



Federal Subsistence Board Public Meeting

Meeting Materials - Volume II

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*April 2-5, 2024
Anchorage, Alaska*



Volume II

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- 1374** Togiak NWR Unit 17A 17C Nushagak Caribou DAL

**FEDERAL SUBSISTENCE BOARD
PUBLIC MEETING AGENDA
April 2 – 5, 2024**

April 2, 2024: 1:30 p.m. to 5:00 p.m. (or until recessed)
April 3 - 5, 2024: 9:00 a.m. to 5:00 p.m. (or until recessed) daily
Lakefront Anchorage Hotel, 4800 Spenard Road
Anchorage, Alaska

A toll-free number will be shared on our website in advance of the meeting

On April 2, prior to the start of the Public Meeting, the Federal Subsistence Board will meet at 9:00 a.m. to conduct Tribal Government-to-Government and ANCSA Corporation consultations regarding proposals to change Federal subsistence management regulations for the harvest of wildlife on Federal Public lands and waters in Alaska. **The Public Meeting will begin at 1:30 p.m.**

Updates on the Board's progress through the agenda will be posted on the Federal Subsistence Management Program website at <https://www.doi.gov/subsistence/board/> and on Facebook at www.facebook.com/subsistencealaska.

Updates may also be received by calling (800) 478-1456 or (907) 786-3888.

Public Meeting

*** Asterisk denotes Action Item**

- 1. Call to Order and Welcome**
- 2. Review and Adopt Agenda***
- 3. Federal Subsistence Board Information Sharing Session**
- 4. Regional Advisory Council Chairs Discuss Topics of Concern with the Board**
- 5. Public Comment Period on Non-Agenda Items**
(This opportunity is available at the beginning of each day)
- 6. 2021–2023 Subparts C&D Proposals and Closure Reviews (Wildlife Regulations)**
 - a. Tribal Government-to-Government 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. RFR22-01 Request for Reconsideration of Fisheries Proposal FP21-10 *

8. Delegation of Authority Letters* (*Requests to change existing letters*)

- a. Unit 6 Deer
- b. Units 17A & 17C Nushagak Caribou

9. Council Correspondence to the Board Update

10. Schedule of Upcoming Board Meetings*

- a. 2024 Summer Work Session and Executive Session (*Council Annual Report Replies & Council Appointment Recommendations*)
- b. 2025 Winter Public Meeting (*Fish and Shellfish Regulations – Date Options*)

11. Adjourn

FEDERAL SUBSISTENCE BOARD

CONSENSUS AGENDA

The following proposals and closure reviews have been included on the consensus agenda. These are proposals and closure reviews 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 or closure review from the consensus agenda and place it on the regular agenda. The Board retains final authority for removal of proposals and closure reviews from the consensus agenda. The Board will take final action on the consensus agenda after deliberation and decisions on all other proposals and closure reviews.

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WCR24-35	Unit 12 / Caribou	Retain Status Quo	373
WCR24-42	Unit 12 / Caribou	Retain Status Quo	396
WP24-34	Unit 25D West / Moose	Withdrawn	NA
WP24-35	Unit 25D West / Moose	Withdrawn	NA

FEDERAL SUBSISTENCE BOARD NON-CONSENSUS AGENDA

Procedure for considering proposals:

Analysis (*Lead Author*)

Summary of public comments (*OSM Staff*)

Open floor to public testimony

Tribal/Alaska Native Corporation comments (*Native Liaison*)

Regional Advisory Council recommendation(s) (*Chair or designee*)

Alaska Department of Fish and Game comments (*State Liaison*)

Interagency Staff Committee comments (*ISC Chair*)

Federal Subsistence Board discussion with Council Chairs and State Liaison

Federal Subsistence Board action

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Proposal/Closure Review	Region/Location/Species	Page
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WP24–12_13_14 Executive Summary	
General Description	<p>Wildlife proposal, WP24-12, proposes to extend the fall moose season in Unit 9B. <i>Submitted by: Jake Fries</i></p> <p>Wildlife proposal, WP24-13, proposes to extend the fall moose season in Unit 9B. <i>Submitted by: Warren Hill</i></p> <p>Wildlife proposal, WP24-14, proposes to extend the fall moose season in Unit 9B. <i>Submitted by: Lake Clark National Park Subsistence Resource Commission</i></p>
Proposed Regulation	<p>Unit 9B—Moose</p> <p><i>Unit 9B-1 bull by State registration permit. Sept. 1—Sept. 20— Sept. 25</i></p> <p><i>Dec. 1 – Jan. 15</i></p>
OSM Preliminary Conclusion	Support Proposal WP24-12/13/14.
OSM Conclusion	<p>Support Proposal WP24-12 with modification to open the moose season in Unit 9B five days earlier and take no action on Proposal WP24-13/14.</p> <p>The modified regulations should read:</p> <p>Unit 9B—Moose</p> <p><i>Unit 9B-1 bull by State registration permit. Sept. 1Aug. 27— Sept. 20</i></p> <p><i>Dec. 1 – Jan. 15</i></p>
Kodiak/Aleutians Subsistence Regional Advisory Council Recommendation	Support Proposals WP24-12/13/14 with modification to add five days to the beginning of the season instead of at the end.
Interagency Staff Committee Comments	Wildlife proposal, WP24-12/13/14, proposes to extend the fall moose season in Unit 9B. The Bristol Bay Subsistence Regional Advisory Council suggests modifying the proposal by adding the 5-day season extension at the beginning of the hunting season when access is easier due to water levels and the meat is more palatable prior to the rut. The proposal was discussed with the Lake Clark Subsistence Resource

WP24–12_13_14 Executive Summary	
	<p>Commission and proponents supported the 5-day extension at the beginning of the season.</p> <p>Supporting this proposal would make Federal regulations less restrictive and provide for a subsistence priority under ANILCA, Section 804. If this proposal is not adopted, the Federal subsistence moose hunting season would be more restrictive than the State season, which would not provide for a meaningful preference under ANILCA. With no current conservation concern for the moose in Unit 9B, the current more restrictive season is not warranted.</p>
ADF&G Position	Neutral
Written Public Comments	1 Support

STAFF ANALYSIS

WP24-12/13/14

ISSUES

Proposal WP24-12, submitted by Jake Fries of Port Alsworth, Proposal WP24-13, submitted by Warren Hill, and Proposal WP24-14 submitted by the Lake Clark National Park Subsistence Resource Commission (SRC) request extending the fall moose season in Unit 9B. Proposals WP24-12 and WP24-13 were both originally submitted as special action requests in September 2022 and deferred as wildlife proposals for the 2024-2026 regulatory cycle.

DISCUSSION

WP24-12

The proponent for Proposal WP24-12 states that in 2022, the Unit 9B moose season under State regulations was extended from September 20 to September 25. However, this hunt under Federal regulations still closes September 20, even though Federal subsistence moose are harvested under the State registration permit, RM272.

WP24-13

The proponent for Proposal WP24-13 noticed an irregularity between the State and Federal fall moose seasons in Unit 9B. The 2022 State resident hunt allows for the taking of any bull in Unit 9B from September 1-25. As a Federally qualified subsistence user, the proponent requests aligning the Federal subsistence hunting season with the longer State hunting season. The proponent mentions that the State's rationale for extending the Unit 9B moose hunt was, in part, to make up for the loss of caribou hunting opportunity and to provide more moose harvest opportunity and believes that this increased opportunity should also apply to Federal public lands.

The proponent is also the Iliamna representative on the Lake Clark National Park Subsistence Resource Commission (SRC) and planned to bring this issue up at the SRC's next meeting.

WP24-14

The proponent for Proposal WP24-14 states that alignment of dates will lessen confusion for hunters who pursue game in areas where several State and Federal borders are located in proximity. This will provide more opportunity for subsistence hunters with little or no impact to the population of moose. The State of Alaska extended the moose hunt, in part, to allow for more opportunities after the closure of the caribou hunt in Unit 9B. Such justification also applies to hunters following Federal subsistence regulations.

Existing Federal Regulation

Unit 9B—Moose

Unit 9B-1 bull by State registration permit.

Sept. 1 – Sept. 20

Dec. 1 – Jan. 15

Proposed Federal Regulation

Unit 9B—Moose

Unit 9B-1 bull by State registration permit.

*Sept. 1 – ~~Sept. 20~~
Sept. 25*

Dec. 1 – Jan. 15

Existing State Regulation

Unit 9B – Moose

*Residents: one bull by permit available online or in person RM272 Sept. 1 – Sept. 25
in Unit 9B villages or in King Salmon beginning Aug. 18,
contact King Salmon for additional information*

Or

*Residents: one antlered bull by permit available online or RM272 Dec. 15 – Jan. 15
in person in Unit 9B villages or in King Salmon beginning
Nov. 17, contact King Salmon for additional information*

*Nonresidents: one bull with 50-inch antlers or antlers with RM282 Sept. 5 – Sept. 15
4 or more brow tines on at least one side by permit
available online or in person in Unit 9B villages or in King
Salmon beginning Aug. 18, contact King Salmon for
additional information*

Extent of Federal Public Lands

Federal public lands comprise approximately 34% of Unit 9B and consist of 26% National Park Service (NPS) managed lands and 8% Bureau of Land Management (BLM) managed lands.

Customary and Traditional Use Determinations

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

in Unit 9B.

Regulatory History

In 2008, Proposal WP08-31, addressing moose in Unit 9B, was submitted by the Bristol Bay Subsistence Regional Advisory Council (Council). Proposal WP08-31 requested a closure of Federal public lands to non-Federally qualified users in Unit 9B and 9C (OSM 2008). The Council supported adoption of WP08-31. After extensive discussion and input from the Alaska Department of Fish and Game (ADF&G) and the Council Chair, the proposal was deferred by the Federal Subsistence Board (Board) so a working group could be formed to identify other management options that would address conflicts in Unit 9 subunits (FSB 2008).

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

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

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

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

In March 2011, the BOG 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. Units 9B and 9C were put under the same two registration permits. RM272 was established for State residents and RM282 was established for non-residents. This proposal was submitted by the area moose working group (ADF&G 2011). Based on the actions of the BOG, the Council supported aligning, to the maximum extent possible, Federal subsistence hunting 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 users. Proposals WP10-47, WP10-48, and WP10-52 requested that non-federally qualified 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. 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.

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

In January 2022, the BOG adopted Proposal 204 to lengthen the fall moose season in Unit 9B by five days, closing September 25 instead of September 20. The moose population appears to be healthy, with high bull:cow and calf:cow ratios, as well as high twinning rates, and good body condition of captured moose. With the Mulchatna caribou currently closed, a longer moose season provides additional resources for local residents (ADF&G 2023).

Biological Background

Since the early twentieth 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).

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

1. Maintain existing densities in areas with moderate (0.5–1.5 moose/ mi²): Units 9A-9D or high (1.5–2.5 moose/ mi²) densities: Unit 9E only
2. Increase low-density populations (where habitat conditions are not limiting) to 0.5 moose/ mi²: currently applies to Unit 9, remainder
3. Maintain sex ratios of at least 25 bulls:100 cows in medium-to-high density populations (Unit 9E) and at least 40 bulls:100 cows in low-density areas (Units 9, remainder).

Assessment of moose population status and trends in Unit 9 is difficult for several reasons, including low moose density, and snow and weather conditions that are frequently inadequate for surveys (OSM 2022).

Overall, management objectives for bull:cow ratios and population are being maintained in Unit 9B (low density area) (Butler 2009, pers. comm.). In Unit 9B, the past two composition surveys indicate that the bull:cow ratio is at or just below the biological objective (**Table 1**). The bull:cow ratios also suggest that hunter harvest is not a primary factor limiting moose abundance, since the legal harvest in this unit 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 (Riley 2012, Crowley 2017).

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). 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 Unit 9B (Watts 2015, pers. comm.).

Table 1. Moose composition survey results in Unit 9B, 2003-2013 (ADF&G 2023a; Butler 2008 and 2010, Crowley 2014, pers. comm., Crowley 2017).

Year	Unit 9B (low density population)	
	Bulls: 100 Cows	Calves: 100 Cows
2003	14	26
2004	-	-
2005	23	19
2006	-	-
2007	40	2
2008	-	-
2013	34	23
2018		20

Cultural Knowledge and Traditional Practices

Elders and biologists agree that moose were scarce in the Iliamna/Lake Clark areas of Unit 9B until about the 1950s. In 2002, many people remembered or had heard stories about when there were few moose in the area, and people traveled long distances seeking moose. A Moose provides 500 lbs., or more, of harvestable meat, making it worthwhile to travel further to find one. Generally, in years when caribou do not pass by communities, people's dependence on moose increases (Holen et al 2005).

Moose harvest and use data are lacking or incomplete for Unit 9B communities. One cause of this data gap is that while moose hunters were required to obtain harvest tickets before hunting in some areas of Unit 9 before the 2011 regulatory year, returning harvest reports was not always mandatory during that time. Before the 2011 regulatory season, information concerning the harvest and use of moose by Unit 9B communities was obtained primarily through household harvest surveys. Therefore, the conventional ADF&G harvest reporting system does not always reflect the true level of harvest. After 2010, moose hunters were required to obtain registration permits before hunting for moose in all areas of Unit 9B and returning harvest reports became mandatory. **Appendix 1** provides estimates of the harvest of moose during one-year study periods by communities in Unit 9B based on periodic harvest surveys (ADF&G 2023d).

The annual harvests of moose in most communities generally declined between the 1990s and the 2000s, based on the results of harvest surveys, except in Nondalton where the moose population exploded, and a high harvest was reported during the 2001 harvest survey likely linked to a recent burn that created the ideal conditions for the growth of birch and willow, prime moose feed, according to local residents. Unit 9B communities are highly dependent on moose, which can be a substantial portion of the annual harvest of wild resources in lbs. of edible weight, up to a high of 25% in Levelock in 2005 (**Appendix 1**, Holen et al. 2005). The last harvest surveys with Unit 9B communities that included moose were conducted in 2005.

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, total harvest averaged 40 moose annually between 2003 and 2021 but appears to have increased over the past 10 years, from 35 moose annually for 2003-2012 to 47 moose annually for 2012-2021 (**Table 2**). Local harvest, defined as harvest by residents of Unit 9, averaged 29 moose annually between 2003 and 2021 but appears to have increased over the past 10 years, from 23 moose annually for 2003-2012 to 36 moose annually for 2012-2021 (**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 from 2003-2014 and was influenced by heavy snowfall that allowed better hunter access (BBSRAC 2015).

Alaska resident moose harvest in Unit 9B occurs by registration permit RM272. This permit has been used under State regulations since 2011, under Federal regulations for the fall moose season since 2012, and under Federal regulations for both the fall and winter moose seasons since 2016. Between

2012 and 2015, a Federal registration permit was used for the winter season. Non-resident moose harvest in Unit 9B occurs by registration permit RM282.

The percentage of the harvest in Unit 9B that can be attributed to local users has increased in recent years, from 46% from 2003 – 2008 to 54% from 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 Unit 9B 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 non-local residents (26%) and non-residents (33%) (ADF&G 2015). 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).

Since 2022, moose hunters in Unit 9B under State regulations have had a longer fall hunting season than federally qualified subsistence users. This change made the Unit 9B Federal fall season 5 days shorter and the Federal winter season 14 days longer than the State season. The State nonresident moose season is 11 days and runs from Sep. 5-15.

Table 2. Reported moose harvest by hunter residency in Unit 9B 2003-2021 (ADF&G 2023c; Crowley 2017; OSM 2015). Local residents are defined as those residing in Unit 9.

Year	Local Resident	Nonlocal Resident	Nonresident	Unknown	Total
2003	20		17	2	39
2004	28		13	0	41
2005	35		5	0	40
2006	23		4	0	27
2007	19		17	1	37
2008	26		5	1	32
2009	22		6	0	28
2010	14	8	4	0	26
2011	29	6	4	1	40
2012	14	16	5	0	35
2013	12	9	9	0	30
2014	21	10	13	0	41
2015	25		5	0	30
2016	51		11	0	62
2017	37		5		42
2018	53		4		57
2019	30		7		37
2020	39		9		48
2021	58		10		68
2022					

Effects of the Proposal

If this proposal were adopted, the Federal fall moose season in Unit 9B would be extended by five days, closing September 25 instead of September 20. This extension would provide federally qualified subsistence users with more hunting opportunity and greater access to the resource under Federal regulations. Currently, the Federal season closes five days earlier than the State season, which the BOG extended to September 25 in 2022. Extending the season under Federal regulations may not substantially increase the number of moose harvested in Unit 9B, as all federally qualified subsistence users can already hunt until September 25 under State regulations. However, since only Federally qualified subsistence users of resident zone communities may hunt within National parks, this season extension may increase moose harvest in the portion of Lake Clark National Park within Unit 9B.

If this proposal is not adopted, the Federal subsistence moose hunting season would be more restrictive than the State season, which would not provide for a meaningful preference as mandated under the

Alaska National Interest Lands Conservation Act. With no current conservation concern for the moose in Unit 9B, the more restrictive season is not warranted.

OSM PRELIMINARY CONCLUSION

Support Proposal WP24-12/13/14.

Unit 9B—Moose

Unit 9B-1 bull by State registration permit.

*Sept. 1—~~Sept. 20~~
Sept. 25*

Dec. 1 – Jan. 15

Justification

The bull:cow ratio is above objectives indicating that there are additional animals available for harvest. The Federal and State seasons are not aligned since the BOG extended the State moose season in Unit 9B in 2022. Extending the Federal season dates to match the State season provides additional subsistence opportunity, particularly on National Park Service lands and reduces regulatory complexity by aligning State and Federal seasons.

ANALYSIS ADDENDUM

Additional information

The Bristol Bay Council submitted a comment (PC034) to the Alaska Board of Game for their January 2022 Central and Southwest Region meeting regarding State proposal 204, requesting that the 5 days be added at the beginning of the season. In their comment, the Council stated that while they support extending the Unit 9B moose season, bull moose will likely be in rut with lower meat quality later in season and more vulnerable to possible overharvest. They also expressed concerns over providing more opportunity to trophy hunters instead of local residents. Therefore, the Council suggested extending the State moose season earlier instead of later (ADF&G 2023b).

During public testimony, at the January 2022 Alaska Board of Game Central and Southwest Region meeting, ADF&G Naknek Kvichak Advisory Committee also requested that the State lengthen the season with the 5 days added to the start of the moose season in Unit 9C (ADF&G 2023a).

OSM CONCLUSION

Support Proposal WP24-12 **with modification** to open the moose season in Unit 9B five days earlier and **take no action** on Proposal WP24-13/14.

The modified regulation should read:

Unit 9B—Moose

Unit 9B-1 bull by State registration permit.

~~Sept. 1~~**Aug. 27**— Sept.
20

Dec. 1 – Jan. 15

Justification

OSM supports the Bristol Bay Council’s recommendation. The 5-day extension at the start of the season provides additional subsistence opportunity when bull moose are more palatable and not in rut. As the Bristol Bay Council attests, the earlier season also provides better access for local residents to harvest moose. Based on previous comments to the BOG, this modification is supported by local residents.

There do not appear to be any conservation concerns for extending the Unit 9B moose hunt at the start of the current season. The bull:cow ratio is above objectives indicating that there are additional animals available for harvest.

This modification will further misalign the Federal and State seasons since the BOG extended the State moose hunt in Unit 9B at the end of the season in 2022, increasing regulatory complexity. However, it also establishes a Federal priority since only the Federal season would be open from Aug. 27-31.

No action needs to be taken on Proposals WP24-13/14 based on action taken on WP24-12.

LITERATURE CITED

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Bristol Bay Subsistence Regional Advisory Council

Support with RAC modification for WP24-12/13/14. The Council modified the proposal to add 5 days to the beginning of the season instead of at the end.

The Council made this suggestion as access is easier earlier in the season because water levels tend to rise later in the fall, limiting access. Five days at the beginning of the season is also more desirable since the meat is more palatable earlier in the season than at the end of the season when bulls are in rut. The proposal was discussed with the Lake Clark SRC and Nondalton tribe, and local subsistence users supported the 5-day extension at the beginning of the season.

The modified regulations should read:

Unit 9B—Moose

Unit 9B-1 bull by State registration permit.

Aug. 27 ~~Sept. 1~~ – Sept. 20

Dec. 1 – Jan. 15

INTERAGENCY STAFF COMMITTEE COMMENTS

Wildlife proposal, WP24-12/13/14, proposes to extend the fall moose season in Unit 9B. The Bristol Bay Subsistence Regional Advisory Council suggests modifying the proposal by adding the 5-day season extension at the beginning of the hunting season when access is easier due to water levels and the meat is more palatable prior to the rut. The proposal was discussed with the Lake Clark Subsistence Resource Commission and proponents supported the 5-day extension at the beginning of the season.

Supporting this proposal would make Federal regulations less restrictive and provide for a subsistence priority under ANILCA, Section 804. If this proposal is not adopted, the Federal subsistence moose hunting season would be more restrictive than the State season, which would not provide for a meaningful preference under ANILCA. With no current conservation concern for the moose in Unit 9B, the current more restrictive season is not warranted.

ALASKA DEPARTMENT OF FISH AND GAME COMMENTS

Wildlife Proposal WP24-12/13/14

This proposal would align the federal open season dates for bull moose in Unit 9B with the state open season dates of September 1-Sept 25.

Position

ADF&G IS NETURAL regarding this proposal. This proposal is redundant as the Federal Subsistence Board (FSB) does not need to take any action as currently federally qualified users (FQU) can take advantage of this opportunity under state regulations.

Background

Resident open season date was increased for the state hunt from September 1–September 20 to September 1–September 25 starting regulatory year 2022.

Impact on Subsistence Users

There would be no impact to federally qualified users as they can currently hunt under state regulations.

Impact on Other Users

If adopted, ADF&G does not foresee impacts on other users.

Opportunity Provided by State

State customary and traditional use findings: The Alaska Board of Game (BOG) has made positive customary and traditional use findings for moose in Unit 9.

Amounts Reasonably Necessary for Subsistence: Alaska state law requires the Board of Game to determine the amount of the harvestable portion of a game population that is reasonably necessary for customary and traditional uses. This is an ANS. The BOG does this by reviewing extensive harvest data from all Alaskans, collected either by ADF&G or from other sources.

ANS provides the BOG with guidelines on typical numbers of animals harvested for customary and traditional uses under normal conditions. Hunting regulations can be re-examined if harvests for customary and traditional uses consistently fall below ANS. This may be for many reasons: hunting regulations, changes in animal abundance or distribution, or changes in human use patterns, just to name a few.

The ANS for moose in Unit 9 is 100–140 animals. The season and bag limit for 9B is:

<u>Unit/Area</u>	<u>Bag Limit*</u>	<u>Open Season (Permit/Hunt #)</u>	
		<u>Resident</u>	<u>Nonresident</u>
9B	1 bull	General hunt Sept 1–25; Dec 15–Jan 15	Sept 5–15
		Subsistence Sept 1–20; Dec 1–Jan 15 (RM272)	(RM282)

* Resident bag limit is 1 bull or 1 antlered bull during winter hunt. Nonresident bag limit is 1 bull with 50-inch antlers or antlers with 4 or more brow tines on one side.

Conservation Issues

ADF&G does not foresee any conservation issues with this proposal.

Enforcement Issues

ADF&G does not foresee any enforcement issues with this proposal.

WRITTEN PUBLIC COMMENTS



FOUNDED IN 1978
 100% OWNED BY THE PEOPLE
 OF BRISTOL BAY, ALASKA

June 23, 2023

Federal Subsistence Board
 Office of Subsistence Management – Attn: Theo Matuskowitz
 1011 East Tudor Road, MS-121
 Anchorage, Alaska 99503-8199

Via Email: subsistence@fws.gov

Re: 2024-2026 Wildlife Proposals: WP24-12 through WP24-18

Dear Federal Subsistence Board,

Bristol Bay Native Corporation (BBNC) is the for-profit Alaska Native regional corporation created by Congress pursuant to the Alaska Native Claims Settlement Act (ANCSA) to represent the economic, social, and cultural interests of Alaska Native people with either present day or ancestral ties to the Bristol Bay region. Our mission is to "Enrich our Native Way of Life." BBNC is committed to protecting the Native culture and subsistence way of life of our 11,800+ shareholders.

BBNC submits this letter to the Federal Subsistence Board (FSB) related to seven Wildlife Proposals related to Bristol Bay, namely WP24-12 through WP24-18.

- BBNC supports Wildlife Proposal 24-12, 24-13 & 24-14 which all ask that the federal subsistence season for bull moose in unit 9B be extended five additional days to September 25th to align with the state's open season. This is a sensible recommendation to avoid confusion between the federal and state hunting seasons.
- BBNC conditionally supports Wildlife Proposal 24-15 which seeks to create a caribou hunt in unit 9C within a portion of the Katmai National Preserve near Kukadek Lake that is specifically for the residents of Igiugig. BBNC supports this proposal but asks the Federal Subsistence Board to also include the residents of Kokhanok as soon as it is practical to do so. The residents of both communities have traditionally harvested caribou in the Preserve and the herd occupying this area is growing and can withstand additional hunting pressure.
- BBNC supports Wildlife Proposals 24-16 and 24-17 which would add Naknek, South Naknek and King Salmon to those communities eligible to harvest

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caribou in Unit 9E. The population numbers in Unit 9E can support the additional hunt pressure and residents of these additional communities no longer have access to caribou in the Mulchatna herd.

- BBNC supports Wildlife Proposal 24-18 which would expand the caribou hunt FC1702 to include new areas to the northwest of the existing hunt area where much of the Nushagak Peninsula Caribou Herd tends to winter. This change would increase harvest rates and increase the likelihood for the hunt to achieve its harvest objectives.

BBNC asks the FSB to add these comments to the meeting materials for the Bristol Bay Subsistence Regional Advisory Council to consider at its fall meeting and for the FSB to consider at its spring 2024 meeting.

Thank you for this opportunity to provide comments.

Sincerely,

Daniel Chayette

Daniel Chayette
VP, Lands and Natural Resources

Cc: Leigh Honig, Bristol Bay Region Coordinator leigh.honig@fsa.dhs.gov

BBNC Letter to FSA
June 23, 2023

Appendix 1

The estimated harvest of moose by Unit 9B communities during one-year study periods, based on periodic harvest surveys (CI 95%, lower harvest estimate is the lower bound of the estimate or the reported harvest, whichever is larger; black cell=question not asked; source: ADF&G 2023d).

Community	Study year	Number of households interviewed	Percentage of households using moose	Estimated harvest of moose	Lower estimate	Upper estimate	Per person harvest (in pounds of edible weight)
Igiugig	1983	3		4	1	10	28
	1992	10	90%	8	7	10	97
	2001	11	64%	2	2	2	40
	2005	12	100%	6	6	8	85
Iliamna	1983	20		4	2	7	14
	1991	23	65%	16	12	22	86
	2001	21	71%	9	7	14	56
	2004	13	77%	3	2	4	25
Kokhanok	1983	19		14	10	20	53
	1992	36	92%	43	40	50	135
	2001	16	100%	26	13	39	106
	2005	35	83%	19	16	23	66
Levelock	1988	27	93%	24	20	28	121
	1992	30	83%	27	21	33	133
	2001	17	94%	16	11	23	141
	2005	14	93%	8	6	12	130
Newhalen	1983	11		0	0	0	0
	1991	26	81%	16	13	21	55
	2001	34	68%	9	8	11	33
	2004	25	60%	8	7	9	37
Nondalton	1973	25		29	29	29	100
	1980	14		25	25	25	76
	1981	19		31	31	31	85
	1983	21		33	15	51	64
	2001	33	100%	95	78	128	337
	2004	38	68%	17	15	18	56
Pedro Bay	1982	17		4	3	6	32
	1996	13	85%	4	3	7	38
	2001	19	84%	2	2	3	20
	2004	18	78%	3	3	4	28
Port Alsworth	1983	13		11	7	16	80
	2001	20	75%	1	1	3	7
	2004	22	55%	1	1	3	7

WP24–15 Executive Summary	
General Description	Wildlife proposal WP24-15 requests to establish a hunt for a resident caribou herd within Katmai National Preserve in Unit 9C for the residents of Igiugig only. <i>Submitted by: Igiugig Village Tribal Council</i>
Proposed Regulation	<p>Unit 9—Caribou</p> <p><i>Unit 9C, that portion within Katmai National Preserve, bounded by the northern boundary of Unit 9C to the south bank of the Alagnak River to its confluence of the Nonvianuk River, including the north bank of the Nonvianuk River and Nonvianuk Lake – One caribou by Federal registration permit.</i></p> <p><i>Aug. 1 – Sep. 30</i> <i>Nov. 1 – Mar. 31</i></p> <p><i>Federal public lands are closed to the taking of caribou except by residents of Igiugig.</i></p>
OSM Conclusion	<p>Support Proposal WP24-15 with modification to clarify regulatory language, establish a “may be announced” season, delegate authority to the Katmai National Park and Preserve superintendent to manage the hunt via delegation of authority letter (DAL) only (Appendix 1), and limit eligibility to harvest caribou in the area to residents of Igiugig and Kokhanok only.</p> <p>The modified regulation should read:</p> <p>Unit 9—Caribou</p> <p><i>Unit 9C, that portion within the Alagnak River drainage excluding Katmai National Preserve – up to 2 caribou by State registration permit.</i></p> <p><i>Aug. 1 – Mar. 15</i> <i>May be announced</i></p> <p><i>Unit 9C, that portion within Katmai National Preserve – 1 caribou by Federal registration permit.</i></p> <p><i>Season may be announced between Aug. 1 – Sep. 30 or Nov. 1 – Mar. 31</i></p> <p><i>Federal public lands are closed to the taking of caribou except by residents of Igiugig and Kokhanok hunting under these regulations.</i></p>

WP24–15 Executive Summary	
Bristol Bay Subsistence Regional Advisory Council Recommendation	Support with OSM modification
Interagency Staff Committee Comments	Please see page 1016.
ADF&G Position	Oppose
Written Public Comments	1 support

STAFF ANALYSIS

WP24-15

ISSUES

Proposal WP24-15, submitted by the Igiugig Village Tribal Council, requests to establish a hunt for a resident caribou herd within Katmai National Preserve in Unit 9C for the residents of Igiugig only.

DISCUSSION

The proponent states that local observations for over 30 years have indicated that a herd of caribou, currently assumed by regulators to be associated with the Mulchatna Caribou Herd (MCH), do not migrate out of the Kukaklek (*Qukaqliq*) Lake area and surrounding hills within Katmai National Preserve. According to the proponents, this caribou herd does not leave the Kukaklek area, indicating that they have separated themselves from the MCH.

Residents of Igiugig have a long customary and traditional use of caribou in the Katmai Preserve, specifically the area around Kukaklek Lake. Residents have harvested caribou in this area for decades after a reindeer herding program operated in this area. Even though the villages of Igiugig and Kokhanok have harvested caribou for decades, this herd remains stable. Caribou hunting opportunities under State and Federal regulations have been closed since 2019. Since then, local observations of the resident caribou herd indicate the population has grown by nearly 50% in four years and could support harvest by the residents of Igiugig.

The proponent adds that if establishment of the Federal hunt is successful and the herd continues to show signs of a stable to increasing population, the hunt could be expanded to Kokhanok residents.

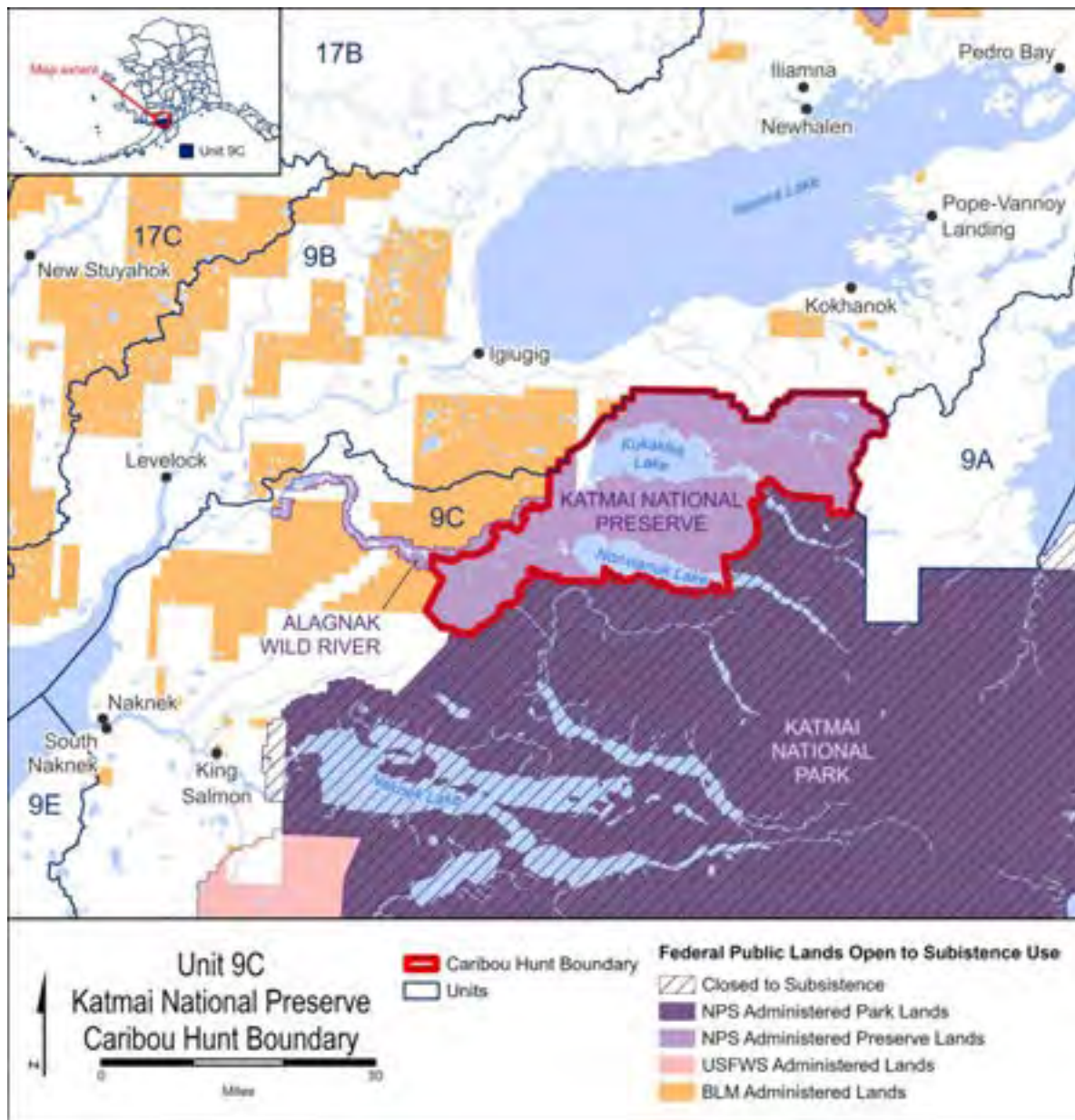


Figure 1. Map of the proposed boundary (red).

Existing Federal Regulation

Unit 9—Caribou

<i>Unit 9C, that portion within the Alagnak River drainage – up to 2 caribou by State registration permit.</i>	<i>Aug. 1 – Mar. 15</i> <i>May be announced</i>
<i>Unit 9C, that portion draining into the Naknek River from the north, and graveyard Creek and Coffee Creek – up to 2 caribou by State registration permit.</i>	<i>Aug. 1 – Mar. 15</i> <i>May be announced</i>
<i>Unit 9C remainder – 1 bull by Federal registration permit or State permit (FC0914).</i>	<i>May be announced</i>
<i>Federal public lands are closed to the taking of caribou except by residents of 9C and Egegik.</i>	

Proposed Federal Regulation

Unit 9—Caribou

<i>Unit 9C, that portion within the Alagnak River drainage – up to 2 caribou by State registration permit.</i>	<i>Aug. 1 – Mar. 15</i> <i>May be announced</i>
<i>Unit 9C, that portion draining into the Naknek River from the north, and graveyard Creek and Coffee Creek – up to 2 caribou by State registration permit.</i>	<i>Aug. 1 – Mar. 15</i> <i>May be announced</i>
<i>Unit 9C, that portion within Katmai National Preserve, bounded by the northern boundary of Unit 9C to the south bank of the Alagnak River to its confluence of the Nonvianuk River, including the north bank of the Nonvianuk River and Nonvianuk Lake – One caribou by Federal registration permit.</i>	<i>Aug. 1 – Sep. 30</i> <i>Nov. 1 – Mar. 31</i>
<i>Federal public lands are closed to the taking of caribou except by residents of Igiugig.</i>	

Unit 9C remainder – 1 bull by Federal registration permit or State permit (FC0914). May be announced

Federal public lands are closed to the taking of caribou except by residents of 9C and Egegik.

Existing State Regulation

Note: These are the State regulations for the 2023/24 regulatory year and not necessarily the codified State regulations.

Unit 9—Caribou

*Residents: Unit 9C, that portion within the Alagnak River drainage – No open season
One caribou by permit (RC503)*

*Residents: Unit 9C, that portion north of the north bank of the Naknek River and south of the Alagnak River drainage – No open season
2 caribou by permit (RC503)*

*Residents: Unit 9C, south of the north bank of the Naknek River – 1 Aug. 10 – Oct. 10
caribou by permit (TC505). Nov. 1 – Feb. 28*

Both residents and nonresidents: Unit 9C remainder No open season

Extent of Federal Public Lands

Unit 9C is comprised of 86% Federal public lands and consists of 78% National Park Service (NPS) managed lands, 4% U.S. Fish and Wildlife Service (USFWS) managed lands, and 4% Bureau of Land Management (BLM) managed lands. The majority of NPS managed lands are within Katmai National Park and are closed to subsistence uses.

The area affected by this proposal, Katmai National Preserve, is comprised 100% of Federal public lands and consists of 100% NPS managed lands (**Figure 1**).

Customary and Traditional Use Determinations

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

Regulatory History

Caribou in the northern portion of Unit 9C, including Katmai National Preserve have historically been managed as part of the Mulchatna Caribou Herd, along with Units 9A, 9B, 17, 18, 19A, and 19B.

Following is a summary of changes to caribou harvest regulations across the range of the MCH since 2013.

In February 2013, the Alaska Board of Game (BOG) adopted Proposal 45A, which required use of a registration permit (RC503) across the range of the MCH. Previously, MCH harvest was allowed with just a harvest ticket. These changes were aimed at improving harvest management and assessment of the MCH's response to the ongoing intensive management program.

Also in 2013, the Federal Subsistence Board (Board) approved Temporary Wildlife Special Action WSA13-02 to also require the RC503 registration permit under Federal regulations for the remainder of the 2013/14 regulatory year. The Board rejected Temporary Special Action WSA13-03, which requested the closure of Federal public lands to the harvest of caribou, except by Federally qualified subsistence users across the MCH's range. The Board rejected WSA13-03 because the MCH population was within State management objectives, and composition metrics were showing improvement.

In 2014, the Board adopted Proposal WP14-22 with modification, codifying the requirement of a State registration permit under Federal regulations across the range of the MCH. It also shortened seasons in Unit 17 and delegated authority to the Togiak National Wildlife Refuge (NWR) manager to take specific in-season management actions in portions of Unit 17. These changes were meant to align Federal and State regulations across the range of the MCH, while providing improved harvest reporting.

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

In April 2018, the Board adopted Proposal WP18-21 with modification to remove the same harvest limit restrictions addressed by State Proposal 134 in 2016 under Federal regulations. The modification applied to another hunt area within Unit 9C.

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

In November 2019, the Board approved Wildlife Special Action WSA19-07 with modification to decrease the harvest limit for Mulchatna caribou from two to one caribou across the range of the MCH and to delegated authority to the Togiak NWR manager to manage the MCH hunt for the 2019/20 regulatory year. The Board approved this request due to serious conservation concerns for the MCH and support from the affected Regional Advisory Councils and local users.

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

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

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

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

In January 2022, the BOG considered Proposal 20 at their Central and Southwest Region meeting (rescheduled meeting from January 2021 due to the COVID-19 pandemic). Proposal 20, submitted by ADF&G, requested establishing a Tier II subsistence hunting season and harvest limit for the MCH due to low population estimates and harvestable surpluses. Proposal 20 would also have closed the season during rut to mitigate disruptions to breeding and standardize the season across the range of the MCH to reduce hunter confusion and encourage reporting. However, no action was taken on this proposal based on there being no harvestable surplus and the lack of habitat information in which research is currently taking place (ADF&G 2022).

In April 2022, the Board adopted Proposal WP22-41, which codified the temporary regulation changes of WSA20-04. As conservation concerns continue with the MCH, continuing the delegation of authority provided the flexibility needed to make timely decisions and respond to changing conditions.

Current Events Involving the Species

Since Regulatory Year (RY) 2021/21 State and Federal caribou hunts have both been closed for the MCH.

Biological Background

The MCH has experienced dramatic changes in population size and distribution in the past 40 years. In the early 1980s, the population was estimated to include approximately 20,000 caribou. Its winter range included the north and west side of Iliamna Lake north of the Kvichak River in Unit 9B. By the mid-1990s, the herd had grown to its peak size of approximately 200,000 caribou and absorbed the smaller Kilbuck caribou herd (Units 17B, 19B, and 18). The MCH increasingly began wintering in southern Unit 18 and southwestern Unit 19B. Population growth during this time was attributed to mild winters, movement into previously unexploited range, and relatively low predation and harvest rates.

Historically, the MCH range covered ~60,000 square miles, primarily within Units 9B, 9C, 17A, 17B, 17C, 18, 19A and 19B. The herd does not move seasonally as a single distinct group. Rather, caribou move from calving areas east of the Tikchik Mountains to either the eastern or western portion of their range for the rut and wintering. In the 2000s, movements of radio-collared caribou indicated that individual caribou had little fidelity to specific calving or wintering areas. Since 2008, however, radio collared cows that winter in the eastern portion of their range calve in the Tundra Lake or Bonanza Hills areas (western Units 19A, 19B, 17B) while those that winter in the western portion of their range calve in the Kemuk Mountain/Koliganek area (southern Unit 17B, northern Unit 17C) (Barten 2015). According to local residents and wildlife biologists in the region, sightings of the Mulchatna caribou in Unit 9C have become scarce (Patterson 2023a, pers. comm).

Photocensuses conducted during summer post-calving aggregations are used to estimate MCH abundance (Barten 2015). These estimates show that in 2013, the MCH was estimated to be 18,016 caribou, the lowest estimate in over 30 years, and well below the State's population objective of 30,000 – 80,000 caribou. Estimates over the next three years indicated that the population had grown, nearing the lower bound of this population objective from 2014-2016. However, the most recent estimates, obtained in July 2020, 2021, and 2022 showed that the population is less than half of the State's minimum population objective, at approximately 13,500, 12,850, and 12,112 caribou, respectively (ADF&G 2020; 2021a; BBSRAC 2023).

Based on observations from Katmai National Park and Preserve (NP), the Kokhanok caribou tend to stay close to Kukaklek Bench and do not migrate. In 2021 and 2022, Katmai NP started conducting minimum counts of these caribou, observing 306 and 312, respectively (BBSRAC 2023). Katmai NP has started working with ADF&G to radio collar some of the Kokhanok caribou and gather more

information (BBSRAC 2023). The fall 2023 composition survey included a minimum count of 435 caribou in Unit 9 (ADF&G 2024).

ADF&G placed radio collars on eight caribou near Kukaklek and Nonvianuk Lakes within Katmai National Preserve to determine if the MCH is still one herd or if it has separated into two distinct herds (BBSRAC 2020; Patterson 2023a). Additionally, the potential for caribou in Katmai National Preserve to be a non-migratory population (Kukaklek caribou) that is not part of the MCH was voiced during Tribal consultation for WSA19-07 and several Bristol Bay Council meetings (BBSRAC 2020, 2022, 2023).

Harvest History

No legal caribou harvest has occurred in Unit 9C since 2021 as both State and Federal caribou hunts have been closed due to conservation concerns for the MCH.

Caribou harvest and use data are lacking or incomplete for western Bristol Bay communities. One cause of this data gap is that while caribou hunters were required to obtain harvest tickets before hunting in some areas of Unit 9 before the 2013 regulatory year, returning harvest reports was not always mandatory during that time. Before the 2013 regulatory season, information concerning the harvest and use of caribou in the Bristol Bay area was obtained primarily through household harvest surveys (**Appendix 2**). Therefore, the conventional harvest reporting system does not always reflect the true level of harvest. After 2013, caribou hunters were required to obtain registration permits before hunting in all areas of Unit 9 and returning harvest reports became mandatory (Woolington 2001, Barton and Watine 2020).

Since 2009, less than 10% of reported MCH harvest by local users has occurred in Units 9C or 9B.

Currently, the caribou within Katmai NP in Unit 9C are managed as part of the MCH. However, it is unknown how many caribou harvested from this area have been part of the MCH versus the resident Kukaklek caribou.

ANILCA Section 804 Subsistence User Prioritization

Section 804 of the Alaska National Interest Lands Conservation Act (ANILCA) mandates that the taking on Federal public lands of fish and wildlife for nonwasteful subsistence uses shall be accorded priority over the taking on such lands of fish and wildlife for other purposes. Section 804 further requires that whenever it is necessary to restrict the taking of populations of fish and wildlife on such lands for subsistence uses in order to protect the continued viability of such populations, or to continue subsistence uses, such a priority shall be implemented through appropriate limitations based on the application of three criteria. The three criteria are: (1) customary and direct dependence upon the populations as the mainstay of livelihood, (2) local residency, and (3) the availability of alternative resources. In other words, an analysis based on Section 804 of ANILCA identifies which residents of communities or areas have a priority for the take of the resource.

In this case, the Board has been asked to decrease the pool of federally qualified subsistence users in the proposed hunt area based on the three criteria in ANILCA section 804. This ANILCA section 804 analysis will identify the communities who will be eligible to hunt for caribou in the proposed hunt area if a Federal hunt opens. The area will be closed to the harvest of caribou except by residents of these communities.

The 23 widely dispersed communities, approximately 6,700 people, with a customary and traditional use determination in the proposed hunt area are the following: Aleknagik, Clark's Point, Dillingham, Egegik, Ekwo, Igiugig, Iliamna, King Salmon, Kokhanok, Koliganek, Levelock, Manokotak, Naknek, New Stuyahok, Newhalen, Nondalton, Pedro Bay, Portage Creek, Pope-Vannoy Landing, Port Alsworth, South Naknek, Togiak, and Twin Hills (ADLWD 2023)

1. Customary and Direct Dependence upon the Populations as a Mainstay of Livelihood

Overall, the communities, listed above, have demonstrated dependence on caribou as a mainstay of livelihood. While reporting local hunter effort and harvest to ADF&G has not been widespread, communities have participated in periodic harvest surveys since 1983 with the purpose of documenting caribou hunting activity in the region. These harvest surveys provide a glimpse of the areas communities depend on for harvesting caribou. These areas are usually in a wide area surrounding each community but are highly dependent on where caribou herds migrate and are available for harvest (ADF&G 1985; Morris 1986; Krieg, Kenner et al. 1996; Krieg, Fall et al. 1998; Holen, Krieg, Walker, and Nicholson 2005; Krieg, Holen, and Koster 2009; Holen, Stariwat, Krieg, and Lemons 2012; Evans et al. 2013).

The analyst focused research on the communities who depend on harvesting caribou in Unit 9C, where the proposed hunt area is situated. **Appendix 2** provides a list of communities with demonstrated use of Unit 9C to harvest caribou, based on periodic household surveys: Igiugig, Iliamna, King Salmon, Kokhanok, Levelock, Naknek, Newhalen, and South Naknek. When caribou are available, these communities depend on caribou that they harvest for subsistence. It has been demonstrated that when caribou are not available, in years when the herd does not pass near a community or the population is low, it is felt by these communities who consistently report on the availability of caribou to them and how far they must travel to find them (ADF&G 1985; Morris 1985, 1986; Kenner 1993; Holen et al. 2005; Fall et al. 2006; Krieg et al. 2009).

