on federal public lands and waters in Alaska should be removed as soon as practicable when conditions have changed to such an extent that the closure is no longer necessary. A Regional Advisory Council (RAC), 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 criteria in 50 CFR 100.19 and 36 CFR 242.19.

Source: Department of Interior, Federal Subsistence Management Program website http://www.doi.gov/subsistence/index.cfm Closure Reviews. Accessed prior to Summer 2015 DOI website being under construction activity.

Recommendation: The department's recommendation is to SUPPORT proposal WP16-46.

This proposal requests that the Unit 22E moose closure to nonfederally qualified users be rescinded. We support the proposal given the status of the moose population. The population was estimated to contain 700 moose in 2014, which is above the current objective to maintain the population between 200-250 moose. This proposal was not supported by the RACs.

[9] OSMs draft staff analysis for WP16-46. ISC1 Review copy, June 18, 2015.

Alaska Department of Fish and Game
Comments to the Federal Subsistence Board

Wildlife Proposal WP16-51: This proposal requests that the portion of Unit 23 north and west of the Kobuk River drainage be opened to the harvest of 1 bull muskox by federal registration permit from Aug 1-Mar 15.

Introduction: This Northwest Arctic Regional Advisory Council wrote they submitted this proposal to improve management and simplify regulations so they are parallel with state regulations, and to provide for a federal opportunity on federal public lands when none currently exists.

Opportunity Provided by State:

		Open Season (Permit/Hunt #)	
Unit/Area	Bag Limit	Resident[a]	Nonresident
Unit 23 *that portion north & west of Kobuk R drainage*[b]	One bull by Tier II subsistence hunting permit only	Aug 1-Mar 15 TX107	No open season

[a] Subsistence hunt only.
[b] Federal restrictions exist, see page 8 and check federal regulations.

Special instructions: Subsistence muskox hunts (TX###) are open to Alaska residents only. Aircraft may not be used to transport muskox hunters, muskox, or muskox hunting gear in subsistence hunts. No tag required in Unit 23. In all hunts limited to one sex, evidence of sex must remain attached naturally to the meat. Muskox identification and trophy destruction information on p. 32.

Source: ADF&G. 2015. 2015-2016 Alaska hunting regulations. Effective July 1, 2015-June 30, 2016. Alaska Department of Fish and Game. Division of Wildlife Conservation, Anchorage.

Conservation Issues: Harvests of muskox in the northwestern portion of Unit 23 should be cooperatively managed by the department and the National Park Service, similar to state-federal management occurring on the Seward Peninsula. That would better allow state and federal quotas to be based on the relative abundance of muskoxen on these lands.

Source: Westing, C. 2013. Unit 23 muskox. Pages 52-74 in P. Harper, editor. Muskox management report of survey and inventory activities 1 July 2010-30 June 2012. Alaska Department of Fish and Game, Species Management Report ADF&G/DWC/SMR-2013-2. Juneau.
http://www.adfg.alaska.gov/static/home/library/pdfs/wildlife/mgt_rpts/13_muskox.pdf

Enforcement Issues: Adoption of this proposal would increase regulatory complexity for all users and law enforcement.

Recommendation: The department recommendation is to OPPOSE proposal WP16-51.

This proposal requests that the portion of Unit 23 north and west of the Kobuk River drainage be opened to the harvest of one bull muskox by federal registration permit from Aug 1-Mar 15. The State of Alaska already has a Tier II muskox hunt (TX107) north and west of the Kobuk River that is open at the time as this proposal (Aug 1-Mar 15). This Tier II permit can be used on state or federal lands. If a federal hunt was established for the same area and dates, it would only be valid on federal lands, requiring hunters to know the land ownership and their location. The ISC2 takes the opposite position by stating that it reduces regulatory complexity and provides better opportunity for federally qualified resource users.

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