During these studies, a subset of households in a community describes the geographic extent of their harvesting activities that when taken together create a minimum estimate of the area used by that community to seek resources over a defined time period.

Based on these maps and other identification of subsistence use areas in various studies, five communities have demonstrated seeking caribou in the proposed hunt area: Igiugig, Iliamna, Kokhanok, Levelock, and Newhalen (ADF&G 1985, Morris 1986, Kenner 1993, Holen et al. 2005, Fall et al. 2006, Krieg et al. 2009). For example, a specific report of use of the proposed hunt area comes from Kokhanok in 2006 when Krieg et al. (2009) reported,

Residents no longer saw caribou around the village. Caribou were sometimes found south of the village, the respondent said, in the mountains towards Katmai National Park and Preserve, or to the west towards Igiugig. The respondent added that when they did migrate east, the caribou usually traveled on the north side of the lake instead of on the south shore, towards Kokhanok. Therefore, to reach the caribou, Kokhanok residents said they had to travel close to Katmai National Park and Preserve, or to the north side of Iliamna Lake and then towards the Mulchatna River. With rising fuel costs, such travel was no longer an option for many hunters, respondents said (Krieg et al. 2009: 105).

These communities, Igiugig, Iliamna, Kokhanok, Levelock, and Newhalen, happen to be some of the closest in proximity to the proposed hunt area, are related culturally (Yup'ik-Aleut), and many families are interrelated from community to community. The population of these communities combined is approximately 565 people (**Table 1**, ADF&G 1985, Morris 1986, Kenner 1993, Holen et al. 2005, Fall et al. 2006, Krieg et al. 2009).

No permanent contemporary settlements are situated in the proposed hunt area, but the area has many semipermanent camps and dwellings that were lived in seasonally by people historically inhabiting the Alagnak River drainage, who moved between camps with the seasons in order to harvest wild resources. These Alagnak River people and others from the south shore of Lake Iliamna used the proposed hunt area extensively while tending to reindeer herds and traplines. People gradually settled or returned to the contemporary communities of Levelock, Igiugig, and Kokhanok after the scattering of the reindeer herds and the gradual opening up of the commercial fishing industry to local participation after 1940, which came to dominate the local cash economy. They continued to tend to traplines in the proposed hunt area into the 1970s, only declining when declining fur prices could no longer support trapping as a means of generating family income (Morris 1986, Chythook 1988, Kenner 1993).

Table 1. The estimated human population of communities with demonstrated use of Unit 9C to hunt for caribou, from 1960 to 2020, based on the U.S. Census (ADCCD 2023).

Community	1960	1970	1980	1990	2000	2010	2020
Igiugig	36	36	33	33	53	50	68
Iliamna	47	58	94	94	102	109	108
Kokhanok	57	88	83	152	174	170	152
Levelock	88	74	79	105	122	69	69
Newhalen	63	88	87	160	160	190	168
TOTAL	291	344	376	544	611	588	565

The rest of this analysis will focus on these five communities, Igiugig, Iliamna, Kokhanok, Levelock, and Newhalen, who have demonstrated use of the proposed hunt area when seeking caribou.

2. Local Residency

The five communities, Igiugig, Iliamna, Kokhanok, Levelock, and Newhalen, are in close proximity to the proposed hunt area compared to other communities in the customary and traditional use

determination; however, almost no roads for highway vehicles exist in the Kvichak/Iliamna area and access may be easy or difficult depending on the season. Iliamna and Newhalen are situated on the north shore of Lake Iliamna, approximately 30 miles from the proposed hunt area. Levelock is situated near the outlet of the Alagnak River that can be used to access the proposed hunt area, approximately 35 miles away. The source of the Alagnak River are the lakes encompassed by the hunt area. Igiugig is approximately 12 miles away, and Kokhanok is approximately 10 miles from the hunt area.

Kokhanok accesses the proposed hunt area using off-road vehicles (ORVs) and snowmachines. A network of trails leads from the community to the hunt area. Igiugig uses ORVs and snowmachines, also, sometimes waiting until after freeze-up in order to safely cross creeks and streams along the way. Levelock accesses the hunt area by way of the Alagnak River corridor likely by boat, ORV, or snowmachine, depending on the season. Iliamna and Newhalen must travel around the western shoreline of Lake Iliamna or take an airplane to Kokhanok where they likely hunt with extended family members (Chythlook 1988; Morris 1986; Patterson 2023b, pers. comm.).

3. Availability of Alternative Resources

Igiugig, Iliamna, Kokhanok, Levelock, and Newhalen are all highly dependent upon the annual cycle of subsistence harvests of resources (ADF&G 2023). The harvest of wild resources is a critical component of the economies in these communities, and the communities rely on the harvest of a wide diversity of resources, including salmon, nonsalmon fish, land mammals (caribou, moose), marine mammals (seals, sea lions), migratory waterfowl (ducks, geese), other birds (ptarmigan, grouse), furbearers, berries, greens, and wood. It is typical for harvests to be dominated by fish and large land mammals, including caribou and moose.

These communities harvest caribou when they are available to them. Generally, as the Mulchatna caribou herd population has declined since the mid-1990s, at the same time, regulations have become more restrictive, and some seasons have closed. Caribou in the proposed hunt area are the only caribou within the use area territories of these communities, other than Mulchatna caribou.

The Mulchatna Caribou Herd has been known to migrate past these communities. The herd population was estimated at 200,000 in 1996, followed by a steep decline to approximately 85,000 caribou by 2004 and 30,000 by 2008. The most recent estimate, obtained in July 2022, shows that the population, at 12,112 caribou, is less than half of the State's minimum population objective, and hunting opportunity has been reduced or closed across much of its range, which is generally in Units 9B, 9C, 17A, 17B, 17C, 18, 19A and 19B. It is unlikely that hunting pressure or unreported harvesting was responsible for this decline. "Overgrazing of available forage precipitated the Mulchatna caribou herd population decline, which resulted in malnutrition, decreased productivity, susceptibility to disease, and increase in disease prevalence in the population. . . Although the hunting pressure was intense during periods of high abundance, it is not thought to be responsible for the precipitous decline the Mulchatna caribou herd population" (Barten and Watine 2020:4).

Declining caribou populations in the area have led to increased dependence on moose, but moose do not exist in large numbers nearby these communities. For example, in 2005, Iliamna and Newhalen

reported that moose had supplanted caribou as a dominant large land mammal species in the immediate hunting area, but moose were scarce near the communities (Fall et al. 2006). All communities opportunistically harvest caribou or moose, depending on what is available and the regulations in place. Restricting the harvest of caribou in a given area will presumably have an impact on moose populations and vice versa, because many hunters are opportunistic and will harvest whatever large land mammals are available.

Recreational opportunities, especially for sport fishing, exist in several of these communities. There are lodges in Iliamna and located across the Kvichak River from Igiugig that may provide some jobs and other sources of income for these communities, and estimated median incomes in Kokhanok and Levelock are below those of the other communities. Iliamna, being the transportation hub of the region, supports some commercial activity, including a general store (ADCCED 2023).

Conclusion

The villages of Igiugig and Kokhanok have the higher customary dependence on caribou in the proposed hunt area, based on the three criteria in ANILCA section 804. Only these two communities will be eligible to harvest caribou in the area. Both communities are highly dependent on caribou, are situated in closest proximity to the proposed hunt area compared to other communities, and neither have significant alternative resources to depend on in terms of other populations of caribou, other wild resources, local commercial activity, or grocery stores.

Other Alternatives Considered

One alternative considered is delegating authority to manage the Kukaklek caribou hunt to the Katmai NP superintendent. This would provide the most flexibility and the greatest subsistence hunting opportunity. Specifically delegating authority to the Katmai NP superintendent to announce the season, the number of permits issued, a harvest quota, and to set sex restrictions, and permit conditions would allow for flexible, adaptive hunt management. This alternative also mitigates conservation concerns as season length, harvest and permit numbers can be adjusted annually in response to herd and hunt conditions.

The proposal as submitted was for one caribou. Currently there is limited knowledge regarding this group of caribou and there is limited flexibility to help address conservation concerns for these caribou. As information is gathered and potential concerns of the Kukaklek caribou become known, flexibility will be necessary to address potential conservation concerns.

Effects of the Proposal

If this proposal is adopted with modification, a caribou hunt will be established for residents of Igiugig and Kokhanok within Unit 9C, Katmai National Preserve. This will provide greater subsistence opportunity to residents of Igiugig and Kokhanok, especially given the drastic decline and subsequent hunting closures for the MCH. However, effects on the caribou population are unknown as little biological and harvest information is currently available.

The proposal as submitted suggests a harvest limit of one caribou and a fixed season. This may result in unsustainable harvest and conservation concerns as currently there is limited knowledge regarding this group of caribou. As more information is gathered, flexibility will be necessary to address potential conservation concerns while optimizing subsistence hunting opportunity. Due to lack of data, it is unknown if a hunt is sustainable at this time. Data collection regarding the migratory movements of the caribou needs to continue and be analyzed. In addition, strategies will need to be developed to manage the Kukaklek caribou hunt separate from the MCH.

OSM CONCLUSION

Support Proposal WP24-15 **with modification** to clarify regulatory language, establish a “may be announced” season, delegate authority to the Katmai National Park and Preserve superintendent to manage the hunt via delegation of authority letter (DAL) only (**Appendix 1**), and limit eligibility to harvest caribou in the area to residents of Igiugig and Kokhanok only.

The modified regulation should read:

Unit 9C—Caribou

<i>Unit 9C, that portion within the Alagnak River drainage excluding Katmai National Preserve – up to 2 caribou by State registration permit.</i>	<i>Aug. 1 – Mar. 15 May be announced</i>
<i>Unit 9C, that portion within Katmai National Preserve – 1 caribou by Federal registration permit.</i>	<i>Season may be announced between Aug. 1 – Sep. 30 or Nov. 1 – Mar. 31</i>
<i>Federal public lands are closed to the taking of caribou except by residents of Igiugig and Kokhanok hunting under these regulations.</i>	

Justification

This proposal, as modified by OSM, provides for greater subsistence opportunity for the residents of Igiugig and Kokhanok. Adoption of this proposal also maintains a meaningful priority. Delegating in-season management authority to the Katmai NP superintendent through a DAL provides the management flexibility to address any conservation concerns, while maximizing subsistence opportunity. As more information becomes available about the Kukaklek caribou, hunting opportunity can be adjusted accordingly through in-season management.

The villages of Igiugig and Kokhanok have the higher customary dependence on caribou in the proposed hunt area, based on the three criteria in ANILCA §804. Only these two communities will be eligible to harvest caribou in the area. Both communities are highly dependent on caribou, are situated in closest proximity to the proposed hunt area compared to other communities, and neither have

significant alternative resources to depend on in terms of other populations of caribou, other wild resources, local commercial activity, or grocery stores.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Bristol Bay Subsistence Regional Advisory Council

Support with OSM modification for WP24-15. The Council shared traditional knowledge about the Kukaklek resident caribou herd demonstrating that the herd has remained in this area since the 1940s when there were reindeer herders and does not join the migration of the Mulchatna Caribou herd (MCH). Additional Traditional Ecological Knowledge reported by the Council also demonstrated that local residents were harvesting from these caribou as far back as the 1970s and the body size of animals in the resident herd is larger than the Mulchatna caribou further signifying that this may be a distinct herd from the MCH. Harvest opportunities have been closed to MCH since 2019 and allowing the ability to hunt the resident herd would be an important resource for Igiugig and Kokhanok communities, strengthening food security.

The Council supported including Igiugig and Kokhanok as the eligible communities to hunt this herd as both communities have traditionally harvested caribou in this area.

INTERAGENCY STAFF COMMITTEE COMMENTS

Wildlife proposal WP24-15 proposes to establish a hunt for resident caribou within Katmai National Preserve in Unit 9C for residents of Igiugig only.

According to observations of the proponents, this caribou herd does not leave the Kukaklek Lake area, indicating that they have separated themselves from the Mulchatna Caribou Herd (MCH). Residents of Igiugig and Kokhanok have a long customary and traditional use of caribou in the Katmai Preserve, specifically the area around Kukaklek Lake, and have harvested caribou in this area for decades.

Effects of this proposal on the Kukalek caribou population are unknown as little biological and harvest information is currently available. ADF&G stated at the recent Board of Game meeting they consider these caribou to be part of the Mulchatna herd and there is little data. Due to lack of data, it is unknown if a hunt is sustainable at this time. Data collection regarding the migratory movements of the caribou needs to continue and to be analyzed. In addition, strategies would need to be developed to manage the Kukaklek caribou hunt separate from the MCH. As more information is gathered, flexibility would be necessary to address potential conservation concerns while providing for subsistence hunting opportunity.

The Bristol Bay Subsistence Regional Advisory Council supports the OSM modification to establish a “may be announced” season, and delegate authority to the Katmai National Park and Preserve superintendent to manage the hunt via delegation of authority letter (DAL). A DAL is put into place to allow for the flexibility to announce a hunt, set harvest limits and other restrictions when conditions allow in order to provide for subsistence opportunity, while ensuring the conservation of the

population. As more information becomes available about Kukaklek caribou, hunting opportunity could be adjusted accordingly through in-season management.

For Kukaklek caribou, delegating authority to the land manager and reducing eligibility to harvest caribou in the area to residents of Igiugig and Kokhanok based on the three criteria in ANILCA §804, could potentially allow for a small harvest and provide a meaningful subsistence opportunity for these communities.

ALASKA DEPARTMENT OF FISH AND GAME COMMENTS

Wildlife Proposal WP24-15

This proposal would allow the harvest of one Mulchatna caribou (MCH) on federal public lands within a portion of Katmai National Preserve in Game Management Unit (Unit) 9C by residents of Igiugig from Unit 9B.

Position

ADF&G **OPPOSES** this proposal. Currently, the MCH has a significant conservation concern, and no harvestable surplus exists throughout its range. It is unclear if this group is currently isolated from the main segment of eastern Mulchatna caribou herd which is closed to hunting but it is clear that these caribou were not isolated during the peak of the herd. Caribou are also restricted for ceremonial harvest from this unit. Calf-to-cow ratios and bull-to-cow ratios were obtained during the fall 2023 composition survey. The calf-to-cow ratio was 42.5 and the bull-to-cow ratio was 44.2. These calf and bull ratios are only for the Iliamna Hills portion of the MCH and do not include the East or West Mulchatna groups. Currently, the population trajectory is unknown for the Iliamna Hills segment of the MCH. Until information is presented that warrants it, ADF&G does not support a hunt for any caribou in this range.

However, if this proposal passes, ADF&G would recommend the Federal Subsistence Board change the regulation limit from 1 caribou to 1 bull caribou.

Background

Caribou in Units 9B and 9C north of Naknek River are considered part of the MCH (Barten and Watine 2020). The MCH reached a peak in the 1990s of approximately 200,000 animals and ranged well into Units 9A & 9C. It is believed that during this peak, a small herd such as the Kilbuck in Unit 18 were absorbed at the time and no caribou are currently showing site fidelity to that historic range. There were no designated herds in the Iliamna Hills prior to expansion of the MCH throughout Units 9A&B where tens of thousands of caribou roamed during the 1990s. The current population estimate for the MCH 12,507 caribou for the East and West MCH from the 2023 photocensus, and a minimum count of 639 caribou in the unit 18 group. In February 2023, ADF&G deployed collars on this group to obtain demographic ratios and assist in a population estimate. A minimum count of the Iliamna Hills area was conducted July 2023 with 360 caribou found. This is similar to what the National Park Service has reported in recent years, which does not indicate an increasing population as suggested in the proposal. A survey of the entire area was not able to be completed due to wind and low clouds during the survey timeframe. ADF&G deployed five GPS-enabled and three VHF radio collars in February 2023 to better understand demography and movements of caribou in the Iliamna Hills area. Fall composition surveys are planned for October 2023 to obtain bull:cow and calf:cow ratios. Management objectives are 35:100 for bull:cow ratio and 40:100 for calf:cow ratio. Without composition information a harvestable surplus cannot be established. It is not clear how the federal manager would determine a sustainable harvestable surplus without any demographic information to inform such a decision.

Impact on Subsistence Users

If adopted, the harvest opportunity this proposal provides may slow the recovery of the MCH delaying hunting across the MCH range.

Impact on Other Users

If adopted, this could result in a future loss of opportunity for non-federally qualified Alaska residents.

Opportunity Provided by State

State customary and traditional use findings: The Alaska Board of Game (BOG) has made positive customary and traditional use findings for Mulchatna caribou in Unit 9B.

Amounts Reasonably Necessary for Subsistence: Alaska state law requires the Board of Game to determine the amount of the harvestable portion of a game population that is reasonably necessary for customary and traditional uses. This is an ANS. The BOG does this by reviewing extensive harvest data from all Alaskans, collected either by ADF&G or from other sources.

ANS provides the BOG with guidelines on typical numbers of animals harvested for customary and traditional uses under normal conditions. Hunting regulations can be re-examined if harvests for customary and traditional uses consistently fall below ANS. This may be for many reasons: hunting regulations, changes in animal abundance or distribution, or changes in human use patterns, just to name a few.

The ANS for caribou in Units 9A, 9B, 17, 18, 19A, and 19B (MCH Herd) is 2,400–8,000 animals. There is currently no open season.

Conservation Issues

The MCH is currently well under the population objective of 30,000–80,000 and under intensive management (IM). In 2022 the BOG under 5 AAC 92.111 reauthorized the IM program through 2028 to include the removal of wolves and bears from calving grounds to enhance calf survival. Calf: cow ratios will be assessed to determine effects on the caribou population and continuation of the IM project. To manage this segment of caribou of the MCH as a separate herd a conservation management strategy should be developed that describes their demography and includes a long-term management plan. A comprehensive, yet adaptive plan, should address goals and objectives for the “herd” such as population objective, harvest objective, and sex and age composition ratios to inform population models. The plan should also discuss how to address mixing issues. Failure to address these important aspects of wildlife management prior to holding a hunt would be neglectful and not consistent with sustained yield principles of wildlife conservation.

Enforcement Issues

Establishing this hunt would not cause any unusual enforcement issues but federal land managers should be prepared to patrol and enforce this hunt.

References

ADF&G (Alaska Department of Fish and Game). 2023. Operational Plan for Intensive Management of Caribou (*Rangifer tarandus*) in Game Management Units 9B, 17, 18, 19A & 19B During Regulatory Years 2022-2028. Division of Wildlife Conservation, Juneau, Alaska.

Barten, N. L., and L. N. Watine. 2020. Caribou management report and plan, Game Management Units 9A, 9B, 9C, 17, 18, 19A, 19B: Report period 1 July 2012-30 June 2017, and plan period 1 July 17-30 June 2022. Alaska Department of Fish and Game, Species Management Report and Plan ADF&G/DWC/SMR&P-2020-2, Juneau.

WRITTEN PUBLIC COMMENTS



FOUNDED: 1975
 1000 E. 10th Ave., Suite 100
 Anchorage, Alaska 99503-8199
 Phone: (907) 562-1111 • Fax: (907) 562-1112

June 23, 2023

Federal Subsistence Board
 Office of Subsistence Management – Attn: Theo Matuskowitz
 1011 East Tudor Road, MS-121
 Anchorage, Alaska 99503-8199

Via Email: subsistence@fws.gov

Re: 2024-2026 Wildlife Proposals: WP24-12 through WP24-18

Dear Federal Subsistence Board,

Bristol Bay Native Corporation (BBNC) is the for-profit Alaska Native regional corporation created by Congress pursuant to the Alaska Native Claims Settlement Act (ANCSA) to represent the economic, social, and cultural interests of Alaska Native people with either present day or ancestral ties to the Bristol Bay region. Our mission is to "Enrich our Native Way of Life." BBNC is committed to protecting the Native culture and subsistence way of life of our 11,800+ shareholders.

BBNC submits this letter to the Federal Subsistence Board (FSB) related to seven Wildlife Proposals related to Bristol Bay, namely WP24-12 through WP24-18.

- BBNC supports Wildlife Proposal 24-12, 24-13 & 24-14 which all ask that the federal subsistence season for bull moose in unit 9B be extended five additional days to September 25th to align with the state's open season. This is a sensible recommendation to avoid confusion between the federal and state hunting seasons.
- BBNC conditionally supports Wildlife Proposal 24-15 which seeks to create a caribou hunt in unit 9C within a portion of the Katmai National Preserve near Kukadek Lake that is specifically for the residents of Igiugig. BBNC supports this proposal but asks the Federal Subsistence Board to also include the residents of Kokhanok as soon as it is practical to do so. The residents of both communities have traditionally harvested caribou in the Preserve and the herd occupying this area is growing and can withstand additional hunting pressure.
- BBNC supports Wildlife Proposals 24-16 and 24-17 which would add Naknek, South Naknek and King Salmon to those communities eligible to harvest

WWW.BBNC.NA

caribou in Unit 9E. The population numbers in Unit 9E can support the additional hunt pressure and residents of these additional communities no longer have access to caribou in the Mulchatna herd.

- BBNC supports Wildlife Proposal 24-18 which would expand the caribou hunt FC1702 to include new areas to the northwest of the existing hunt area where much of the Nushagak Peninsula Caribou Herd tends to winter. This change would increase harvest rates and increase the likelihood for the hunt to achieve its harvest objectives.

BBNC asks the FSB to add these comments to the meeting materials for the Bristol Bay Subsistence Regional Advisory Council to consider at its fall meeting and for the FSB to consider at its spring 2024 meeting.

Thank you for this opportunity to provide comments.

Sincerely,

Daniel Chayette

Daniel Chayette
VP, Lands and Natural Resources

Cc: Leigh Honig, Bristol Bay Region Coordinator leigh.honig@fsa.dhs.gov

BBNC Letter to FSA
June 23, 2023

Appendix 1

Superintendent
Katmai National Park and Preserve
1000 Silver Street, Building 603
King Salmon, AK 99613

Dear Superintendent:

This letter delegates specific regulatory authority from the Federal Subsistence Board (Board) to the superintendent of Katmai National Park and Preserve (Katmai) to issue emergency or temporary special actions if necessary to ensure the conservation of a healthy wildlife population, to continue subsistence uses of wildlife, for reasons of public safety, or to assure the continued viability of a wildlife population. This delegation only applies to the Federal public lands subject to Alaska National Interest Lands Conservation Act (ANILCA) Title VIII jurisdiction within Unit 9C, Katmai National Preserve for the management of caribou on these lands.

It is the intent of the Board that actions related to management of caribou by Federal officials be coordinated, prior to implementation, with the Alaska Department of Fish and Game (ADF&G), representatives of the Office of Subsistence Management (OSM), and the Chair of the affected Council(s) to the extent possible. The Office of Subsistence Management will be used by managers to facilitate communication of actions and to ensure proposed actions are technically and administratively aligned with legal mandates and policies. Federal managers are expected to work with managers from the State and other Federal agencies, the Council Chair or alternate, local tribes, and Alaska Native Corporations to minimize disruption to subsistence resource users and existing agency programs, consistent with the need for special action.

DELEGATION OF AUTHORITY

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

2. 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 announce the annual harvest quota**
- **To announce and open/close a season between August 1 to September 30 and November 1 to January 31.**
- **To determine the number of permits issued annually**
- **To set sex restrictions**
- **To set permit conditions. Permit conditions must be approved by OSM and in accordance with the current OMB information collection.**

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

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

The Federal public lands subject to this delegated authority are those within Unit 9C, Katmai National Preserve.

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

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

You will review special action requests or situations that may require a special action and all supporting information to determine (1) consistency with 50 CFR 100.19 and 36 CFR 242.19, (2) if the request/situation falls within the scope of authority, (3) if significant conservation problems or subsistence harvest concerns are indicated, and (4) what the consequences of taking an action or no action may be on potentially affected Federally qualified subsistence users and non-Federally qualified users. Requests not within your delegated authority will be forwarded to the Board for consideration. You will maintain a record of all special action requests and rationale for your decision. A copy of this record will be provided to the Administrative Records Specialist in OSM no later than sixty days after development of the document.

For management decisions on special actions, consultation is not always possible, but to the extent practicable, two-way communication will take place before decisions are implemented.

You will also establish meaningful and timely opportunities for government-to-government consultation related to pre-season and post-season management actions as established in the Board's Government-to-Government Tribal Consultation Policy (Federal Subsistence Board Government-to-Government Tribal Consultation Policy 2012 and Federal Subsistence Board Policy on Consultation with Alaska Native Claim Settlement Act Corporations 2015).

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

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

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

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

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

Sincerely,

Anthony Christianson
Chair

Enclosures

cc: Federal Subsistence Board

Assistant Regional Director, Office of Subsistence Management
Deputy Assistant Regional Director, Office of Subsistence Management
Subsistence Policy Coordinator, Office of Subsistence Management
Wildlife Division Supervisor, Office of Subsistence Management
Subsistence Council Coordinator, Office of Subsistence Management
Chair, Bristol Bay Subsistence Regional Advisory Council
Deputy Commissioner, Alaska Department of Fish and Game
Special Projects Coordinator, Alaska Department of Fish and Game
Interagency Staff Committee
Administrative Record

Appendix 2

The estimated harvest of caribou for one year study periods, based on household harvest surveys, by communities who have demonstrated hunting in Unit 9C (CI 95%, lower harvest estimate is the lower bound of the estimate or the reported harvest, whichever is larger; blank cell=question not asked; source: ADF&G 2023).

Community	Study year	Number of households interviewed	Percentage of households using caribou	Estimated harvest caribou	Lower estimate	Upper estimate	Per person harvest (in pounds of edible weight)
Igiugig	1983	3		7	2	19	16
	1992	10	100%	62	53	71	200
	2001	11	100%	23	23	23	128
Iliamna	2005	12	100%	24	23	30	91
	1983	20		16	9	28	17
	1991	23	96%	107	86	128	164
	2001	21	76%	40	30	54	66
King Salmon	2004	13	77%	3	2	5	7
	1983	43	74%	182	122	242	74
	1994	37	86%	226	155	297	92
	1995	26	87%	183	121	245	66
	1996	32	76%	114	58	169	46
Kokhanok	2007	48	33%	16	14	18	10
	1983	19		1	1	3	1
	1992	36	97%	137	126	155	118
	2001	16	94%	20	9	36	22
	2005	35	80%	21	18	28	21
Levelock	1988	27	100%	86	70	102	118
	1992	30	100%	86	73	99	116
	2001	17	100%	28	19	38	68
	2005	14	100%	27	20	36	120
Naknek	1983	52	73%	140	92	188	55
	1994	59	85%	432	332	532	118
	1995	41	57%	252	167	336	70
	1996	43	67%	279	201	357	82
	2007	75	49%	74	66	83	21
Newhalen	1983	11		24	10	45	28
	1991	26	100%	154	128	180	146
	2001	34	94%	71	62	81	72
	2004	25	88%	49	45	54	59
South Naknek	1983	21	91%	135	75	195	147
	1992	35	86%	82	68	100	91
	1994	25	96%	103	77	129	119
	1995	31	87%	128	110	149	133
	1996	35	89%	138	128	175	157
	2007	21	62%	2	2	3	7

WCR24–04/06 Executive Summary	
General Description	Wildlife Closure Reviews WCR24-04 and WCR24-06 review closures to caribou hunting in Unit 9C, remainder and Unit 9E, respectively. In Unit 9C, remainder, Federal public lands are closed to caribou hunting, except by residents of Unit 9C and Egegik. In Unit 9E, Federal public lands are closed to caribou hunting, except by residents of Unit 9E, Nelson Lagoon, and Sand Point. These closures target the Northern Alaska Peninsula Caribou Herd (NAPCH).
Current Regulation	<p>Unit 9–Caribou</p> <p><i>Unit 9C, remainder – 1 bull by Federal registration permit or State permit. Federal public lands are closed to the taking of caribou except by residents of Unit 9C and Egegik</i> <i>May be announced</i></p> <p><i>Unit 9E – 1 bull by Federal registration permit or State permit. Federal public lands are closed to the taking of caribou except by residents of Unit 9E, Nelson Lagoon, and Sand Point</i> <i>May be announced</i></p>
OSM Conclusion	Retain the Status Quo
Kodiak/Aleutians Subsistence Regional Advisory Council Recommendation	Oppose rescinding the closure
Bristol Bay Subsistence Regional Advisory Council Recommendation	Retain status quo
Interagency Staff Committee Comments	The Interagency Staff Committee found the analysis to be a thorough and accurate evaluation of the closure and that it provides sufficient basis for the Regional Advisory Council recommendation and Federal Subsistence Board action.

WCR24–04/06 Executive Summary	
ADF&G Position	Support rescinding the closure
Written Public Comments	None

FEDERAL WILDLIFE CLOSURE REVIEW

WCR24-04 and WCR24-06

Issue: Wildlife Closure Reviews WCR24-04 and WCR24-06 review closures to caribou hunting in Unit 9C, remainder and Unit 9E, respectively. In Unit 9C, remainder, Federal public lands are closed to caribou hunting, except by residents of Unit 9C and Egegik. In Unit 9E, Federal public lands are closed to caribou hunting, except by residents of Unit 9E, Nelson Lagoon, and Sand Point. These closures target the Northern Alaska Peninsula Caribou Herd (NAPCH).

Closure Location and Species: Unit 9C remainder, and 9E—Caribou (**Figure 1**)

Current Federal Regulation

Unit 9—Caribou

Unit 9C, remainder – 1 bull by Federal registration permit or State permit. Federal public lands are closed to the taking of caribou except by residents of Unit 9C and Egegik *May be announced*

Unit 9E – 1 bull by Federal registration permit or State permit. Federal public lands are closed to the taking of caribou except by residents of Unit 9E, Nelson Lagoon, and Sand Point *May be announced*

Closure Dates: Year-round

Current State Regulation

Unit 9—Caribou

Residents: Unit 9C, south of the north bank of the Naknek River – 1 caribou by permit *TC505 Aug. 10 – Oct. 10*
Nov. 1 – Feb. 28

Residents: Unit 9E – 1 caribou by permit *TC505 Aug. 10 – Oct. 10*
Nov. 1 – Apr. 30

Regulatory Year Initiated: 1999, closed except to residents of Units 9C and 9E; 2006, closed to all users; 2016, closed except by some Federally qualified subsistence users.

Extent of Federal Public Lands/Waters

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

Unit 9E is comprised of 49% Federal public lands and consists of 44% USFWS managed lands and 5% NPS managed lands (**Figure 1**).

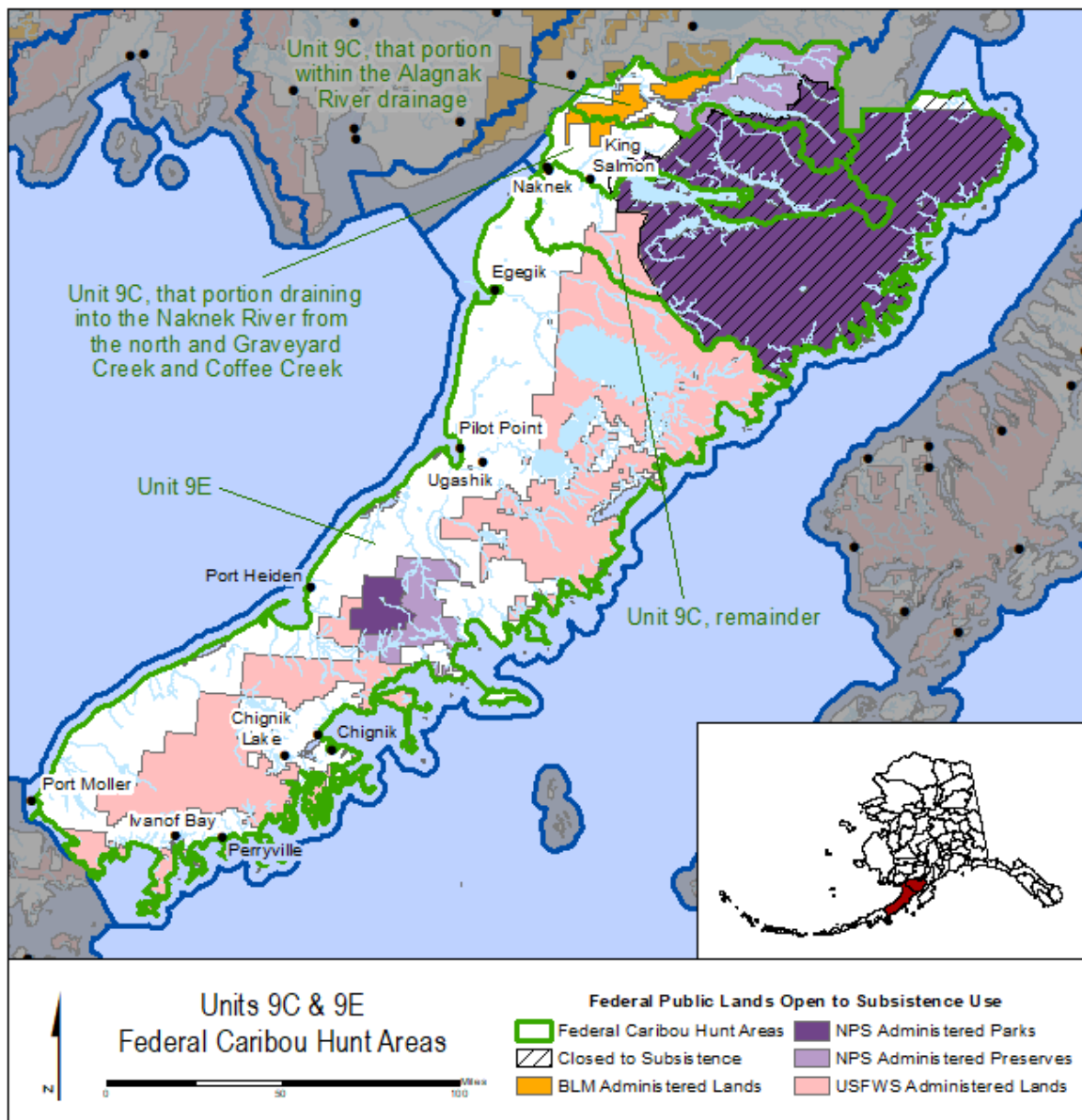


Figure 1. Units 9C and 9E Federal caribou hunt areas.

Customary and Traditional Use Determination

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

Residents of Units 9B, 9C, 9E, 17, Nelson Lagoon, and Sand Point have customary and traditional use determination for caribou in Unit 9E.

Regulatory History

Prior to 1999, the harvest limit in Unit 9C remainder and Unit 9E remainder (which included most of Unit 9E) was 4 caribou. The season began on Aug. 1 in both hunt areas and ended on March 31 in Unit 9C remainder and on Apr. 30 in Unit 9E remainder. At that time, there was no Federal season in the southernmost portion of Unit 9E.

The Federal Subsistence Board's (Board) 1999 decision on three proposals resulted in the first iteration of the current closure. Collectively, WP99-32, submitted by the Bristol Bay Subsistence Regional Advisory Council (Council), WP99-33, submitted by Tim Enright of Pilot Point, and WP99-34, submitted by Chignik Lagoon Traditional Council, requested more restrictive harvest limits, more conservative seasons, and closure of some Federal public lands to the harvest of caribou in Units 9C and 9E. In response to a decline in the Northern Alaska Peninsula Caribou Herd (NAPCH), the Board adopted these proposals with modification. In addition to reduction in harvest limits and seasons, this action resulted in the closure of Federal public lands within Unit 9C remainder and all of Unit 9E to caribou harvest except by residents of Unit 9C and 9E. The Alaska Board of Game (BOG) implemented a Tier II hunt for the NAPCH the same year.

In 2000, the Board considered WP00-33, which was submitted by the Bristol Bay Native Association and requested the provision of designated hunter permits for caribou in Unit 9C and 9E. The Board approved this request because it was consistent with customary and traditional hunting practices and was not expected to impact the caribou population.

In 2004, the Board considered WP04-43, a request from the Council to allow same day airborne hunting for caribou throughout Units 9 and 17, except on NPS managed lands. All four Subsistence Regional Advisory Councils that voted on this proposal (Bristol Bay, Yukon-Kuskokwim Delta, Western Interior Alaska, Kodiak/Aleutians) opposed it, and the Board rejected the proposal.

In 2005, caribou seasons in Units 9C remainder and 9E were the subject of two special actions, both submitted by the Office of Subsistence Management (OSM). The first, Emergency Special Action WSA05-02, requested that caribou hunting on Federal lands be closed in Unit 9C remainder and Unit 9E, following the rapid decline of the NAPCH and the State's closure of the Tier II season. As authorized by the Board, this request was approved with the unanimous consent of the Interagency Staff Committee. Subsequently, Temporary Special Action WSA05-11 was submitted, a necessary step to extend the closure beyond the 60-day period approved through WSA05-02. With support of the Council, the Board adopted this request, resulting in closure of the caribou season for the entirety of the 2005-06 regulatory year.

The Council reviewed the Federal public lands closures in Units 9C remainder and 9E at their winter in 2005 meeting (WCR05-04/06). The Council concurred with OSM's recommendation, which was to maintain the status quo given continued population decline and insufficient recruitment. At the same meeting, the Council voted to submit a proposal to close Federal public lands in Units 9C remainder and 9E to the harvest of caribou by all users, effectively extending the closure that resulted from the Board's actions on WSA05-02 and WSA05-11. This proposal, WP06-22, was adopted by the Board, resulting in elimination of the Federal season for caribou in these units (BBSRAC 2005). The State Tier II hunt was closed in 2005 as well.

In 2011, the Council reviewed the Federal public lands closure again (WCR10-04/06) and voted in favor of maintaining the closure (BBSRAC 2011).

In 2015, the Council reviewed Wildlife Closure Review 14-04 and 15-06 (WCR14-04/06). During this meeting Alaska Department of Fish and Game (ADF&G) reported a limited Tier II hunt would occur in fall 2016, dependent on the NAPCH survey results having positive composition counts and population minimum counts (BBSRAC 2015). The Council unanimously recommended to modify the closure to provide for a hunt on Federal public lands to Federally qualified subsistence users, should the State open the Tier II hunt. This resulted in Wildlife Proposal 16-21 (WP16-21).

In response to the 2014 closure review, the Council voted to submit Proposal WP16-21 to modify the conditions of the hunt. Specifically, the Council requested that the closure be modified to allow caribou harvest by residents of Units 9C and 9E. The Council also requested that a may-be-announced caribou season be established in Units 9C remainder and 9E, noting that the State was considering opening a Tier II drawing hunt. The Council believed that it would be useful for Federal managers to have the flexibility to open a hunt on Federal lands as well, particularly considering the extent of Federal land in Unit 9 (BBSRAC 2015).

In 2016, the Board adopted Proposal WP16-21 was adopted by the Board at their April 2016 meeting, establishing a may-be-announced season (FC0914 and FC0915) and delegate authority to open and close the season, set quotas, any permit requirements or conditions, and harvest limit, including any sex restrictions to the Alaska Peninsula Becharof National Wildlife Refuge (NWR) manager. The Board adopted the proposal with modification to reduce the pool of eligible subsistence users on Federal public lands in Unit 9C remainder to residents of Unit 9C and Egegik, and on Federal public lands in Unit 9E to residents of Unit 9E, Nelson Lagoon, and Sand Point. The new Federal hunt coincided with 2016 changes in State regulations that opened a Tier II hunt (TC505).

In 2018, State harvest regulations for caribou in Unit 9 were again modified when the BOG acted on Proposals 125 and 127. As a result of the BOG's action on Proposal 125, the Tier II season for the NAPCH was extended throughout the TC505 permit area. In the portion of Unit 9C south of the north bank of the Naknek River, it was extended by 34 days to Aug. 10 – Oct. 10 and Nov. 1 – Feb. 28. In Unit 9E, it was extended by 20 days to Aug. 10 – Oct. 10 and Nov. 1 – Apr. 30. The BOG's action on proposal 127 resulted in the portion of Unit 9C north of the Naknek River and south of the Alagnak

River drainage becoming part of the RC503 Mulchatna Caribou Herd (MCH) permit area, with an Aug. 1 – Mar. 31 season, rather than part of the NAPCH TC505 permit area.

The Board considered a similar change in 2018. Proposal WP18-21, submitted by the Council, in part requested that the caribou season in Unit 9C north of the Naknek River be changed from a may-be-announced season to an Aug. 1 – Mar. 15 season with a harvest limit of 2 caribou. This request was consistent with requested Federal regulation changes throughout the range of the MCH and similar to the new State regulations in this hunt area. The Board adopted WP18-21 with modification to create a new hunt area, removing the portion of Unit 9C that drains into the Naknek River from the north and Graveyard Creek and Coffee Creek from Unit 9C remainder. The Board's action effectively shifted the regulatory emphasis within the new hunt area from the NAPCH to the MCH, reflecting current distribution patterns of these two herds.

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

In 2020, the Board reviewed the closure in Unit 9C, draining into the Naknek River from the north and Graveyard Creek and Coffee Creek; Unit 9C, remainder; and Unit 9E. The Board retained the closures within Units 9C remainder and 9E because the NAPCH continued to have a low population count and insufficient recruitment. The closure in Unit 9C, draining into the Naknek River from the north and Graveyard Creek and Coffee Creek was rescinded, as the NAPCH no longer range within this area.

Current Events

Proposals WP24-16/17 request expanding the pool of federally qualified subsistence users eligible to harvest caribou in Unit 9E. Specifically, WP24-16 requests to add the rural residents of Unit 9C, including the communities of King Salmon, Naknek, and South Naknek, to the group of communities who are eligible to harvest caribou in Unit 9E. Proposal WP24-17 requests to add the communities of King Salmon, Naknek, and South Naknek to the group of communities who are eligible to harvest caribou in Unit 9E.

Closure last reviewed: 2020 – WCR20-04/06

Justification for Original Closure:

§815(3) of ANILCA states:

Nothing in this title shall be construed as – (3) authorizing a restriction on the taking of fish and wildlife for nonsubsistence uses on public lands (other than national parks and monuments) unless necessary for the conservation of healthy populations of fish

and wildlife, for the reasons set forth in section 816, to continue subsistence uses of such populations, or pursuant to other applicable law...

The original closure, in 1999, was initiated at a time when the NAPCH population was declining and there was a need to ensure subsistence opportunity for local users. By 2006, when Federal public lands were closed to all users, the caribou population had declined to a point that any harvest was unsustainable. In 2016, the state opened a Tier II system, and the Board adopted a may-be-announced season dependent on having positive composition counts and population minimum counts.

Council Recommendation for Original Closure:

The Council's actions in 1999 addressed both conservation concerns and the need to provide continued subsistence opportunity for local communities. Specifically, the Council supported more restrictive harvest limits and seasons due to the declining caribou population size. They also supported closing Federal public lands in Units 9C remainder and 9E to caribou harvest except by residents of Unit 9C and 9E. The Council believed it was reasonable to limit distribution of Federal permits to these users, considering who has a customary and direct dependence on the resource, who is in closest proximity to the resource, and who has access to alternative resources.

In 2006, noting that recruitment was insufficient to offset adult mortality, the Council agreed that closing Federal public lands to all users was an appropriate compliment to the State's decision to close the State Tier II season.

In 2016, the Council supported Proposal WP16-21, which closed Units 9C remainder and 9E, except by some Federally qualified subsistence users s, established a may-be-announced season, a cultural and traditional use determination for the NAPCH in Unit 9C and 9E, and delegated authority (**Appendix 2**) to Alaska Peninsula Becharof NWR manager to manage the hunt.

State Recommendation for Original Closure:

In 1999, the State supported efforts to improve herd productivity by restricting harvest limits, reducing the season and limiting harvest through the use of quotas. In 2006, acknowledging the serious conservation concern, the State stopped issuing Tier II permits and supported closing the Federal caribou season. In 2016, the State opened a Tier II system, dependent on having positive composition counts and population minimum counts.

Biological Background

Generally speaking, the NAPCH occupies Units 9C and 9E, from the Naknek River in the north to Port Moller in the south. It has varied considerably in size in the last century, ranging from approximately 2,000 during population lows to approximately 20,000 during population highs. These fluctuations in population size have been accompanied by shifts in distribution and movement patterns, likely due to impacts of population size on habitat quality. Following the most recent population peak in the mid-1980s, the herd began wintering north of the Naknek River. More recently, this northern range has

become less important, with few caribou crossing to the north side of the Naknek River by 2000 (Crowley 2015).

The NAPCH experienced a steady multi-decade decline in population size between the mid-1980s and the mid-2010s, approximating historical lows of 2,000 caribou. Nutritional limitations have been implicated in the decline. In recent years, the population has showed a positive growth trend and was estimated to be approximately 3,800 caribou in 2018 (**Table 1**) but remains well below the State's population objective of 12,000 – 15,000 caribou (Crowley 2014, 2015, 2016, 2019, pers. comm.).

Calf-cow ratios have improved markedly from the single digit ratios of the mid-2000s. At last count, in 2018, there were 35 calves:100 cows. Bull:cow ratios have also improved in the last decade. The two most recent surveys, prior to 2018, estimated at least 70 bulls:100 cows (**Table 1**). Regardless, the bull:cow ratios have shown an increasing trend and local biologists believe that the current bull:cow ratio exceeds the management objective of 35 bulls:100 cows (Crowley 2014, 2016, 2018 pers. comm.).

Table 1. Northern Alaska Peninsula Caribou Herd composition counts and population estimates, 1984 – 2018 (Crowley 2014, 2016, 2019, pers. comm. and Reiley 2021, pers. comm.; Rinaldi 2022, pers. comm.).

Year	Bulls:	Calves:	% of Total bulls			Composition sample size	Population Estimate
	100 cows	100 cows	Small bulls	Medium bulls	Large bulls		
1984	39	39	67	16	17	1,087	20,000
1990	41	29	-	-	-	1,484	17,000
1991	42	47	54	34	12	1,639	17,000
1992	40	44	44	38	19	2,766	17,500
1993	44	39	52	29	19	3,021	16,000
1994	34	34	58	28	14	1,857	12,500
1995	41	24	49	29	22	2,907	12,000
1996	48	38	71	19	10	2,572	12,000
1997	47	27	54	31	14	1,064	10,000
1998	31	30	57	28	15	1,342	9,200
1999	40	21	58	30	12	2,567	8,600
2000	38	18	59	24	18	1,083	7,200
2001	49	28	61	24	15	2,392	6,300
2002	46	24	57	19	24	1,007	6,600
2003	36	11	46	30	24	2,776	-
2004	34	7	40	34	25	1,355	-
2005	23	7	37	41	22	1,914	-
2006	26	14	26	43	31	1,725	-
2007	27	7	29	38	33	1,719	-
2008	19	10	33	25	43	1,841	-
2009	19	16	30	35	35	2,126	-
2010	25	18	30	31	39	1,795	2,169 ^a
2011	26	20	26	37	37	2,395	2,321 ^a
2012	28	22	24	37	40	1,352	2,525 ^a
2013	31	21	26	41	33	2,076	2,708 ^a
2014	40	34	23	50	28	2,295	3,101 ^a
2015 ^b	38	29	53	29	18	2,122	3,411 ^a
2016	70 ^c	24	30	47	23	1,556	3,617 ^a
2017	-	-	-	-	-	-	-
2018	72 ^c	35	29	42	29	1,327	3,800 ^a
2019	53	34	17	64	20	1203	4200 ^a
2020	56	33	44	32	24	1971	4500 ^a
2021	-	-	-	-	-	-	-
2022	-	-	-	-	-	-	4,000

^aEstimate based on simulation modeling.

^bSurvey limited to northern portion of NAP range.

^cLikely biased high due to inability to locate entire herd

Cultural Knowledge and Traditional Practices

There are 33 communities with an estimated total population of over 7,500 people included in the customary and traditional use determination for caribou in Units 9C remainder and 9E. However, only 14 of these communities have been eligible to harvest caribou on Federal public lands since 2015, based on the three criteria in ANILCA Section 804: (1) reliance on the resource as the mainstay of livelihood, (2) proximity to the resource, and (3) availability of other resources (see Proposal WP16-22 described above in **Regulatory History**). Eligible communities in the Unit 9C remainder hunt area are King Salmon, Naknek, South Naknek, and Egegik; and in the Unit 9E hunt area are Chignik Bay, Chignik Lagoon, Chignik Lake, Egegik, Perryville, Ivanof Bay, Pilot Point, Port Heiden, Ugashik, Nelson Lagoon, and Sand Point (**Figure 1**). The population of these communities is estimated at almost 2,000 people based on the 2020 U.S. Census and has declined since the 1990s (**Table 2**, ADCCED 2022).

Caribou were among the most important subsistence resource for Northern Alaska Peninsula communities (Fall 1993). The herd last peaked in about 1984, and harvest seasons were closed from 2005 through 2015. Residents of eligible communities have reported their harvests on household surveys since 1983. Residents' overall harvest of caribou and per person harvest in pounds edible weight have generally decreased by community since 1983 (ADF&G 2022, **Appendix 1**). Because of the lack of commercial vendors selling hunting licenses and the remoteness of many of the communities, reported harvest and periodic household subsistence surveys have been used in conjunction to produce more accurate estimates of community harvest.

The most recent household harvest surveys were conducted in 2014, 2016, and 2018. Residents of Egegik, Pilot Point, and Ugashik participated in harvest surveys in 2014 before the hunting season opened in 2016 (Sill et al. 2022). Residents commented on their preference for caribou, "Many respondents, particularly elders, commented that though salmon was a very important food source, caribou remained their preferred wild resource even though many had not had any in more than two decades. There were residents who longed for caribou to return to their region so they could once again acquire them to feed their families" (Sill et al. 2022:247).

Some expressed fear that people would lose the ability to hunt and process caribou with legal hunts being closed for so long. For example, an Ugashik resident made this comment during the survey, "I worry that the younger generation will not have anyone to teach them how to hunt if caribou return." Others spoke of how much they missed eating caribou, for example from Pilot Point, "I have not had one piece of caribou in so long I can't remember, but I can still taste it" (Sill et al. 2022:247).

Some harvesting opportunity has been provided since 2015. The results of harvest surveys conducted since 2015 are described in **Table 3**. In the 1980s and 1990s, the annual caribou harvest for Pacific drainage communities in Unit 9E were generally lower than those of the Bristol Bay side—which includes Port Heiden and Egegik—because of more limited access to caribou (Fall 1993).

In 2018, Port Heiden community members commented on their experiences hunting caribou since 2015 after the long closure and reduced herd size. Jones and Cunningham (2020) described these comments,

Reestablishing caribou hunting also regenerated important learning, sharing, and trading networks within the community and with other communities. Port Heiden residents explained that enough people are still around and available to help bestow their caribou hunting and processing wisdom upon the younger generation whose members had yet to experience caribou hunting due to the regulatory closure. Regarding the transmission of caribou hunting knowledge, one key respondent explained: ‘. . . Tier II caribou hunts closed, and hunting was a lost art. They [Port Heiden youth] didn’t know how to hunt, where to go, how to process. We’re lucky that hunt came back, and we were able to get the young people involved’ (Jones and Cunningham 2020:100).

Jones and Cunningham (2020) described changes in hunting patterns in 2018 compared to in the 1980s and 1990s, “According to elders and expert caribou hunters from Port Heiden, in the past, frozen rivers provided access to caribou hunting areas throughout the Alaska Peninsula. However, since the Tier II permit hunt opened in 2016, many of the rivers that hunters traditionally used for winter travel have not frozen adequately enough for safe passage to caribou hunting grounds. Many commented on this change in access to caribou hunting” (Jones and Cunningham 2020:98).

Table 2. The number of people living in northern Alaska Peninsula communities. Residents of these communities have been eligible to harvest caribou in Units 9C remainder and 9E since 2016 when hunting opportunity was provided for the first time since 2004 (ADCCED 2022).

Community of residence	Community	1980	1990	200	2010	2020
9C	King Salmon	545	696	442	374	307
9C	Naknek	318	575	678	544	470
9C	South Naknek	145	136	137	79	67
9E	Egegik	75	122	116	109	39
9E	Chignik Bay	178	188	79	91	97
9E	Chignik Lagoon	48	53	103	78	72
9E	Chignik Lake	138	133	145	73	61
9E	Ivanof Bay	40	35	22	7	1
9E	Perryville	111	108	112	113	88
9E	Pilot Point	66	53	100	68	70
9E	Port Heiden	92	119	119	102	100
9E	Ugashik	13	7	11	12	4
9D	Nelson Lagoon	59	83	83	52	41
9D	Sand Point	625	878	952	976	578
	TOTAL	2,453	3,186	3,099	2,678	1,995

Table 3. The estimated harvest of caribou by residents of communities eligible to harvest caribou in Units 9C remainder and 9E for one year study periods since reopening in 2016 (CI 95%, lower harvest estimate is the lower bound of the estimate or the reported harvest, whichever is larger) (ADF&G 2022a).

Community	Study year	Number of households interviewed	Percentage of households using caribou	Estimated harvest of caribou	Lower estimate	Upper estimate	Per person harvest (in pounds of edible weight)
Chignik City	2016	24	46%	6	5	8	11
Chignik Lagoon	2016	20	30%	0	0	0	0
Chignik Lake	2016	28	61%	6	5	8	9
Egegik	2016	20	10%	0	0	0	0
Perryville	2016	26	50%	6	4	9	8
Port Heiden	2016	27	79%	31	23	39	44
Sand Point	2016	101	15%	4	2	7	1
Port Heiden	2018	27	93%	44	37	51	64

Harvest History

Harvest of the NAPCH peaked in 1993 and has declined since. These changes correspond to population size and harvest restrictions. Between 1990 and 1993, when the herd was large and seasons and harvest limits were liberal, annual reported harvest approached or exceeded 800 caribou annually. Declining herd size, fluctuating distribution and more restrictive regulations resulted in reported annual harvests of 400 – 500 caribou between 1994 and 1999 (**Table 4**). Reported harvest during the 1990s was skewed heavily toward hunters residing outside of Units 9C and 9E. However, unreported harvest was high at an estimated 500 – 1,500 caribou annually, particularly among residents of Units 9C and 9E. Accounting for this, residents of Units 9C and 9E likely harvested a greater proportion than harvest data suggests (Sellers 1995, 1999).

In 1999, following implementation of the State Tier II hunt, more restrictive Federal regulations, and implementation of the Federal public lands closure, reported harvest declined dramatically, averaging just 96 caribou per year between 1999 and 2004 (**Table 4**). User demographics shifted as well, with at least 90% of the reported harvest attributable to local users, defined here as those who are currently eligible to harvest caribou on Federal public lands in either Unit 9C remainder or in Unit 9E (residents of Units 9C, Egegik, 9E, Sand Point, and Nelson Lagoon). Legal harvest ceased in 2005, following closure of the State and Federal hunting seasons (ADF&G 2018).

Federal and State seasons were reestablished in 2016. Since then, State reported harvest has averaged 68 caribou annually (**Table 4**), all of which were taken by local users. Federal reported harvest has averaged 2 caribou annually (**Table 5**). On average, harvest was 87% bulls, and 53% of reporting hunters were successful. Nearly two-thirds of the total harvest was taken during the winter hunt, between December and April. September and December were the most popular months, with an average of 19% of the total harvest occurring during each of these months (ADF&G 2018, 2019). Local biologists believe that the NAPCH can sustain a 4% harvest rate (180 caribou, based on 2020 population) and continue to grow (BOG 2018).

Local State and Federal managers have the authority to manage for this quota through Emergency Orders and Special Actions. The quota has not been exceeded since seasons were opened in 2016.

Table 4. Reported harvest of the Northern Alaska Peninsula Caribou Herd 1990 – 2022, by sex. (Sellers 1995, 1999; ADF&G 2018, 2019, 2022b; KASRAC 2023).

Year	Harvest (number of caribou)			
	Total	Males	Females	Unknown Sex
1990	791	679	110	2
1991	806	688	115	3
1992	921	816	98	7
1993	1,345	1,165	175	5
1994	569	478	91	-
1995	533	486	47	-
1996	481	438	43	-
1997	482	446	36	-
1998	490	453	31	6
1999	155	147	8	-
2000	82	76	6	-
2001	95	87	8	-
2002	82	78	4	-
2003	128	122	6	-
2004	32	30	2	-
2005-2015 ^a	-	-	-	-
2016	82	74	8	-
2017	58	42	16	-
2018	78	67	11	-
2019	81	75	5	1
2020	57	44	46	-
2021	50	48	1	1
2022	52	-	-	-

^aNo season

Table 5. Reported caribou harvest with Federal permits (FC0914, Unit 9C remainder and FC0915, Unit 9E) from 2016-2022 (OSM 2022). (Prior to 2017, FC0914 was CE0920.)

	FC0914		FC0915	
	Permits Issued	Successful	Permits Issued	Successful
2016	1	1	0	0
2017	2	0	0	0
2018	5	0	8	3
2019	4	0	11	3
2020	0	0	3	1
2021	2	0	2	0
2022	0	0	5	0

Effects

Retaining the status quo would maintain the Federal subsistence priority and continue Federally qualified subsistence users to harvest at low levels on Federal public land. The caribou population remains low, and recruitment continues to be low. The population is unable to sustain additional harvest. If Proposals WP24-16/17 are adopted, then the pool of federally qualified subsistence users eligible to harvest caribou in Unit 9E will increase. While competition may increase, harvest quotas should prevent any negative impact on the caribou population.

Rescinding the closure would allow for non-Federally qualified subsistence users to hunt caribou on Federal public lands under State regulations. Historically a large number of non-Federally qualified subsistence users hunted this area; however, currently the State hunt is a Tier II permit hunt, which limits participation and harvest. Currently the caribou population is not large enough to sustain high levels of hunting pressure or any additional harvest.

Modifying the closure to open to all Federally qualified subsistence users and, closed to non-Federally qualified users would allow a larger number of subsistence users to harvest caribou. Currently, the population of the NAPCH remains low and is unable to sustain additional harvest. There remains a conservation concern for the herd.

Modifying the closure to close to all users would prevent Federally qualified subsistence users from harvesting an important subsistence source. While the population of the NAPCH is low, it is on the rise from the lowest point in 2010, and current harvest levels appear to be sustainable (Crowley 2014 pers. comm.), but it is still not large enough to open to all users.

OSM CONCLUSION:

☒ **Retain the Status Quo**

☐ **Rescind the Closure**

☐ **Modify the closure to . . .**

☐ **Defer Decision on the Closure or Take No Action**

Justification

The NAPCH remains a population of concern in Unit 9C remainder and Unit 9E. Although this population has shown recent improvement in population size, as well as bull:cow and calf:cow ratios, it remains well below the established population size objective. The current management approach, which includes the State's Tier II hunt, limiting harvest on Federal lands to those with recognized customary and traditional use of the resource and direct dependence on it, and a harvest quota managed by Emergency Order/Special Action, appears to be effective in allowing harvest while supporting population growth. Consequently, retaining the Federal public lands closure within Units 9C remainder and 9E is appropriate and likely offers the best opportunity for both continuations of subsistence uses and recovery of the NAPCH.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Kodiak Aleutians Subsistence Regional Advisory Council

Oppose rescinding the closure on WCR24-06. After extensive deliberation, the Council ultimately opposed the motion to rescind the closures. The primary concern was the perceived vulnerability of the caribou herd in the Peninsula, which raised apprehensions about its ability to withstand additional hunting pressure.

Additionally, there were worries that lifting the closure WCR 24-06, might negatively impact subsistence harvest opportunities for federally qualified subsistence users in Unit 9E, Nelson Lagoon, and Sand Point. Throughout the discussions, the Council engaged State and Federal biologists, seeking clarification on various aspects of the closure reviews. Although the Council acknowledged the potential flexibility provided by the delegation of authority letter, allowing the Federal manager to adjust the hunt based on herd status and harvest levels, there remained a collective unease regarding the current strength of the caribou herd. The Council stressed the importance of first understanding the position of the Bristol Bay Council on the closure reviews and expressed frustration over the lack of sufficient caribou population data provided, hindering their ability to make a fully informed decision during the meeting.

Bristol Bay Subsistence Regional Advisory Council

Retain status quo on WCR24-04/06. The Council was in support of retaining the status quo; the closure creates a balance between allowing the herd to grow, while allowing subsistence users adequate harvest.

INTERAGENCY STAFF COMMITTEE COMMENT

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

ALASKA DEPARTEMNT OF FISH AND GAME COMMENT

Wildlife Closure WCR24-04 and 06

This is the routine review of the closure prohibiting users residing outside of Game Management Unit (Unit) 9C and Egegik from hunting caribou in Unit 9C and users outside of 9E from caribou hunting in Unit 9E on federal public land.

Position

The Alaska Department of Fish & Game (ADF&G) **SUPPORTS** rescinding the closure. The NAP caribou herd population estimate is approximately 4,000, but it continues to show signs of growth. This combined that residents of the area are not harvesting the current amount of calculated harvestable surplus allows for additional hunters to be provided harvest opportunities.

Background

The NAP caribou herd was at its lowest population estimate in 2010 with just over 2,000 caribou estimated to be in the unit. It has been slowly increasing since then. A Tier II hunt (TC505) was reinstated in 2016. Harvest averaged 53 caribou in the last 3 years with 1/3 of the harvest coming from 9C over the last 5 years. There is lost harvest opportunity for residents of 9C with the inability to hunt federal lands in 9E. Available permits have increased from 200 to 600 (Table 1) with permits going undersubscribed in 2022 and 2023. Harvest has decreased since the Tier II hunt started although available permits have increased. With the increase in available permits, more hunters are reporting they did not hunt versus hunted. Up to 1,500 Tier II permits may be issued when the harvestable surplus is less than 1,200 caribou. The last composition survey was conducted in 2023 with a calf:cow ratio of 27 calves per 100 cows and a bull:cow ratio of 31 bulls per 100 cows. The bull:cow objective is 35 bulls to 100 cows.

Table 1. Total Tier II (TC505) permits offered, total hunters each year, and total harvest of caribou from the NAPCH from 2016 through 2022.

Regulatory Year	Total Permits Available	Total Permits Issued	Hunted	Did Not Hunt	Total Harvest
2016	200	198	125	61	82
2017	200	200	102	92	58
2018	300	282	138	119	78
2019	300	289	131	140	81
2020	300	274	120	128	57
2021	300	300	118	156	50
2022	600	308	107	170	52

Impact on Subsistence Users

Unless rescinded, this closure would exclude subsistence users residing outside the select area from caribou hunting within the closures while continuing to allow residents of the respective units to hunt federal public lands within their unit of residency and residents of Nelson Lagoon and Sand Point would be able to hunt federal lands in Unit 9E with the appropriate permits.

Impact on Other Users

Unless rescinded, this closure will continue to prohibit non-federally qualified users (NFQU) from hunting caribou on federal lands in Units 9C and 9E.

Opportunity Provided by State

State customary and traditional use findings: The Alaska Board of Game (BOG) has made positive customary and traditional use findings for caribou in Units 9C and 9E.

Amounts Reasonably Necessary for Subsistence: Alaska state law requires the Board of Game to determine the amount of the harvestable portion of a game population that is reasonably necessary for customary and traditional uses. This is an ANS. The BOG does this by reviewing extensive harvest data from all Alaskans, collected either by ADF&G or from other sources.

ANS provides the BOG with guidelines on typical numbers of animals harvested for customary and traditional uses under normal conditions. Hunting regulations can be re-examined if harvests for customary and traditional uses consistently fall below ANS. This may be for many reasons: hunting regulations, changes in animal abundance or distribution, or changes in human use patterns, just to name a few.

The ANS for caribou in Unit 9C and 9E is 1,200–1,900 animals. The season and bag limit for 9C and 9E is:

<u>Unit/Area</u>	<u>Bag Limit</u>	<u>Open Season (Permit/Hunt #)</u>	
		<u>Resident^a</u>	<u>Nonresident</u>
9C	1 caribou	Aug 10–Oct 10; Nov 1–Feb 29	No open season
9E	1 caribou	Aug 10–Oct 10; Nov 1–April 30 (Tier II; TC505)	No open season

^a Subsistence and General Hunts.

Conservation Issues

As part of an Intensive Management Plan to benefit the NAP, the BOG in March 2011 authorized a wolf predation control plan to remove all wolves from calving areas. The program showed little efficacy and was allowed to expire in 2020 due to limited state lands and low participation yielding little take. Since then, the caribou herd has been left to increase on its own without any predator control.

Enforcement Issues

Wildlife troopers estimate approximately 20 caribou are harvested without permits each year. Hunt and harvest reporting is required for the TC505 permit.

APPENDIX 1

Appendix 1. The estimated harvest of caribou by residents of communities eligible to harvest caribou in Units 9C remainder and 9E for one year study periods between 1983 and 2018 (CI 95%, lower harvest estimate is the lower bound of the estimate or the reported harvest, whichever is larger) (ADF&G 2022).

Unit of residence	Community	Study year	Estimated Harvest	Lower harvest estimate	Upper harvest estimate	Per person harvest
9C	King Salmon	1983	182	122	242	74
		1994	226	155	297	92
		1995	183	121	245	66
		1996	114	58	169	46
		2007	16	14	18	10
	Naknek	1983	140	92	188	55
		1994	432	332	532	118
		1995	252	167	336	70
		1996	279	201	357	82
		2007	74	66	83	21
	South Naknek	1983	135	75	195	147
		1992	82	68	100	91
		1994	103	77	129	119
		1995	128	110	149	133
		1996	138	128	175	157
		2007	2	2	3	7
9E	Chignik Bay	1984	6	4	9	7
		1989	12	11	15	15
		1991	13	9	20	16
		1994	1	1	2	2
		1995	3	3	5	6
		1996	5	5	6	9
		2003	1	1	3	2
		2016	6	6	8	11
	Chignik Lagoon	1984	5	4	8	11
		1989	4	4	4	15
		1994	21	20	24	33
		1995	15	9	26	25
		1996	5	3	9	10
		2003	8	6	13	17
		2016	0	0	0	0
	Chignik Lake	1984	82	66	98	79
		1989	129	97	180	173
		1991	105	79	131	120
		1994	111	91	134	105
		1995	67	48	86	88
		1996	55	36	77	76
		2003	19	13	33	25
		2016	6	5	8	9
	Egegik	1984	151	112	190	233
		1994	147	90	204	186

Unit of residence	Community	Study year	Estimated Harvest	Lower harvest estimate	Upper harvest estimate	Per person harvest
		1995	128	109	146	144
		1996	77	56	98	86
		2014	0	0	0	0
		2016	0	0	0	0
	Ivanof Bay	1984	20	12	31	82
		1989	23	23	23	108
		1994	5	4	6	21
		1995	14	9	29	52
		1996	13	13	13	78
	Perryville	1984	30	22	41	39
		1989	22	19	29	28
		1994	12	8	22	18
		1995	24	15	49	27
		1996	23	16	42	29
		2003	12	10	17	15
		2016	6	4	9	8
	Pilot Point	1987	98	93	109	229
	PilotPoint/Ugashik	1991	135	135	135	261
	Pilot Point	1994	127	118	144	182
		1995	51	44	61	65
		1996	129	113	160	170
		2014	0	0	0	0
	Port Heiden	1987	168	168	168	245
		1991	174	174	174	227
		1994	139	114	178	197
		1995	240	167	312	275
		1996	175	120	241	228
		2016	31	23	39	44
		2018	44	37	51	64
	Ugashik	1987	20	20	20	300
		1994	21	16	26	350
		1995	21	13	29	300
		1996	34	31	37	435
		2014	0	0	0	0
9D	Nelson Lagoon	1987	53	38	81	119
	Sand Point	1992	39	22	56	10
		2016	4	2	7	1

APPENDIX 2



FISH AND WILDLIFE SERVICE
BUREAU OF LAND MANAGEMENT
NATIONAL PARK SERVICE
BUREAU OF INDIAN AFFAIRS

Federal Subsistence Board

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Alaska Peninsula/Becharof
National Wildlife Refuge
P.O. Box 277
King Salmon, Alaska 99613

Dear Refuge Manager:

This letter delegates specific regulatory authority from the Federal Subsistence Board (Board) to the manager of the Alaska Peninsula/Becharof National Wildlife Refuge to issue emergency or temporary special actions if necessary to ensure the conservation of a healthy wildlife population, to continue subsistence uses of wildlife, for reasons of public safety, or to assure the continued viability of a wildlife population. This delegation only applies to the Federal public lands subject to Alaska National Interest Lands Conservation Act (ANILCA) Title VIII jurisdiction within Unit 9C remainder and Unit 9E as it applies to management of caribou on these lands.

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

DELEGATION OF AUTHORITY

1. **Delegation:** The Alaska Peninsula/Becharof National Wildlife Refuge manager is hereby delegated authority to issue emergency or temporary special actions affecting caribou on Federal lands as outlined under the **Scope of Delegation**. Any action greater than 60 days in

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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:

- To open and close the season, set quotas, and any permit requirements or conditions, for the may-be-announced season for caribou on Federal public lands in Unit 9C remainder and Unit 9E.

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

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

The Federal public lands subject to this delegated authority are those within Unit 9C remainder and Unit 9E.

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

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

You will review special action requests or situations that may require a special action and all supporting information to determine (1) consistency with 50 CFR 100.19 and 36 CFR 242.19, (2) if the request/situation falls within the scope of authority, (3) if significant conservation problems or subsistence harvest concerns are indicated, and (4) what the consequences of taking an action or no action may be on potentially affected Federally qualified subsistence users and

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non-Federally qualified users. Requests not within your delegated authority will be forwarded to the Board for consideration. You will maintain a record of all special action requests and rationale for your decision. A copy of this record will be provided to the Administrative Records Specialist in OSM no later than sixty days after development of the document.

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

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

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

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

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

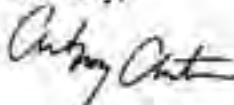
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purposes. The Board may determine that a special action request may best be handled by the Board, subsequently rescinding the delegated regulatory authority for the specific action only.

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

Sincerely,



Anthony Christianson
Chair

Enclosures

cc: Federal Subsistence Board

Assistant Regional Director, Office of Subsistence Management
Deputy Assistant Regional Director, Office of Subsistence Management
Subsistence Policy Coordinator, Office of Subsistence Management
Wildlife Division Supervisor, Office of Subsistence Management
Subsistence Council Coordinator, Office of Subsistence Management
Chair, Bristol Bay Subsistence Regional Advisory Council
Commissioner, Alaska Department of Fish and Game
Special Assistant to the Commissioner, Alaska Department of Fish and Game
Interagency Staff Committee
Administrative Record

WP24-19 Executive Summary	
General Description	<p>Proposal WP24-19 requests that the fall moose season within the Kanektok and Arolik River drainages in Unit 18 be extended from September 1 – 30 to September 1 – October 15.</p> <p><i>Submitted by: the Native Village of Kwinhagak</i></p>
Proposed Regulation	<p>Unit 18—Moose</p> <p><i>Unit 18 – south of the Eek River drainage and north of the Goodnews River drainage—I antlered bull by State registration permit</i></p> <p><i>Sep. 1 – Sep. 30 Oct. 15</i></p>
OSM Preliminary Conclusion	Support
OSM Conclusion	<p>Support WP24-19 with modification to modify the hunt area descriptor.</p> <p>The modified regulations should read:</p> <p>Unit 18—Moose</p> <p><i>Unit 18 – south of the Eek River drainage and north of the Goodnews River and including the Carter Bay drainage—I antlered bull by State registration permit</i></p> <p><i>Sep. 1 – Sep. 30 Oct. 15</i></p> <p><i>Unit 18, Goodnews River drainage and south to the Unit 18 boundary that portion that drains into Kuskokwim Bay south of Carter Bay drainage—I antlered bull by State registration permit</i></p> <p><i>Sep. 1-30</i></p>
Yukon-Kuskokwim Delta Subsistence Regional Advisory Council	Support
Western Interior Alaska Subsistence Regional Advisory Council	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 Advisory Council

	recommendation and Federal Subsistence Board action on the proposal.
ADF&G Position	Support
Written Public Comments	None

STAFF ANALYSIS WP24-19

ISSUES

Proposal WP24-19, submitted by the Native Village of Kwinhagak, requests that the fall moose season within the Kanektok and Arolik River drainages in Unit 18 be extended from September 1 – 30 to September 1 – October 15.

DISCUSSION

The proponent states that moose are an important subsistence resource for members of the Native Village of Kwinhagak¹. Because of increases in food costs, the village's remote location, and changing environmental factors, food security is a significant and growing concern. Importantly, since 2020, subsistence hunters have not hunted caribou from the Mulchatna herd due to low population numbers. The Mulchatna herd has historically been one of the village's primary food sources. Thus, there is an increased reliance on moose hunting to meet subsistence needs, and coincidentally the moose population in the area near Quinhagak (the Arolik River and Kanektok River drainages) is increasing.

The proponent further states that the current season dates of September 1- 30 do not provide an adequate opportunity for Quinhagak's subsistence needs. Poor weather during the month of September for the past two years has resulted in the failure to reach subsistence needs before the hunting season closed. Other areas in Unit 18 have moose hunts that are open for longer seasons. The Native Village of Kwinhagak proposes that the Kanektok and Arolik river drainages moose season be extended by 15 days to match those seasons and provide a more meaningful opportunity for Quinhagak residents to meet subsistence needs.

Note: While the proposal as submitted requests extending the moose season in the Kanektok and Arolik river drainages, the proponent clarified that the proposed season extension is for the entire hunt area that encompasses the community of Kwinhagak. This area corresponds to the existing hunt area of "Unit 18, south of the Eek River drainage and north of the Goodnews River drainage" as reflected below in the regulations section (**Figure 1**, Cleveland 2023, pers. comm.).

Existing Federal Regulation

Unit 18—Moose

Unit 18 – south of the Eek River drainage and north of the Goodnews River drainage—1 antlered bull by State registration permit Sep. 1 – Sep. 30

¹ Kwinhagak is the Tribe, while Quinhagak is the USGS spelling on maps.

Proposed Federal Regulation

Unit 18—Moose

Unit 18 – south of the Eek River drainage and north of the Goodnews River drainage—1 antlered bull by State registration permit *Sep. 1 – ~~Sep. 30~~ Oct. 15*

Existing State Regulation

Unit 18—Moose

Residents: Unit 18 – south of the Eek River drainage and north of and including Carter Bay drainage—1 antlered bull by permit available in person in Eek and Quinhaqak Aug 1- Sep. 30. *RM617 Sep. 1 – Sep. 30*

Nonresidents: Unit 18 – south of the Eek River drainage and north of and including Carter Bay drainage *No open season*

Extent of Federal Public Lands/Waters

Unit 18 is comprised of 67% Federal public lands and consists of 64% U.S. Fish and Wildlife Service (USFWS) managed lands and 3% Bureau of Land Management (BLM) managed lands.

Federal public lands comprise approximately 75% of the Kanektok/Arolik moose hunt area and consist of 72% USFWS managed lands and 3% BLM managed lands (**Figure 1**).

Customary and Traditional Use Determinations

Residents of Unit 18 and Lower Kalskag and Upper Kalskag have a customary and traditional use determination for moose in that portion of Unit 18 that is south of the Eek River drainage and north of the Goodnews River drainage.



Figure 1. The Federal hunt areas that make up the south of the Eek River drainage and north of the Goodnews River drainage hunt area.

Regulatory History

Federal public lands in this hunt area were closed to the harvest of moose from 1991-2020. In 1991, the Federal Subsistence Board (Board) considered Proposal P91-124, submitted by Togiak National Wildlife Refuge (NWR). Proposal P91-124 requested that the regulations for portions of Unit 18 in the Kanektok and Goodnews River drainages be consolidated with the regulations for the lower Yukon hunt area, which had no open moose season at that time. Togiak NWR believed that closing the season

was necessary to allow for the establishment of a harvestable moose population in the Kanektok/Goodnews area. The Board adopted this proposal with modification to close Federal public lands to moose harvest throughout Unit 18.

In 1998, the Board adopted Proposal P98-63, which modified the hunt area descriptor for the Kanektok/Goodnews area to include the portion of Unit 18 “south of and including the Kanektok River drainage”. The change clarified that the hunt area included the Arolik River drainage, which is located between the Kanektok and Goodnews drainages, as originally intended. It did not address the minor drainages north of the Kanektok drainage, which remained part of the lower Yukon hunt area.

In 2008, the Board adopted Proposal WP08-34 with modification, opening a hunt in the southern portion of the Kanektok/Arolik/Goodnews hunt area. In the portion of Unit 18 in the “Goodnews River drainage and south to the Unit 18 boundary”, the Federal public lands closure was rescinded, and a season was established. In the portion of Unit 18 “south of and including the Kanektok River drainages to the Goodnews River drainage”, the closure was retained. The Board’s action followed a 2005 decision by the Alaska Board of Game (BOG) on Proposals 21 and 22 to similarly create two distinct hunt areas; the portion “south of and including the Goodnews River drainage” and the portion “south of the Eek River drainage and north of the Goodnews River drainage”. While the boundary dividing the two hunt areas was identical in State and Federal regulation, discrepancies persisted in the Kanektok/Arolik hunt areas due to the existing exclusion of the minor drainages north of the Kanektok River drainage in Federal regulation.

In 2010 and 2014, there were two unsuccessful attempts to establish a Federal subsistence moose season in the Kanektok/Arolik hunt area. Proposal WP10-61 and Wildlife Special Action WSA14-01 were both submitted by the Native Village of Quinhagak IRA Council. Each requested the establishment of a September 1 – 30 moose season with a harvest limit of one antlered bull by State registration permit. However, the Board rejected WP10-61 and WSA14-01 due to ongoing conservation concerns.

In 2019 and 2020, a series of coordinated regulatory requests were submitted to the Board and the BOG related to the Kanektok/Arolik hunt area. At their March 2019 meeting, the BOG adopted Proposal 150, submitted by the Alaska Department of Fish and Game (ADF&G), to require a registration permit for the State moose hunt in the Kanektok/Arolik hunt area, rather than a harvest ticket. In addition to Proposal 150 under State regulations, the Togiak NWR submitted temporary special action request WSA19-01 and wildlife Proposal WP20-32/33, requesting that the Kanektok/Arolik Federal moose hunt area be enlarged to match the existing State hunt area boundary, that the Federal public lands closure within this hunt area be rescinded, and that a Federal season be opened.

Additionally, Wildlife Special Action WSA19-09 was submitted by the Native Village of Kwinhagak IRA Council, the City of Quinhagak Council, and the Qanirtuuq Corporation Board of Directors, requesting that moose harvest be allowed in the Unit 18 Kanektok hunt area during winter/spring 2020. The Board approved WSA19-09 with the modification to delegate authority to the in-season manager

to open a may-be-announced moose season for winter/spring 2020. Adoption of Proposals WP20-32/33 enlarged the Kanektok/Arolik hunt areas to match the State hunt area boundary, rescinded the Federal closure, and established the current Federal regulations for this hunt area. The Board stated that the moose population in this area had significantly increased, allowing for harvest opportunity by federally qualified subsistence users.

Current Events

State Proposals 7 and 8 requested the same season extension under State regulations to provide more harvest opportunity as the moose population is growing. Specifically, they request lengthening the moose season within the RM617 permit area (Unit 18, that portion south of the Eek River Drainage and north of and including the Carter Bay drainage) to October 15. At their January 2024 meeting, the BOG adopted Proposal 7, submitted by the Native Village of Kwinhagak, to lengthen the resident only registration moose hunt RM617 in Unit 18 to October 15. The BOG amended the proposal to change the bag limit to one bull, excluding male calves. The BOG took no action on Proposal 8 due to action taken on Proposal 7.

Biological Background

Prior to the early 2000s, moose were not commonly observed in southern Unit 18. Early population growth is attributed to emigration from adjacent Unit 17A, with high calf recruitment sustaining growth (Aderman 2014). Minimum population counts, obtained by Togiak NWR as part of their Refuge-wide moose monitoring program, show substantial recent growth of the moose population in this area (**Figure 2**). In 2002, only 3 moose were observed in the Kanektok and Arolik drainages. More than 10 moose were observed for the first time in 2012. Since then, the population significantly increased to 173 in 2018, and in 2020 the minimum count was 236 moose (Aderman 2023, pers. comm.). This represents a 36% growth rate between 2018 to 2020. Composition surveys in 2017 yielded an estimate of 43 bulls:100 cows in 2017 and 29 calves:100 cows (Aderman 2019, pers. comm.).

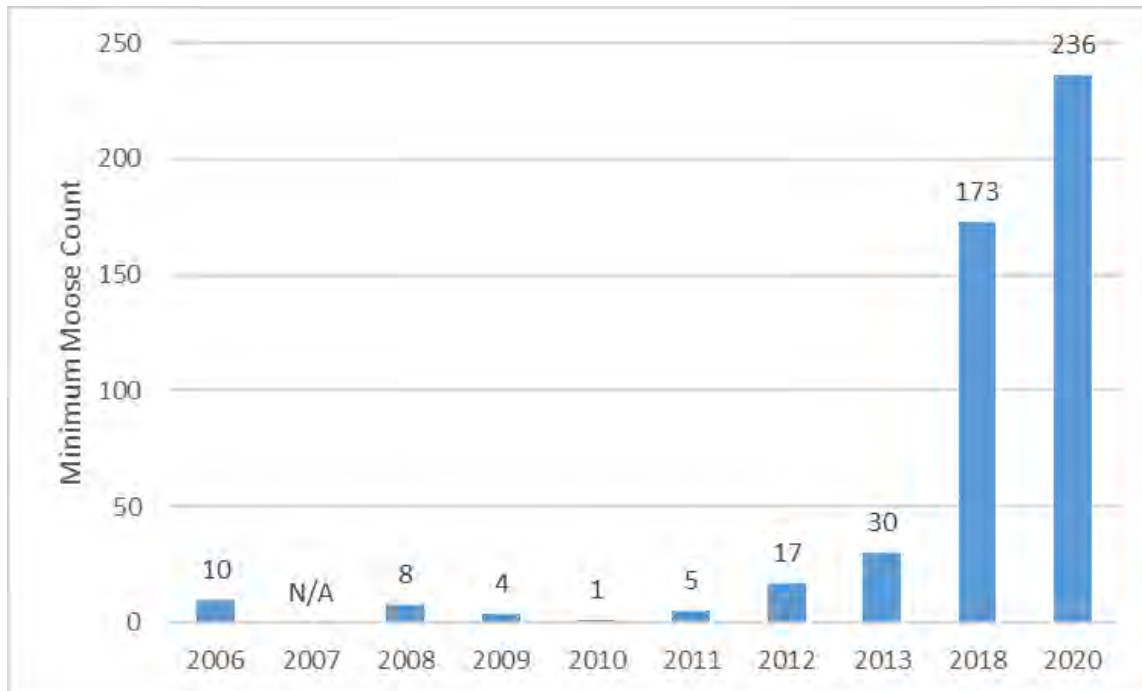


Figure 2. Minimum counts of adult and calf moose in the Kanektok-Arolik management area, 2006-2020 (Aderman 2023, pers. comm.).

Community Background

Subsistence activities in the Kanektok River (*Qanirtuuq*) and Arolik River (*Agalik*) drainages are conducted primarily by the community of Quinhagak (*Kuinerraq*, *Kuingnerraq*). Quinhagak is a long-standing Yup'ik community situated near the mouth of the Kanektok River on the east shore of Kuskokwim Bay, less than a mile from the Bering Sea coast. Quinhagak is a 45-minute flight from Bethel and is otherwise accessible by boat or snowmachine (Godduhn et al. 2020). The population of Quinhagak, estimated at 776 people in 2020, has more than doubled since 1960, and most residents, over 90%, are originally from the community (Ikuta et al. 2016, ADCCED 2023). Yup'ik people have lived and traveled along the Kanektok and Arolik Rivers for millennia (Dumond 1987, Rearden and Fienup-Riordan 2013). Residents of other villages, including Eek and Tuntutuliak, also are known to use the Kanektok River and Arolik River drainages to harvest moose for subsistence, though on an occasional basis (Ikuta et al. 2016, ADF&G 2023a). Over 100 native allotments and seasonal camps used for subsistence activities are present along the Kanektok River and Arolik River drainages. The highest concentration of allotments is at the mouth of the Kanektok River near Quinhagak, although allotments occur along the upstream reaches of the river all the way up to Kagati and Pegati lakes (Buzzell and Russell 2010).

Quinhagak residents no longer relocate their entire households between seasonal camps or even to the degree that they did in the 1990s. Advances in equipment, particularly boats with large motors and snowmachines have greatly increased the ability of residents to meet their needs on day trips, while

modern obligations often preclude extended periods of absence from Quinhagak (La Vine et al. 2007, Godduhn et al. 2020). Commercial fishing has been variously focused on salmon, herring, and halibut over the decades, but because of a lack of processing facilities, those opportunities have been absent in recent years (Fall et al. 2018).

Cultural Knowledge and Traditional Practices

In 1983, Quinhagak people described their moose hunting activities, “From September through October, groups of three to six hunters go by skiffs on hunting trips up the Kanektok and Eek Rivers in search of moose, brown bear, squirrel and beaver. Hunting trips last several days to several weeks. Hunters operate from traditional camps and tend to be mobile” (Wolfe et al. 1984: 322–323). Residents of Quinhagak occasionally harvested moose during the winter (November–March) in the general area of the headwaters of the Kisaralik, Kanektok, Arolik, and Togiak Rivers (Wolfe et al. 1984).

More recently, in 2013, Ikuta and others described a Quinhagak hunting party of three people travelling inland by boat, setting up camp, and continuing on foot. Hunters recounted collecting from a harvested moose, in addition to meat, the tongue, fat surrounding the gut, heart, liver, kidneys, and arteries. The moose was shared widely in Quinhagak (Ikuta et al. 2016).

Quinhagak has participated in systematic household harvest surveys, the most recent in 2013. This was before Federal public lands in the local area opened to the harvest of moose in 2019 (ADF&G hunt RM617, ADF&G 2023a).

Results of the survey show a high dependence on moose in Quinhagak. Moose harvest was 31 lbs per person, about 10% of the overall harvest. For comparison, the harvests of birds and eggs, marine mammals, and plants and berries were at the same rate as moose (about 30 lbs. per person in each of these three resource categories). Fish were harvested at the highest rate at 158 lbs. person, over half of the harvest of wild resources for subsistence. Forty-eight households were asked about moose hunting areas, so this a partial representation of areas used in 2013, and hunting was concentrated between the Eek and Goodnews Rivers. Quinhagak residents hunt for moose primarily in this area because of its close proximity and accessibility by boat and myriad historical hunting, trapping, and fishing camps (Ikuta et al. 2016, ADF&G 2023a).

It should be noted that caribou are an important alternative resource to moose, and Quinhagak residents harvested an estimated 125 caribou in 2013. Their large land mammal harvest was 58% moose and 42% caribou in pounds of edible weight in 2013 (Ikuta et al. 2016). This is a contrast to 1982 reports, when their harvest was 33% moose and 67% caribou (ADF&G 2023a).

Harvest History

Between 1991 and 2019, Federal public lands in this hunt area were closed to hunting moose by all users. Therefore, all legal moose harvest from the Kanektok and Arolik River drainages occurred under State regulations on State-managed lands. Between 2003 and 2018, reported harvest totaled 61 moose (**Figure 3**). Of those, 90% (55 moose) were taken by local users. Residents of Quinhagak harvested

70% (43 moose) of the total reported harvest during this time period. Only 2 moose were reported harvested by residents of Eek (ADF&G 2019b). While reported harvest was low, averaging just four moose per year, observations by local biologists during this time period indicate that at least some illegal harvest occurred (Aderman 2014), although the magnitude of unreported harvest is unknown.

Since 2019, when State registration permit RM617 was implemented and the Federal lands closure was rescinded, an average of 12 moose have been reported harvested each year (2019 - 2021), all by hunters from Quinhagak. That is an average success rate of 21% for the average of 61 reported hunters during these 3 years (**Figure 3**, ADF&G 2023b).

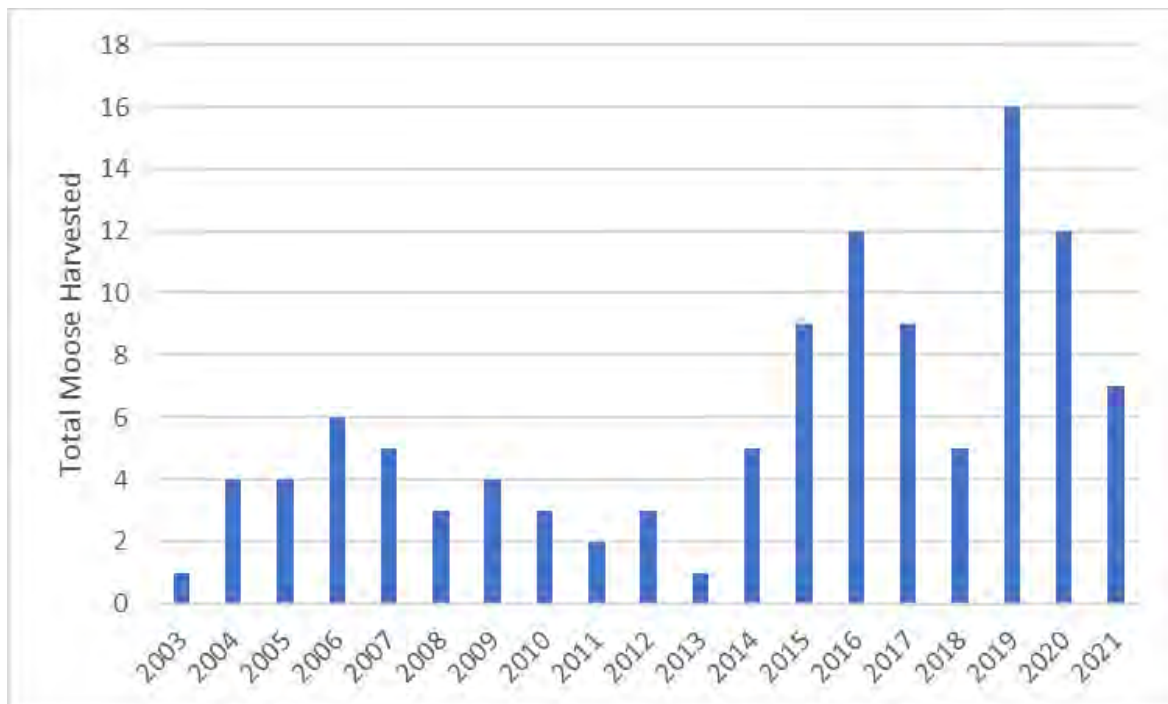


Figure 3. Reported harvest in the Kanektok and Arolik river drainages, 2003 – 2021 (ADF&G 2023b; BOG 2019).

Other Alternatives Considered

One alternative considered is to modify the hunt area descriptor to match the State RM617 hunt area descriptor to reduce regulatory complexity and confusion. Federal and State hunt areas are almost the same, except for the very southwestern tip of the hunt areas near Goodnews Bay and the northern tip of the hunt area south of Eek River drainage (**Figures 4**). This modification is not expected to have any impact on the moose population or subsistence hunting opportunity as there is no Federal land within the affected area and it is far from the community of Quinhagak whose residents are the primary moose harvesters in this hunt area. As the Federal hunt requires use of the State registration permit, aligning hunt area descriptors will make it easier for users to know which permit they need for this hunt. The Board may want to further consider this alternative.



Figure 4. Map comparison of Federal hunt area (Unit 18, south of the Eek River drainage and north of the Goodnews River drainage) and State hunt areas RM617 permit area under State regulations (Unit 18, that portion south of the Eek River Drainage and north of and including the Carter Bay drainage).

Effects of the Proposal

If Wildlife Proposal WP24-19 is adopted, the moose season in the Kanektok/Arolik hunt area of Unit 18 would be extended, providing federally qualified subsistence users with an additional 15 days to harvest moose. This would give federally qualified subsistence users more opportunity to fulfill

subsistence needs, which may be especially important given the reduction in other subsistence resources.

Effects of adopting this proposal on the moose population are unknown. On average, 12 moose a year are harvested from 61 hunters with a 21% success rate. At these current levels, the moose population continues to increase. The additional 15 days of opportunity to harvest moose may result in a substantial increase in overall harvest and harvest success rates due to better hunting conditions. This may curtail the growth rate of this growing moose population.

Adoption of this proposal would align the Federal season with the current State season adopted by the BOG in January 2024. This would decrease regulatory complexity since Federal regulations require the use of a State registration permit for this hunt.

OSM PRELIMINARY CONCLUSION

Support Proposal WP24-19.

Justification

Proposal WP24-19 provides additional opportunity for federally qualified subsistence users to harvest moose. There are minimal conservation concerns as the moose population continued to increase after 2019 when regulations were greatly liberalized.

ANALYSIS ADDENDUM

OSM CONCLUSION

Support Proposal WP24-19 **with modification** to modify the hunt area descriptor.

The modified regulations should read:

Unit 18—Moose

*Unit 18 – south of the Eek River drainage and north of the ~~Goodnews River~~ **Goodnews River and including the Carter Bay drainage**—1 antlered bull by State registration permit Sep. 1 – ~~Sep. 30~~ **Oct. 15***

*Unit 18, ~~Goodnews River drainage and south to the Unit 18 boundary~~ **that portion that drains into Kuskokwim Bay south of Carter Bay drainage**—1 antlered bull by State registration permit Sep. 1-30*

Justification

Proposal WP24-19 provides additional opportunity for federally qualified subsistence users to harvest moose. There are minimal conservation concerns as the moose population continued to increase after 2019 when regulations were greatly liberalized.

Modifying the hunt area descriptor to match the State hunt area descriptors reduces regulatory complexity and confusion. If the Eek/Goodnews hunt area is modified, the adjacent hunt area descriptor also needs to be modified. These modifications bring both of these Federal hunt areas into alignment with the corresponding State hunt areas.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Yukon-Kuskokwim Delta Subsistence Regional Advisory Council

The Council **supported** WP24-19. The Council supports the Native Village of Kwinhagak in their request for a season extension because of changing fall weather patterns that can make it difficult to hunt and process moose. The Council did not note any conservation concerns related to the season extension. The Council did note there is also a companion proposal on the State side to extend the season and that supporting this proposal could align regulations if the State proposal passes.

Western Interior Alaska Subsistence Regional Advisory Council

The Council **supported** WP24-19. The Council is in support as there is no biological concern, and the season extension would benefit local subsistence users by providing more Federal subsistence opportunity. Since there is a harvestable surplus, there would be little effect on the moose population. The Council also stated that with a harvest limit of one antlered bull, only younger bulls would be harvested later in the season, leaving larger older bulls in the population as breeding stock.

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.

ALASKA DEPARTMENT OF FISH AND GAME COMMENTS

Alaska Department of Fish and Game Comments

Wildlife Proposal WP24-19

This proposal would extend the federal moose hunt for the area around Quinhagak (south of the Eek River drainage and north of the Goodnews River drainage) in Game Management Unit (Unit) 18 by 15 days from September 1- September 30 to September 1- October 15.

Position

The Alaska Department of Fish & Game (ADF&G) is supportive of the intent of this proposal. The community of Quinhagak has requested season extensions for the last three seasons and the department has supported those extensions. Also, the moose hunt directly to the north, Zone Two of the RM 615 moose hunt ends October 15th. This hunt has a small population of moose, approximately 240 animals in the last survey, but with a bull only harvest there are no population concerns and growth is still expected.

ADF&G submitted an identical proposal (Proposal 7) to the Alaska Board of Game (BOG) for consideration during its Western Arctic/Western meeting in Kotzebue January 26-29. The BOG passed this proposal with an amendment to also change the bag limit to 1 bull moose, excluding male calves. Federally qualified users now will have the ability to hunt under state regulations for the extended timeframe.

Background

Before 2013 there were never more than 20 moose found in this hunt area, but after the Kuskokwim went through a five-year moratorium (2004-2008) and the Goodnews Bay Area went through a concurrent moratorium the populations to the north and south of Quinhagak hunt area RM617 experienced rapid growth. As a result of the successful moratoriums north and south of this hunt, area moose began to immigrate into this area at a greater rate and have established a viable population. In 2012, 17 moose were counted in a survey but by 2020 that number was up to 236 animals.

Impact on Subsistence Users

If adopted this proposal would add 15 days to the fall moose season increasing opportunity for FQUs to successfully harvest an animal.

Impact on Other Users

If adopted there would be no anticipated impact.

Opportunity Provided by State

State customary and traditional use findings: The Alaska Board of Game has made positive customary and traditional use findings for moose in Unit 18.

Amounts Reasonably Necessary for Subsistence: Alaska state law requires the BOG to determine the amount of the harvestable portion of a game population that is reasonably necessary for customary and traditional uses. This is an ANS. The board does this by reviewing extensive harvest data from all Alaskans, collected either by ADF&G or from other sources.

ANS provides the board with guidelines on typical numbers of animals harvested for customary and traditional uses under normal conditions. Hunting regulations can be re-examined if harvests for customary and traditional uses consistently fall below ANS. This may be for many reasons: hunting regulations, changes in animal abundance or distribution, or changes in human use patterns, just to name a few.

The ANS for moose in Unit 18 is 200-400 animals. This ANS encompasses the entire unit.

The season and bag limit are:

<u>Unit/Area</u>	<u>Bag Limit</u>	<u>Open Season (Permit Hunt #)</u>	
		<u>Resident*</u>	<u>Nonresident</u>
18	one antlered bull	Sept. 1-Sept 20	No open season
Registration permit			

* Subsistence and General Hunts

Conservation Issues

If the hunt remains for antlered bulls only there are no conservation concerns associated with this proposal.

Enforcement Issues

No enforcement concerns are anticipated because of this proposal.

WCR24-38 Executive Summary	
General Description	Wildlife Closure Review WCR24-38 reviews the closure to moose hunting in a portion of Unit 18, except by residents of Tuntutuliak, Eek, Napakiak, Napaskiak, Kasigluk, Nunapitchuk, Atmautlauk, Oscarville, Bethel, Kwethluk, Akiachak, Akiak, Tuluksak, Lower Kalskag, and Kalskag.
Current Regulation	<p>Unit 18 – Moose</p> <p><i>Unit 18, that portion east of a line running from the mouth of the Ishkowik River to the closest point of Dall Lake, then to the east bank of the Johnson River at its entrance into Nunavakanukakslak Lake (N 60°59.41' Latitude; W162°22.14" Longitude), continuing upriver along a line 1/2 mile south and east of, and paralleling a line along the southerly bank of the Johnson River to the confluence of the east bank of Crooked Creek, then continuing upriver to the outlet at Arhymot Lake, then following the south bank east of the Unit 18 border and then north of and including the Eek River drainage - 1 antlered bull by State registration permit during the fall season</i></p> <p><i>Or</i></p> <p><i>1 antlered bull by Federal registration permit during a may-be-announced winter season</i></p> <p><i>Sept. 1-Oct. 15.</i></p> <p><i>May be announced between Dec. 1-Jan. 31.</i></p> <p><i>Federal public lands are closed to the taking of moose except by residents of Tuntutuliak, Eek, Napakiak, Napaskiak, Kasigluk, Nunapitchuk, Atmautlauk, Oscarville, Bethel, Kwethluk, Akiachak, Akiak, Tuluksak, Lower Kalskag, and Kalskag.</i></p>
OSM Conclusion	Retain the Status Quo

Yukon-Kuskokwim Delta Subsistence Regional Advisory Council	Retain the Status Quo
Western Interior Alaska Subsistence Regional Advisory Council	Retain the Status Quo
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the closure and that it provides sufficient basis for the Regional Advisory Council recommendation and Federal Subsistence Board action.
ADF&G Position	Rescind the Closure
Written Public Comments	None

FEDERAL WILDLIFE CLOSURE REVIEW

WCR24-38

Issue: Wildlife Closure Review WCR24-38 reviews the closure to moose hunting in a portion of Unit 18, except by residents of Tuntutuliak, Eek, Napakiak, Napaskiak, Kasigluk, Nunapitchuk, Atmautlauk, Oscarville, Bethel, Kwethluk, Akiachak, Akiak, Tuluksak, Lower Kalskag, and Kalskag.

Note: Proposal WP24-20 also considers Federal moose hunting regulations within the Kuskokwim hunt area of Unit 18. Please refer to the WP24-20 analysis for duplicate information.

Closure Location and Species: Unit 18, that portion east of a line running from the mouth of the Ishkowik River to the closest point of Dall Lake, then to the east bank of the Johnson River at its entrance into Nunavakanukakslak Lake (N 60°59.41' Latitude; W162°22.14" Longitude), continuing upriver along a line 1/2 mile south and east of, and paralleling a line along the southerly bank of the Johnson River to the confluence of the east bank of Crooked Creek, then continuing upriver to the outlet at Arhymot Lake, then following the south bank east of the Unit 18 border and then north of and including the Eek River drainage (Unit 18, Kuskokwim)—Moose.

Current Federal Regulation

Unit 18 – Moose

Unit 18, that portion east of a line running from the mouth of the Ishkowik River to the closest point of Dall Lake, then to the east bank of the Johnson River at its entrance into Nunavakanukakslak Lake (N 60°59.41' Latitude; W162°22.14" Longitude), continuing upriver along a line 1/2 mile south and east of, and paralleling a line along the southerly bank of the Johnson River to the confluence of the east bank of Crooked Creek, then continuing upriver to the outlet at Arhymot Lake, then following the south bank east of the Unit 18 border and then north of and including the Eek River drainage¹ - 1 antlered bull by State registration permit during the fall season

Or

1 antlered bull by Federal registration permit during a may-be-announced winter season

Sept. 1-Oct. 15.

May be announced between Dec. 1-Jan. 31.

Federal public lands are closed to the taking of moose except by residents of Tuntutuliak, Eek, Napakiak, Napaskiak, Kasigluk, Nunapitchuk, Atmautlauk, Oscarville, Bethel, Kwethluk, Akiachak, Akiak, Tuluksak, Lower Kalskag, and Kalskag.

¹Referred to as the Kuskokwim hunt area throughout the analysis.

Closure Dates: Year-round

Current State Regulation

See WP24-20 analysis.

Regulatory Year Initiated: 1991, closed to non-federally qualified users; 2004-2009, closed to all users (harvest moratorium); 2010, closed except by some federally qualified subsistence users (§804 restriction).

Extent of Federal Public Lands/Waters

See WP24-20 analysis.

Customary and Traditional Use Determination

See WP24-20 analysis.

Regulatory History

See WP24-20 analysis.

Closure last reviewed: 2020 – WCR20-38

Justification for Original Closure:

§815(3) of ANILCA states:

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

The original closure in 1991 noted a conservation concern for the moose population. Given low moose densities throughout Unit 18, the moose population could not sustain harvest by all users as additional harvest would not allow for the maintenance of this wildlife resource in a condition that would assure a stable and continuing natural population. The Board stated that the closure of Federal public lands except to federally qualified subsistence users provided rural users a subsistence priority.

In 2004, a five-year moratorium on moose hunting in the Kuskokwim River drainage was needed to recover a low moose population. The moratorium facilitated the establishment of a moose population capable of supporting annual harvests. Approximately 10,000 residents

along the Kuskokwim River in Unit 18 could benefit from a moose population capable of supporting harvests.

In 2010 the closure was modified to specify the pool of federally qualified subsistence users eligible to hunt moose when the Federal season opened in the moratorium area. This was necessary because of the small number of moose available to harvest relative to the large number of subsistence users with a customary and traditional use determination for moose (42 communities including Bethel).

Council Recommendation for Original Closure:

The first closure was in 1991. This closure was initiated prior to the formation of the Regional Advisory Councils in 1993.

For the closure initiated in 2004 by Proposal WP04-51, the Western Interior Council deferred to the home region. The Yukon/Kuskokwim Delta Council supported instating the moose moratorium within this area of the Kuskokwim River to allow for an increase in the moose population. The Council expressed concerns of allowing a winter moose season below Mountain Village in the lower Yukon portion of the proposed area because a cow moose can be mistaken for a bull moose during late-winter hunt. The lower Yukon and coastal area moose hunters were experiencing economic hardships due to a decline of salmon for commercial harvests, making it more difficult for hunters to make any extended trips during moose hunting seasons. However, the Council hoped the moratorium would yield more moose that would be available to subsistence users in this area.

In 2010 the Yukon/Kuskokwim Delta Council supported Proposal WP10-54 with modification to include the results of the Section 804 analysis and also recommended further modification to establish a one antlered-bull season Sept 1–5 by joint Federal or State registration permits and allow the Refuge Manager in consultation with AD&G to set the harvest quota and extend the season by up to five days if harvest quota has not been met.

State Recommendation for Original Closure:

The first closure was in 1991. Apart from the southernmost drainages, the State did not support closure of Federal public lands in Unit 18 to non-federally qualified users, arguing that a closure was not warranted in terms of biological information or demands for moose by local users.

In 2004 the State supported the 5-year moratorium closure with a modification to the descriptor of the area to align the State and Federal areas and seasons. Furthermore, at its fall 2003 meeting, the BOG closed the moose season in a portion of Unit 18 that differs slightly from the closure area described in Proposal WP04-51. The State regulation allowed moose hunting in the portion of Unit 18, south of the Eek River drainage, which was proposed for closure in Proposal WP04-51.

In 2010 the State supported WP10-54 with a modification to establish a season on Federal public lands that matched the State season. This approach would minimize confusion for hunters and law enforcement. The State also recommended a cooperative harvest quota that would be managed between

State and Federal managers. This action would be effective in the seventh year since the moratorium had been initiated in the lower Kuskokwim hunt area and fulfilled the original strategy supported by both State and Federal managers of closing the area for 5 years or reaching 1,000 moose.

Biological Background

See WP24-20 analysis.

Cultural Knowledge and Traditional Practices

See WP24-20 analysis.

Harvest History

See WP24-20 analysis.

Effects

Retaining the status quo would continue to limit moose hunting on Federal public lands within the Unit 18 Kuskokwim hunt area to only the federally qualified subsistence user of the 15 communities identified in the §804 restriction. Retaining the closure ensures that these 15 communities who have demonstrated the most dependence on this resource continue to have a subsistence priority on Federal public lands.

Modifying the closure to open to all federally qualified subsistence users but remain closed to non-federally qualified users would provide additional opportunity to some federally qualified subsistence users, but would likely decrease opportunity for residents of the 15 communities identified in the §804 analysis as being the most dependent on this resource.

Completely rescinding the closure would increase hunting opportunities for all users and would simplify regulations but would likely result in increased competition for moose on Federal public lands. While the moose population is growing in this area, demand still far exceeds supply, although the moose population may remain protected through very short seasons in Zone 1 and harvest quotas in Zone 2.

Extending the closure to all users is unnecessary at the moose population can sustain some harvest and that would completely preclude subsistence harvest opportunity on Federal public lands.

OSM CONCLUSION:

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

Justification

Despite recent increases in population size and harvest quotas, demand for moose still far outweighs the harvestable surplus of the Kuskokwim moose population. The problem of unmet demand is exacerbated by the difficulty of the hunt in the tributaries, as evidenced by unmet Federal quotas over the past years. Seasons have been extended and a may-be-announced winter season has been added to provide additional harvest opportunity and achieve unmet quotas. However, retaining the Federal public lands closure ensures that the 15 communities who have demonstrated the most dependence on this moose population continue to have a subsistence priority on Federal public lands.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Yukon-Kuskokwim Delta Subsistence Regional Advisory Council

The Council voted to **retain the status quo**. The Council noted that the closure helps reduce competition for moose and gives federally qualified subsistence users a better chance of meeting their subsistence needs.

Western Interior Alaska Subsistence Regional Advisory Council

The Council voted to **retain the status quo**. The Council felt that maintaining the closure was warranted to keep a subsistence priority because demand still outweighs availability even amongst federally qualified subsistence users. They also stated that Aniak should be added to the list of villages qualified for this hunt as they have C&T for moose in Unit 18.

INTERAGENCY STAFF COMMITTEE COMMENTS

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

ALASKA DEPARTMENT OF FISH AND GAME COMMENTS

Alaska Department of Fish and Game Comments

Wildlife Closure WCR24-38

This is the routine review of the current federal subsistence hunting closure for moose hunting in a portion of Game Management Unit (Unit) 18, except by residents of Tuntutuliak, Eek, Napakiak, Napaskiak, Kasigluk, Nunapitchuk, Atmautlaug, Oscarville, Bethel, Kwethluk, Akiachak, Akiak, Tuluksak, Lower Kalskag, and Kalskag.

Position

The Alaska Department of Fish & Game (ADF&G) **SUPPORTS** rescinding the closure for moose hunting in the RM615 moose area in Unit 18. There has now been 15 years of hunting post-moratorium and the abundance of moose is at an all-time high for the area. Section 815 of the Alaska National Interest Lands Conservation Act (ANILCA) only authorizes federal restrictions on nonsubsistence uses on federal public lands only if “necessary for the conservation of healthy populations of fish and wildlife” or if necessary to “continue subsistence uses.” The Federal Subsistence Board (FSB) policy says that “when a closure is no longer needed, the Board will reopen the affected Federal public lands and waters as soon as practicable.” Though moose hunting in Zone 2 is extremely liberal with a September 1 through October 15th season for any bull, the harvest objective is not being achieved. In 2022 an attempt to harvest moose in Zone 2 in December and January was not effective. Travel conditions are usually extremely difficult or dangerous this early in the winter with no snow or thin ice on the tributary rivers. Further, with most bulls having shed their antlers by the end of December, the remaining quota is unlikely to ever be met during a December-January antlered bull season. This additional harvest opportunity could be achieved if all Alaska residents were allowed to participate on federal public lands in the RM615 hunt area. By rescinding this federal closure to non-federally qualified users (NFQU), federal public land would be open to all Alaskan residents to take advantage of the harvestable surplus of moose in this area.

Background

From 2004 through 2008 the villages in the RM615 hunt area voluntarily entered into a moose moratorium to allow the moose population to become established. The FSB extended their moratorium one additional year to 2009. The moratorium was extremely effective, and the moose population quickly grew and is continuing to grow. Since the first abundance survey in Zone 2 of the RM615 hunt area in 2010 the population has grown by roughly 200 moose every 5 years (Table 1) and residents in the hunt area were rewarded with exclusive access to federal public land in the hunt area. The fall 2023 season marks the 15th hunting season for state managed lands within the RM615 hunt area and the 14th hunting season on federally managed lands. During these 15 years the hunting power and efforts of locals has been well documented. In most years, Zone 2 has a harvest objective of around 110 bull moose. Even with a long season, local residents only harvest between 70 and 90 moose out of Zone 2. This leaves additional harvest opportunities that should be provided to Alaska residents within federal public lands within the Unit 18 hunt area.

Table 4. Moose abundance estimates and minimum counts in Zone 2 of the RM615 Moose Sum area.

Year	Abundance	95% CI	Survey Method
2010	345	232-520	Distance Sampling
2015	508	350-738	Distance Sampling
2020	789	N/A	Minimum Count

Impact on Subsistence Users

If the closure is rescinded it would have no impact on federally qualified users (FQU). Currently there is an annual harvestable surplus that FQUs are not taking advantage of that should be available to Alaska resident hunters under state regulations.

Impact on Other Users

If the closure is rescinded it will provide additional hunting opportunity to Alaska resident hunters, some who may be Alaskans who either used to live in local communities or have ties to those communities who would like to practice their traditional way of life.

Opportunity Provided by State

State customary and traditional use findings: The Alaska Board of Game (BOG) has made positive customary and traditional use findings for moose in Unit 18.

Amounts Reasonably Necessary for Subsistence: Alaska state law requires the Board of Game to determine the amount of the harvestable portion of a game population that is reasonably necessary for customary and traditional uses. This is an ANS. The BOG does this by reviewing extensive harvest data from all Alaskans, collected either by ADF&G or from other sources.

ANS provides the BOG with guidelines on typical numbers of animals harvested for customary and traditional uses under normal conditions. Hunting regulations can be re-examined if harvests for customary and traditional uses consistently fall below ANS. This may be for many reasons: hunting regulations, changes in animal abundance or distribution, or changes in human use patterns, just to name a few.

The ANS for moose in Unit 18 is 200-400 animals. The season and bag limit for is:

Unit/Area	Bag Limit	Open Season (Permit/Hunt #)	
		Resident*	Nonresident
18 Zone 2 (RM615)	one bull, excluding mule calves	Sept. 1 - Oct. 15	no open season
Registration permit			

* Subsistence and General Hunts.

Conservation Issues

There are no conservation issues with regarding the closure and opening Zone 2 of Unit 18 to all Alaska residents.

Enforcement Issues

Enforcing the December - January winter hunt for law enforcement seems more difficult than enforcing just a fall hunt.

WP24–21 Executive Summary	
General Description	<p>Proposal WP24-21 is a request to add the communities of Kongiganak, Kwigillingok, and Quinhagak to the group of communities who are eligible to harvest moose in the Kuskokwim River drainage hunt area in Unit 18. <i>Submitted by: Yukon-Kuskokwim Delta Regional Subsistence Advisory Council</i></p>
Proposed Regulation	<p>Unit 18—Moose</p> <p><i>Unit 18, that portion east of a line running from the mouth of the Ishkowik River to the closest point of Dall Lake, then to the east bank of the Johnson River at its entrance into Nunavakanukakslak Lake (N 60°59.41' Latitude; W162°22.14" Longitude), continuing upriver along a line 1/2 mile south and east of, and paralleling a line along the southerly bank of the Johnson River to the confluence of the east bank of Crooked Creek, then continuing upriver to the outlet at Arhymot Lake, then following the south bank east of the Unit 18 border and then north of and including the Eek River drainage—</i></p> <p><i>1 antlered bull by State registration permit during the fall season.</i></p> <p><i>OR</i></p> <p><i>1 antlered bull by Federal registration permit during a may be announced winter season.</i></p> <p><i>Sept. 1–Oct. 15</i></p> <p><i>May be announced between Dec. 1–Jan. 31</i></p> <p><i>Federal public lands are closed to the taking of moose except by residents of Akiachak, Akiak, Atmautluak, Bethel, Eek, Kalskag, Kasigluk, Kongiganak, Kwethluk, Kwigillingok, Lower Kalskag, Napakiak, Napaskiak, Nunapitchuk, Oscarville, Quinhagak, Tuluksak, and Tuntutuliak.</i></p>
OSM Preliminary Conclusion	Support

<p>OSM Conclusion</p>	<p>Support with modification to add the community of Kipnuk to the ANILCA section 804 Subsistence User Prioritization for the Kuskokwim River drainage hunt area in Unit 18.</p> <p>The modification should read:</p> <p>Unit 18—Moose</p> <p><i>Unit 18, that portion east of a line running from the mouth of the Ishkowik River to the closest point of Dall Lake, then to the east bank of the Johnson River at its entrance into Nunavakanukakslak Lake (N 60°59.41' Latitude; W162°22.14" Longitude), continuing upriver along a line 1/2 mile south and east of, and paralleling a line along the southerly bank of the Johnson River to the confluence of the east bank of Crooked Creek, then continuing upriver to the outlet at Arhymot Lake, then following the south bank east of the Unit 18 border and then north of and including the Eek River drainage—</i></p> <p><i>1 antlered bull by State registration permit during the fall season.</i></p> <p>OR</p> <p><i>1 antlered bull by Federal registration permit during a may be announced winter season.</i></p> <p><i>Sept. 1–Oct. 15</i></p> <p><i>May be announced between Dec. 1–Jan. 31</i></p> <p><i>Federal public lands are closed to the taking of moose except by residents of Akiachak, Akiak, Atmautluak, Bethel, Eek, Kalskag, Kasigluk, Kipnuk, Kongiganak, Kwethluk, Kwigillingok, Lower Kalskag, Napakiak, Napaskiak, Nunapitchuk, Oscarville, Quinhagak, Tuluksak, and Tuntutuliak.</i></p>
<p>Yukon-Kuskokwim Delta Subsistence Regional Advisory Council Recommendation</p>	<p>Support with modification to add Kipnuk to the group of eligible communities</p>

Western Interior Alaska Subsistence Regional Advisory Council Recommendation	Support with modification to add Kipnuk, Aniak, and Chuathbaluk to the group of eligible communities
Interagency Staff Committee Comments	The Interagency Staff Committee found the analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and the Federal Subsistence Board action on this proposal.
ADF&G Position	Neutral
Written Public Comments	None

STAFF ANALYSIS WP24-21

ISSUES

Proposal WP24-21, submitted by the Yukon-Kuskokwim Delta Subsistence Regional Advisory Council, is a request to add the communities of Kongiganak, Kwigillingok, and Quinhagak to the group of communities who are eligible to harvest moose in the Kuskokwim River drainage hunt area in Unit 18 (hereafter referred to as the Kuskokwim hunt area).

DISCUSSION

The Yukon-Kuskokwim Delta Council states that residents of Kongiganak, Kwigillingok, and Quinhagak hunt moose for subsistence, and although these communities are located outside of the Kuskokwim hunt area, residents of these communities travel to hunt moose on State-managed lands within the boundaries of the hunt area, especially in years when it is more difficult to harvest a moose nearby their communities.

Existing Federal Regulation

Unit 18—Moose

Unit 18, that portion east of a line running from the mouth of the Ishkowik River to the closest point of Dall Lake, then to the east bank of the Johnson River at its entrance into Nunavakanukakslak Lake (N 60°59.41' Latitude; W162°22.14" Longitude), continuing upriver along a line 1/2 mile south and east of, and paralleling a line along the southerly bank of the Johnson River to the confluence of the east bank of Crooked Creek, then continuing upriver to the outlet at Arhymot Lake, then following the south bank east of the Unit 18 border and then north of and including the Eek River drainage—I antlered bull by State registration permit during the fall season.

Sept. 1–Oct. 15

OR

I antlered bull by Federal registration permit during a may be announced winter season.

*May be
announced
between Dec.
1–Jan. 31*

Federal public lands are closed to the taking of moose except by residents of Akiachak, Akiak, Atmautluak, Bethel, Eek, Kalskag, Kasigluk, Kwethluk, Lower Kalskag, Napakiak, Napaskiak, Nunapitchuk, Oscarville, Tuluksak, and Tuntutuliak.

Proposed Federal Regulation

Unit 18—Moose

Unit 18, that portion east of a line running from the mouth of the Ishkowik River to the closest point of Dall Lake, then to the east bank of the Johnson River at its entrance into Nunavakanukakslak Lake (N 60°59.41' Latitude; W162°22.14" Longitude), continuing upriver along a line 1/2 mile south and east of, and paralleling a line along the southerly bank of the Johnson River to the confluence of the east bank of Crooked Creek, then continuing upriver to the outlet at Arhymot Lake, then following the south bank east of the Unit 18 border and then north of and including the Eek River drainage—I antlered bull by State registration permit during the fall season.

Sept. 1–Oct. 15

OR

I antlered bull by Federal registration permit during a may be announced winter season.

*May be
announced
between Dec.
1–Jan. 31*

*Federal public lands are closed to the taking of moose except by residents of Akiachak, Akiak, Atmautluak, Bethel, Eek, Kalskag, Kasigluk, **Kongiganak**, Kwethluk, **Kwigillingok**, Lower Kalskag, Napakiak, Napaskiak, Nunapitchuk, Oscarville, **Quinhagak**, Tuluksak, and Tuntutuliak.*

Existing State Regulation

Unit 18—Moose

Kuskokwim Hunt Area

RESIDENTS

Zone 1—One bull excluding male calves, by permit *Sept. 1–Sept. 9*

Zone 2—One bull excluding male calves, by permit *Sept. 1–Oct. 15*

NONRESIDENTS *No open season*

Extent of Federal Public Lands/Waters

The Kuskokwim River drainage moose hunt area in Unit 18 is comprised of 57% Federal public lands and consists of 56% U.S. Fish and Wildlife Service lands and 1% Bureau of Land Management lands. Yukon Delta and Togiak national wildlife refuges comprise the majority of Federal public lands in the hunt area (see **Figure 1**).

Customary and Traditional Use Determinations

Residents of Unit 18 and the communities of Kalskag Lower Kalskag have a customary and traditional use determination for moose in the Kuskokwim hunt area.

Additionally, residents of Aniak and Chuathbaluk have a customary and traditional use determination for moose in the Kuskokwim hunt area upstream of (but excluding) the Tuluksak River drainage (see **Figure 1**).

Currently, Federal public lands in the Kuskokwim hunt area are closed to the taking of moose except by residents of Akiachak, Akiak, Atmautluak, Bethel, Eek, Kalskag, Kasigluk, Kwethluk, Lower Kalskag, Napakiak, Napaskiak, Nunapitchuk, Oscarville, Tuluksak, and Tuntutuliak, based on the three criteria in ANILCA section 804 adopted by the Federal Subsistence Board in 2010 (see Regulatory History section, below).

Regulatory History

In 2003, the Alaska Board of Game adopted Proposal 2, submitted by the Alaska Department of Fish and Game (ADF&G) Lower Kuskokwim Fish and Game Advisory Committee, the Yukon Delta National Wildlife Refuge, and ADF&G, and established a five-year moratorium on moose hunting in the Kuskokwim hunt area. The intent of the moratorium was to promote colonization of underutilized moose habitat (see **Figure 1**; ADF&G 2003a, 2003b, Perry 2008).

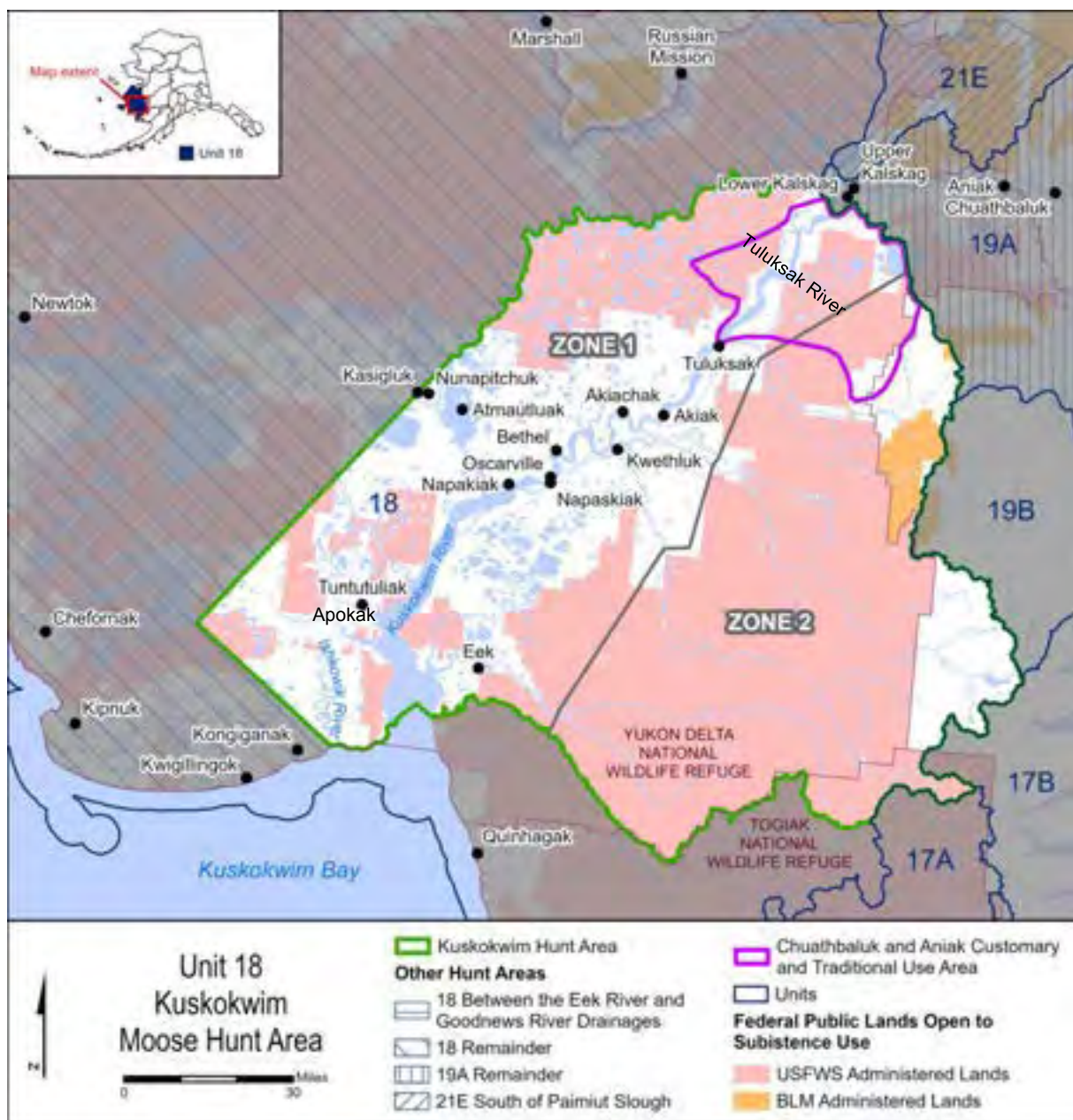


Figure 1. Map showing the boundaries of the Unit 18 Kuskokwim river drainage hunt area, Zone 1 and Zone 2 (OSM 2023).

In 2004, the Federal Subsistence Board adopted the recommendations of affected Regional Advisory Councils on Proposal WP04-51, submitted by the Yukon-Kuskokwim Delta Council, and closed Federal public lands in the Kuskokwim hunt area to the harvest of moose by all users. The intent of the moratorium was to promote colonization of underutilized moose habitat (OSM 2004; 69 Fed. Reg. 126, 40207 [July 1, 2004]).

In 2009, the Alaska Board of Game established a registration hunt September 1–10 in preparation for the ending of the five-year moratorium. Hunting by nonresidents of Alaska has remained closed (ADF&G 2009).

In 2010, the Federal Subsistence Board adopted the recommendation of the Yukon-Kuskokwim Delta Council on Proposal WP10-54 and reduced eligibility to hunt for moose in the Kuskokwim hunt area to residents of the area and the community of Kalskag,¹ based on the three criteria in ANILCA section 804. The Council said it intended to submit a special action request to establish a moose harvest season and harvest limit if the Board did not adopt them through this proposal. The Board did not adopt a season or harvest limit (OSM 2010a; 75 Fed. Reg. 125, 37953 [June 30, 2010]).

In 2010, the Board approved Special Action Request WSA10-02, submitted by the Yukon-Kuskokwim Delta Council, to establish a Federal moose season in the Kuskokwim hunt area September 1–5 for the 2010 and 2011 regulatory years. The harvest limit was one antlered bull by State registration permit. The Board authorized the Yukon Delta National Wildlife Refuge manager, in consultation with ADF&G, to set the harvest quota and extend the season for up to five days if the harvest quota had not been met. The season would be closed by the Refuge Manager when the quota had been met or was anticipated to be met (OSM 2010b).

In 2012, the Board approved Special Action Request WSA12-06, submitted by the Yukon-Kuskokwim Delta Council, to establish a Federal moose season in the Kuskokwim hunt area September 1–30 for the 2012 and 2013 regulatory years. The harvest limit was one antlered bull by State registration permit. A harvest quota would be set prior to the start of the season (OSM 2012).

In 2014, the Board adopted the recommendation of affected Regional Advisory Councils on Proposal WP14-27, submitted by the Yukon Delta Refuge, and established a September 1–30 moose season in the Kuskokwim hunt area with a harvest limit of one antlered bull by State registration permit and delegated authority to the Refuge Manager to close the season and determine annual quotas (OSM 2014; 79 Fed. Reg. 118, 35263 [June 19, 2014]).

In 2017, State and Federal managers introduced a zone-based hunt in an effort to better serve users in an area of checkerboard land status (see **Figure 1**). An important feature of the zones is that, while they correspond roughly to State and Federal lands, they are delineated by easily identifiable geographical features (such as river confluences). Each of the two zones is managed with its own harvest objective. Zone 1 is comprised primarily of State managed lands along the main stem of the Kuskokwim River. The season and harvest objective for the main stem hunt are managed by ADF&G. Zone 2 is comprised primarily of Federal public lands, including those in the Tuluksak, Kisaralik, Kasigluk and Eek river drainages. The season and harvest quota in this tributary hunt are managed by the Yukon Delta Refuge (YKDSRAC 2017a; Rearden 2018, pers. comm.).

There is more demand for moose in Zone 1, along the main stem, compared to Zone 2, in the tributaries. Local managers report that hunting in the tributaries is difficult requiring specialized boats,

¹ Formerly, Lower Kalskag was situated within the hunt area boundary. A boundary change since 2010 resulted in both communities, Kalskag and Lower Kalskag being situated in Unit 19A beyond the Kuskokwim hunt area boundary, and both remain eligible to hunt for moose in the hunt area.

longer travel times, and more fuel. Heavy vegetation along the banks contributes to the difficulty. It is believed that the unmet quotas in Zone 2 is a function of these difficulties, rather than lack of need for moose meat (YKDSRAC 2017a, YKDSRAC 2017b, Rearden 2018, pers. comm.).

In 2020 the Federal Subsistence Board adopted the recommendation of the Yukon-Kuskokwim Delta Council on Wildlife Closure Review WCR20-38 and maintained the closure to nonsubsistence uses in the Kuskokwim hunt area. The Council maintained the closure because demand for moose by federally qualified subsistence users exceeded sustainable harvest levels (FSB 2020a:364–370, OSM 2020).

In 2022, the Board adopted the recommendation of affected Regional Advisory Councils on Proposal WP22-44 and lengthened the fall moose hunting season in the Kuskokwim hunt area from September 1–30 to September 1–October 15 and established a may-be-announced winter season between December 1 and January 31. The Board delegated authority to the Yukon Delta Refuge manager to announce the winter season and set harvest quotas via delegation of authority letter (87 Fed. Reg. 142, 44849 [July 26, 2022]).

Biological Background

Moose are believed to have begun colonization of the Yukon-Kuskokwim Delta in the 1940s (Perry 2014). By the 1990s, when the Federal public lands closure to the harvest of moose by non-federally qualified users was initiated, moose densities throughout much of Unit 18 were very low. Though established populations existed in the far eastern portions of Unit 18, moose were only sparsely distributed throughout much of the unit. Harvested moose were likely immigrants from other areas, rather than part of a local breeding population, and hunting pressure was effective in limiting growth of the moose population along the Kuskokwim River corridor. The 2004–2008 hunting moratorium was effective in establishing a harvestable population, and the most recent indicators suggest that the population along the Kuskokwim River main stem and in its tributaries continues to grow (see **Figure 1**; FSB 1991, Perry 2014).

Prior to 2020, the most recent population survey of the lower Kuskokwim survey area, which includes the main stem riparian corridor between Kalskag and Kwethluk, occurred in 2015. At that time, the population was estimated to be 1,378 moose, or 1.6 moose/mile² in Zone 1. This represents an annual growth rate of 20% between 2011 and 2015. The population estimate for Zone 2 was 508 moose (Perry 2014, YKDSRAC 2019).

Lack of snow cover in recent years precluded additional population surveys between 2015 and 2020. The survey completed in 2020 shows an increase of the moose populations in both zones. The estimated mid-point population in Zone 1 was 3,220 moose, and the minimum count in Zone 2 was 789 moose. Browse surveys indicate that the population in Zone 1 is potentially reaching a point that will limit or stop growth, and Zone 2 is about one-half of what it could be (YKDSRAC 2019; Jones 2021, pers. comm.).

Composition estimates for the main stem were obtained in 2020, when there were 25 bulls:100 cows. Bull:cow ratios, which were quite high during the harvest moratorium, declined when harvest resumed in 2009, but remained consistently above the minimum objective of 30 bulls:100 cows until 2020. The

recent decline in the bull:cow ratio follows an increase in reported harvest and a liberal hunting season in 2019. Unreported harvest, increased winter mortality, and misclassification of young bulls with small antlers during surveys may also have contributed to the lower ratio in 2020. Bull:cow ratios in the Kuskokwim tributaries (Zone 2) are very high, although surveys have occurred infrequently. In 2015 and 2020, ratios were 83 and 42 bulls:100 cows, respectively (ADF&G 2020, Oster 2020; Jones 2021, pers. comm).

Fall calf:cow ratios of < 20 calves:100 cows, 20-30 calves:100 cows, and > 30-40 calves:100 cows may indicate declining, stable, and growing moose populations, respectively (Stout 2010). Between 2007 and 2020, calf:cow ratios in the main stem survey area (Zone 1) ranged from 45-73 calves:100 cows (Jones 2018, pers. comm.; ADF&G 2020, Oster 2020). In 2015 and 2020, calf:cow ratios in the Kuskokwim tributaries (Zone 2) were 62 and 40 calves:100 cows, respectively (Oster 2020). High calf:cow ratios indicate a growing moose population. Twinning rates, which provide an index of nutrition, are also high, averaging 43% between 2015 and 2019 (YKDSRAC 2019, ADF&G 2020).

The Alaska Department of Fish and Game is currently managing the Kuskokwim moose population for continued growth and advises maintaining harvests within quotas and for bulls-only. However, ADF&G expects regulations in the Kuskokwim hunt area will be liberalized over the next five years if the moose population approaches carrying capacity as indicated by browse removal surveys (YKDSRAC 2019).

Community Background

Currently, residents of 15 communities are eligible to harvest moose in the Kuskokwim hunt area. Thirteen are situated within the hunt area (Tuntutuliak, Eek, Napakiak, Napaskiak, Kasigluk, Nunapitchuk, Atmautluak, Oscarville, Bethel, Kwethluk, Akiachak, Akiak, Tuluksak), and two are situated upriver from the hunt area (Kalskag and Lower Kalskag). These communities share some characteristics. For example, most are small with populations of less than 1,000 people (see **Table 1**). The exception is the community of Bethel, population over 6,000 people, which is the hub community in the area. Most of these communities are not connected by roads and are accessed by boats and planes, and snow machines, all-terrain vehicles, or highway vehicles on trails and the frozen river during winter. Kalskag and Lower Kalskag are connected to each other by a State-maintained 4.2-mile road (see **Figure 1**, ADCCED 2023).

The proposal is a request to add three communities, Kongiganak, Kwigillingok, and Quinhagak to the pool of eligible users (see **Table 2**).

Table 1. Human population of the communities currently eligible (source: ADCCED 2023).

Community	1960	1970	1980	1990	2000	2010	2020
Tuntutuliak	144	158	216	300	370	408	485
Eek	200	186	228	254	280	296	404
Napakiak	190		262	318	353	354	358
Napaskiak	154	259	244	328	390	405	509

Community	1960	1970	1980	1990	2000	2010	2020
Oscarville	51	41	56	57	61	70	70
Kasigluk	244		342	425	543	569	623
Nunapitchuk	327	526	299	378	466	496	594
Atmautluak			219	258	294	277	386
Bethel	1,258	2,416	3,576	4,674	5,471	6,080	6,325
Kwethluk	325	408	454	558	713	721	812
Akiachak	229	312	438	481	585	627	677
Akiak	187	171	198	285	309	346	462
Tuluksak	37	195	236	358	428	373	444
Lower Kalskag	122	183	246	291	267	282	278
Kalskag	147	122	129	172	230	210	212
Total	3,715	4,977	7,143	9,173	10,760	11,514	12,639

Table 2. Human population of the communities in the request (source: ADCCED 2023).

Community	1960	1970	1980	1990	2000	2010	2020
Kongiganak		190	239	294	359	439	486
Kwigillingok	344	148	354*	278	338	321	380
Quinhagak	228	340	412	501	555	669	776
Total	572	678	1,005	1,073	1,252	1,429	1,642

* Stickney (1984) estimated a population substantially less than the 1980 census.

Kongiganak and Kwigillingok

Kwigillingok is situated about a quarter mile inland from the coast and experiences seasonal flooding. Consequently, in the 1960s, some residents of Kwigillingok, in order to escape flooding, moved their houses and re-established the old seasonal settlement of Kongiganek about nine miles away near the Kongiganak River (see **Figure 1**, ADCCED 2023).

People of Kwigillingok and Kongiganek (the *Canineqmiut* confederation of Yup'ik villages) inhabit the flat coastal region between the mouth of the Kuskokwim River and Nelson Island. People in the area had only intermittent contact with Euroamericans historically in part due to the flat coastal environment that large ships could not access and a lack of resources for Euroamericans to exploit (Fienup-Riordan 1984). These villages are about 70 miles southwest of and a 45-minute airplane flight from Bethel (ADCCED 2023).

The villages have almost no water or sewer systems, except at the schools and at a community washeteria in Kwigillingok. Primary water sources are surface water collected in the form of snow and ice and captured rainwater. There are no roads, and people get around the villages on elevated boardwalks. Neither village has incorporated into a city. Both are governed by traditional village councils that oversee village administration. In summer, residents use skiffs and other boats for travel to Bethel and nearby villages. Snowmobiles and all-terrain vehicles provide transportation during winter. Winter trails are marked to Kipnuk, between Kwigillingok and Kongiganak, and to

Tuntutuliak. There are no docking facilities in the villages, but there is a state-owned, public-use seaplane base in Kwigillingok located on the Kwigillingok River and a beaching area on the riverbank adjacent to the village. There are state-owned public-use airports with gravel airstrips. The Chaninik Wind Group consists of Kwigillingok, Kongiganak, Tuntutuliak and Kipnuk where wind turbines, diesel generators, and storage systems are combined to provide power in each village (Johnson 2018).

Both Kongiganak and Kwigillingok have dual language schools, common in coastal communities west of the Kuskokwim River, where pre-kindergarten through second grade language arts instruction is given in the Yup'ik language (*Yugtun*), and in higher grades given in *Yugtun* and English (ADCCED 2023, Ayagina'ar Elitnaurvik 2023, Kwigillingok School 2023)

Quinhagak

Quinhagak is a Yup'ik community situated near the mouth of the Kanektok River on the east shore of Kuskokwim Bay, less than a mile from the Bering Sea coast (see **Figure 1**). People moved from the historical village of Apokak, situated at the mouth of the Kuskokwim River, when the bank eroded into Apokak Slough around 1935. Some people chose to move to Eek while others moved to the Quinhagak area (La Vine et al. 2007). After the purchase of Alaska in 1867, the Alaska Commercial Company sent annual supply ships to the Quinhagak area with goods for Kuskokwim River trading posts. There were many non-Natives in the village at that time, most of whom were waiting for boats to go upriver. In 1915, the Kuskokwim River was charted, so goods were barged directly upriver to Bethel.

Between 1906 and 1909, over 2,000 reindeer were brought in to the Quinhagak area. Reindeer herding declined as a profitable enterprise, and the herd had scattered by the 1950s (La Vine et al. 2007). Over 100 native allotments and seasonal camps used for subsistence activities are present along the Kanektok River and Arolik River drainages. The highest concentration of allotments is at the mouth of the Kanektok River near Quinhagak, although allotments occur along the upstream reaches of the river all the way up to Kagati and Pegati lakes (Buzzell and Russell 2010).

Today, Quinhagak is a 45-minute flight from Bethel and is otherwise accessible by boat or snowmachine. A gravel airstrip owned by the Native Village of Kwinhagak is available. Float planes land on the Kanektok River. A harbor and dock serve barge deliveries of heavy goods at least twice a year. Boats, all-terrain vehicles, snow machines, and some highway vehicles are used for local transportation. Winter trails are marked to Eek and Goodnews Bay (ADCCED 2023).

Cultural Knowledge and Traditional Practices

See Proposal WP24-20 analysis.

Harvest History

See Proposal WP24-20 analysis.

ANILCA Section 804 Subsistence User Prioritization

Section 804 of ANILCA mandates that the taking on Federal public lands of fish and wildlife for nonwasteful subsistence uses shall be accorded priority over the taking on such lands of fish and wildlife for other purposes. Section 804 further requires that whenever it is necessary to restrict the taking of populations of fish and wildlife on such lands for subsistence uses in order to protect the continued viability of such populations, or to continue subsistence uses, such a priority shall be implemented through appropriate limitations based on the application of three criteria. The three criteria are: (1) customary and direct dependence upon the populations as the mainstay of livelihood, (2) local residency, and (3) the availability of alternative resources. In other words, an analysis based on Section 804 of ANILCA identifies which residents of communities or areas have a priority for the take of the resource.

In this case, the Board has been asked to increase the pool of Federally qualified subsistence users to residents of the communities situated within the Kuskokwim hunt area and the communities of Kalskag, Kongiganak, Kwigillingok, Lower Kalskag, and Quinhagak, situated outside the boundary of the Kuskokwim hunt area. These will be the communities who are eligible to hunt for moose on Federal public lands under Federal regulations in the Kuskokwim hunt area. Currently, Kongiganak, Kwigillingok, and Quinhagak are excluded and have been since 2010 when the hunting season in the Kuskokwim hunt area opened after a five-year moratorium, and the first ANILCA section 804 Subsistence User Prioritization was implemented by the Board. Without the ANILCA section 804 currently in place, all residents of Unit 18 and the communities of Lower Kalskag, Kalskag, Aniak, and Chuathbaluk, roughly 27,000 people in 42 widely dispersed communities, would be eligible, based on the customary and traditional use determination (ADLWD 2022).

Criterion 1. Customary and Direct Dependence upon the Populations as the Mainstay of Livelihood

Information regarding the subsistence economy in Kongiganak and Kwigillingok is scarce. Stickney in the early 1980s did not mention the harvest and use of moose or caribou in her study of the subsistence economy in Kwigillingok. Both resources were lacking in the area (Stickney 1984). Since the early 1980s two things have happened that may be affecting this. One, low numbers of moose might be more accessible locally. Two, salmon runs into the Kuskokwim River have diminished. Residents of the area once relied upon the salmon runs but now subsistence fishing opportunities are limited. With less capacity to rely on salmon, villages are likely becoming more dependent on other resources, such as moose.

Dependence on moose has increased since the early 1980s when no harvest was reported to Stickney (1984) compared to documented moose harvests in recent years, as shown in **Table 3**. Kongiganak and Kwigillingok are situated within the remainder area of Unit 18, which encompasses the area north and west of the Kuskokwim River. Reported harvests of moose are likely minimum estimates because harvest reporting in the remainder area is by harvest ticket, and ADF&G encourages but has not always required reporting with a harvest ticket, so compliance may be low.

Table 3. The harvest of moose by residents of Kongiganak, Kwigillingok, and Quinhagak, based on the ADF&G/FWS reporting systems, from 2017 to 2021 cumulative, in hunt area RM615 the Kuskokwim hunt area, the General Hunt Unit 18 around Kongiganak and Kwigillingok, and RM617 around Quinhagak (RM617 was closed until 2019) (Source: Burch 2023, pers. comm.; FWS 2023).

Hunt Area	Kongiganak Hunters	Kongiganak Harvest	Kwigillingok Hunters	Kwigillingok Harvest	Quinhagak Hunting	Quinhagak Harvest
RM615	172	33	42	8	22	1
General	10	0	15	4	51	16
RM617	0	0	0	0	146	33
Total	182	33	57	12	219	50

Kongiganak reported harvesting 33 moose in the past five years from 2017 to 2021 (between 6 and 7 moose per year), and all were taken from within the Kuskokwim hunt area (hunt number RM615). Kongiganak is about five miles to the west of the Kuskokwim hunt area boundary that is at the Ishkowik River mouth (see **Figure 1**; ADF&G 2023a).

Kwigillingok reported harvesting 12 moose in the past five years (between 2 and 3 moose per year). Eight were taken from the Kuskokwim hunt area and 4 were taken from the Unit 18 remainder area. Kwigillingok is about nine miles farther west than Kongiganak from the boundary of the Kuskokwim hunt area (ADF&G 2023a).

The nearby Ishkowik River drainage runs through State-managed lands of the Kuskokwim hunt area, so Kongiganak and Kwigillingok are eligible to hunt for moose in the Ishkowik River drainage; however, Yukon Delta Refuge lands begin just east of the Ishkowik River drainage and encompass the mouth of the Kuskokwim River, and moose harvesting in this area is closed to these two communities under Federal regulations.

Quinhagak reported harvesting 37 moose in the past five years (between 7 and 8 moose per year). One was taken from the Kuskokwim hunt area (RM615), 15 were taken from the Unit 18 remainder area, and 21 were taken from the area around Quinhagak (RM617) that opened in 2019. Quinhagak is approximately 17 miles from the Kuskokwim hunt area boundary that is at the mouth of the Kuskokwim River and currently is not eligible to hunt on the Yukon Delta Refuge lands there (see **Figure 1**).

Unlike Kongiganak and Kwigillingok, Quinhagak has participated in systematic household harvest surveys, the most recent in 2013. This was before the local area opened to the harvest of moose in 2019 (RM617) (ADF&G 2023b).

Results of the survey show a dependence on moose in Quinhagak. The overall harvest of wild resources in 2013 was estimated at 295 lbs. of edible weight per person. Moose harvest was 31 lbs. per person, about 10% of the overall harvest. For comparison, the harvests of birds and eggs, marine mammals, and plants and berries were at the same rate as moose (about 30 lbs. per person in each of these three resource categories). Fish were harvested at the highest rate at 158 lbs. per person, over half

of the harvest of wild resources for subsistence. Forty-eight households were asked about moose hunting areas, so this a partial representation of areas used in 2013. Moose hunting occurred between the Eek and Goodnews rivers, near the tundra villages northwest of Bethel, nearby Bethel, and in the lower Yukon River area (Ikuta et al. 2016, ADF&G 2023b).

Criterion 2. Local Residency

Kwigillingok and Kongiganak while not within the Kuskokwim hunt area are situated within a few miles of it. Kongiganak is about five miles to the west of the Kuskokwim hunt area boundary. Kwigillingok is about another nine miles to the west of Kongiganak. Quinhagak is situated about 17 miles to the south of the Kuskokwim hunt area that begins at the mouth of the Kuskokwim River (see **Figure 1**). These communities access the Kuskokwim hunt area by boat, or by snow machine when conditions allow.

Criterion 3. Alternative Resources

Kongiganak, Kwigillingok, and Quinhagak are all highly dependent upon the annual cycle of subsistence harvests of resources (Stickney 1984, ADF&G 2023b). The harvest of wild resources is a critical component of the economies in these communities, and the communities rely on the harvest of a wide diversity of resources, including salmon, nonsalmon fish, land mammals (caribou, moose), marine mammals (seals, sea lions), migratory waterfowl (ducks, geese), other birds (ptarmigan, grouse), furbearers, berries, greens, and wood.

Alternatives to Kuskokwim-hunt-area moose are available to residents of the three villages. Quinhagak has more local access to alternative populations of moose in the Kanektok River drainage (RM617) than do Kongiganak and Kwigillingok. While Kongiganak and Kwigillingok are situated in the remainder area of Unit 18, they are far away from the abundant moose populations present along the lower Yukon River. Quinhagak is more accessible to barges for bringing supplies to the village during open water periods because of the terrain around the village.

Effects of the Proposal

If Proposal WP24-21 is adopted, then the communities of Kongiganak, Kwigillingok, and Quinhagak will be eligible to hunt for moose on Yukon Delta and Togiak national wildlife refuge lands, under Federal subsistence regulations, in the Kuskokwim hunt area. This will open up scattered Federal public lands in Zone 1 (the mainstem), including at the mouth of the Kuskokwim River nearby these villages, and Zone 2 (the tributaries) for moose hunting by these villages. Additionally, the villages will be eligible to participate in the to-be-announced Federal winter hunt in Zone 2 (see Federal public lands in **Figure 1**). Adopting the proposal will have no effect on nonsubsistence uses or moose populations.

If Proposal WP24-21 is not adopted, then the communities of Kongiganak, Kwigillingok, and Quinhagak will remain ineligible to hunt for moose on Yukon Delta and Togiak national wildlife

refuge lands within the Kuskokwim hunt area. However, State-managed lands will remain open to moose hunting by them (see State-managed lands in **Figure 1**).

OSM PRELIMINARY CONCLUSION

Support Proposal WP24-21.

Justification

Kongiganak, Kwigillingok, and Quinhagak are demonstrating increased dependence on moose since the original ANILCA section 804 was implemented by the Board in 2010. For Kongiganak and Kwigillingok, salmon runs into the Kuskokwim River that were once relied upon by the villages have diminished since 2014 with few subsistence fishing opportunities making it difficult for residents to participate in salmon fisheries during short, episodic openings. The villages are likely becoming more dependent on resources other than salmon, including moose. For Quinhagak, the local hunt area was re-opened in 2019, reinvigorating and again demonstrating their dependence on moose.

Kongiganak and Kwigillingok have a long history of using the Kuskokwim River drainage to harvest salmon and other subsistence resources, moving to temporary camps as far up the river as Napaskiak until sometime in the 1980s. Some of these villagers were commercial fishermen in the drainage as well. Quinhagak has a similar relationship to the Kuskokwim River drainage and villagers are closely related to Eek residents, where former residents of Apokak moved in the 1930s in addition to moving to the Quinhagak area.

All three communities are the closest in proximity to the Kuskokwim hunt area out of the remaining communities in the customary and traditional use determination that are also not currently eligible to hunt there. These three communities should be eligible to harvest moose in the Kuskokwim hunt area, based on the three criteria in ANILCA section 804, which are dependency on and proximity to the resource and a lack of alternative resources.

ANALYSIS ADDENDUM

Two Regional Advisory Councils recommended modifying this proposal (WP24-21) at their fall 2023 meetings to add additional communities to the group of communities eligible to hunt moose in the Kuskokwim hunt area under Federal regulations. The Yukon-Kuskokwim Delta Council recommended adding residents of Kipnuk, and the Western Interior Alaska Council recommended adding residents of Aniak, Chuathbaluk, and Kipnuk (see **Figure 1**).

The purpose of this addendum is to analyze whether to include the communities of Aniak, Chuathbaluk, and Kipnuk to the pool of those eligible to hunt for moose in the Kuskokwim hunt area, based on the three criteria in ANILCA section 804. The three criteria are: (1) customary and direct dependence upon the populations as the mainstay of livelihood, (2) local residency, and (3) the availability of alternative resources.

Regulatory History

In 2010, the Board reviewed the eligibility of all 42 communities in the customary and traditional use determination for moose in the Kuskokwim hunt area (Proposal WP-54). All residents of Unit 18 and Kalskag, Aniak, and Chuathbaluk had a customary and traditional use determination for moose in the Kuskokwim hunt area. Aniak and Chuathbaluk, however, have a customary and traditional use determination in a smaller area, defined as upstream of but excluding the Tuluksak River drainage, than do other communities (see **Figure 1**).

In 2010, the moose harvest report rate to ADF&G as compared to estimates from household harvest surveys during the same or similar years between 1983 and 2004 ranged from 0% to 97%, which meant residents of some communities did not report their moose hunting activities to ADF&G. Because of the potential for underreporting, the conventional ADF&G harvest reporting system did not always reflect the true level of harvest, but it might provide an idea about the relative participation and where hunting occurs by community.

In 2010, even the communities with the highest hunt participation rates in the Kuskokwim hunt area, as revealed through the harvest reporting database, harvested the majority of their moose from other areas in Units 18, 19 and 21. Between 1983 and 2004, the residents of the majority of communities reported using the Kuskokwim hunt area to hunt moose less than 30% of the time (ADF&G 2009a).

The lower intensities of hunting in the Kuskokwim hunt area were indicative of the lower number of moose in the area compared to other areas.

In 2010, the conclusion of the ANILCA section 804 Subsistence User Prioritization was to include residents of the Kuskokwim hunt area and the community of Kalskag in the pool of eligible users of moose based on their dependence on moose in the Kuskokwim hunt area, their close proximity to the Kuskokwim hunt area, and alternative resources available to them.

The analysis of Proposal WP24-21, above, re-analyzed the eligibility of Kongiganak, Kwigillingok, and Quinhagak and determined that all three communities should be eligible based on their growing human populations and increasing dependence on moose.

In contrast to 2010, now people hunting in the Kuskokwim hunt area (hunt number RM615) and along the Kanektok and Arolik rivers (hunt number RM617) are required to get a registration permit before hunting, and reporting is mandatory. **Table 3**, above, reveals that while reports from hunters in the Kuskokwim hunt area (hunt number RM615) has increased, their reported harvest of moose continues to be much smaller than the number of hunters. In other words, based on this data harvest success rates appear low.

Community Background

Yukon-Kuskokwim Delta and Western Interior Alaska Councils at their fall 2023 recommended adding Aniak, Chuathbaluk, and Kipnuk to those eligible to harvest moose on Federal lands in the Kuskokwim hunt area. The following are descriptions of these communities.

Aniak and Chuathbaluk

Aniak is the largest community in the central Kuskokwim River area (population 507 people in 2020, **Table 4**). It is located on the south bank of the Kuskokwim River near the mouth of the Aniak River, about 92 air miles from the regional hub of Bethel. The community is reached by air or water, or by winter trails on snowmachines and dog teams to nearby villages. The modern settlement of Aniak originated as a mining supply site around 1900, and then a fur trading center. Today, the majority of people in Aniak trace their roots to smaller settlements in the area, such as, Crow Village, Ohagamuit, and Kolmakovsky Redoubt (Braem 2012, Oswalt 1980).

Table 4. Human population of the communities in the Council modifications from 1960 to 2020 and number of households per community in 2020 (Source: ADCED 2023).

Community	1960	1970	1980	1990	2000	2010	2020	2020 Households
Kipnuk	221	325	371	470	644	639	704	114
Aniak	308	205	341	540	575	501	507	160
Chuathbaluk	0	94	105	97	119	118	104	29
Total	529	624	817	1,107	1,338	1,258	1,315	303

The village of Chuathbaluk (population 104 people in 2020, **Table 4**) was re-established in the 1950s by families relocating from Crow Village, Aniak, and Crooked Creek. It is located on the north bank of the Kuskokwim River, 11 miles upriver from Aniak. Many families at Aniak and Chuathbaluk are interrelated, and winter trails connect these communities to one another (Braem 2012, Oswalt 1980)

Kipnuk

Kipnuk is located on the west bank of the Kugkaktlik River along the coastal area between the mouth of the Kuskokwim River and Nelson Island, about 85 air miles southwest of Bethel. It lies four miles inland from the Bering Sea coast. The community is sheltered by barrier islands, but shallows extend for miles offshore and subject the community to severe flooding. The community is reached by air or water, or by winter trails on snowmachines to nearby villages. Off-road vehicles are used locally. There is no dock, but barges deliver cargo from Bethel each summer (see **Figure 1**; Carl 2002, Benoit 2023, Goodduhn et al. 2023).

People of Kipnuk, Kwigillingok, and Kongiganek (the *Canineqmiut* confederation of Yup'ik villages) inhabiting the flat coastal region between the mouth of the Kuskokwim River and Nelson Island are related culturally and many families are interrelated. Winter trails connect these three communities to one another and to Tuntutuliak (ADCCED 2023, Fienup-Riordan 1984).

Historically, some Kipnuk families traveled to the Kuskokwim River to fish for salmon based at their seasonal fish camps where they harvested, processed, and preserved salmon. Kipnuk people's fish camps were generally located along the east side of the Kuskokwim River mouth at the north end of Kuskokwim Bay, across and south from Eek Island. Until around 2014, a few Kipnuk families still traveled to their Kuskokwim River fish camps during salmon season (Wolfe et al. 2012).

Kipnuk, as with Kongiganak, and Kwigillingok, has not incorporated into a city. It is governed by a traditional council that oversees village administration. In communities where there is no city or borough government, their tribal governments tend to provide more governmental services than in those communities where cities and borough governments exist (UAF 2023).

Kipnuk, as with Kongiganak and Kwigillingok, has a dual language school, common in coastal communities west of the Kuskokwim River, where pre-kindergarten through second grade language arts instruction is given in the Yup'ik language (*Yugtun*), and in higher grades given in Yugtun and English (Benoit 2023).

ANILCA Section 804 Subsistence User Prioritization

Criterion 1. Customary and Direct Dependence upon the Populations as the Mainstay of Livelihood

Aniak and Chuathbaluk are known to be highly dependent on moose (Brelsford 1986, Charnley 1983).

Based on the ADF&G harvest reporting system, 387 residents of Aniak reported harvesting 303 moose in the five years between 2017 and 2021, about 60 moose per year. In Chuathbaluk, 77 residents reported harvesting 51 moose in the same period, about 10 moose per year (see **Table 5**). At both communities, most hunting effort was in the area of hunt number TM680 in Unit 19A, an area that encompasses the communities. Some reported hunting effort was in Unit 18, including in the Kuskokwim hunt area (RM615) where moose hunting is open to them on only private, State-managed lands.

Table 5. The harvest of moose by residents of Kipnuk, Aniak, and Chuathbaluk, based on the ADF&G/FWS reporting systems, from 2017 to 2021 cumulative, in hunt area RM615 the Kuskokwim hunt area, the General Hunt area in Unit 18 around Kipnuk, RM617 around Quinhagak (RM617 was closed until 2019), TM680/FM1201 in Unit 19A around Aniak and Chuathbaluk, and RM836/837 in Unit 21E (“-“ means information not available; Burch 2023, pers. comm.; FWS 2023).

Unit	Hunt Area	Kipnuk Hunting	Kipnuk Successful	Aniak Hunting	Aniak Successful	Chuathbaluk Hunting	Chuathbaluk Successful
18	RM615	2		4	1		
18	General	8	7	38	24		
18	RM617						
19A	TM680			347	241	77	51
19A	FM1901 ²			-	30	-	14
21E	RM836			1			
21E	RM837			7	7		
	Totals	10	7	397	303	77	65

Aniak and Chuathbaluk have participated in systematic household harvest surveys, the most recent one in 2009 (ADF&G 2023b).

Results of these surveys show a dependence on moose in Aniak and Chuathbaluk. For Aniak, the overall harvest of wild resources in 2009 was estimated at 294 lbs. of edible weight per person. Moose harvest was 38 lbs. per person, about 13% of the overall harvest. Only two category of resources contributed higher levels to the Aniak annual harvest: salmon (65%) and nonsalmon fish (17%). Aniak residents reported that moose hunting had been limited by low water in the fall of the survey year (Brown et al. 2012). In Aniak, of 141 surveyed households (83% of total households in the community), 109 households were asked about moose hunting areas, so this is a partial representation of areas used in 2009. Moose hunting occurred in an area encompassing Aniak, primarily in the area between the Yukon River and Kuskokwim River and from Kalskag to Georgetown on the Kuskokwim River and in the Aniak River drainage (Brown et al. 2012).

For Chuathbaluk, the overall harvest of wild resources in 2009 was estimated at 244 lbs. of edible weight per person of which moose was 13%. Only salmon was harvested at a higher level at 65% of the total harvest. All 30 surveyed households (83% of total households in the community) were asked about moose hunting areas. Residents of Chuathbaluk reported hunting for moose along the Kuskokwim River from Kalskag to Napaimute and along the Holokuk River in Unit 19A and north of the community into Unit 21E (Brown et al. 2012).

Information regarding the subsistence economy in Kipnuk is scarce. Moose and caribou were rare sights until recently. Carl Jack, originally from Kipnuk, wrote in 2002 that the area was void of moose.

² The pool of those eligible to hunt for moose in Federal hunt FM1901 has been reduced to residents of only Aniak, Chuathbaluk, Crooked Creek, Kalskag, Lower Kalskag, and Tuluksak, based on the three criteria in ANILCA section 804.

Since then, in 2017, Godduhn while in Kipnuk heard that moose were starting to come around the Kipnuk area (Godduhn et al. 2017, Jack 2002).

Kipnuk is situated within the remainder area of Unit 18, which encompasses the area north and west of the Kuskokwim River (see **Figure 1**). Reported harvests of moose are likely minimum estimates because harvest reporting in the remainder area is by harvest ticket, and ADF&G encourages but has not always required reporting with a harvest ticket, so compliance may be low.

Based on the ADF&G harvest reporting system, 10 residents of Kipnuk reported harvesting 7 moose in the five years between 2017 and 2021, between 1 and 2 moose per year (see **Table 5**). Most of their effort was in the general hunt area around the community. Two hunters reported hunting in the Kuskokwim hunt area (hunt number RM615) and were unsuccessful (Burch 2023, pers. comm.).

Criterion 2. Local Residency

Aniak is situated approximately 35 miles from the Kuskokwim hunt area via the Kuskokwim River, and Chuathbaluk is approximately 11 miles further up the Kuskokwim River from Aniak (see **Figure 1**).

Kipnuk is approximately 50 miles from the Kuskokwim hunt area boundary near the mouth of the Kuskokwim River and 30 miles heading northeast across the tundra to the western boundary of the hunt area at Dall Lake.

Criterion 3. Alternative Resources

The communities of Aniak and Chuathbaluk have alternative populations of moose available to them in Unit 19A (see **Table 5**; Brown et al. 2012). Harvest success rates in the TM680 hunt for Aniak was about 70% (7 of 10 active hunters reported harvesting a moose) and about 66% in Chuathbaluk. These are very high rates of success (see **Table 5**).

However, Kipnuk is in a different situation. Kipnuk, along with Kongiganak and Kwigillingok, is situated within the general hunt area of Unit 18 in an area that has a sparsely distributed moose population.

Income and employment in salmon, herring, and halibut coastal commercial fisheries are in a steep decline due in part to a lack of buyers to sell catches to in the area (Himes-Cornell et al. 2013).

OSM CONCLUSION

Support Proposal WP24-21 with **modification** to add the community of Kipnuk to the ANILCA section 804 Subsistence User Prioritization for the Kuskokwim River drainage hunt area in Unit 18.

The modified regulation should read:

Unit 18—Moose

Unit 18, that portion east of a line running from the mouth of the Ishkowik River to the closest point of Dall Lake, then to the east bank of the Johnson River at its entrance into Nunavakanukakslak Lake (N 60°59.41' Latitude; W 162°22.14" Longitude), continuing upriver along a line 1/2 mile south and east of, and paralleling a line along the southerly bank of the Johnson River to the confluence of the east bank of Crooked Creek, then continuing upriver to the outlet at Arhymot Lake, then following the south bank east of the Unit 18 border and then north of and including the Eek River drainage—I antlered bull by State registration permit during the fall season.

Sept. 1–Oct. 15

OR

I antlered bull by Federal registration permit during a may be announced winter season.

*May be announced
between Dec. 1–
Jan. 31*

*Federal public lands are closed to the taking of moose except by residents of Akiachak, Akiak, Atmautluak, Bethel, Eek, Kalskag, Kasigluk, **Kipnuk**, **Kongiganak**, Kwethluk, **Kwigillingok**, Lower Kalskag, Napakiak, Napaskiak, Nunapitchuk, Oscarville, **Quinhagak**, Tuluksak, and Tuntutuliak.*

Justification

Kipnuk, Kongiganak, Kwigillingok, and Quinhagak are demonstrating increased dependence on moose since the original ANILCA section 804 was implemented by the Board in 2010. For Kongiganak and Kwigillingok, salmon runs into the Kuskokwim River that were once relied upon by the villages have diminished since 2014 with few subsistence fishing opportunities making it difficult for residents to participate in the salmon fishery during short, episodic openings. Kipnuk, Kongiganak, and Kwigillingok are likely becoming more dependent on resources other than salmon, including moose. For Quinhagak, the local hunt area was re-opened in 2019, reinvigorating and again demonstrating their dependence on moose, although success rates are low. Kipnuk, Kongiganak, and Kwigillingok have a long history of using the Kuskokwim River drainage to harvest salmon and other subsistence resources, moving to temporary camps as far up the river as Napaskiak until sometime in the 1980s. Some of these villagers were commercial fishermen in the drainage as well. Quinhagak has a similar relationship to the Kuskokwim River drainage, and villagers are closely related to Eek residents, where former residents of Apokak moved in the 1930s in addition to moving to the Quinhagak area. All four

communities are some of the closest in proximity to the Kuskokwim hunt area out of the remaining communities in the customary and traditional use determination that are also not currently eligible to hunt there. Additionally, commercial fisheries for salmon, herring, and halibut are in steep decline. These four communities should be eligible to harvest moose in the Kuskokwim hunt area, based on the three criteria in ANILCA section 804, dependency on and proximity to the resource and available alternative resources.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATION

Yukon-Kuskokwim Delta Subsistence Regional Advisory Council

Support with modification. The Council supported WP24-21 with modification to add the community of Kipnuk to the list of communities eligible to hunt moose in the Kuskokwim River drainage hunt area. The Council submitted this proposal and continues to support it for the reasons outlined in the OSM analysis. The Council believes Kipnuk should be added because it is in similar vicinity to the hunt area as the other communities that the Council originally requested to be added. Supporting this proposal with the Council modification will increase subsistence opportunity for these four communities by allowing them to hunt on Federal land in the hunt area. It is not expected to result in much increased harvest but will give the communities options in years when moose may be more scarce in their nearby areas.

The modified language should read:

Unit 18—Moose

Unit 18, that portion east of a line running from the mouth of the Ishkowik River to the closest point of Dall Lake, then to the east bank of the Johnson River at its entrance into Nunavakanukakslak Lake (N 60°59.41' Latitude; W162°22.14" Longitude), continuing upriver along a line 1/2 mile south and east of, and paralleling a line along the southerly bank of the Johnson River to the confluence of the east bank of Crooked Creek, then continuing upriver to the outlet at Arhymot Lake, then following the south bank east of the Unit 18 border and then north of and including the Eek River drainage—I antlered bull by State registration permit during the fall season.

Sept. 1–Oct. 15

OR

I antlered bull by Federal registration permit during a may be announced winter season.

*May be announced
between Dec. 1–
Jan. 31*

*Federal public lands are closed to the taking of moose except by residents of Akiachak, Akiak, Atmautluak, Bethel, Eek, Kalskag, Kasigluk, **Kipnuk**, **Kongiganak**, Kwethluk, **Kwigillingok**, Lower Kalskag, Napakiak, Napaskiak, Nunapitchuk, Oscarville, **Quinhagak**, Tuluksak, and Tuntutuliak.*

Western Interior Alaska Subsistence Regional Advisory Council

Support with modification. The Council supports the proposal with modification to add Kipnuk, Aniak, and Chuathbaluk. Kwigillingok and Kongiganak especially are heavily subsistence dependent communities with cultural and family ties to villages along the lower river, and the villages are economically stressed. Moose have been available in the area for only the past 10 or 15 years. Including them in the regulation may have an impact on whether people can stay in the villages or must migrate to work in Bethel or Anchorage. Additionally, the Council requested further analysis of the eligibility of Aniak and Chuathbaluk. They have a customary and traditional use determination for the upper portion of the hunt area, primarily for the growing moose population in Zone 2. They are situated along the river in close proximity to the hunt boundary, and it is not clear why they were excluded.

The modified language should read:

Unit 18—Moose

Unit 18, that portion east of a line running from the mouth of the Ishkowik River to the closest point of Dall Lake, then to the east bank of the Johnson River at its entrance into Nunavakanukakslak Lake (N 60°59.41' Latitude; W 162°22.14" Longitude), continuing upriver along a line 1/2 mile south and east of, and paralleling a line along the southerly bank of the Johnson River to the confluence of the east bank of Crooked Creek, then continuing upriver to the outlet at Arhymot Lake, then following the south bank east of the Unit 18 border and then north of and including the Eek River drainage—I antlered bull by State registration permit during the fall season.

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INTERAGENCY STAFF COMMITTEE COMMENTS

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

ALASKA DEPARTMENT OF FISH AND GAME COMMENTS

Draft Comments on WP24-21
1/31/2024, Page 1 of 3

Alaska Department of Fish and Game Comments

Wildlife Proposal WP24-21

This proposal would add Kongiganak, Kwigillingok, and Quinhagak to the list of eligible communities for federal moose hunts in the Kuskokwim hunt area in Unit 18 under Section 804 of the Alaska National Interest Lands Conservation Act (ANILCA).

Position

The Alaska Department of Fish & Game (ADF&G) is **NEUTRAL** on the eligibility requirements for participation in the subsistence program provided under the Alaska National Interest Lands Conservation Act (ANILCA). ADF&G recommends the Federal Subsistence Board (FSB) thoroughly and carefully review the data relevant to the Section 804 criteria for those communities that are currently ineligible to participate in federal hunts in the Kuskokwim hunt area described in this proposal.

Background

The ADF&G Subsistence Section has collected qualitative and quantitative data on harvest and use patterns of moose in two of the three communities in this proposal. Ikuta et al. (2016) documented the harvest and use of moose by the community of Quinhagak in 2013. The estimated harvest of moose by Quinhagak households in 2013 was 42 moose. The study showed that the percentages of households hunting, harvesting, and using moose in 2013 were 45%, 19%, and 70%, respectively. In terms of edible weight, moose accounted for 10% of the total subsistence harvest, which equated to 22,472 lb. or 31 lb. per capita. Search and harvest areas for moose were also documented; in 2013, the areas used by Quinhagak households to hunt for moose were largely outside the Unit 18 moose unit area, except for a small section of state lands and waters along the Kuskokwim River upstream of Bethel. However, the maps show only those areas used by households that participated in the study (67% of Quinhagak households in 2013).

The analysis also cites Stickney (1984; incorrectly cited as 1983) as evidence that moose were not harvested in Kwigillingok during the study period (1981–1983). While it is likely that moose populations were not as large or as widely distributed throughout the Yukon-Kuskokwim Delta in the 1980s as they are today, it is also possible that harvests of moose were underreported by this study. Stickney conducted interviews with members of 7 households, representing just 20% of the community.

The community of Kongiganak has not participated in any Subsistence Section research to date.

Impact on Subsistence Users

This proposal increases the pool of federally qualified users (FQU) eligible to participate in moose harvesting opportunities provided under ANILCA. This would increase the number of FQUs thus increasing competition on federal lands in the Kuskokwim hunt area. If this proposal

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is rejected, residents of the communities could continue to hunt for moose under state regulations in this area and the remainder of Unit 18.

Impact on Other Users

Impacts of adoption of this proposal on other users are not anticipated.

Opportunity Provided by State

State customary and traditional use findings: The Alaska Board of Game (BOG) has made a positive customary and traditional use finding for moose in Unit 18.

Amounts Reasonably Necessary for Subsistence: Alaska state law requires the Board of Game to determine the amount of the harvestable portion of a game population that is reasonably necessary for customary and traditional uses. This is an ANS. The BOG does this by reviewing extensive harvest data from all Alaskans, collected either by ADF&G or from other sources.

ANS provides the BOG with guidelines on typical numbers of animals harvested for customary and traditional uses under normal conditions. Hunting regulations can be re-examined if harvests for customary and traditional uses consistently fall below ANS. This may be for many reasons: hunting regulations, changes in animal abundance or distribution, or changes in human use patterns, among others.

The ANS for moose in Unit 18 is 200 to 400 animals.

<u>Unit/Area</u>	<u>Bag Limit</u>	<u>Open season</u>	
		<u>Resident</u>	<u>Nonresident</u>
Unit 18 Kuskokwim Area ¹	1 bull, excluding male calves, by registration permit only	Sept. 1—Oct. 15	No open season.

Conservation Issues

Between 2004 and 2009, at the request of the Lower Kuskokwim Fish and Game Advisory Committee, the Yukon Delta National Wildlife Refuge, and ADF&G, a five-year moratorium was established for moose hunting in the Kuskokwim hunt area. The moratorium was

¹ Kuskokwim Area description: that portion easterly of a line from the mouth of the Ishkowiik River to the closest point of Dull Lake then to the east bank of the Johnson River at its entrance into Nunavkanukakslak Lake (60° 59.41' N. latitude, 162° 22.14' W. longitude), continuing upriver along a line one-half mile south and east of, and paralleling a line along the southerly bank of the Johnson River to the confluence of the east bank of Crooked Creek, then continuing upriver along the east bank of Crooked Creek to the outlet at Arhymot Lake, then following the south bank of Arhymot Lake easterly to the Unit 18 border and north of and including the Eek River drainage (5 AAC 85.045)

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1/31/2024, Page 3 of 3

implemented to increase the abundance of moose by relieving hunting pressure and by allowing for range expansion into the lower Kuskokwim River drainage. After the moratorium ended, state and federal hunts were established beginning in 2010. At that time, the moose population of 1,378 moose remained slightly below the State's target of 2,000 moose in the hunt area. Adding the three communities as FQUs of moose in the hunt area would not affect the number of moose harvested by residents of these communities, or the number of moose harvested overall. If the proposal is adopted, residents of the three communities would have the choice of harvesting moose on federal public land, in addition to state public land, on which they are already eligible to hunt as Alaska residents.

Enforcement Issues

Enforcement issues are not anticipated because of the adoption of this proposal.

WP24-25 Executive Summary	
General Description	WP24-25 requests to reduce the sheep harvest limit in Units 24A and 24B (excluding residents of Anaktuvuk Pass), that portion within Gates of the Arctic National Park from 3 sheep, no more than one of which may be a ewe, to 1 ram. <i>Submitted by the Western Interior Alaska Subsistence Regional Advisory Council.</i>
Proposed Regulation	<p>Unit 24—Sheep</p> <p><i>Units 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 1 ram, by Federal registration permit only, with exception for residents of Alatna and Allakaket who will report by a National Park Service community harvest system</i> Aug. 1–Apr. 30.</p>
OSM Conclusion	Support Proposal WP24-25
Western Interior Alaska Subsistence Regional Advisory Council Recommendation	Support
Interagency Staff Committee Comments	The Interagency Staff Committee found the analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and the Federal Subsistence Board action on this proposal.
ADF&G Position	Oppose
Written Public Comments	None

STAFF ANALYSIS

WP24-25

ISSUES

Wildlife Proposal WP24-25, submitted by the Western Interior Alaska Subsistence Regional Advisory Council (Council), requests to reduce the sheep harvest limit in Units 24A and 24B (excluding residents of Anaktuvuk Pass), that portion within Gates of the Arctic National Park (GAAR) from 3 sheep, no more than one of which may be a ewe, to 1 ram.

DISCUSSION

The proponent submitted this proposal to address the declining sheep population in Unit 24. Recent steep declines in sheep abundance concern the Council, and they feel the remaining population needs to be protected from overharvest and allowed to recover. Allowing ewe harvest may slow or severely restrict the growth of the population. The proponent recognizes that this reduction would be a major restriction to federally qualified subsistence users; however, allowing the harvest of one ram will still allow for some harvest, but hopefully also aid in the recovery of this declining sheep population.

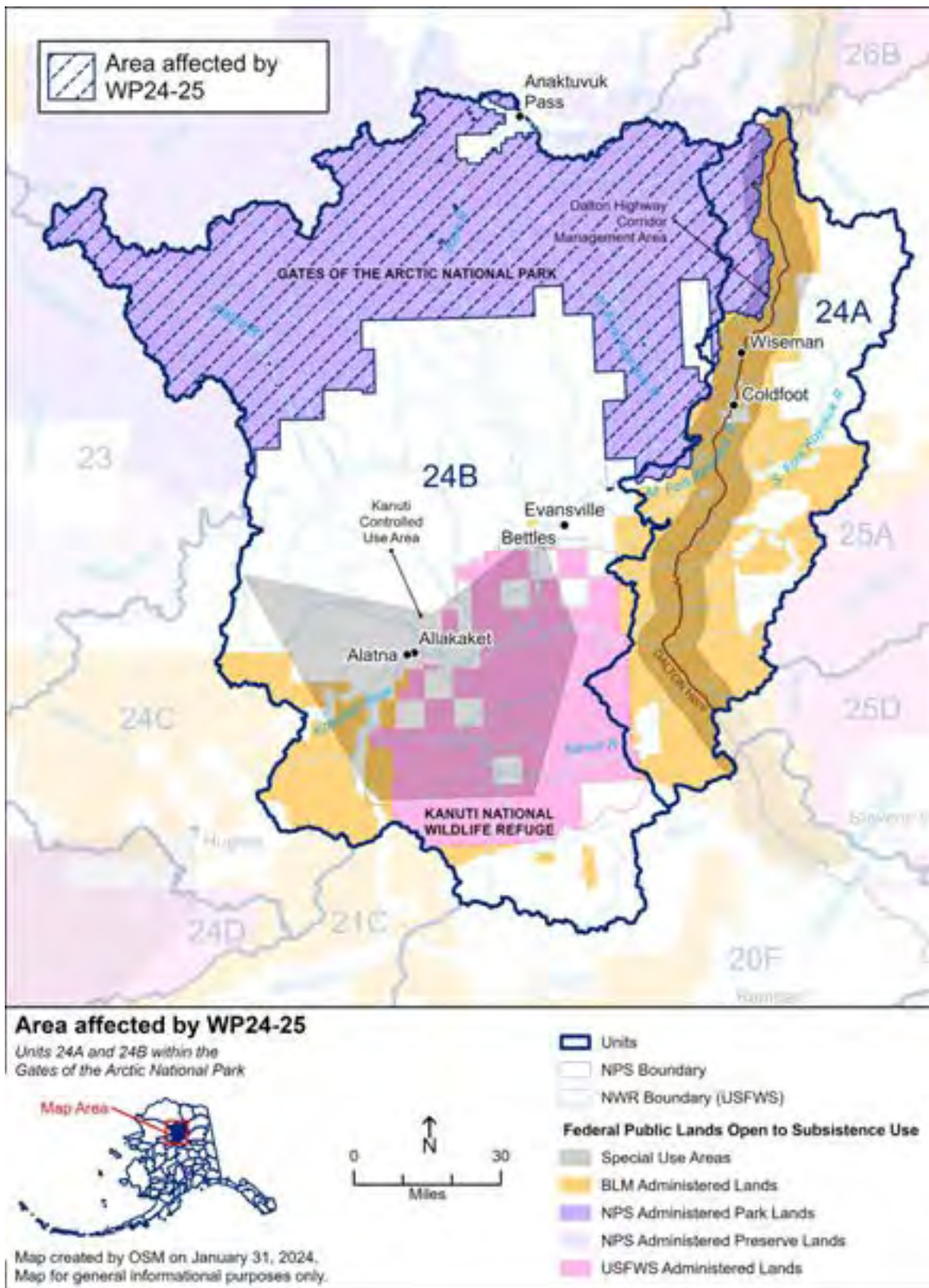


Figure 1. Map depicting area affected by proposed harvest reduction.

Existing Federal Regulation

Unit 24—Sheep

Units 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, with exception for residents of Alatna and Allakaket who will report by a National Park Service community harvest system Aug. 1–Apr. 30.

Proposed Federal Regulation

Unit 24—Sheep

Units 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~~ 1 ram, by Federal registration permit only, with exception for residents of Alatna and Allakaket who will report by a National Park Service community harvest system Aug. 1–Apr. 30.

Existing State Regulation

Note: The affected Federal hunt area is entirely within GAAR. While portions of GAAR are technically within the State hunt areas below, State regulations do not apply on National Park lands, but are included for reference.

Unit 24—Sheep

<i>24A within the Dalton Highway Corridor Management Area;</i>	<i>Residents: One ram with full-curl horn or larger. Youth hunt only</i>	<i>HT</i>	<i>Aug 1-Aug 5</i>
<i>24A remainder; 24B remainder</i>	<i>Non-residents: One ram with full-curl horn or larger every four regulatory years. Youth hunt only</i>	<i>HT</i>	<i>Aug 1-Aug 5</i>
	<i>Residents: One ram with full-curl horn or larger</i>	<i>HT</i>	<i>Aug 10-Sep 20</i>
	<i>Non-residents: One ram with full-curl horn or larger every four regulatory years.</i>	<i>HT</i>	<i>Aug 10-Sep 20</i>
<i>24B within the John River drainage upstream from Till Creek, and that portion within the Glacier River drainage</i>	<i>Residents: Three sheep only one may be a ewe</i>	<i>HT</i>	<i>Aug 1-Apr 30</i>

Extent of Federal Public Lands/Waters

Unit 24A is comprised of 72% Federal public lands and consist of 59% Bureau of Land Management (BLM), 11% National Park Service (NPS), and 2% U.S. Fish and Wildlife Service (USFWS) managed lands.

Unit 24B is comprised of 59% Federal public lands and consists of 38% NPS, 14% USFWS, and 6% BLM managed lands.

The affected hunt area is entirely within GAAR, which consists 100% of NPS managed lands.

Customary and Traditional Use Determinations

Residents of Unit 24 residing north of the Arctic Circle, Allakaket, Alatna, Anaktuvuk Pass, Hughes, and Huslia have a customary and traditional use determination (C&T) for sheep in Unit 24.

Residents of Alatna, Allakaket, Ambler, Anaktuvuk Pass, Bettles, Evansville, Hughes, Kobuk, Nuiqsut, Shungnak, and Wiseman comprise the resident zone communities of GAAR.

Regulatory History

In 1997, the Federal Subsistence Board (Board) adopted P97-60 which modified C&T for sheep in Unit 24. The original C&T included all residents north of the Arctic Circle and residents of Allakaket, Alatna, and Anaktuvuk Pass. P97-60 added Hughes and Huslia to that C&T, as Hughes was a resident zone community of GAAR but had been excluded from harvesting sheep within GAAR. Huslia was also added as they had traditionally used sheep in the area.

In 2006, the Board adopted Proposal WP06-69, submitted by the Alaska Department of Fish and Game (ADF&G), which requested that sheep hunt area descriptors for Unit 24 be modified to reduce regulatory complexity. Unit 24 had recently been divided into subunits under State regulations and the proposal requested incorporating the new subunit descriptions into Federal regulations. The adoption of WP06-69 established the current sheep hunt area descriptor (Units 24A and 24B, that portion within GAAR).

In 2012, Wildlife Special Action WSA12-01 was submitted by the Western Interior Council and requested federally qualified subsistence users be allowed to harvest ½ curl horn or larger rams in Unit 24A within the Dalton Highway Corridor Management Area (DHCMA) for the 2012 season. This was approved by the Board based on a stable sheep population estimates within the DHCMA and in the adjacent areas of GAAR. Additionally, with low Federal harvest rates, little impact on sheep populations in the area was expected.

In 2016, the Board adopted Wildlife Proposal WP16-41 with modification. The original request was to change the harvest limit in Units 24A and 24B within GAAR from 3 sheep to 3 sheep not to exceed 1 ewe, and to exempt harvested horns from the sealing requirement. The restriction of ewe harvest was implemented due to conservation concerns for the sheep population within GAAR. The Office of

Subsistence Management (OSM) modification was to require a Federal registration permit. The Board further modified the proposal upon recommendation by the Western Interior Council to exempt residents of Alatna and Allakaket from the permit requirement in favor of a National Park Service community harvest reporting system.

In 2016, the Alaska Board of Game (BOG) considered two proposals regarding sheep hunting on a statewide level. Proposal 30 requested to change the nonresident harvest limit from 1 full-curl ram per year to 1 full-curl ram every four years. The BOG adopted this proposal stating that it may allow a more equitable distribution of permits. Proposal 47 requested to establish a youth-only sheep hunt to promote sheep hunting to Alaskan youth. The BOG adopted this proposal to allow youth to be introduced early to sheep hunting and because harvest would be low and not affect the sheep population.

In 2017, the BOG adopted Proposal 113 as amended, which modified the resident harvest limit from 3 sheep to 3 sheep, only one of which may be a ewe; and limited it to only Unit 24B, from the original request of Units 24B, 25A, 26B and 26C. Population surveys from ADF&G and NPS showed a 20-year decline in the sheep population. The BOG therefore decided to restrict ewe harvest to protect the breeding population.

In July 2022, the Board approved Wildlife Special Action WSA22-02 and closed Federal public lands in Units 24A and 26B, west of the Sagavanirktok River to the harvest of sheep by all users for the 2022–23 and 2023–24 regulatory years. The Board agreed with the OSM conclusion that sheep population viability concerns warranted the closure. The sheep population within the Dalton Highway Corridor Management Area had declined substantially as result of severe winter weather and harvest. They also considered traditional ecological knowledge of local residents in addition to the biological data presented. The Board noted that the North Slope and Western Interior Councils both supported the closure and that subsistence users were willing to forego harvest by including themselves in the two-year closure as well.

Current Events

The Western Interior Council also submitted Proposal WP24-26, requesting that Dall's sheep hunting on Federal public lands in Unit 24A and Unit 26B, west of the Sagavanirktok River be closed to all users for the 2024–2026 wildlife regulatory cycle. This would be a two-year continuation of the closure initiated by Wildlife Special Action WSA22-02.

Biological Background

Dall sheep are found throughout the Brooks Range wherever suitable habitat exists. In 1985, there was an estimated range wide population of 30,000 sheep that had been stable over the previous 10 years with an estimated 12,000 sheep within GAAR (Heimer 1985). Sheep surveys in the central Brooks Range (areas west of the DHCMA and within GAAR) were conducted mostly in GAAR and varied in size and type. These surveys suggested a low sheep population from the 1970s through about 1982.

Then from 1982-1984 the population increased and remained stable through 1987. The central Brooks Range population experienced a decline from 1987 to the mid-1990s (Caikoski 2018).

Dall sheep may experience greater sensitivity to external influences, such as temperature and weather, because they occur at higher elevations and latitudes than other ungulates (Van de Kerk et al. 2020). Recent weather events have affected the sheep population in the central Brooks Range, like the extended winter weather in the spring of 2013 and rain on snow events in both October 2018 and March 2019. The extended winter of 2013 caused the end of the continuous snow season to last 6-19 days longer than normal (Rattenbury et al. 2018). Snow stayed on the ground long enough in GAAR to overlap with peak lambing season, which generally occurs in mid-May. This event had a dramatic effect on GAAR sheep populations, with a 39% reduction in sheep abundance within the Itkillik survey area (**Figure 2**, Rattenbury et al. 2018). While this caused a decline in the total sheep population, it dramatically lowered the lamb:ewe-like ratio.

The NPS Arctic Inventory and Monitoring Network surveys three areas within GAAR: 1) Southeast Gates of the Arctic (SE GAAR); 2) Anaktuvuk; and 3) Itkillik (**Figure 2**). Since the affected area of Proposal WP24-25 falls entirely within Unit 24, this analysis will only consider survey results from the SE GAAR and Anaktuvuk survey areas. The NPS flies aerial distance sampling transects and uses a Bayesian model to produce population estimates (rather than just trends) (Rattenbury 2017). This enables a smaller portion of the study area to be surveyed and produces an estimate of sheep not seen from the number of sheep that were counted (sightability function) to produce the final estimate of the larger area. This method includes a measure of precision, the credible interval or error range. An inherent weakness of sampling surveys is the estimate is only as good as the data used to derive it (Rattenbury 2017). Therefore, when fewer numbers of sheep are observed, the coefficient of variation (CV) increases and the estimate has larger credible intervals, which indicates less precise estimates. A CV of less than 20% is considered a reliable value, but every increase in value leads to less reliability in estimation (Deacy 2022, pers. comm.).

In the SE GAAR survey unit, the highest abundance estimate was 2,525 total sheep (95% Bayesian Credible Intervals [BCI] of 2,334–2,776, CV 5%) in 2015 (**Figure 3**). The estimate from the latest survey completed in 2022 was 923 sheep total (BCI 709–1,252, CV 15%), which is a 63.4% decline from the 2015 estimate (Deacy 2022, pers. comm.; Schertz 2023 pers. comm.) and a 16.1% decline over the 2021 estimate of 1,100 sheep. The Anaktuvuk survey area, which experienced a dramatic decrease in population from severe weather during the 2012/13 winter also declined from an estimated 1,046 total sheep in 2015 to an estimated 512 sheep in 2016 but has steadily increased to an estimated 865 sheep in 2021 (**Figure 4**) (Deacy 2022, pers. comm.; Schertz 2023 pers. comm.).

Ram abundance in SE GAAR has declined in recent years. Estimates of full-curl rams in SE GAAR have declined from 137 rams in 2015 to 47 rams in 2021 and 28 rams in 2022, an overall decrease of 80%. Smaller ram abundance in the SE GAAR survey area did not decline as much, but still decreased from 379 rams in 2015 to 180 rams in 2021 and 144 in 2022 (**Figure 3**) (Deacy 2022, pers. comm.; Schertz 2023 pers. comm.). Between 2014 and 2021, ram abundance estimates in the Anaktuvuk survey area reached a high in 2015 of 385 total rams. That estimate dropped in 2016, then stabilized

and has been slowly increasing to the latest estimate of 215 rams in 2021. Estimates of full-curl rams followed the same trend and were estimated in 2021 at 52. Smaller ram abundance has been more variable but were estimated at 163 individuals in 2021 (**Figure 4**) (Deacy 2022, pers. comm.; Schertz 2023 pers. comm.).

Mid-summer lamb:100 ewe-like and ram:100 ewe-like ratios in SE GAAR have both trended downward since 2010 (**Table 1**). The lamb:100 ewe-likes ratio has decreased slightly, while the ram:100 ewe-likes dropped drastically between 2010 and 2015 but has then remained stable at lower numbers. In the Anaktuvuk survey area, lamb numbers declined after the severe winter of 2012/13 and have since remained stable (Deacy 2022, pers. comm.; Schertz 2023, pers. comm.).

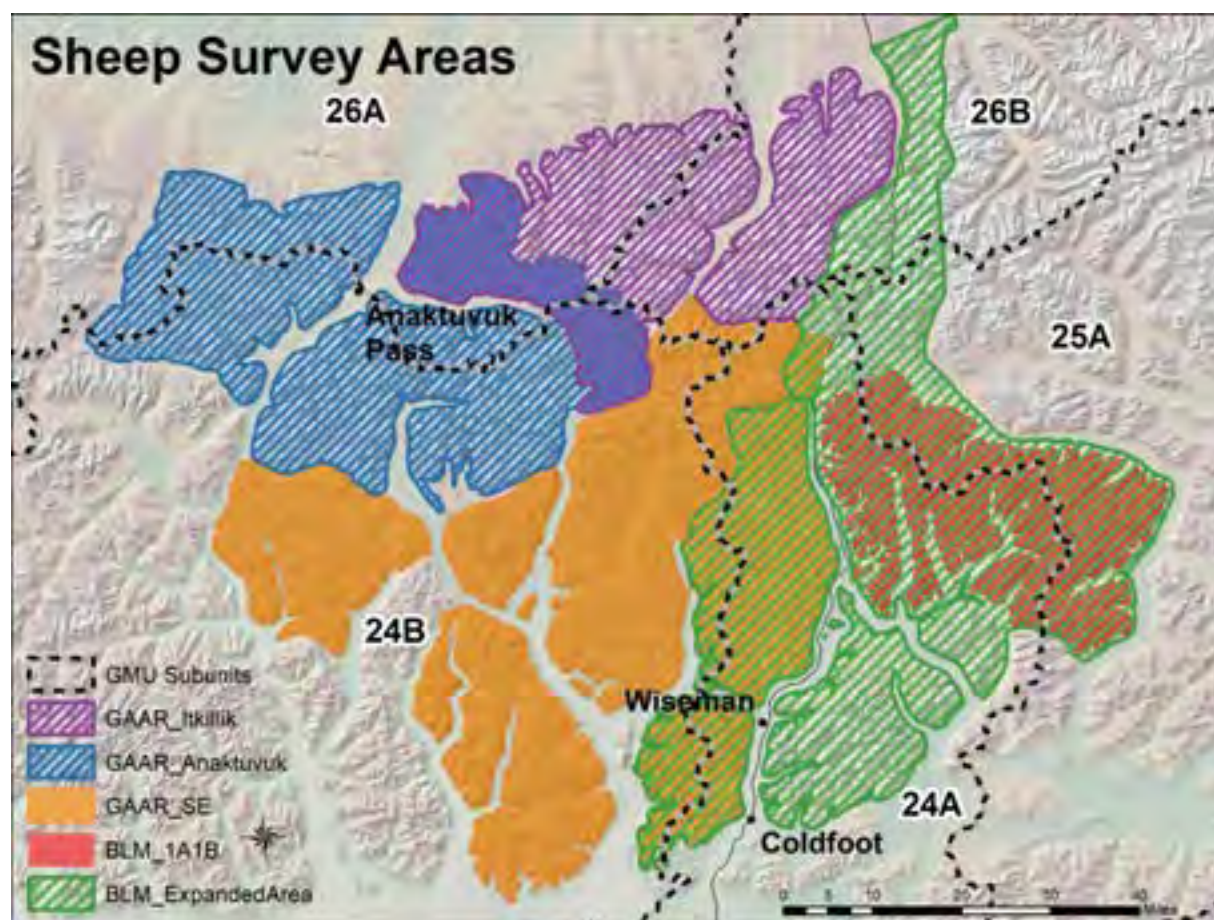


Figure 2. Map depicting survey areas of the NPS and BLM and hunt unit boundaries (Schertz 2023, pers. comm.)

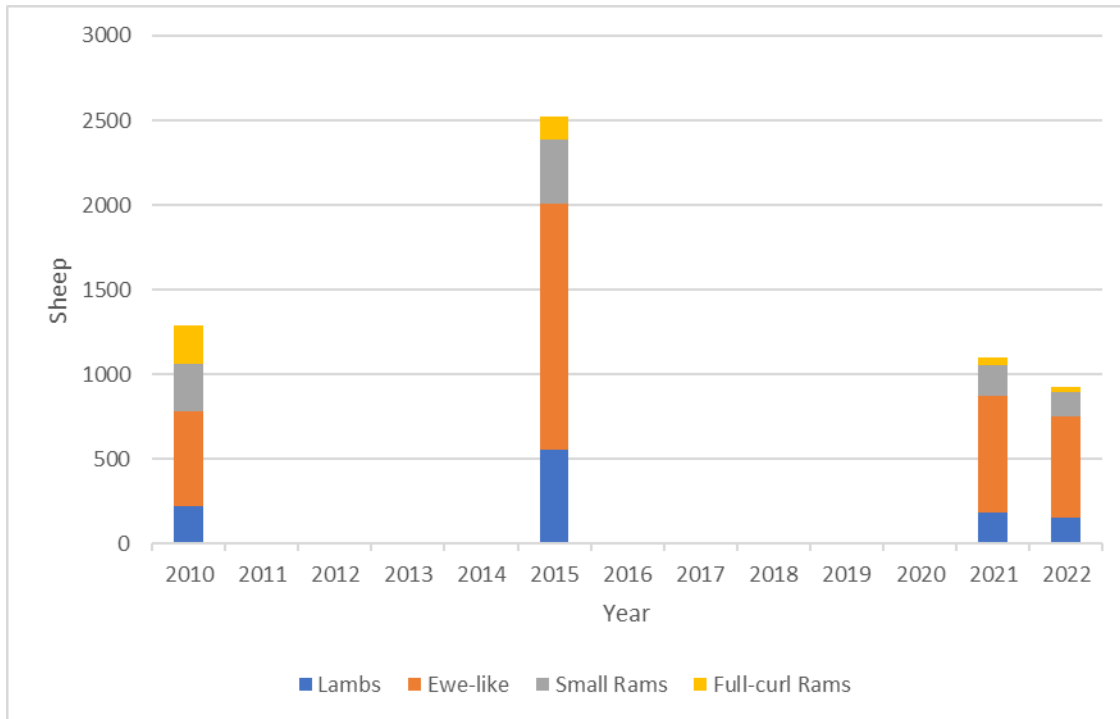


Figure 3. NPS sheep population estimates for the SE GAAR survey area (Deacy 2022, pers. comm.; Schertz 2023, pers. comm.)

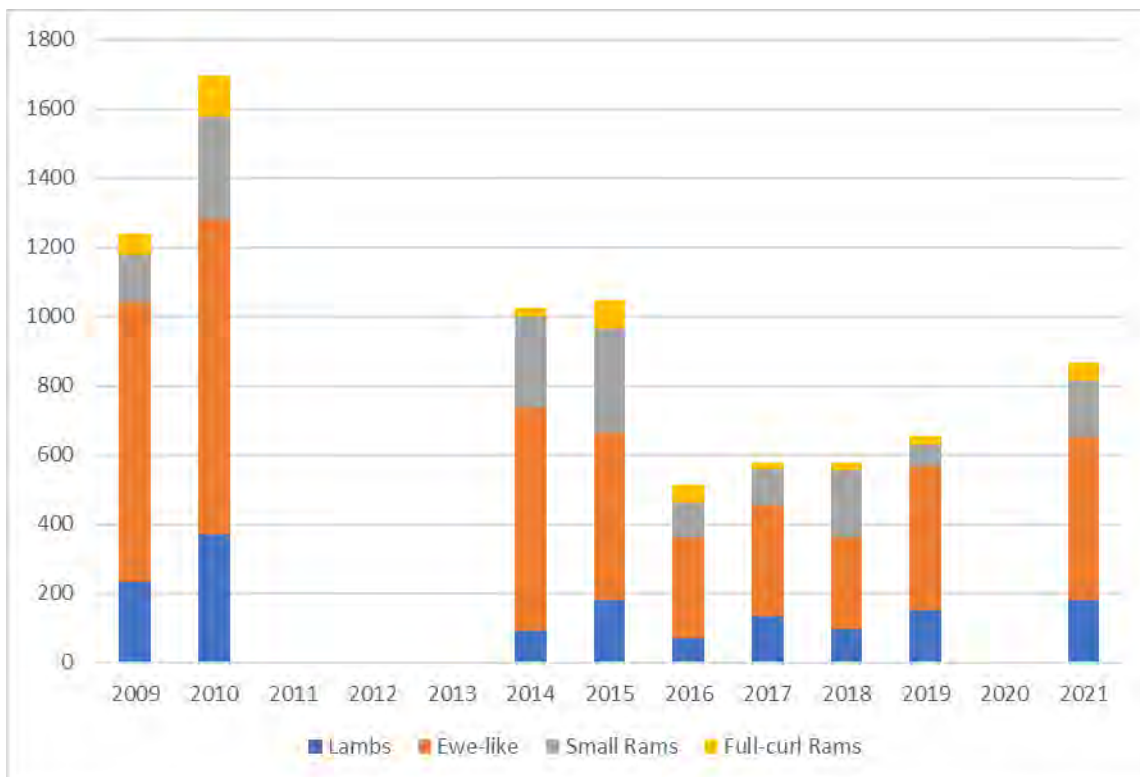


Figure 4. NPS sheep population estimates for the Anaktuvuk survey area (Deacy 2022, pers. comm.; Schertz 2023, pers. comm.).

Table 1. Lamb and ram to ewe-like ratios in SE GAAR and Anaktuvuk survey areas (Deacy 2022, pers. comm.; Schertz 2023, pers. comm.). Dash represents no data available.

	SE GAAR		Anaktuvuk Pass	
Year	Lambs: 100 Ewe-like	Rams: 100 Ewe-like	Lambs: 100 Ewe-like	Rams: 100 Ewe-like
2010	39	92	41	46
2015	38	35	38	81
2021	26	33	38	46
2022	27	29	-	-

Cultural Knowledge and Traditional Practices

Dall sheep are an important subsistence resource to residents of Allakaket, Alatna, Anaktuvuk Pass, Hughes, Huslia, Wiseman and Point Hope because of their value as a food source and their role in community ritual and worldview. The subsistence practices of the residents of Unit 24 reflect the cultural traditions of the Nunamiut Inupiat, Koyukon Athabascans, and Euro-American settlers. For some communities of the area, after caribou, sheep are one of the most valued subsistence resources in the Brooks Range. In a 1978 NPS study of the residents of Anaktuvuk Pass and the Upper Koyukuk, Nelson et al., reported on the significance of the sheep harvest to community members and the traditional knowledge they rely upon to harvest sheep in the Brooks Range:

To the subsistence dependent resident who makes intensive use of the wild resources, the surrounding terrain is a complex maze of micro-environments each with characteristics and potentials that make it unique from all others. Each river is a special river with a set of physical properties that must be learned if one is to effectively exploit its resources. Each herd in a river is different...The vegetation and ledges of one mountain favor sheep populations while the neighboring mountain is relatively barren (Nelson et al. 1978).

Communities in the region (other than Anaktuvuk Pass, which is not affected by this proposal) typically report harvesting fewer than ten sheep per year (**Tables 2 and 3**). The harvest patterns of the affected communities indicate long-term dependence on sheep, highly local sheep harvest, and variability in the number of sheep harvested.

Dall sheep is an important subsistence resource to rural residents of Unit 24 for multiple reasons. First, sheep are a valuable source of protein, particularly when other sources are not available. Subsistence harvesting is opportunistic and adaptive, and those living a subsistence way of life rely on having a diversity of options. An Anaktuvuk Pass resident described this strategy, “Yeah, old days there was not hardly any caribou, so our parents depended on sheep. There were a lot of sheep in this area...That’s what saved our hides” (Brown et al. 2016). This statement is supported by the trend in the reported number of sheep and other fish and wildlife harvested over time. When residents harvest less salmon and caribou, they rely more on sheep. For example, in 1973, the combined harvests of Alatna-Allakaket and Hughes included 518 caribou, 70 moose and 10 sheep (Marcotte and Haynes 1985;

Nelson et al. 1978). Then, in 1981–1982, the overall harvest of these communities was dominated by salmon (Marcotte and Haynes 1985). Mammal harvests comprised only 15% of the total harvest for all three communities, which included 61 moose, five caribou and five sheep (Marcotte and Haynes 1985). Decades later, in 2011, as the size of salmon runs began to decrease, the salmon harvest comprised of only 27% of the total harvest of fish and wildlife and residents of Alatna-Allakaket harvested more wildlife including 124 caribou, 21 moose and four sheep (Hutchinson-Scarborough, L., D. Andersen, M. Marchioni 2012). The data demonstrates the role of sheep in the diet and food security of these communities: they depend on being able to harvest sheep and the number they harvest depends on availability of sheep and other subsistence resources.

A primary reason that sheep are an important subsistence resource for these communities is the cultural significance of traditional communal sheep hunting, a “rite of passage” (Hutchinson-Scarborough, L., D. Andersen, M. Marchioni 2012). Pollock Simon, Sr., a resident of Allakaket and a member of the Western Interior Council, spoke about the importance sheep hunting during a Council meeting in 2015. In response to a question on using household surveys to document sheep harvests, he said:

Yeah. A house-to-house survey would be ok, I guess. But I wanted to talk a little bit about the history of hunting in the mountains. Up by Alatna River, it's about 150 miles, 200 miles by boat. And traditionally our people have hunted sheep up in the mountains for years. In the 1940s, 1950s my father and my grandfather, you know, before outboard motors they poled up the Alatna River and spent a couple of months hunting sheep. And, due to not much meat in Allakaket those days, there's no moose and not much caribou. So, they have to hunt sheep in the summertime. They left—they'd go in July and come back in August, make raft and we don't have to go up and hunt sheep these times now, but I have two sons that want to keep up the tradition of going up into the mountains and looking for sheep you know. The take of sheep is pretty low in Allakaket and Alatna and Hughes. Not every year does the boys go off to hunt (WIRAC 2015b).

To Mr. Simon, Sr., the sheep hunt itself holds special meaning for his family and others in the area. He explained that it's critical to maintain the tradition of sheep hunting, particularly because the frequency of the hunt varies depending on subsistence needs and the availability of other protein sources. Likewise, Marcotte and Haynes (1985) noted that the significance of the hunt cannot be measured by units of harvest effort. They stated, “...participation rates and absolute harvest quantities are not synonymous with the relative importance or value placed on a cultural activity” (Marcotte and Haynes 1985). When harvested, sheep has special cultural meaning and significance. Sheep meat is a delicacy that is shared at celebrations (Brown et al. 2016; Hutchinson-Scarborough, L., D. Andersen, M. Marchioni 2012; Marcotte and Haynes, 1985). Furthermore, the activity of the communal sheep hunt provides additional harvest opportunities. Marcotte and Haynes (1985) reported that during their study, a single communal sheep hunt yielded five sheep, four caribou and four black bears. These findings demonstrate that sheep have a cultural importance that extends beyond community harvest counts.

Because sheep are important, residents are concerned about their declining populations in the Brooks Range. This concern is not new; over the last 20 years, the Western Interior and North Slope Councils

have addressed issues such as sheep health and conservation in the Brooks Range (NSRAC 2022; 2021; 2020; 2017a; 2017b; 2015; 1994 and WIRAC 2022; 2021a; 2021b; 2020; 2019a; 2019b; 2017; 2016a; 2016b; 2015a; 2015b; 2014; 1994). Community members have also stated their concerns about sheep populations. A resident of Anaktuvuk Pass described their observation of declining sheep populations, “The sheep numbers are going down within the past couple years...you just don’t see the daycares anymore—the ewes and the lambs hang out in big groups during the summer. You don’t see as much of those around anymore when you’re out in the country. You don’t see as many little babies running around” (Brown et al. 2016: 453).

In another study, residents commented that it was harder to find sheep and they had to travel more to find them which is expensive (Hazell 2012). Residents also described conflicts with non-local hunters. For example, one person said the noise from low flying “sport hunting planes” disturbs sheep and causes them to disperse, making it more difficult to harvest them (Hazell 2012). With less sheep being observed, residents are more sensitive about the impacts that others have on sheep population sizes and behaviors.

Table 2: Estimated Dall sheep harvest from Unit 24 communities 2022-2011. This table includes data from ADF&G and NPS, Gates of the Arctic National Park (Okada 2023) Blank cell indicates no survey conducted, 0 indicates a survey was conducted and no harvest was reported (Okada 2023; ADF&G 2022b; Koster and Holen 2015). Okada (2023) notes that Anaktuvuk Pass hunters may be harvesting sheep from Unit 26A and corporation lands (under State regulations) because there is a mosaic of Federal and corporation lands surrounding the community.

Community	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2011
Alatna	0	0	0	0	0	0					0
Allakaket	0	0	2	3	2	2		2			4
Anaktuvuk Pass	11				8		10	12	32	22	75
Bettles	0	0	0	0	0	0	0				0
Evansville	0	0	0	0	0	0	0				0
Huslia											
Wiseman	0	0	0	0	0	0	0				2

Harvest History

Federal harvest of sheep occurs within GAAR in Units 24A and 24B under Federal permit FS2411. FS2411 is a rather new permit, being initiated in 2016. This permit allows a harvest of up to 3 sheep, no more than one of which may be a ewe. This permit has been issued a total of 55 times from 2016-2021 to residents of Wiseman and Bettles/Evansville. (Note: This permit excludes residents of Alatna and Allakaket, who report to the National Park Service under a community harvest system). Although people have hunted under this permit, no harvest has been reported (**Figure 5**). Sheep harvests for the communities of Allakaket and Alatna are limited due to the need for conducive river conditions on the Alatna and John Rivers in order to access sheep hunting areas within GAAR by boat in August and

September. Sheep harvest numbers for both communities combined range from 2-4 sheep on average and there are only a handful of sheep hunters in each community (Holen et al. 2012). Twelve percent of Allakaket households participated in Dall's sheep hunts and 5% reported harvesting Dall's sheep in 2011 (Holen et al. 2012).

State regulations allow general season hunting outside of GAAR under a harvest ticket for most of Units 24A and 24B, with seasons from Aug. 10–Sept. 20 and a youth hunt from Aug. 1–5. A state hunt in a relatively small portion of Unit 24B (John River drainage) allows for the harvest of 3 sheep, one of which may be a ewe. Reported state harvest for this hunt area averaged 2.4 sheep/ year from 2013–2023 and is likely from non-federally qualified users, although these are from harvest tickets and may not be comprehensive (Stout 2023, pers. comm.).

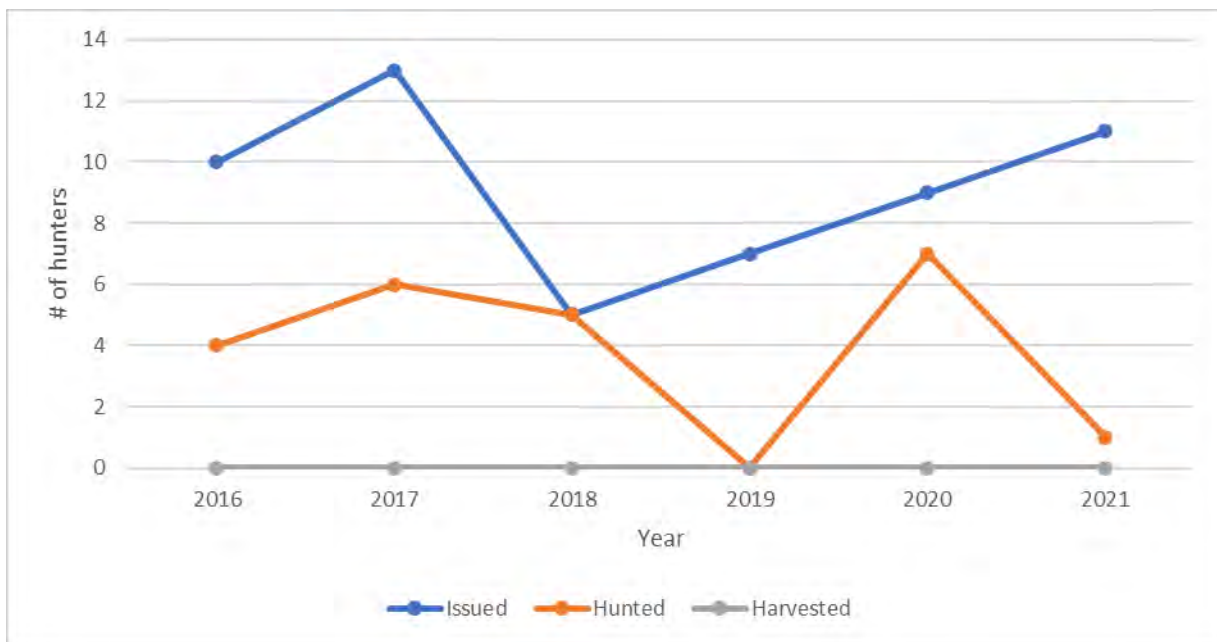


Figure 5. Reported harvest, permits hunted, and permits issued under Federal sheep permit FS2411 since inception in 2016 (OSM 2022; Julianus 2022, pers. comm.).

Effects of the Proposal

If this proposal is adopted, the Federal harvest limit within GAAR in Unit 24 will be reduced from 3 sheep, only one of which may be a ewe, to one ram. This would decrease opportunity for Federally qualified subsistence users. However, since no harvest has been reported under the FS2411 permit, it is likely that no one will be affected by this change. Sheep numbers are still declining within GAAR, especially within the southeast portion where most of the FS2411 hunter effort likely occurs. Eliminating ewe harvest and reducing the harvest limit may help increase productivity of the remaining sheep population and aid in its recovery.

OSM CONCLUSION

Support Proposal WP24-25.

Justification

A reduction in the harvest limit is warranted due to drastic declines in sheep abundance and poor composition metrics. Eliminating opportunity to harvest ewes will help assure they remain in the population, bolstering productivity and population recovery. Since few permits have been issued for this hunt, and no harvest has been reported, impacts to Federally qualified subsistence users is expected to be minimal, especially because they will still have opportunity to harvest one ram within the Unit 24 portion of GAAR.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Western Interior Alaska Subsistence Regional Advisory Council

Support WP24-25. The Council agrees with OSM's findings and justification. The drastic decline of the sheep population warrants a reduction of opportunity. Local residents have been witnessing the loss of population for a long time and feel the need to do something to help protect what is left. The Council supports their own proposal, and believes this proposal is warranted for additional protection of ewes in order to allow for faster recovery of this declining population.

INTERAGENCY STAFF COMMITTEE COMMENTS

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

ALASKA DEPARTMENT OF FISH AND GAME COMMENTS

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Alaska Department of Fish and Game Comments

Wildlife Proposal WP24-25

This proposal would reduce the sheep harvest limit in Game Management Units (Unit) 24A and 24B (excluding residents of Anaktuvuk Pass residents), that portion within Gates of the Arctic National Park (GAAR) from 3 sheep, no more than one of which may be a ewe, to one ram.

Position

The Alaska Department of Fish & Game (ADF&G) **OPPOSES** the adoption of this proposal. There is no reason to reduce sheep hunting opportunity for federal qualified users (FQU). This closure would have no potential biological benefit on the sheep population in the Brooks Range.

Background

The proponent submitted this proposal to address declining sheep populations in Unit 24. Recent sheep declines were likely caused by weather-related events and not by human harvest. Dall sheep in this area are managed using the conservative full-curl ram harvest management strategy, except for FQUs who can harvest any sheep. Current regulations allow for the harvest of no more than one ewe for FQUs in GAAR. Ewe harvest is indistinguishable from ram harvest in provided federal harvest data, but historically we know ewe harvest to be very low. The low harvest of ewes and the relatively low harvest by subsistence users on a large geographic scale make it unlikely that federal subsistence harvest could negatively impact the sheep population at the scale of the eastern Brooks Range. The additive average harvest from the three federal subsistence hunting opportunities, referenced below, was approximately 20 sheep per year. A harvest of 20 sheep per year could affect localized population dynamics but is insignificant when considering the effect on the eastern Brook Range sheep population.

Sheep are managed in the Brooks Range using the conservative full-curl management strategy. The full-curl management strategy is conservative because it focuses harvest pressure on 1) older-aged animals, 2) males, and 3) a small segment of the population. Dall sheep rams on average become full-curl at 8 years of age or older, and previous research has shown that these older rams have naturally higher mortality rates than younger aged rams. Therefore, when hunters harvest a full-curl ram, this has a lower impact on the population compared to harvesting a younger ram because there is a higher likelihood the older ram would have died of natural causes anyways. Additionally, limiting harvest to males-only reduces the impact of harvest on the overall population because male survival rates have a drastically lower impact on population growth compared to female survival rates. Finally, the full-curl strategy is extremely conservative because full-curl animals compose a very small proportion of most sheep populations. As a result, the number of animals that are legally available to hunters is a small proportion of the population and this imposes a self-limit on overharvest of the population. Taken collectively, the full-curl harvest strategy limits harvest to only older-aged rams and is thus a conservative, self-limiting strategy that allows for hunter opportunity while simultaneously preventing overharvest and has minimum impacts on population growth. Additionally, we can demonstrate that harvest fluctuates proportional to the number of full-curl

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rams in the population with the full-curl strategy, and harvest of each cohort is proportional to the recruitment of each respective cohort. Therefore, we have high confidence that harvest is dependent on cohort abundance. Harvest data from the Brooks Range (1987-2021; n = 7,476) demonstrates that on average 35% of legal rams harvested are harvested the first year they are legal (full-curl or 8-year-old), whereas 65% of rams are harvested greater than 9 years of age. This gives us confidence that all legal rams are not immediately harvested annually, that social structure tends to remain similar across a range of abundances with the full-curl management strategy, corroborating compensatory harvest.

Sheep trend count surveys conducted from 2002 to 2021 in a portion of Units 24A and 25A counted an average of 42 rams:100 ewe-likes. The ratio of 42 rams:100 ewe-likes, is comparable to other demographic estimates produced by the NPS (mean estimates from 2009-2021 in the Itkillik R. (42.9 rams:100 ewe-likes), from 2014-2021 near Anaktuvuk Pass (49.9 rams:100 ewe-likes), and from years 2010, 2015, 2021 in the GAAR total area (54.7 rams:100 ewe-likes)). A 42 ram:100 ewe ratio is relatively high M:F ratio compared to other harvested populations of ungulates. High ram: ewe-likes ratio's indicate human harvest is largely compensatory, despite recent declines. Recent sheep population declines were likely caused by severe winter conditions and declines will not be mitigated by a reduction in harvest.

There are three federal sheep hunts in Unit 24A and 26B. Permit FS2404 is for Unit 24A except that portion within GAAR. The 10-year average reported sheep harvest for federal permit FS2404 was 1 sheep. The 10-year average number of permits issued to hunt FS2404 was 11 permits. The second hunt is the FS2411 permit and the average reported harvest for from RY16 to RY22 was 3 sheep. The average number of FS2411 permits issued from RY16 to RY22 was 8.4 permits. Federal permit FS2411 is for harvest in Unit 24A and 24B, excluding Anaktuvuk Pass residents. Harvest by Anaktuvuk Pass residents is allowed under a community harvest quota in 24A or 26B and the data does not identify the proportion of harvest by subunit. The average sheep harvest from RY13 to RY22, by Anaktuvuk Pass residents was 15.8 sheep. Average total reported harvest for all federal permits is less than the State ANS (75-125).

Impact on Subsistence Users

If adopted this proposal would reduce harvest opportunities for federally qualified users in GMU 24 living north of the arctic circle, Allakaket, Alatna, Hughes, and Huslia (communities with a customary and traditional use determination for sheep in GMU 24).

Impact on Other Users

If adopted this proposal would not mitigate recent sheep declines. With no meaning biological effect being produced from the adoption of this proposal, no other users benefit. The adoption of this proposal does not reduce harvest opportunity for non-federally qualified users.

Opportunity Provided by State

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State customary and traditional use findings: The Alaska Board of Game (BOG) has determined positive customary and traditional use findings for Dall sheep in Unit 24.

Amounts Reasonably Necessary for Subsistence: Alaska state law requires the Board of Game to determine the amount of the harvestable portion of a game population that is reasonably necessary for customary and traditional uses. This is an ANS. The BOG does this by reviewing extensive harvest data from all Alaskans, collected either by ADF&G or from other sources.

ANS provides the BOG with guidelines on typical numbers of animals harvested for customary and traditional uses under normal conditions. Hunting regulations can be re-examined if harvests for customary and traditional uses consistently fall below ANS. This may be for many reasons: hunting regulations, changes in animal abundance or distribution, or changes in human use patterns, just to name a few.

The ANS for Dall sheep in Unit 24 is 75- 125 animals. There are multiple seasons and bag limits for Dall sheep in GMU 24A and 24B. 24A and 24B remainder is 1 ram (full-curl horn or larger) from Aug 10 – Oct 5, and a youth hunt from Aug 1 – Aug 5 with a bag limit of 1 legal ram. In 24B, within the John River drainage upstream from Till creek, and that portion within the Glacier River drainage, has a bag limit of three sheep (only one of which may be a ewe) from Aug 1 – Apr 30 for federally qualified subsistence users.

<u>Unit/Area</u>	<u>Bag Limit</u>	<u>Open Season (Permit/Hunt #)</u>	
		<u>Resident*</u>	<u>Nonresident</u>
24	1 Ram	Harvest Ticket	Harvest Ticket

* Subsistence and General Hunts.

Conservation Issues

Reducing harvest in the proposed area will have no meaningful biological effect on sheep populations in the Brooks Range.

Enforcement Issues

There are no anticipated enforcement issues associated with this proposal.

WP24-26 Executive Summary	
General Description	WP24-26 requests that Dall's sheep hunting on Federal public lands in Unit 24A and Unit 26B, west of the Sagavanirktok River be closed to all users for the 2024-2026 wildlife regulatory cycle. This would be a two-year continuation of the closure initiated by Wildlife Special Action WSA22-02. <i>Submitted by the Western Interior Alaska Subsistence Regional Advisory Council.</i>
Proposed Regulation	<p>Unit 24–Sheep</p> <p><i>Unit 24A, except that portion within the Gates of the Arctic National Park - 1 ram by Federal registration permit only</i> Aug. 20-Sep. 30.</p> <p><i>Federal public lands are closed to the taking of sheep for the 2024/25 and 2025/26 regulatory years for all users.</i></p> <p><i>Units 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, with exception for residents of Alatna and Allakaket who will report by a National Park Service community harvest system</i> Aug. 1-Apr. 30.</p> <p><i>Federal public lands within Unit 24A are closed to the taking of sheep for the 2024/25 and 2025/26 regulatory years for all users.</i></p> <p>Unit 26–Sheep</p> <p><i>Unit 26B, that portion within the Dalton Highway Corridor Management Area - 1 ram with 7/8 curl or larger horn by Federal registration permit only</i> Aug. 10-Sep. 20.</p> <p><i>Federal public lands in Unit 26B, west of the Sagavanirktok River are closed to the taking of sheep for the 2024/25 and 2025/26 regulatory years for all users.</i></p> <p><i>Unit 26A, remainder and 26B, remainder, including the Gates of the Arctic National Preserve - 1 ram with 7/8 curl or larger horn</i> Aug. 10-Sep. 20.</p>

WP24-26 Executive Summary	
	<i>Federal public lands in Unit 26B, west of the Sagavanirktok River are closed to the taking of sheep for the 2024/25 and 2025/26 regulatory years for all users.</i>
OSM Conclusion	Support Proposal WP24-26
Western Interior Alaska Subsistence Regional Advisory Council Recommendation	Support
North Slope Subsistence Regional Advisory Council Recommendation	The North Slope Council considered this proposal at their March 2024 meeting, which was after the deadline for the Federal Subsistence Board meeting book.
Interagency Staff Committee Comments	<p>There are serious concerns about the viability of the Dall's sheep population along the Dalton Highway Corridor Management Area (DHCMA). Recent population estimates and minimal count surveys indicate substantial declines in legal rams, ewes, and lambs in most survey areas along the DHCMA. Severe weather conditions, including extended winters and rain on snow events are thought to be a major factor in the population declines for sheep in Units 24A and 26B. Declines in the sheep population within the DHCMA are of concern to rural subsistence users that rely on local populations in close proximity to where they live.</p> <p>ANILCA Section 816(b) allows for closure of Federal public lands to the harvest of fish and wildlife “for reasons of public safety, administration, or to assure the continued viability of a particular fish or wildlife population.” The proponent for WP24-26 believes that the current closure of Dall's sheep hunting by all users authorized by the Board with Temporary Special Action WSA22-02 should continue through the 2024-2026 wildlife regulatory cycle and will help protect the breeding population in the affected area. No harvestable surplus of mature rams is currently available, and any legal rams left are needed for effective breeding to maximize lamb production.</p> <p>Historically, most of the sheep harvest in the areas subject to this proposal has been by non-Federally qualified users. Since there are very few, if any, legal rams available for harvest in the area, closure of hunting by non-rural users could provide</p>

WP24-26 Executive Summary	
	for conservation of healthy populations of sheep and allow for continuation of subsistence uses of sheep. Closure to all users is likely to help ensure the continued viability of the Dall's sheep populations in the DHCMA. Although sheep harvest by Federally qualified subsistence users is low, sheep numbers are low enough that any additional mortality from harvest may be unsustainable and could slow natural recovery of Dall's sheep in the area.
ADF&G Position	Oppose
Written Public Comments	None

STAFF ANALYSIS

WP24-26

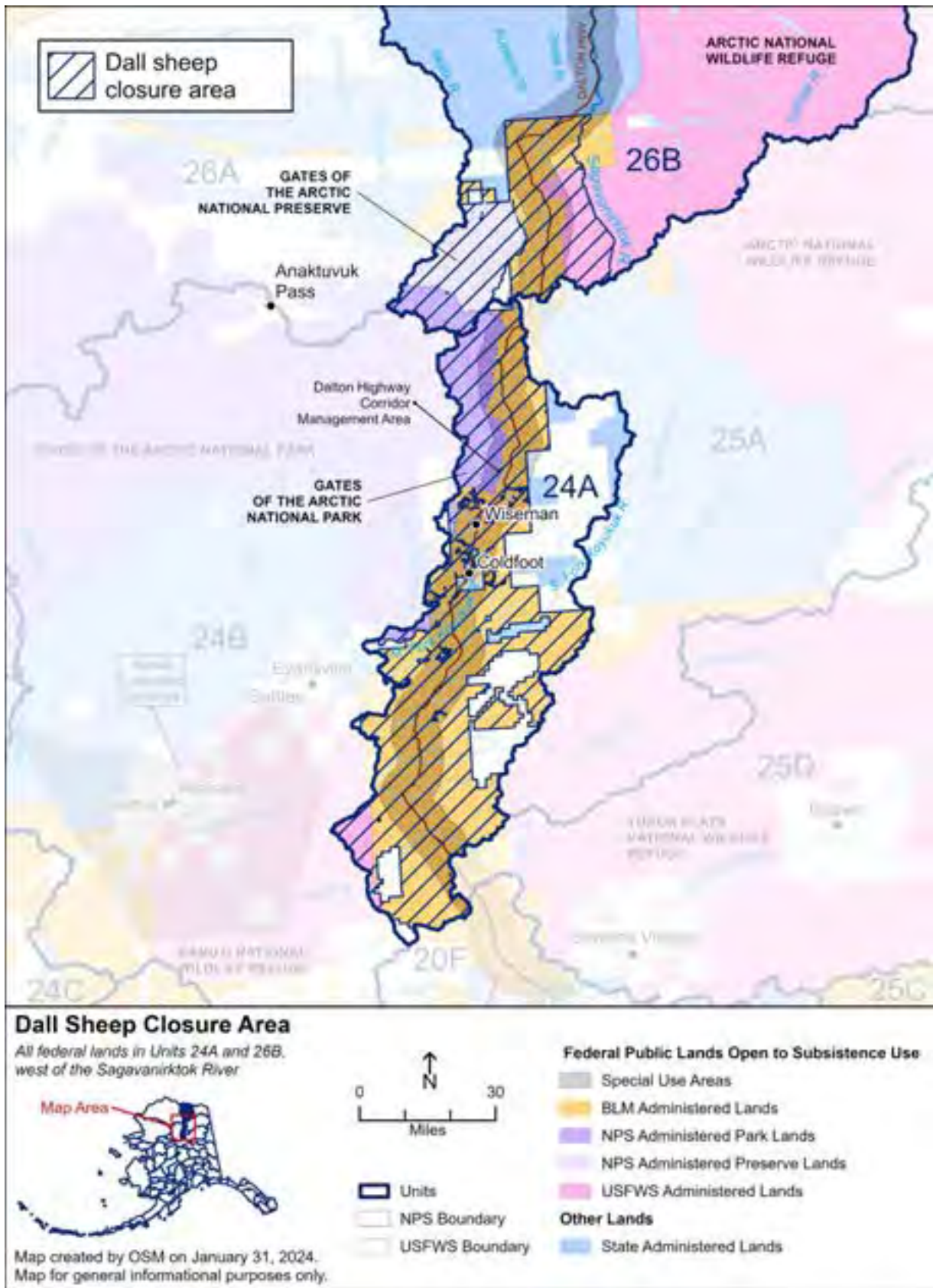
ISSUES

Wildlife Proposal WP24-26, submitted by the Western Interior Alaska Subsistence Regional Advisory Council (Council), requests that Dall's sheep hunting on Federal public lands in Unit 24A and Unit 26B, west of the Sagavanirktok River be closed to all users for the 2024-2026 wildlife regulatory cycle. This would be a two-year continuation of the closure initiated by Wildlife Special Action WSA22-02.

DISCUSSION

The Council feels the sheep population in Units 24A and 26B, west of the Sagavanirktok River are still experiencing winter hardships in 2022–23 and a reduced population. Very few mature, breeding age rams remain in the population, and continuing this closure for two more years will contribute to the overall breeding population, thereby aiding in overall population recovery and conservation. These diminished sheep populations cannot support any harvest or intensive hunting pressure.

Additionally, the Council feels that incidental harvest of sub-legal rams has contributed to the low numbers of breeding-age rams. This Council has also submitted an Agenda Change Request (ACR) to the Alaska Board of Game (BOG) requesting that counting annual horn rings and segments be eliminated statewide as a method for determining whether a sheep qualifies as a legal ram (i.e., full-curl horn) for harvest. This criterion is believed to result in many illegal ram harvests because hunters miscount horn rings in the field. Eliminating this criterion may curtail the take of sub-legal rams statewide, but especially within these units. The Council also submitted a regional proposal to the BOG to the same effect. If the BOG approves the statewide ACR or regional proposal, the proponent suggests there may be no need to continue the closure of Federal public lands in Unit 24A and part of Unit 26B for two more years since many incidental harvests will be precluded and therefore, more mature rams will survive for breeding.



Existing Federal Regulation

Unit 24–Sheep

Unit 24A, except that portion within the Gates of the Arctic National Park - 1 ram by Federal registration permit only Aug. 20-Sep. 30.

Units 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, with exception for residents of Alatna and Allakaket who will report by a National Park Service community harvest system Aug. 1-Apr. 30.

Unit 26–Sheep

Unit 26B, that portion within the Dalton Highway Corridor Management Area - 1 ram with 7/8 curl or larger horn by Federal registration permit only Aug. 10-Sep. 20.

Unit 26A, remainder and 26B, remainder, including the Gates of the Arctic National Preserve - 1 ram with 7/8 curl or larger horn Aug. 10-Sep. 20.

Proposed Federal Regulation

Unit 24–Sheep

Unit 24A, except that portion within the Gates of the Arctic National Park - 1 ram by Federal registration permit only Aug. 20-Sep. 30.

Federal public lands are closed to the taking of sheep for the 2024/25 and 2025/26 regulatory years for all users.

Units 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, with exception for residents of Alatna and Allakaket who will report by a National Park Service community harvest system Aug. 1-Apr. 30.

Unit 24–Sheep

Federal public lands within Unit 24A are closed to the taking of sheep for the 2024/25 and 2025/26 regulatory years for all users.

Unit 26–Sheep

Unit 26B, that portion within the Dalton Highway Corridor Management Area - 1 ram with 7/8 curl or larger horn by Federal registration permit only Aug. 10-Sep. 20.

Federal public lands in Unit 26B, west of the Sagavanirktok River are closed to the taking of sheep for the 2024/25 and 2025/26 regulatory years for all users.

Unit 26A, remainder and 26B, remainder, including the Gates of the Arctic National Preserve - 1 ram with 7/8 curl or larger horn Aug. 10-Sep. 20.

Federal public lands in Unit 26B, west of the Sagavanirktok River are closed to the taking of sheep for the 2024/25 and 2025/26 regulatory years for all users.

Existing State Regulation**Unit 24–Sheep**

<i>24A within the Dalton Highway Corridor Management Area</i>	<i>Residents: One ram with full-curl horn or larger. Youth hunt only</i>	<i>HT</i>	<i>Aug 1-Aug 5</i>
	<i>Non-residents: One ram with full-curl horn or larger every four regulatory years. Youth hunt only</i>	<i>HT</i>	<i>Aug 1-Aug 5</i>
	<i>Residents: One ram with full-curl horn or larger</i>	<i>HT</i>	<i>Aug 10-Oct 5</i>
	<i>Non-residents: One ram with full-curl horn or larger every four regulatory years.</i>	<i>HT</i>	<i>Aug 10-Oct 5</i>
<i>24A remainder</i>	<i>Residents: One ram with full-curl horn or larger. Youth hunt only</i>	<i>HT</i>	<i>Aug 1-Aug 5</i>

<i>Non-residents: One ram with full-curl horn or larger every four regulatory years. Youth hunt only</i>	<i>HT</i>	<i>Aug 1-Aug 5</i>
<i>Residents: One ram with full-curl horn or larger</i>	<i>HT</i>	<i>Aug 10-Sep 20</i>
<i>Non-residents: One ram with full-curl horn or larger every four regulatory years.</i>	<i>HT</i>	<i>Aug 10-Sep 20</i>

Unit 26—Sheep

<i>26A & 26B private lands within Gates of the Arctic National Park</i>	<i>Residents: Three sheep</i>	<i>HT</i>	<i>Aug 1-Apr 30</i>
	<i>Non-residents</i>	<i>HT</i>	<i>No open season</i>
<i>26B within the Dalton Highway Corridor Management Area</i>	<i>Residents: One ram with full-curl horn or larger. Youth hunt only</i>	<i>HT</i>	<i>Aug 1-Aug 5</i>
	<i>Non-residents: One ram with full-curl horn or larger every four regulatory years. Youth hunt only</i>	<i>HT</i>	<i>Aug 1-Aug 5</i>
	<i>Residents: One ram with full-curl horn or larger</i>	<i>HT</i>	<i>Aug 10-Oct 5</i>
	<i>Non-residents: One ram with full-curl horn or larger every four regulatory years.</i>	<i>HT</i>	<i>Aug 10-Oct 5</i>
<i>26A & 26B remainder</i>	<i>Residents: One ram with full-curl horn or larger. Youth hunt only</i>	<i>HT</i>	<i>Aug 1-Aug 5</i>
	<i>Non-residents: One ram with full-curl horn or larger every four regulatory years. Youth hunt only</i>	<i>HT</i>	<i>Aug 1-Aug 5</i>
	<i>Residents: One ram with full-curl horn or larger</i>	<i>HT</i>	<i>Aug 10-Sep 20</i>
	<i>Non-residents: One ram with full-curl horn or larger every four regulatory years.</i>	<i>HT</i>	<i>Aug 10-Sep 20</i>

Extent of Federal Public Lands/Waters

Unit 24A is comprised of 72% Federal public lands and consist of 59% Bureau of Land Management (BLM), 11% National Park Service (NPS) and 2% U.S. Fish and Wildlife Service (USFWS) managed lands.

Unit 26B is comprised of 29% Federal public lands and consist of 23% USFWS, 4% BLM and 3% NPS managed lands.

Customary and Traditional Use Determinations

Residents of Unit 24 residing north of the Arctic Circle, Allakaket, Alatna, Hughes and Huslia have a customary and traditional use determination for sheep in Unit 24.

Residents of Unit 26, Anaktuvuk Pass, Point Hope and Wiseman have a customary and traditional use determination for sheep in Unit 26B.

Residents of Alatna, Allakaket, Ambler, Anaktuvuk Pass, Bettles, Evansville, Hughes, Kobuk, Nuiqsut, Shungnak, and Wiseman comprise the resident zone communities of Gates of the Arctic National Park (GAAR).

Regulatory History

In 1992, the Federal Subsistence Board (Board) adopted Proposal 118 requiring a Federal registration permit for sheep hunting in the Dalton Highway Corridor Management Area (DHCMA) in Units 24 and 26B. This proposal set a harvest limit of one ram with 7/8-curl horn or larger and a season of Aug. 10–Sept. 20. Prior to Proposal 118 being adopted, there was no Federal permit requirements for sheep within the DHCMA.

In 1994, ADF&G submitted Proposal P94-85 to change the horn size of legal rams in Unit 26 outside of Gates of the Arctic National Park and Preserve (GAAR) from 7/8 to a full-curl ram. The Board did not adopt this proposal as it would have restricted Federally qualified subsistence users.

In 2004, the Board adopted Proposal WP04-57 with modification, which shifted the season for sheep in a portion of Unit 24 (that portion within the DHCMA except for GAAR) from Aug. 10–Sept. 20 to Aug. 20–Sept. 30. The shift of the season provided additional subsistence hunting opportunity after the end of the moose season, recognizing that there would be little to no increase in sheep harvested due to the limited number of qualified hunters, the 7/8-curl horn restriction and the low reported harvest at that time.

In 2006, the Board adopted Proposal WP06-69, submitted by ADF&G, which requested that sheep regulations for Unit 24 be modified to reduce regulatory complexity. Unit 24 had recently been divided into subunits under State regulations and the proposal requested incorporating the new subunit descriptions into Federal regulations. The regulatory language established the current hunt area descriptor for the Federal hunt in Unit 24A to exclude that portion within GAAR.

In 2012, Wildlife Special Action WSA12-01 was submitted by the Council and requested Federally qualified subsistence users be allowed to harvest ½ curl horn or larger rams in Unit 24A for the 2012 season. This was approved by the Board based on a stable sheep population estimates within the DHCMA and in the adjacent areas of GAAR. Additionally, with low Federal harvest rates, there would be little impact on sheep population in the area.

In 2014, Wildlife Proposal WP14-30 submitted by the Council requested the harvest limit for sheep in Unit 24A, except that portion within the GAAR be changed from 1 ram with 7/8-curl horn or larger to 1 ram. This proposal was unanimously adopted to allow greater subsistence priority.

In the Western Brooks Range, the BOG adopted Proposal 203 in 2015, which closed all sheep seasons in Unit 23 and in Unit 26A, west of Howard Pass and the Etivluk River in response to the drastic sheep population declines in the area. Sheep seasons in Unit 23 have remained closed under State regulations. In 2016, the Board adopted Proposal WP16-53 with modification to establish may-be-announced sheep seasons in the Baird and DeLong Mountain hunt areas of Unit 23 and delegated authority to the Western Arctic National Parklands (WEAR) superintendent to manage the hunt. A Federal season has never been announced as the Unit 23 and 26A sheep populations have not recovered.

In 2020, the BOG adopted Proposal 84, extending the State sheep season from Aug. 10–Sep. 20 to Aug. 10–Oct. 5 within the DHCMA in Units 24A, 25A, and 26B. This was approved because of the low numbers of sheep harvested within the DHCMA, the belief that few hunters would or could access the area in late September/early October and a stable sheep population. It was the majority consensus that this would have little to no impact on the sheep population. One member of the BOG opposed this proposal because the Koyukuk River Advisory Committee opposed it.

In July of 2022, the Board approved Wildlife Special Action WSA22-02 and closed Federal public lands in Units 24A and 26B, west of the Sagavanirktok River to the harvest of sheep by all users for the 2022/23 and 2023/24 regulatory years. The Board agreed with the OSM conclusion that sheep population viability concerns warranted the closure. The sheep population within the Dalton Highway Corridor Management Area had declined substantially as result of severe winter weather and harvest. They also considered traditional ecological knowledge of local residents in addition to the biological data presented. The Board noted that the North Slope and Western Interior Councils both supported the closure and that subsistence users were willing to forego harvest by including themselves in the two-year closure as well.

Dalton Highway Corridor Management Area

Under Federal regulations, “You may not use firearms, snowmobiles, licensed highway vehicles or motorized vehicles, except aircraft and boats, in the Dalton Highway Corridor Management Area, which consists of those portions of Units 20, 24, 25, and 26 extending 5 miles from each side of the Dalton Highway from the Yukon River to milepost 300 of the Dalton Highway, except as follows: Residents living within the Dalton Highway Corridor Management Area may use snowmobiles only for the subsistence taking of wildlife. You may use licensed highway vehicles only on designated roads within the Dalton Highway Corridor Management Area. The residents of Alatna, Allakaket, Anaktuvuk Pass, Bettles, Evansville, Stevens Village, and residents living within the Corridor may use firearms within the Corridor only for subsistence taking of wildlife.”

The DHCMA also occurs under State regulations but was modified for the 2022 regulatory year. At their 2021 Statewide Regulations meeting, the BOG adopted Proposal 172 as amended to remove the restrictions on transporting game and hunting equipment by motor vehicle within the DHCMA. These

modifications were adopted because overlapping statutes and regulations were conflicting and resulted in unintended consequences such as homesteaders being unable to legally access their property by motor vehicle.

Under State regulations, the DHCMA consists of those portions of Units 20 and 24 - 26 extending five miles from each side of the Dalton Highway, including the drivable surface of the Dalton Highway, from the Yukon River to the Arctic Ocean, and including the Prudhoe Bay Closed Area; the area within the Prudhoe Bay Closed Area is closed to the taking of big game; the remainder of the DHCMA is closed to hunting; however, big game, small game, and fur animals may be taken in the area by bow and arrow only, and small game may be taken by falconry; and furbearers may be taken by trapping; any hunter traveling on the Dalton Highway must stop at any check station operated by the department within the DHCMA (ADF&G 2022a).

Current Events

The Western Interior Council also submitted Proposal WP24-25, to reduce the sheep harvest limit in Units 24A and 24B (excluding residents of Anaktuvuk Pass), that portion within Gates of the Arctic National Park (GAAR) from 3 sheep, no more than one of which may be a ewe, to 1 ram.

The BOG will consider many State proposals concerning sheep in Units 24A and 26B at their March 2024 meeting. Proposals 43, 44, and 45 are all asking to reduce the Dall sheep harvest limit in Region 3. Specific to Unit 24, Proposal 141 is asking to close the youth sheep hunt, 142 is requesting to make portions of the unit archery only, and 143 asks to eliminate the extended archery season within the Dalton Highway Corridor Management Area. Proposals 144 and 158 are requesting to make the non-resident hunt in 24A and 26B a drawing permit. Proposals 159, 160, 161, and 162 all request to establish archery only Dall sheep seasons within Units 26B and 26C. Proposal 207, submitted by the Western Interior Council requests to change the statewide definition of “full-curl horn” for Dall sheep hunting by eliminating counting horn ring annuli as a criterion for determining harvest legality in the Interior and Eastern Arctic Regions.

In November 2023, the BOG rejected the Western Interior Council’s agenda change request to change the statewide definition of “full-curl horn” for Dall sheep hunting by eliminating counting horn ring annuli as a criterion, stating it would be more appropriately considered at the next Statewide regulatory meeting (BOG 2023).

Biological Background

Dall sheep may experience greater sensitivity to external influences, such as temperature and weather, because they occur at higher elevations and latitudes than other ungulates (Van de Kerk et al. 2020). They are found throughout the Brooks Range wherever suitable habitat exists.

In 1985, there was an estimated range wide population of 30,000 sheep that had been stable over the previous 10 years (Heimer 1985). This included an estimated 11,000 within the Arctic National Wildlife Refuge (ANWR), 3,000 between the western ANWR border and the Trans-Alaska Pipeline

and 12,000 within GAAR. The eastern Brooks Range (which includes lands within and east of the DHCMA) accounted for 13,000 of those sheep. This area experienced a decline during the 1990s, when it is estimated approximately 40% of the population was lost. The most likely cause of this decline was severe weather, such as freeze-thaw and rain on snow events, along with increased predation. After this population decline, few standardized surveys were conducted in the eastern Brooks Range. Available survey data, harvest reports and hunter observations indicated the sheep population had stabilized at lower numbers since the 1990s decline (Caikoski 2011).

Sheep surveys in the central Brooks Range (areas west of the DHCMA and within GAAR) were conducted mostly in GAAR and varied in size and type. The results of these surveys suggested a low sheep population from the 1970s through about 1982. Then from 1982-1984 the population increased and remained stable through 1987. The central Brooks Range population experienced a similar decline from 1987 to the mid-1990s (Caikoski 2018).

In October of 2022 the BOG held an informational sheep meeting to discuss the status of sheep populations statewide. While there were no hard numbers offered for recent surveys, the overall consensus was of a statewide population decline in which both hunted and unhunted sheep populations are declining. The Brooks Range sheep population experienced a 66% decline and while sheep populations regularly fluctuate, there has been a steady downward trend since about 2016 (BOG 2023).

Recent weather events have affected the sheep population in the central and eastern Brooks Range, like the extended winter weather in the spring of 2013 and rain on snow events in both October 2018 and March 2019. The extended winter of 2013 caused the end of the continuous snow season to last 6-19 days longer than normal (Rattenbury et al. 2018). Snow stayed on the ground long enough in GAAR to overlap with peak lambing season, which generally occurs in mid-May. This event had a dramatic effect on sheep populations, with a 39% reduction in the sheep abundance within the Itkillik area (Rattenbury et al. 2018). While this caused a decline in the total population of sheep, it dramatically lowered the lamb:ewe-like ratio. This decline is illustrated in data from ADF&G, BLM and NPS alike, and is discussed below.

ADF&G surveys one area of the central and eastern Brooks Range which is divided into two distinct survey units (1A/1B survey areas) and covers 800 mi² in eastern Unit 24A and western Unit 25A (**Figure 1**) (Caikoski 2018). These areas have been surveyed in July almost yearly since 2002. The purpose of these surveys is to obtain a minimum count of sheep as well as an index of sex and age composition and mid-summer lamb recruitment (Caikoski 2021). The minimum count survey results in an index to trend in abundance and composition over time in this geographic area (Caikoski 2018) and cannot be used to estimate total population numbers for the survey area or the Brooks Range sheep range. Surveys conducted on an infrequent basis make it difficult to establish short-term trends (Whitten 1997), which is the case with the minimum count surveys conducted by ADF&G (Caikoski 2018). However, dramatic changes of abundance are likely detectable with this methodology, but with the limited survey data available, the magnitude and extent of declines cannot be quantified (Caikoski 2018).

ADF&G minimum count data appeared stable through 2012 with an average of 1,398 total sheep from 2002-2012 (**Figure 2**). Then in the 2014 count, coinciding with the severe winter of 2013/14, the total count dropped to 827 sheep, 541 of which were “ewe-like”, and the lamb:ewe-like ratio dropped to 2:100. This cohort of lambs are the 8-year-olds that would have been legal rams to harvest in 2022. The 2022 sheep count increased slightly to 598 total sheep from the 2021 count of 469 (Stout 2023, pers. comm.). When survey results from 2014 are compared to results from the 2021 and 2022 surveys, the latest results show losses of 43% and 28% total sheep, respectively.

In recent years, a smaller percentage of the overall Dall sheep count has been comprised of rams. Since 2002 when surveys began, sheep counts averaged 24% rams. Of all rams counted from 2002-2022, an average of 12.8% were legal for harvest (full-curl or larger), which is 3.2% of total sheep counted. Since 2016, the number of rams counted in ADF&G surveys have decreased substantially (**Figure 3**). The number of legal rams at the last count in 2022 was 10, which is down from the 2021 count of 12 legal rams. Legal rams comprised only 1.7% of the 2022 total sheep count, down from 2.5% in 2021, although the total ram count increased slightly in 2022 (Caikoski 2021; Stout 2023, pers. comm.).

Mid-summer lamb recruitment is an indicator of productivity and survival of sheep in the study area. Sheep classified as ewe-like include adult female sheep, yearlings of both sexes and some 2-year-old rams. The lamb:100 ewe-likes ratio has averaged 24.6 lambs:100 ewe-likes since 2002 with the lowest ratio of 2:100 occurring in 2014 after a severe winter (**Figure 4**). In recent years, 2018 was higher-than-average at 36 lambs:100 ewe-likes, while 2021 was lower at 22 lamb:100 ewe-likes (Caikoski 2021). The lamb:100 ewe-like ratio further decreased to 18 in 2022 (Stout 2023, pers. comm.). However, the 2018-2022 ratios should be considered in the context of an overall lower sheep population. So even though these ratios are consistent with previous years, total ewe-like and lamb numbers are lower than pre-2018 surveys. These lower numbers of lambs may lead to fewer rams being available for harvest in the future.

The BLM Central Yukon Field Office surveys BLM and State managed lands for Dall sheep in the Brooks Range along the DHCMA in Units 24A, 25A and 26B during July, including the State 1A/1B survey areas (**Figure 1**). These surveys are conducted in cooperation with the NPS Arctic Inventory and Monitoring Network, which surveys two areas along the DHCMA: 1) Southeast Gates of the Arctic (SE GAAR) and 2) Itkillik (**Figure 5**). The BLM and NPS fly aerial distance sampling transects and use a Bayesian model to produce population estimates (rather than just trends) (Rattenbury 2017). This enables a smaller portion of the study area to be surveyed and produces an estimate of sheep not seen from the number of sheep that were counted (sightability function) to produce the final estimate. This method includes a measure of precision, called the credible interval or error range. An inherent weakness of sampling surveys is the estimate is only as good as the data used to derive it (Rattenbury 2017). Therefore, when fewer numbers of sheep are observed, the estimate has larger credible intervals, which indicates less precise estimates. Since these credible intervals are based on the total number of sightings from the survey, the results cannot be separated into smaller units. Therefore, Unit 26 data cannot be separated from Unit 24 data and still maintain the original accuracy achieved. Because of differing survey methodology, the ADF&G survey results are not directly comparable with the BLM/NPS survey results, but they still trend in concert with each other.

According to BLM surveys in the 1A/1B area, the estimated sheep population decreased from 1,103 sheep in 2018 to 341 sheep in 2021; then recovered somewhat in 2022 to an estimated 573 sheep, before dropping in 2023 to 219 (**Figure 6**) (Julianus 2023, pers. comm.; McMillan 2022, pers. comm.; Schertz 2023, pers. comm.). The estimated number of full-curl rams also increased from 5 in 2021 to 10 in 2022, before dropping back to 5 in the 2023 survey. 2021 was the first year an increase had been observed since 2016 when the number substantially declined from 45 full-curl rams to estimates of 7, 1 and 5 in 2017, 2018 and 2021, respectively.

The BLM full survey area encompasses the 1A/1B survey areas with more BLM managed lands along the DHCMA and includes some land in Unit 26B. The population estimate in the full survey area parallel the 1A/1B only estimates with 3,241 sheep in 2015, decreasing to 1,229 sheep in 2021, and increasing in 2022 to 1,648 sheep (**Figure 7**).

In the SE GAAR survey unit, NPS estimates peaked at 2,525 total sheep (95% Bayesian Credible Intervals [BCI] of 2,334–2,776) in 2015 (**Figure 8**). The estimate from the latest survey completed in 2022 was 923 sheep total (BCI 709–1,252, CV 15%), which is a 63.4% decline from the 2015 estimate (Deacy 2022, pers. comm.; Schertz 2023 pers. comm.) and a 16.1% decline over the 2021 estimate of 1,100 sheep. The Itkillik survey area also continued to decline, from 504 in 2021 to an estimated 438 in the 2022 survey (**Figure 9**).

Full-curl ram abundance in all survey areas has declined since 2016 (**Table 1**). In the BLM full survey area, legal ram numbers dropped from an estimated 59 rams in 2015 to 12 rams (BCI 0–44) in 2021 (**Table 1**), but then increased 71% to an estimated 41 rams in the 2022 survey (McMillan 2022, pers. comm.; Schertz 2023, pers. comm.). In 2015 full-curl rams accounted for 1.8% of the total estimated sheep population in the BLM full survey area; by 2021 that proportion fell almost in half, to .98%. Full-curl rams in the SE GAAR survey area declined 79%, from 137 rams in 2015 to 28 rams in 2022. Smaller ram abundance in the SE GAAR survey area did not decline as much, but still showed a decrease of 62%, from 379 rams in 2015 to 144 rams in 2022 (**Figure 8**) (Deacy 2022, pers. comm.).

Mid-summer lamb:100 ewe-likes ratios are also below the long-term (2009-2022) averages in all survey areas (**Table 2**). Since 2015, in all survey areas but the Itkillik, this ratio has declined an average 43%. The 2022 ratios are similar to the 2021 ratios. Extremely low ratios in 2013 and 2014 are likely a major cause of the very low full-curl ram abundance in recent years.

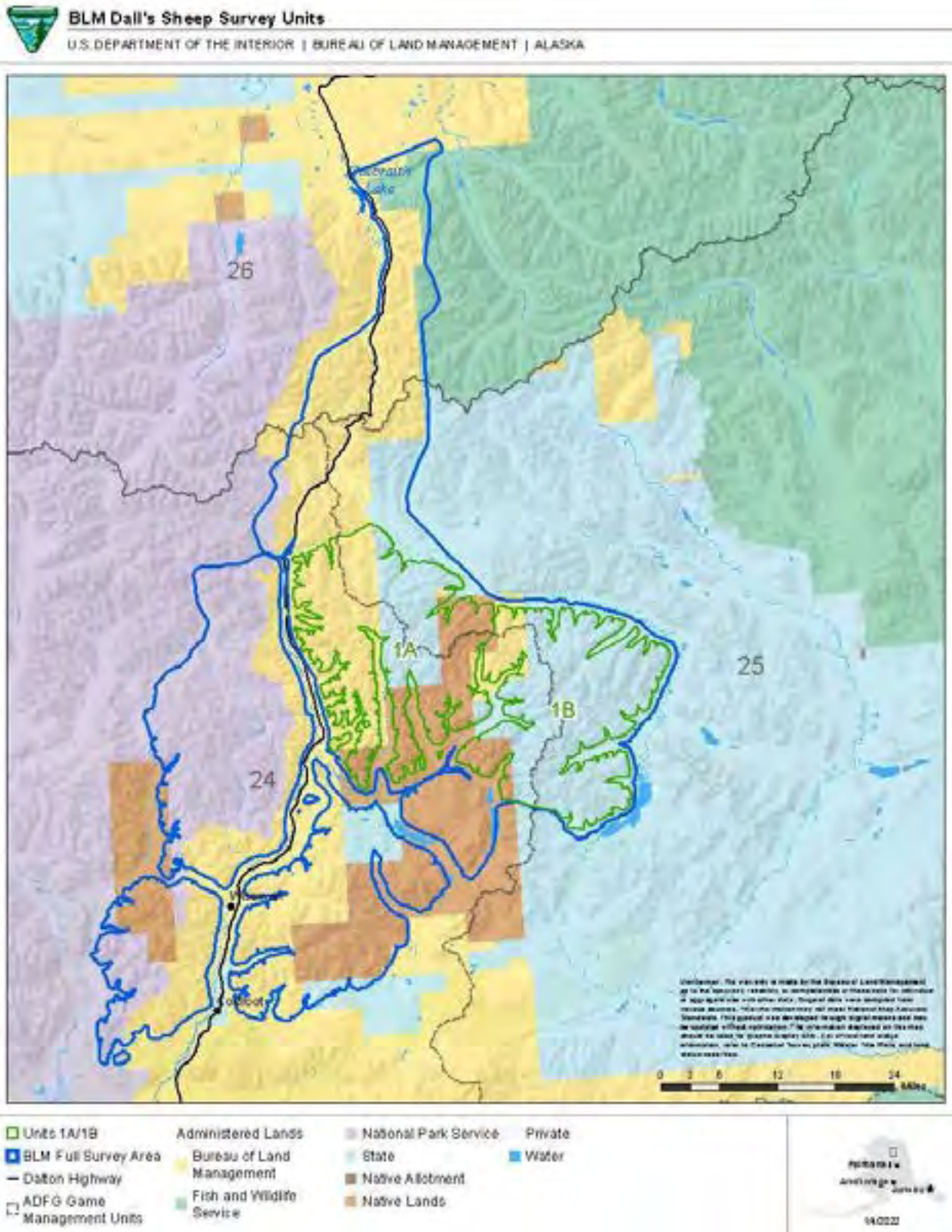


Figure 1. Eastern Unit 24A and western Unit 25A survey areas. ADF&G 1A/1B survey areas shown in green outline. BLM survey areas shown in blue outline (McMillan, 2022).

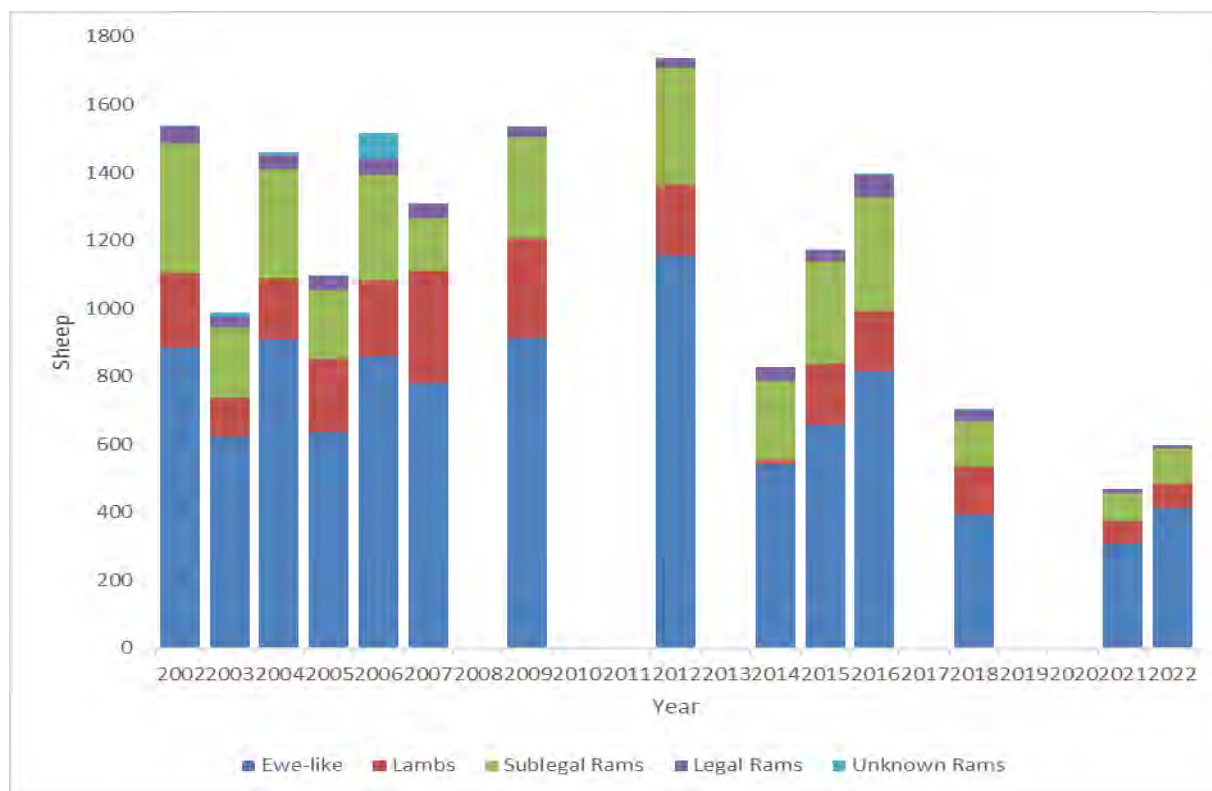


Figure 2. ADF&G minimum counts for 1A/1B survey areas. Ewe-like include adult female sheep, yearling sheep of both sexes and some 2-year-old rams. Legal rams include all full-curl and larger rams, sub-legal include all less than full-curl rams. (Caikoski, 2021).

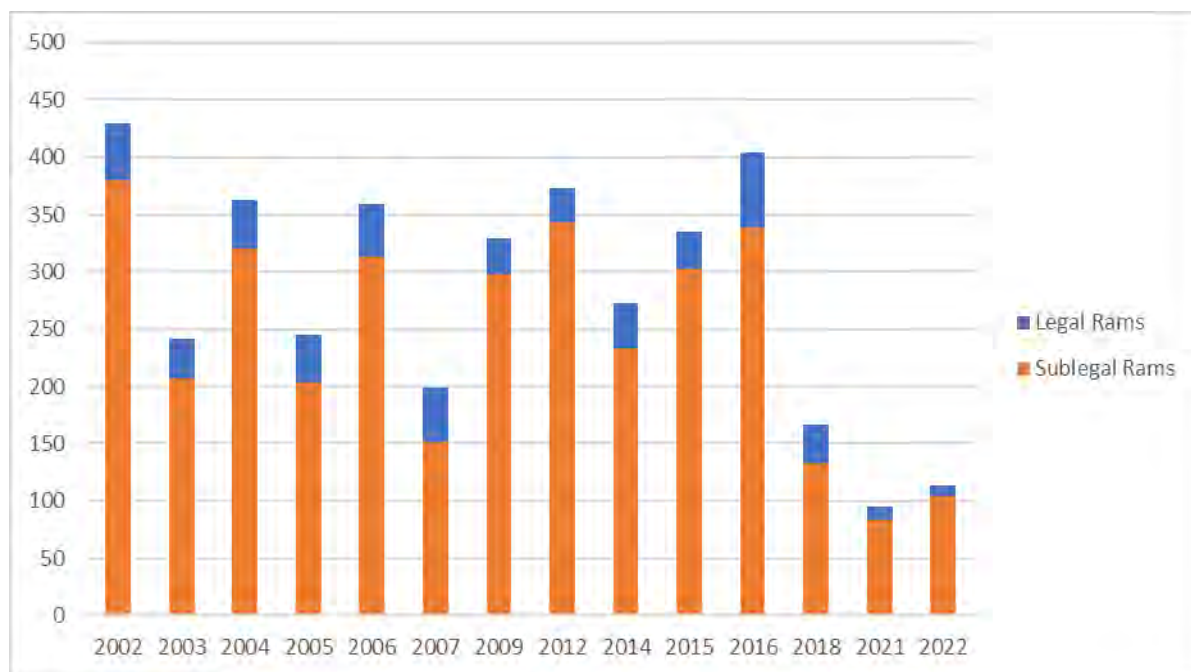


Figure 3. Minimum counts of sub-legal and legal rams from ADF&G minimum count surveys in 1A/1B survey areas since 2002 (Caikoski 2021).

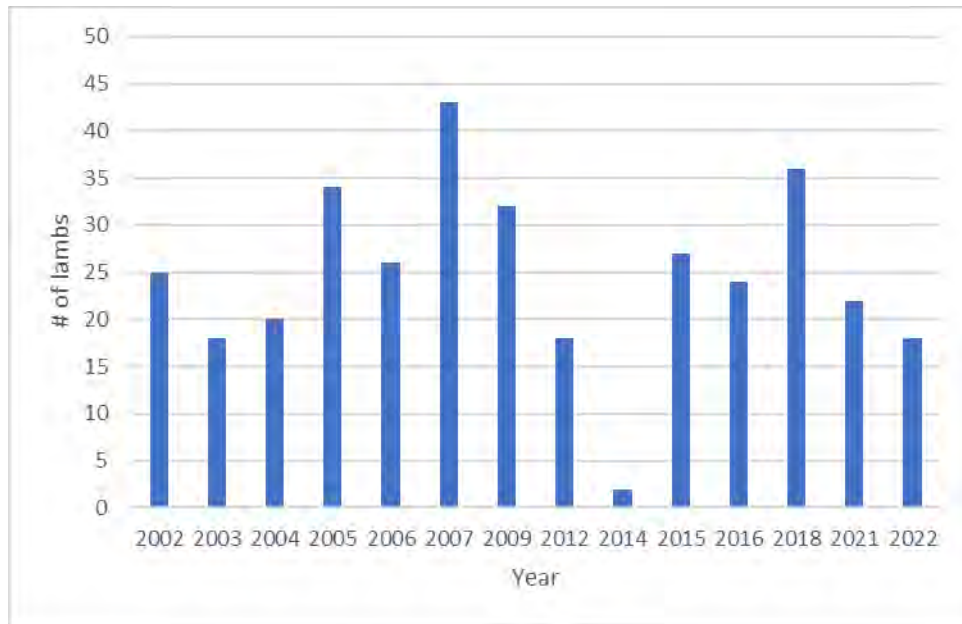


Figure 4. Ratios of lambs to 100 ewe-like sheep from ADF&G minimum count surveys in 1A/1B survey areas since 2002 (Caikoski 2021).

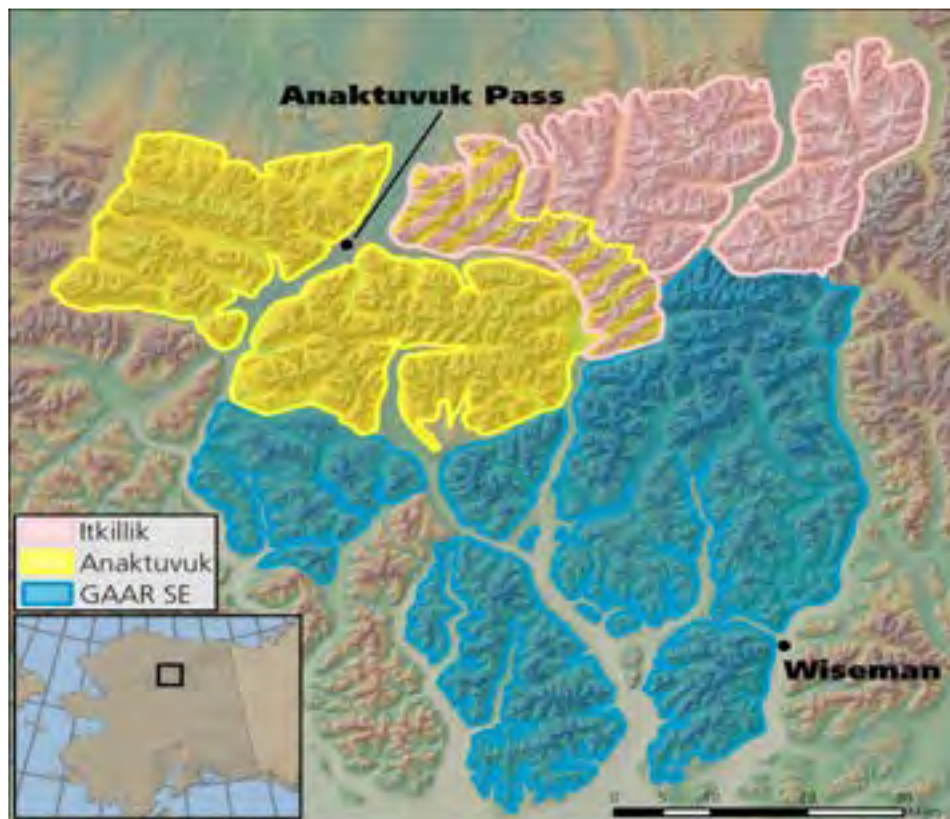


Figure 5. Gates of the Arctic Park and Preserve Dall sheep survey areas surveyed by the NPS (Deacy 2021). Only the GAAR SE and Itkillik survey areas are considered in this analysis. The Anaktuvuk survey area is outside the scope of this analysis.

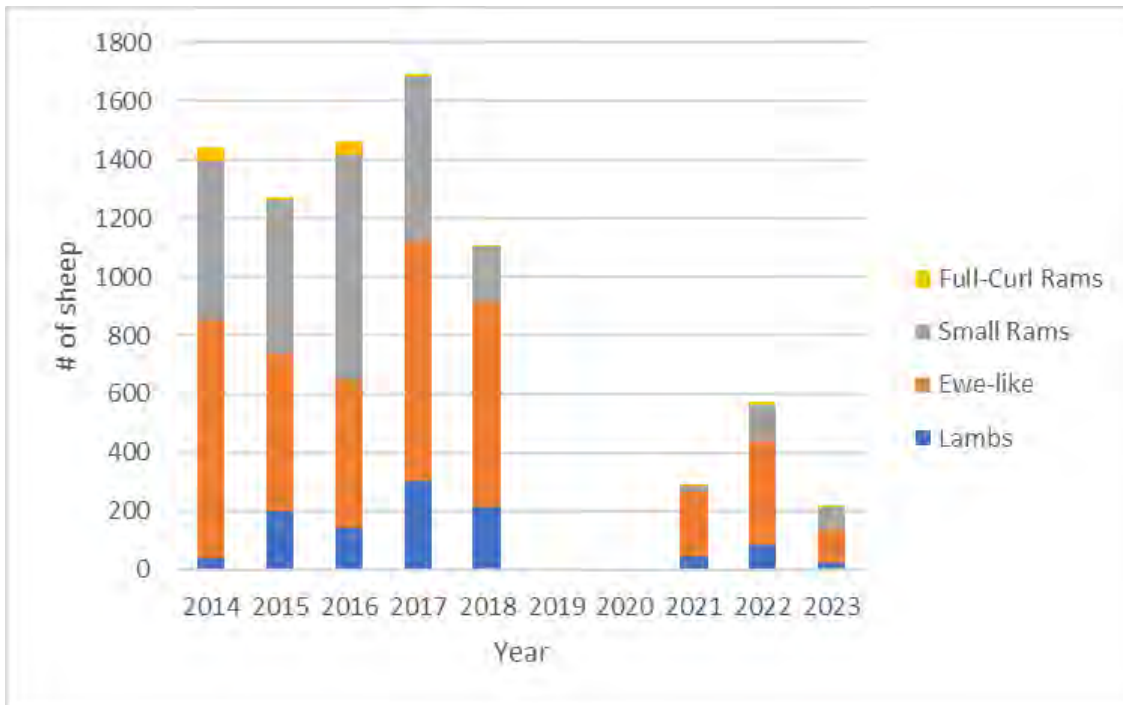


Figure 6. Population estimates from BLM/NPS in 1A/1B survey areas from 2014-2022 (McMillan 2022 pers. comm.; Schertz 2023, pers. comm.).

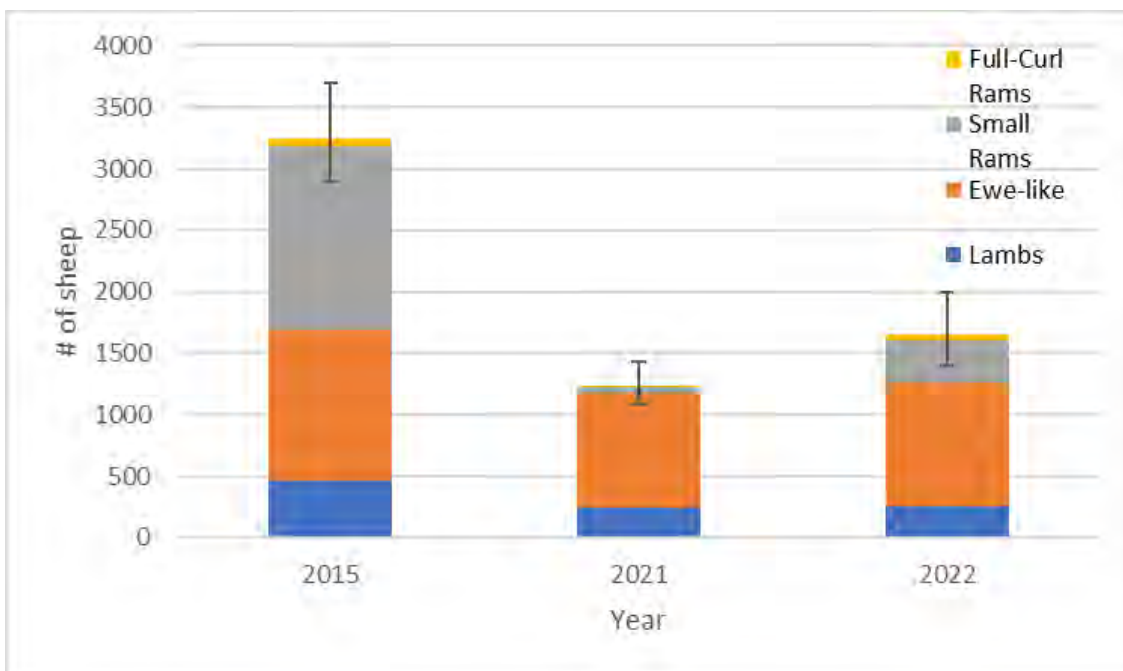


Figure 7. Population estimates from BLM/NPS surveys in full BLM survey area from 2015-2022 (McMillan 2022, pers. comm.; Schertz 2023, pers. comm.).

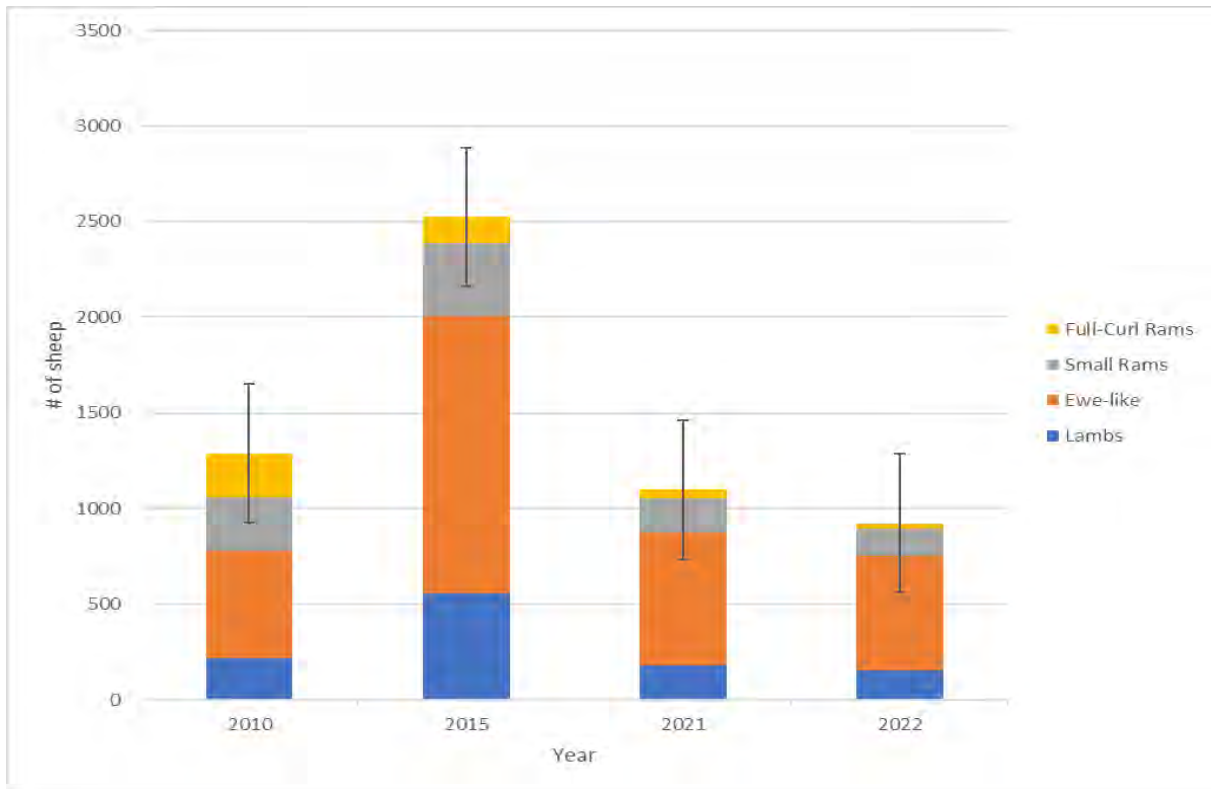


Figure 8. NPS population estimates for SE GAAR survey area from 2010–2022 (Deacy 2022, pers. comm.; Schertz 2023, pers. comm.).

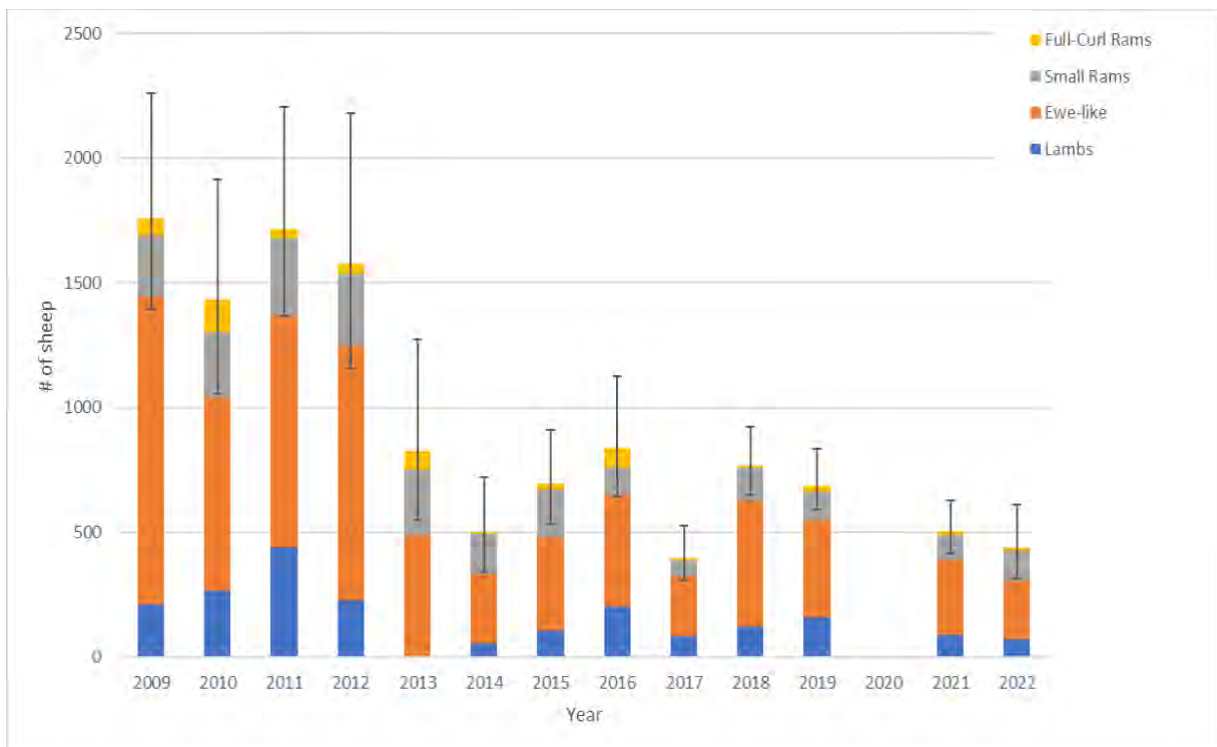


Figure 9. NPS sheep population estimates for Itkillik survey area (Deacy 2022, pers. comm.).

Table 1. Full-curl ram abundance for each survey unit 2009–2022 (Deacy 2022, pers. comm.; McMillan 2022, pers. comm.; Caikoski 2021). A dash indicates no data available.

Year	ADF&G 1A/1B	BLM 1A/1B	BLM Full	GAAR	Itkillik
2009	31	-	-	-	70
2010	-	-	-	228	128
2011	-	-	-	-	38
2012	30	-	-	-	43
2013	-	-	-	-	76
2014	40	46	-	-	6
2015	32	12	59	137	27
2016	66	45	-	-	80
2017	-	7	-	-	9
2018	34	1	-	-	5
2019	-	-	-	-	29
2020	-	-	-	-	-
2021	12	5	12	47	14
2022	10	10	41	28	11
Average	35.0	18	37.0	110	41

Table 2. Lamb:100 ewe-likes ratios for BLM and NPS surveys from 2009–2022 (Deacy 2022, pers. comm.; McMillan 2022, pers. comm.). A dash indicates no data available.

Year	ADF&G 1A/1B	BLM 1A/1B	BLM Full	GAAR	Itkillik
2009	32	-	-	-	17
2010	-	-	-	39	35
2011	-	-	-	-	48
2012	18	-	-	-	23
2013	-	-	-	-	1
2014	2	-	-	-	20
2015	27	36	38	38	28
2016	24	28	-	-	46
2017	-	37	-	-	36
2018	36	31	-	-	24
2019	-	-	-	-	41
2020	-	-	-	-	-
2021	22	19	26	26	31
2022	18	24	25	27	30
Average	33	29	30	30	34

Cultural Knowledge and Traditional Practices

Dall sheep are an important subsistence resource to residents of Allakaket, Alatna, Anaktuvuk Pass, Hughes, Huslia, Wiseman and Point Hope because of their value as a food source and their role in community ritual and worldview. The subsistence practices of the residents of Unit 24A and 26B reflect the cultural traditions of the Nunamiut Inupiat, Koyukon Athabascans, and Euro-American settlers. For some communities of the area, after caribou, sheep are one of the most valued subsistence resources in the Brooks Range. Residents of Anaktuvuk Pass, for example, depend greatly on their communal sheep hunts. In a 1978 NPS study of the residents of Anaktuvuk Pass and the Upper Koyukuk, Nelson et al., reported on the significance of the sheep harvest to community members and the traditional knowledge they rely upon to harvest sheep in the Brooks Range:

To the subsistence dependent resident who makes intensive use of the wild resources, the surrounding terrain is a complex maze of micro-environments each with characteristics and potentials that make it unique from all others. Each river is a special river with a set of physical properties that must be learned if one is to effectively exploit its resources. Each herd in a river is different...The vegetation and ledges of one mountain favor sheep populations while the neighboring mountain is relatively barren (Nelson et al. 1978:133–143).

Residents of Anaktuvuk Pass typically harvest more sheep than other communities in the region (ADF&G 2022b; Hazell 2012: 130, 143, 154; Nelson 1978). Reports from multiple agencies and organizations indicate that residents of Anaktuvuk Pass hunt sheep locally and harvest an average of 21 sheep per year (Okada 2022, pers. comm.; Brown et al. 2016: 49; Hazell 2012: 139, 146, 154; Hutchinson-Scarborough et al. 2012: 673; Nelson 1978:54). Sheep hunting is a specialized role. In Anaktuvuk Pass, only a few households include an active sheep hunter, and the average sheep harvest ranges between twenty and thirty sheep per year (Okada 2023, pers. comm.) In comparison, other communities in the region typically report harvesting fewer than ten sheep per year (**Tables 3 & 4**). The harvest patterns of the affected communities indicate long-term dependence on sheep, highly local sheep harvest, and variability in the number of sheep harvested.

Dall sheep is an important subsistence resource to rural residents of Unit 24 and Unit 26 for multiple reasons. First, sheep are a valuable source of protein, particularly when other sources are not available. Subsistence harvesting is opportunistic and adaptive, and those living a subsistence way of life rely on having a diversity of options. At a 2015 Council meeting, a resident commented, “Yeah, old days there was not hardly any caribou, so our parents depended on sheep. There were a lot of sheep in this area...That’s what saved our hides” (041215AKAP4) (Hazell 2012: 415). This statement is supported by the trend in the reported number of sheep and other fish and wildlife harvested over time. When residents harvest less salmon and caribou, they rely more on sheep. For example, in 1973, the combined harvests of Alatna-Allakaket and Hughes included 518 caribou, 70 moose and 10 sheep (Marcotte and Haynes 1985: 105; Nelson et al. 1978:324). Then, in 1981–1982, the overall harvest of these communities was dominated by salmon (Marcotte and Haynes 1985: 95). Mammal harvests comprised only 15% of the total harvest for all three communities, which included 61 moose, five caribou and five sheep (Marcotte and Haynes 1985:95, 105). Decades later, in 2011, as the size of

salmon runs began to decrease, the salmon harvest comprised of only 27% of the total harvest of fish and wildlife and residents of Alatna-Allakaket harvested more wildlife including 124 caribou, 21 moose and four sheep (Hutchinson-Scarborough, L., D. Andersen, M. Marchioni 2012: 121, 125). The data demonstrates the role of sheep in the diet and food security of these communities: they depend on being able to harvest sheep and the number they harvest depends on availability of sheep and other subsistence resources.

A primary reason that sheep are an important subsistence resource for these communities is the cultural significance of traditional communal sheep hunting, a “rite of passage” (Hutchinson-Scarborough, L., D. Andersen, M. Marchioni 2012: 121). Pollock Simon, Sr., a resident of Allakaket and a member of the Council, spoke about the importance sheep hunting during a Council meeting in 2015. In response to a question on using household surveys to document sheep harvests, he said:

Yeah. A house-to-house survey would be ok, I guess. But I wanted to talk a little bit about the history of hunting in the mountains. Up by Alatna River, it’s about 150 miles, 200 miles by boat. And traditionally our people have hunted sheep up in the mountains for years. In the 1940s, 1950s my father and my grandfather, you know, before outboard motors they poled up the Alatna River and spent a couple of months hunting sheep. And, due to not much meat in Allakaket those days, there’s no moose and not much caribou. So, they have to hunt sheep in the summertime. They left—they’d go in July and come back in August, make raft and we don’t have to go up and hunt sheep these times now, but I have two sons that want to keep up the tradition of going up into the mountains and looking for sheep you know. The take of sheep is pretty low in Allakaket and Alatna and Hughes. Not every year does the boys go off to hunt (WIRAC 2015b: 195).

To Mr. Simon, Sr., the sheep hunt itself holds special meaning for his family and others in the area. He explained that it’s critical to maintain the tradition of sheep hunting, particularly because the frequency of the hunt varies depending on subsistence needs and the availability of other protein sources.

Likewise, Marcotte and Haynes (1985) noted that the significance of the hunt cannot be measured by units of harvest effort. They stated, “...participation rates and absolute harvest quantities are not synonymous with the relative importance or value placed on a cultural activity” (1985:51). When harvested, sheep has special cultural meaning and significance. Sheep meat is a delicacy that is shared at celebrations (Brown et al. 2016: 400, 415–416; Hutchinson-Scarborough, L., D. Andersen, M. Marchioni 2012: 86, 102, 104; Marcotte and Haynes: 1985: 51, 54–55). Furthermore, the activity of the communal sheep hunt provides additional harvest opportunities. Marcotte and Haynes (1985) reported that during their study, a single communal sheep hunt yielded five sheep, four caribou and four black bears. These findings demonstrate that sheep have a cultural importance that extends beyond community harvest counts.

Because sheep are important, residents are concerned about their declining populations in the Brooks Range. This concern is not new; over the last 20 years, the Council and the North Slope Council have addressed issues such as sheep health and conservation in the Brooks Range (NSRAC 2022; 2021; 2020; 2017a; 2017b; 2015; 1994 and WIRAC 2022; 2021a&b; 2020; 2019a&b; 2017; 2016a&b;

2015a&b; 2014; 1994). Community members have also stated their concerns about sheep populations. In ADF&G Division of Subsistence Technical Paper No. 426, a resident of Anaktuvuk Pass described their observation of declining sheep populations, “The sheep numbers are going down within the past couple years...you just don’t see the daycares anymore—the ewes and the lambs hang out in big groups during the summer. You don’t see as much of those around anymore when you’re out in the country. You don’t see as many little babies running around” (041415AKPI) (Brown et al. 2016: 453).

In another study, residents commented that it was harder to find sheep and they had to travel more to find them which is expensive (Hazell 2012). Residents also described conflicts with non-local hunters. For example, one person said the noise from low flying “sport hunting planes” disturbs sheep and causes them to disperse, making it more difficult to harvest them (Hazell 2012: 177). With less sheep being observed, residents are more sensitive about the impacts that others have on sheep population sizes and behaviors.

Residents of Units 24 and 26 have been working to understand what is causing reductions in sheep abundance throughout the Brooks Range and to develop solutions to reverse these declines. Council members have discussed possible causes for reduced sheep numbers at many meetings over the past two decades (NSRAC 2022; 2021; 2020; 2017a; 2017b; 2015; 1994 and WIRAC 2022; 2021a&b; 2020; 2019a&b; 2017; 2016a&b; 2015a&b; 2014; 1994). Council members consider extreme weather events, such as winters with heavy rain on snow events, as one of the main factors impacting sheep abundance. Other factors include increased hunting pressure because of Dalton Highway access, increased user conflict, and over-harvest of mature rams that play a primary role in maintaining healthy sheep numbers (NSRAC 2022; 2021; 2020; 2017a; 2017b; 2015; 1994 and WIRAC 2022; 2021a&b; 2020; 2019a&b; 2017; 2016a&b; 2015a&b; 2014; 1994). In 2014, a resident of Anaktuvuk Pass described the number of non-local hunters harvesting sheep in the area, “We’ll see them come with stacks of big bull horns and sheep horns and sheep heads. But no meat. They don’t even bring any body meat” (041615AKP3) (Brown et al. 2016: 453). In Wiseman, residents discussed decreased abundance and growing competition from non-local hunters as limiting factors in their pursuit of sheep and caribou (Brown et al. 2016). They said this competition makes harvesting sheep difficult for them. Other concerns expressed were the risk of hunting amongst unskilled bow hunters from elsewhere, wounded sheep and caribou that are not harvested, dispatched or reported and insufficient harvest data needed to understand population dynamics (Kukkonen 2012: 376, 397—398). The Councils have discussed and attempted to address these issues for more than twenty years because of the importance of maintaining sheep populations as a subsistence resource.

Table 3: Estimated Dall sheep harvest in Unit 24A and 24B communities 2022-2011. This table includes data from ADF&G and NPS, Gates of the Arctic National Park (Okada 2023) Blank cell indicates no survey conducted, 0 indicates a survey was conducted and no harvest was reported (Okada 2023; ADF&G 2022b; Koster and Holen 2015: 16-19). Okada (2023) notes that Anaktuvuk Pass hunters may be harvesting sheep from Unit 26A and corporation lands (under State regulations) because there is a mosaic of Federal and corporation lands surrounding the community.

Community	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2011
Alatna	0	0	0	0	0	0					0
Allakaket	0	0	2	3	2	2		2			4
Anaktuvuk Pass	11				8		10	12	32	22	
Bettles	0	0	0	0	0	0	0				0
Evansville	0	0	0	0	0	0	0				0
Hughes									0		
Huslia											
Wiseman	0	0	0	0	0	0	0				2

Harvest History

The State manages sheep using a full-curl harvest strategy (ADF&G 2017). Full-curl harvest management is considered a conservative approach to managing Dall sheep populations. Once sheep are eight years old, their chance of surviving each additional year is much lower. Harvesting older, full-curl rams (≥ 8 years old) allows younger rams in their prime to continue breeding (ADF&G 2017). Managers can also use the full-curl management strategy as an index for population trend, based on the premise that a decline in sheep harvest likely reflects a decline in the overall sheep population. (Caikoski 2018). The average age of rams harvested in the Brooks Range from 1981- 2013 was 9.1 years old for resident hunters and 9.4 years old for non-residents (ADF&G 2014).

It has been shown in heavily hunted sheep populations with $\frac{3}{4}$ -curl horn restrictions (where, theoretically, every legal ram was removed each year) that ewes start being bred at an earlier age by younger rams. This led to lower reproductive frequency in ewes and possibly to compromised reproductive fitness of the ewe (Heimer and Watson 1986). When older $\frac{3}{4}$ and full-curl rams are removed from the population, younger rams start breeding sooner than they typically would, usually before they reach physical maturity. This increase in rutting activity is believed to be haphazard and random, leading to over exhaustion of rams and ewes and depletes their energy stores, causing poor ram survival rates over winter (Heimer & Watson 1986). A more complete ram age structure leads to increased lamb production and ram survival, which in turn leads to population growth and more legal, full-curl rams available for harvest (Heimer and Watson 1990).

A limited harvest of full-curl rams allows immature high-quality rams to reach their reproductive potential before attempting to breed (Coltman et al. 2001). However, the effectiveness of the full-curl management strategy relies upon a relatively undisturbed ram age structure and consistent ram recruitment (Heimer and Watson 1986). The negative effects of $\frac{3}{4}$ -curl management (lower

reproduction and higher young ram mortality) could occur under full-curl management if the ram cohorts that would normally be protected (between ¾- and full-curl) are few or absent due to catastrophic weather conditions that cause reproductive failure in prior years (Rattenbury et al. 2018). If all or most full-curl rams are harvested in an area with missing ¾- and 7/8-curl cohorts, only younger rams will be present for breeding in the following year.

This appears to be the case in the Central Brooks Range as the 2013 and 2014 cohorts were extremely low due to severe winters (**Table 2**). These cohorts should now be the mature, full-curl rams available for harvest. However, full-curl ram abundance is low and much reduced from previous years (**Table 1**).

In October of 2022 the BOG held an informational sheep meeting to discuss the status of sheep populations statewide. ADF&G biologists stated sheep hunters averaged 3,100 hunters per year, statewide from 1980–2000. Then for 2001–2020, an average 2,252 hunters targeted sheep per year. The estimate at the time of the BOG informational meeting for the 2022 season was 1,780 hunters. ADF&G felt the decrease was from hunters self-regulating themselves when they feel the sheep population is low (BOG 2023).

Three ADF&G offices reported sub-legal harvest of sheep during the sealing process for the 2022 season. A total of 26 out of 315 harvested sheep reported, or 8.2%, were declared sub-legal during the 2022 season. This amount is up from the 3-4% estimated sub-legal harvest from the 2015-2019 sheep seasons. Anecdotally reported at the time of sealing, the most common mistake leading to sub-legal harvest was attributed to hunters aging sheep by annuli (ADF&G 2022c). Aging of sheep in the field, at a distance is extremely difficult and ADF&G recommends to hunters not to use this method for determining legality of a ram (ADF&G 2017). 42% of sub-legal harvest reported in 2022 was from hunters harvesting a sheep using the services of a guide (ADF&G 2022c).

Since the Federal hunting closure was established in 2022, there has been no Federal harvest of sheep in the affected area. The following discussion on Federal harvest considers all use prior to the closure.

In Units 24A and 26B there are three Federal subsistence registration permit hunts (FS2404, FS2602, FS2411) as well as State general harvest ticket hunts. FS2404 occurs in Unit 24A, except for the portion within GAAR. This hunt occurs in the DHCMA and allows for a harvest of one ram. Permit FS2602 is within the DHCMA in Unit 26B and has a harvest limit of one ram with 7/8-curl horn or larger. FS2411 only applies to GAAR, which includes a very small section of Unit 24A. State regulations allow general season hunting under a harvest ticket for all of Units 24A and 26B, with seasons from Aug. 1 to Oct. 5. Only full-curl or larger rams may be harvested under State regulations.

Permit FS2404 is the most used of the three Federal sheep permits for these units, with 281 total being issued from 2001 to 2021 and an average harvest of 2 rams per year (**Figure 10**). FS2602 permits have been in use during the same time with a total of 227 being issued with 7 rams total being harvested since 2001 (**Figure 11**). FS2411 has been in use since 2016 and has been issued 55 times but has not had any successful harvest reported. Federal harvest has averaged 1 sheep per year from 2017-2021 for

all three of these permit hunts (OSM 2022; Julianus 2022, pers. comm.). This is down from the overall average of 1.6 sheep harvested per year from 2001-2016 (**Figures 10 & 11**).

From 2002-2021, an annual average of 52 people reported hunting sheep under State regulations in Unit 24A with an average of 16.6 sheep reported harvested per year (**Figure 12**). In Unit 26B, an average of 159 people reported hunting under State regulations each year, and an average of 47.5 sheep were reported harvested per year from 2002-2014 (**Figure 13**). Then from 2015-2021, an average 65.5 people reported hunting by harvest ticket in Unit 26B with an average 18 sheep per year reported harvested (Stout 2022). The decrease between these two time periods can be attributed to the sheep population decline caused by the severe weather events in 2012/2013.

After the Federal closure was enacted in 2022, numbers of people hunting under State regulations dropped. In Unit 24A, 19 hunters reported harvesting 2 sheep, while no hunting or sheep harvest was reported in Unit 26B west of the Sagavanirktok River. Notably, these figures also represent hunt reports and harvest for all of Unit 26B, not just the proposed closure area. Additionally, these figures may be under-reported, as there is no penalty for failure to report hunting or harvest by harvest ticket. Harvest tickets also do not account for the fact that people may have hunted in either Unit 24A or 26B without harvesting a ram and then hunted and harvested a ram in another unit and reported that unit only.

Residents and non-residents have averaged 180 hunters in Units 24A and 26B from 2002- 2021 (**Table 4**). Non-resident harvest has averaged 43% of the total sheep harvest reported under State regulations during the same time period. While the total number of resident hunters and associated harvest has declined since 2013 along with sheep population estimates, non-resident hunter numbers have remained constant at an average of 35 per year for this time period. However, non-resident harvest is also trending down alongside the sheep population (Parrett 2022, pers. comm.).

According to ADF&G harvest reports, an average of 1.7 sheep per year were reported as harvested by archery from 2000-2021 in Units 24A and 26B (**Table 4**). While reports do not capture with certainty where the sheep was harvested or by which method, 82% of successful bow hunters used a highway vehicle to access these units, suggesting about 80% of the archery harvest was within or near the DHCMA (1.4 sheep). Again, these harvest ticket reports do not reflect the number of hunters who hunted in these units but harvested and reported in a different unit or failed to mark weapon type on their harvest report.

A premise of the full-curl harvest strategy (that lower harvest is indicative of lower sheep populations) suggests sheep numbers are declining in these two units. Since 2000, the number of Federal permits issued, and sheep harvested has trended downward. While the number of hunters under State regulations in Unit 26B dropped considerably along with the sheep population decline in 2012, the number of State hunters in Unit 24A has increased slightly since 2016. But harvest has still trended downward in both units since 2000, albeit very slightly in Unit 24A (**Figures 13 & 14**).

Comparing full-curl ram abundance over time (**Table 2**) with recent sheep harvest reports (**Figures 13 & 14**) suggests that the sheep population cannot withstand current harvest rates and pressure, and that

the harvestable surplus may be exceeded. From 2016-2021, sheep harvest in Units 24A and 26B averaged 15.8 sheep and 18.3 sheep, respectively (Stout 2022), while estimated 2021 ram abundance was 29% of historical averages (2009-2021) across all survey areas.

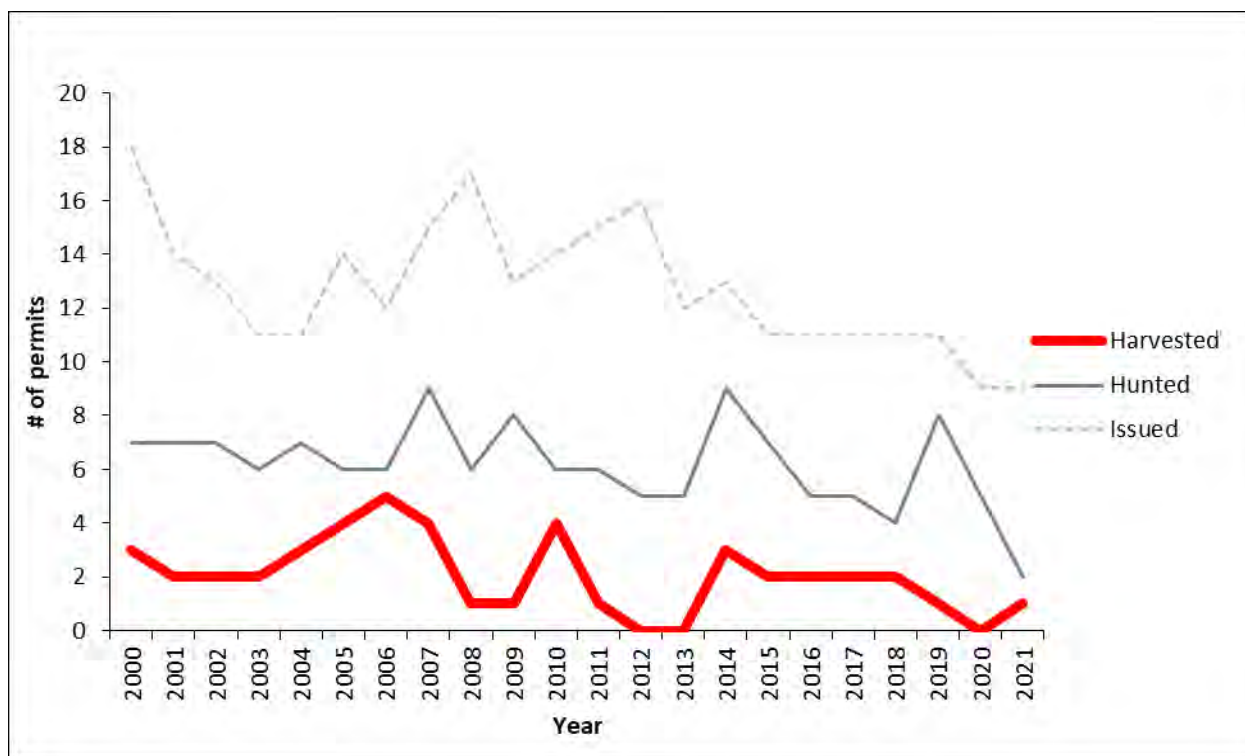


Figure 10. Reported harvest, permits hunted, and permit issued under Federal sheep permit FS2404 (OSM 2022; Julianus 2022, pers. comm.).

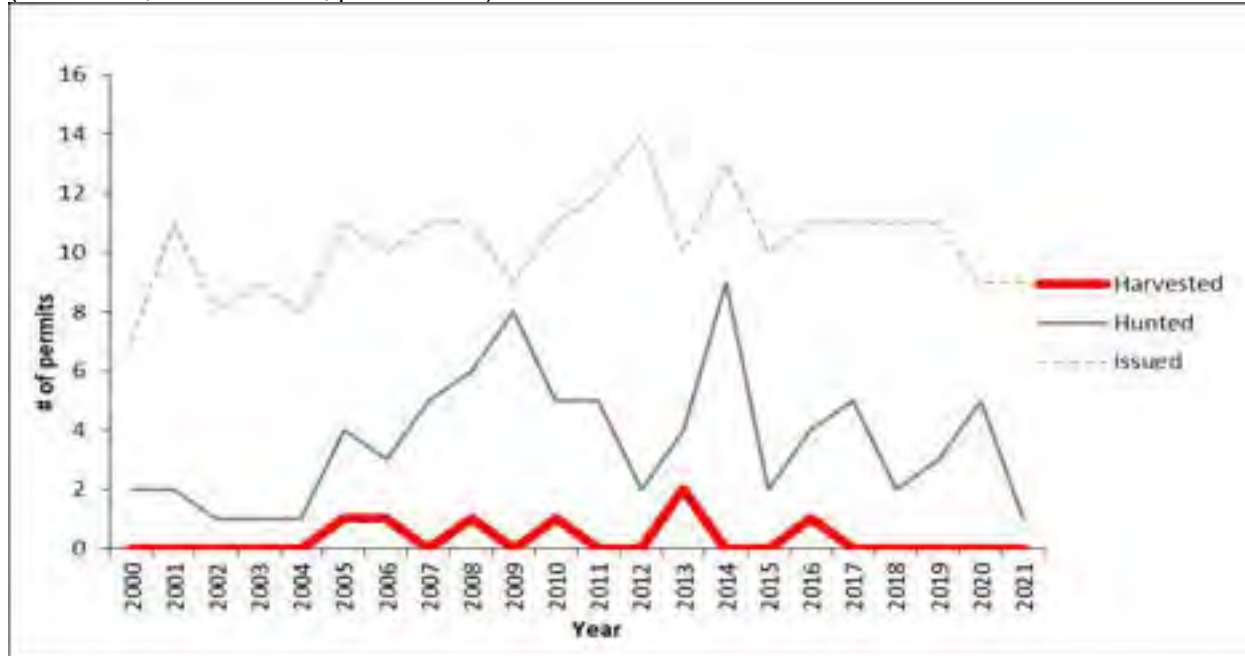


Figure 11. Reported harvest, permits hunted and permits issued under Federal sheep permit FS2602 from 2000-2021 (OSM 2022; Julianus 2022, pers. comm.).

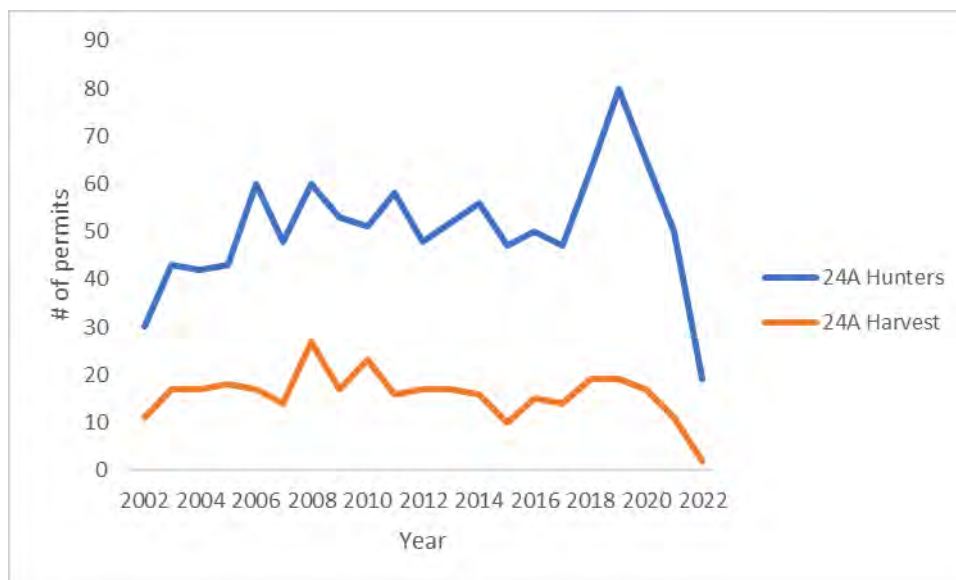


Figure 12. Number of hunters and sheep reported harvested on State harvest tickets in Unit 24A 2002-2022 (Stout 2022).

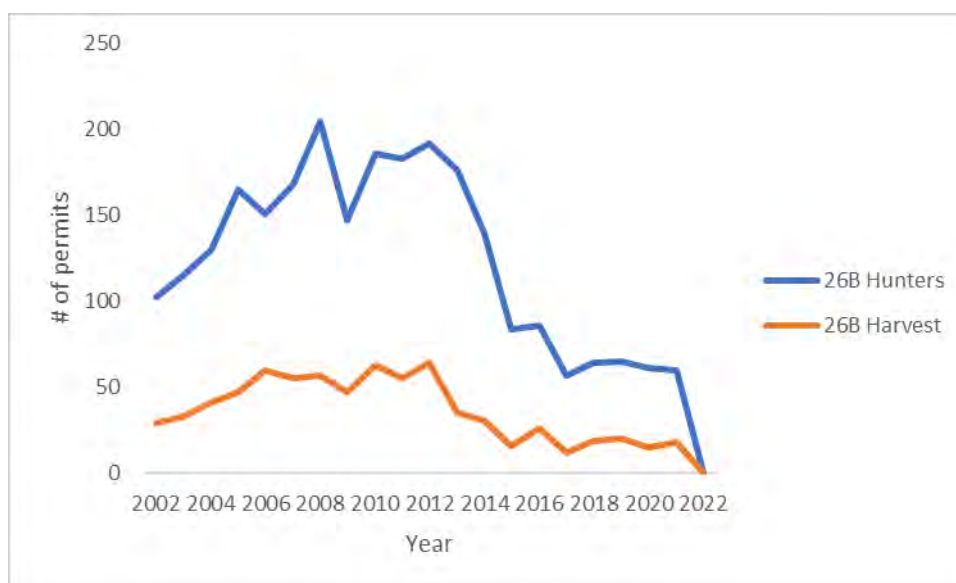


Figure 13. Number of hunters and sheep harvested reported on State harvest tickets in Unit 26B, 2002-2022 (Stout 2022).

Table 4. Number of resident and non-resident hunters and sheep harvest in Units 24A and 26B (Parrett 2022, pers. comm.).

Year	Resident Hunters	Resident Harvest	Non-Resident Hunters	Non-Resident Harvest	Total Hunters	Archery Harvest	Total Harvest
2002	98	18	33	21	131	0	39
2003	119	26	38	22	157	0	48
2004	130	30	39	26	169	2	56
2005	174	40	34	24	208	0	64
2006	169	29	37	18	206	0	47
2007	185	41	44	32	229	8	73
2008	220	55	43	25	263	5	80
2009	161	35	40	28	201	4	63
2010	197	61	42	25	239	7	86
2011	203	47	41	24	244	1	71
2012	200	57	40	24	240	4	81
2013	193	35	35	17	228	0	52
2014	160	28	35	19	195	0	47
2015	104	13	27	13	131	3	26
2016	107	22	31	19	138	1	41
2017	91	12	27	14	118	0	26
2018	106	21	25	17	131	0	38
2019	117	26	26	13	143	3	39
2020	98	13	28	19	126	0	32
2021	78	11	32	18	110	0	29
2022					19		2

Other Alternatives Considered

An alternative for consideration would be to close the area to non-Federally qualified users only. An average of only 5.1% of total harvest from Units 24A and 26B is attributable to Federally qualified subsistence users from 2000–2021. From 2017–2021, Federally qualified subsistence users have harvested an average of one sheep per year under Federal regulations. Since Federal harvest and hunter pressure is so low, their impact on the sheep population may be negligible. However, OSM did not further consider this alternative because the sheep population has declined so drastically, no harvestable surplus seems available, and any harvest or disturbance to the sheep population may have hampered recovery. Additionally, all comments received from local subsistence users during the public hearing on WSA22-02 were in support of closing the season to all users for the 2022/23 and 2023/24 regulatory years, and OSM expects this support has continued.

Effects of the Proposal

If this proposal is adopted, all Federal lands in Units 24A and 26B west of the Sagavanirktok River will remain closed to the harvest of sheep by all users for the 2024/25 and 2025/26 regulatory years. This represents a continuation of the closure initiated by WSA22-02, which has been effective for the 2022/23 and 2023/24 regulatory years. Decreased opportunity for Federally qualified subsistence users and anyone hunting under State regulations would continue as no sheep could be legally harvested on Federal public lands within these areas. Individuals hunting under State regulations could still hunt and harvest sheep on private and State lands within Units 24A and 26B. This could result in displacement and crowding of hunters onto these State-managed lands.

§816(b) of ANILCA permits closure of Federal public lands to the taking of wildlife by all users “to assure the continued viability of a particular fish or wildlife population.” Several factors indicated population viability concerns warranting implementation of the 2022/23 and 2023/24 closure via WSA22-02. Substantial conservation concerns, including drastic population declines and poor composition metrics threatened the viability of the Dall sheep population along the DHCMA. Additionally, harvest rates appeared unsustainable as legal ram numbers had decreased considerably, while hunter effort and harvest in Unit 24A had not. Furthermore, lamb production in 2013 and 2014 was abysmal, and those were the eight- and nine-year-old rams, which would have been available for harvest in 2022–23 when the closure was enacted. No harvestable surplus seemed available for this sheep population. The closure was effective in reducing reported sheep harvest and hunter numbers for the 2022 season in Unit 24A and 26B.

Extending the closure initiated by WSA22-02 for an additional two years by adopting WP24-26 may aid in the recovery of this sheep population by increasing the survival of full-curl rams, which could have cascading, positive effects on the overall sheep population by increasing ewe fecundity, lamb production, and survival of younger rams. Extending the closure could also decrease disturbance of these sheep by hunters, which could decrease energy expenditure, improve predator evasion, and improve physical fitness during the breeding season and into winter. However, a decrease of sub-legal ram harvest may also be realized if the BOG eliminates counting horn annuli as a method for determining legal rams for harvest as proposed by the Western Interior Council.

OSM CONCLUSION

Support Proposal WP24-26.

Justification

Population viability concerns warrant closure to sheep hunting along the DHCMA by all users under §816(b) of ANILCA. Adopting Proposal WP24-26 may help the Dall sheep populations within Units 24A and 26B, west of the Sagavanirktok River to recover and rebuild a more complete age structure. After constant hunting pressure and severe winter weather, the population has dropped considerably. No harvestable surplus of mature rams appears to exist in this population as the few legal rams left are needed for effective breeding to maximize lamb production.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Western Interior Alaska Subsistence Regional Advisory Council

Support WP24-26. The Council supports the continuation of the closure they originally requested. However, if the counting of annuli is removed as a method of determining legality of harvest, the Council feels this closure would not be necessary. The closure remains necessary, especially with the lack of caribou returning to this area, further depleting available subsistence opportunities. Recruitment is low, and the Council is still concerned with the potential of sublegal take and the continuation of adverse weather events in the winter and spring.

North Slope Subsistence Regional Advisory Council

The North Slope Council considered this proposal at their March 2024 meeting, which was after the deadline for the Federal Subsistence Board meeting book.

INTERAGENCY STAFF COMMITTEE COMMENTS

There are serious concerns about the viability of the Dall's sheep population along the Dalton Highway Corridor Management Area (DHCMA). Recent population estimates and minimal count surveys indicate substantial declines in legal rams, ewes, and lambs in most survey areas along the DHCMA. Severe weather conditions, including extended winters and rain on snow events are thought to be a major factor in the population declines for sheep in Units 24A and 26B. Declines in the sheep population within the DHCMA are of concern to rural subsistence users that rely on local populations in close proximity to where they live.

ANILCA Section 816(b) allows for closure of Federal public lands to the harvest of fish and wildlife "for reasons of public safety, administration, or to assure the continued viability of a particular fish or wildlife population." The proponent for WP24-26 believes that the current closure of Dall's sheep hunting by all users authorized by the Board with Temporary Special Action WSA22-02 should continue through the 2024-2026 wildlife regulatory cycle and will help protect the breeding population in the affected area. No harvestable surplus of mature rams is currently available, and any legal rams left are needed for effective breeding to maximize lamb production.

Historically, most of the sheep harvest in the areas subject to this proposal has been by non-Federally qualified users. Since there are very few, if any, legal rams available for harvest in the area, closure of hunting by non-rural users could provide for conservation of healthy populations of sheep and allow for continuation of subsistence uses of sheep. Closure to all users is likely to help ensure the continued viability of the Dall's sheep populations in the DHCMA. Although sheep harvest by Federally qualified subsistence users is low, sheep numbers are low enough that any additional mortality from harvest may be unsustainable and could slow natural recovery of Dall's sheep in the area.

ALASKA DEPARTMENT OF FISH AND GAME COMMENTS

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WP24-26 Alaska Department of Fish and Game Comments

Wildlife Proposal WP24-26

This proposal would be a continuation of the closure initiated by WSA22-02. This proposal extends the closure of federal public lands in Game Management Unit (Unit) 24A and 26B to Dall sheep hunting, west of the Sagavanirktok River, to all users for the 2024-2026 wildlife regulatory cycle.

Position

The Alaska Department of Fish & Game (ADF&G) **OPPOSES** the adoption of this proposal. There is no reason to reduce Dall sheep hunting opportunities in this area as it would have no biological benefit on the sheep population in the Brooks Range.

Background

Recent sheep declines were likely caused by weather-related events and not by human harvest. Dall sheep in this area are managed using the conservative full-curl ram harvest management strategy. The full-curl strategy is conservative because it focuses harvest pressure on 1) older-aged animals, 2) males-only, and 3) a small segment of the population. Dall sheep rams on average become full-curl at 8 years of age or older, and previous research has shown that these older rams have naturally higher mortality rates than younger aged rams. Therefore, when hunters harvest a full-curl ram, this has a lower impact on the population compared to harvesting a younger ram because there is a higher likelihood the older ram would have died of natural causes anyways. Additionally, limiting harvest to males-only reduces the impact of harvest on the overall population because male survival rates have a drastically lower impact on population growth compared to female survival rates. Finally, the full-curl strategy is extremely conservative because full-curl animals compose a very small proportion of most sheep populations. As a result, the number of animals that are legally available to hunters is a small proportion of the population and this imposes a self-limit on overharvest of the population. Taken collectively, the full-curl harvest strategy limits harvest to only older-aged rams and is thus a conservative, self-limiting strategy that allows for hunter opportunity while simultaneously preventing overharvest and has minimum impacts on population growth. Additionally, we can demonstrate that harvest fluctuates proportional to the number of full-curl rams in the population with the full-curl strategy, and harvest of each cohort is proportional to the recruitment of each respective cohort. Therefore, we have high confidence that harvest is dependent on cohort abundance. Harvest data from the Brooks Range (1987-2021; n = 7,476) demonstrates that on average 35% of legal rams harvested are harvested the first year they are legal (full-curl or 8+), whereas 65% of rams are harvested greater than 9 years of age. This gives us confidence that all legal rams are not immediately harvested annually, and that social structure tends to remain similar across a range of abundances with the full-curl management strategy, corroborating compensatory harvest.

Sheep trend count surveys conducted from 2002 to 2021 in a portion of Unit 24A and 25A counted an average of 42 rams:100 ewe-likes. The ratio of 42 rams:100 ewe-likes, is comparable

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to other demographic estimates produced by the NPS (mean estimates from 2009-2021 in the Itkillik R. (42.9 rams:100 ewe-likes), from 2014-2021 near Anaktuvuk Pass (49.9 rams:100 ewe-likes), and from years 2010, 2015, 2021 in the GAAR total area (54.7 rams:100 ewe-likes)). A 42 ram:100 ewe ratio is relatively high M:F ratio compared to other harvested populations of ungulates. High ram: ewe-likes ratio's indicate human harvest is largely compensatory, despite recent declines. Recent sheep population declines were likely caused by severe winter conditions and declines will not be mitigated by a reduction in harvest.

The 10-year average reported sheep harvest for federal permit FS2404 is 1 ram. The 10-year average number of permits issued for hunt FS2404 was 11 permits. FS2404 permit is for federal subsistence harvest in 24 except that portion within GAAR. The average reported harvest for federal permit FS2411 from RY16 to RY22 was 3 sheep. The average number of FS2411 permits issued from RY16 to RY22 was 8.4 permits. Federal permit FS2411 is for harvest in Unit 24A and 24B, excluding Anaktuvuk Pass residents. Harvest by Anaktuvuk Pass residents can occur in Unit 24A or 26B and the data does not identify the proportion of harvest by subunit. The average sheep harvest from RY13 to RY22, by Anaktuvuk Pass residents was 15.8 sheep. Average total reported harvest for all federal permits is less than the state ANS (75-125).

Impact on Subsistence Users

If adopted this proposal would reduce harvest opportunities for all sheep hunters. Federally qualified users in Unit 24 living north of the arctic circle, Allakaket, Alatna, Hughes, and Huslia (communities with a customary and traditional use determination for sheep in GMU 24) would also lose opportunity.

Impact on Other Users

If adopted this proposal would reduce harvest opportunities for all sheep hunting in GMU 24 and 26.

Opportunity Provided by State

State customary and traditional use findings: The Alaska Board of Game (BOG) has determined customary and traditional use findings for Dall sheep in Unit 24 and 26.

Amounts Reasonably Necessary for Subsistence: Alaska state law requires the Board of Game to determine the amount of the harvestable portion of a game population that is reasonably necessary for customary and traditional uses. This is an ANS. The BOG does this by reviewing extensive harvest data from all Alaskans, collected either by ADF&G or from other sources.

ANS provides the BOG with guidelines on typical numbers of animals harvested for customary and traditional uses under normal conditions. Hunting regulations can be re-examined if harvests for customary and traditional uses consistently fall below ANS. This may be for many reasons: hunting regulations, changes in animal abundance or distribution, or changes in human use patterns, just to name a few.

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The ANS for Dall sheep in Unit 24 is 75- 125 animals. There are multiple seasons and bag limits for Dall sheep in Unit 24A and 26B. Unit 24A is 1 ram (full-curl horn or larger) from Aug 10 – Oct 5, and a youth hunt from Aug 1 – Aug 5 with a bag limit of 1 legal ram. In Unit 26B, on private lands within GAAR, has a bag limit of three sheep from Aug 1 – Apr 30 for federally qualified subsistence users. In Unit 26B, within the Dalton Highway Corridor Management Area, there is a bag limit of 1 legal ram Aug 1 – Aug 5 for youth hunters, and Aug 10 – Oct 5 for all hunters. In Unit 26B remainder there is a bag limit of 1 legal ram Aug 1 – Aug 5 for youth hunters, and Aug 10 – Sept 20 for all hunters.

<u>Unit/Area</u>	<u>Bag Limit</u>	<u>Open Season (Permit/Hunt #)</u>	
		<u>Resident*</u>	<u>Nonresident</u>
24A	1 Ram	Harvest Ticket	Harvest Ticket
26B	1 Ram	Harvest Ticket	Harvest Ticket

* Subsistence and General Hunts.

Conservation Issues

Reducing harvest in the proposed area will have no meaningful biological benefit on sheep populations in the Brooks Range.

Enforcement Issues

There are no anticipated enforcement issues associated with this proposal.

WCR24–20 Executive Summary	
General Description	Wildlife Closure Review WCR20-20 reviews the closure to moose hunting in the Kanuti Controlled Use Area (CUA) of Unit 24B, except by Federally qualified subsistence users.
Current Regulation	<p>Unit 24B—Moose</p> <p><i>Unit 24B, remainder 1 bull by State harvest ticket Aug. 25-Oct. 1</i></p> <p><i>OR</i></p> <p><i>1 antlered bull by State registration permit Dec. 15-Apr. 15</i></p> <p><i>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</i></p>
OSM Conclusion	<p>Modify the closure to eliminate the closure during the winter season and clarify regulatory language.</p> <p>The modified regulations should read:</p> <p>Unit 24B—Moose</p> <p><i>Unit 24B, remainder 1 bull by State harvest ticket Aug. 25-Oct. 1</i></p> <p><i>OR</i></p> <p><i>1 antlered bull by State registration permit Dec. 15-Apr. 15</i></p> <p><i>Federal public lands in the Kanuti Controlled Use Area, as described in Federal regulations, are closed to taking of moose Apr. 16-Dec. 14, except by Federally qualified subsistence users of Unit 24, Koyukuk, and Galena hunting under these regulations</i></p>
Western Interior Alaska	Modify the closure as recommended by OSM

WCR24–20 Executive Summary	
Subsistence Regional Advisory Council Recommendation	
Interagency Staff Committee Comments	<p>Wildlife Closure Review WCR24-20 reviews a closure that was established in 1992. In 2020, during the last review of this closure, the Federal Subsistence Board (Board) maintained the closure. The Board was concerned about the communities of Allakaket and Alatna who reported not meeting their subsistence needs, and the low abundance of moose in the Kanuti Controlled Use Area.</p> <p>Biologically the moose population appears stable, but the Western Interior Alaska Subsistence Regional Advisory Council is opposed to the elimination of the fall component of the closure. They are concerned there will be an influx of non-local hunters in the fall. Modifying the closure to open the winter hunt only seems to be a reasonable compromise in deference to the Council and to support the continuation of subsistence uses.</p>
ADF&G Position	Rescind the closure
Written Public Comments	None

FEDERAL WILDLIFE CLOSURE REVIEW

WCR24-20

Issue: Wildlife Closure Review WCR20-20 reviews the closure to moose hunting in the Kanuti Controlled Use Area (CUA) of Unit 24B, except by Federally qualified subsistence users.

Closure Location and Species: Unit 24B remainder, Kanuti CUA —Moose (**Map 1**)

Current Federal Regulation

Unit 24B—Moose

Unit 24B, remainder 1 bull by State harvest ticket

Aug. 25-Oct. 1

OR

1 antlered bull by State registration permit

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

Closure Dates: Year-round

Current State Regulation

Unit 24B—Moose

Resident: 24B, within the Kanuti Controlled Use Area - One bull

HT Sep. 1 – Oct. 1

OR

Resident: 24B, within the Kanuti Controlled Use Area - One antlered bull by permit available online at <http://huntalaska.gov> or in person in Hughes, Allakaket, and Fairbanks beginning Dec 1

RM833 Dec. 15 – Apr. 15

Nonresident: 24B within the Kanuti Controlled Use Area – one bull with 50-inch antlers or antlers with 4 or more brow tines on at least one side

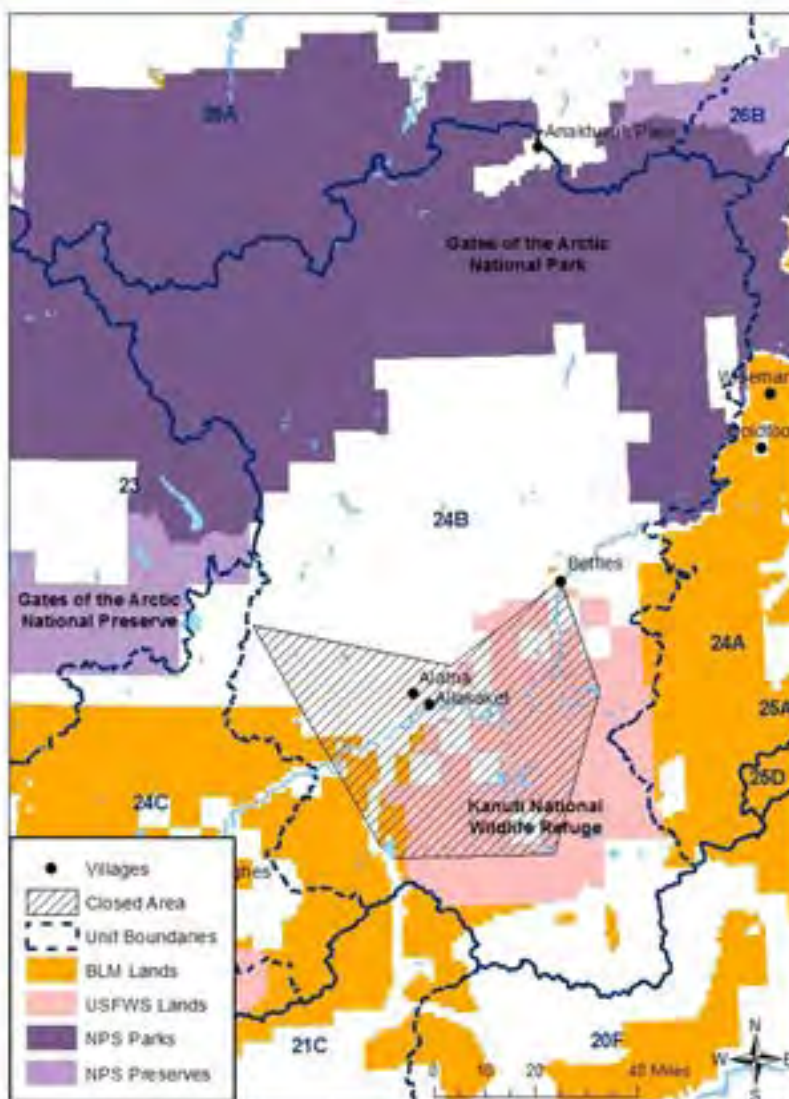
HT

Sep. 5 – Sep. 25

Regulatory Year Initiated: 1992

Extent of Federal Public Lands

The Kanuti CUA is comprised of 56% Federal public lands. Of the Federal public lands, 49% are U.S. Fish and Wildlife Service (USFWS) managed lands and 7% are Bureau of Land Management (BLM) managed lands (**Map 1**).



Map 1. Federal closure area for moose in Unit 24B remainder, Kanuti Controlled Use Area.

Customary and Traditional Use Determination

Residents of Unit 24, Koyukuk, and Galena have a customary and traditional use determination for moose in Unit er.

Regulatory History

Under both State and Federal regulations, the Kanuti CUA is closed during moose hunting seasons to the use of aircraft for hunting moose, including transportation of any moose hunter or moose part. However, this does not apply to transportation of a moose hunter or moose part by aircraft between publicly owned airports in the CUA or between a publicly owned airport within the area and points outside the area. Under Federal regulations, the Kanuti CUA consists of that portion of Unit 24 bounded by a line from the Bettles Field VOR to the east side of Fish Creek Lake; to Old Dummy Lake; to the south end of Lake Todatoten (including all water of these lakes); to the northernmost headwaters of Siruk Creek; to the highest peak of Double Point Mountain; and then back to the Bettles Field VOR (**Map 1**).

The Kanuti CUA was created in 1979 under State regulations to address user conflicts and biological concerns and is important in maintaining reasonable opportunity for subsistence uses of moose (ADF&G 2010). In 1990, the Kanuti CUA was adopted into Federal subsistence regulations from State regulations and was part of Unit 24 remainder. The season was Aug. 25-Sep. 25 with a harvest limit of one bull.

In 1992, the Tanana Chiefs Conference (TCC) submitted Proposal P92-115, requesting the Kanuti CUA be closed to moose hunting except by residents of Alatna, Allakaket, Bettles, Evansville, and Hughes because subsistence needs were not being met. The Federal Subsistence Board (Board) adopted Proposal P92-115 with modification, closing the Kanuti CUA to moose hunting except by Federally qualified subsistence users to provide opportunity to all users with a customary and traditional use determination (C&T) for moose in Unit 24. Additionally, harvest met or exceeded the estimated harvestable surplus, recommending limiting harvest to conserve the moose population (FSB 1992).

In 2006, the Board adopted Proposal WP06-34 to change the closing date of the moose season in Unit 24 remainder from Sept. 25 to Oct. 1 and to require a Federal registration permit during the extended Federal season of Sept. 26-Oct. 1. An extended season provided additional subsistence hunting opportunity, and survey data indicated the Unit 24 remainder moose population could sustain a modest increase in harvest. The Board also adopted Proposal WP06-36 to divide Unit 24 into four subunits to maintain consistency with State regulations, which subdivided Unit 24 to improve manageability. The Kanuti CUA became part of Unit 24B remainder.

Between 2007 and 2010, the Board approved several special action requests (WSA06-08, WSA07-09, WSA07-10, and WSA09-15) for extensions or establishments of winter seasons in Unit 24B because of extreme cold weather and unmet subsistence needs.

In 2010, the Board adopted Proposal WP10-67 with modification to establish Kanuti National Wildlife Refuge (NWR) and BLM lands as a separate hunt area within Unit 24B, specify the harvest limit as one antlered bull to discourage inadvertent cow harvest, and add a winter season of Dec. 15-Apr. 15 to provide additional opportunity in an area with low harvest success rates. The Board also stipulated the winter season would sunset on June 30, 2014.

Also in 2010, the Alaska Board of Game (BOG) adopted Proposal 94, which reduced the size of the Kanuti CUA under State regulations to accommodate access to a private cabin. As a result, the boundary of the State CUA has been out of alignment with the Federal CUA boundary since 2010.

In 2012, the Board adopted Proposal WP12-57 to redefine the hunt areas in Unit 24B to reduce user confusion by aligning State and Federal hunt area boundaries (although State and Federal boundaries of the Kanuti CUA were still out of alignment). The Kanuti CUA became part of two hunt areas: Unit 24B, all drainages of the Koyukuk River downstream from and including the Henshaw Creek drainage and Unit 24B remainder. The Henshaw Creek hunt area had a winter season (Dec. 15-Apr. 15), whereas Unit 24B remainder did not. The Board also adopted Proposal WP12-58 with modification to clarify permit requirements by requiring one Federal registration permit for both fall and winter seasons.

In 2014, the Board adopted Proposal WP14-29, making the Dec. 15-Apr. 15 season indefinite to provide additional opportunity. No impacts to the moose population had been observed since the winter season was established in 2010.

In 2016, the Board adopted Proposal WP16-42, establishing a winter season upstream of the Henshaw Creek drainage to provide additional opportunity. This resulted in the Henshaw Creek hunt area and Unit 24B remainder being collapsed into one hunt area, meaning all of the Kanuti CUA was part of Unit 24B remainder again.

In 2018, the Board adopted Proposal WP18-35 to remove “antlered” from the harvest limit for the fall season and to require a State harvest ticket and State registration permit for the fall and winter seasons in Unit 24B remainder, respectively. This eliminated the Federal registration permit requirement, aligning State and Federal reporting requirements.

In August 2020, the Board approved a revised closure policy, which stipulated all closures will be reviewed every four years. The policy also specified that closures, similar to regulatory

proposals, will be presented to the Councils for a recommendation and then to the Board for a final decision. Previously, closure reviews were only presented to Councils who then decided whether to maintain the closure or to submit a regulatory proposal to modify or eliminate the closure.

In 2020, the Board voted to maintain status quo on WCR20-20. While there was no conservation concern for moose at the time, the subsistence needs of Allakaket and Alatna were not being met. There were concerns about the hard winter and deep snow from the winter of 2018-2019 and potential negative impacts to the moose population.

Closure last reviewed: 2020 – WCR20-20

Justification for Original Closure:

§815(3) of ANILCA states:

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

In 1992, the Board closed the Kanuti CUA to moose hunting except by Federally qualified subsistence users via adoption of Proposal P92-115 with modification. As harvest met or exceeded the estimated harvestable surplus, the Board supported the closure to conserve the moose population and to provide continued opportunity for all users with C&T for moose in Unit 24.

Council Recommendation for Original Closure:

The Subsistence Regional Advisory Councils were not yet established in 1992. However, the Interior Regional Council took no action on the original closure (Proposal P92-115) due to lack of input from the Koyukuk River Fish and Game Advisory Committee (FSB 1992).

State Recommendation for Original Closure:

The State opposed the original closure, stating the Kanuti CUA already restricted non-local use by prohibiting aircraft. Additionally, the State commented that local residents harvested the majority of moose in the Kanuti CUA, unlike other parts of Unit 24 where non-local harvest was greater (FSB 1992).

Biological Background

The Koyukuk River Moose Hunters' Working Group in cooperation with the Alaska Department of Fish and Game (ADF&G) developed the Koyukuk River Moose Management Plan (Management Plan) in 2001 to guide moose management in the Koyukuk River drainage in response to concerns about overharvest (ADF&G 2001). The Management Plan made many regulatory recommendations to

conserve the Koyukuk River drainage moose population that were adopted by the BOG and the Board. Goals of the Management Plan include managing the moose population on a sustained yield basis, protecting and enhancing moose habitat, and managing predation on moose (ADF&G 2001). ADF&G has the additional population objectives of 10,000-12,000 moose for all of Unit 24 and 4,000-4,500 moose for Unit 24B, specifically (Stout 2018).

ADF&G, BLM, and USFWS cooperatively conduct aerial moose surveys in Kanuti NWR during November to estimate moose abundance and composition. Since 1999, the survey methodology (Geospatial Population Estimator technique) and area (Kanuti NWR) has remained the same, allowing direct comparisons between surveys (Julianus and Longson 2018).

Between 1989 and 2021 the moose population in Kanuti NWR ranged from 551 moose to 2,010 moose (**Figure 1**) (Stout 2014, 2018; Julianus and Longson 2018). The highest estimate was in 1993 and cannot be directly compared to later surveys due to changes in survey methodology. Poor survey conditions and low sample size may have influenced the lowest estimate in 2013 (Stout 2014). Since 1999, the highest population estimate was 1,311 moose in 2017. Most recently, the 2021 estimate was 952 moose, although confidence intervals overlap with the higher 2017 estimate. However, population models indicate no trend in the data, suggesting the Kanuti NWR moose population has been stable since 1999 (Julianus and Longson 2018; Stout and Longson 2022).

Moose density estimates parallel moose population estimates. Between 1989 and 2021, the moose density in Kanuti NWR ranged from a high of 0.76 moose/mi² in 1993 to a low of 0.20 moose/mi² in 2013 (Stout 2014, 2018, Julianus and Longson 2018). Since 1999, the highest density estimate was 0.48 moose/mi² in 2017. These density estimates are typical of Interior Alaska moose populations that are limited by predation and indicate the Kanuti NWR moose population persists at a low-density dynamic equilibrium (Julianus and Longson 2018). Habitat limitations also affect moose densities in the Kanuti CUA. Moose densities in the upper Koyukuk drainage (north of Hughes) are significantly less than densities in the lower Koyukuk drainage where broad areas of riparian habitat are found (ADF&G 2001).

In low density moose populations, a ratio of 30-40 bulls:100 cows may be necessary to ensure adequate breeding as cows are sparsely distributed (ADF&G 2001). Between 1989 and 2021, bull:cow ratios ranged from 46 bulls:100 cows in 2010 to 75 bulls:100 cows in 2017 (**Figure 2**) (Stout 2014, 2018; Julianus and Longson 2018; Stout and Longson 2022). These high bull:cow ratios indicate sufficient numbers for breeding and that bulls are not being overharvested.

Fall calf:cow ratios of < 20 calves:100 cows, 20-30 calves:100 cows, and > 30-40 calves:100 cows indicate declining, stable, and growing moose populations, respectively (ADF&G 2001). Between 1989 and 2021, fall calf:cow ratios in Kanuti NWR ranged from 17 calves:100 cows in 1989 to 58 calves:100 cows in 2008 (**Figure 2**) (Stout 2014, 2018, Julianus and Longson 2018). Since 2004, calf:cow ratios have exceeded 30 calves:100 cows in all years surveyed (except 2021) and 40 calves:100 cows in 7 out of 10 years surveyed. These high calf:cow ratios suggest adequate productivity for population growth. In 2021, the calf: cow ratio was 22 calves:100 cows, indicating a stable moose population. While this number is on the low side of the 20-30 calves:100 cows, two of the last three winters have been severe, which it thought to be a factor in this ratio decline (Stout and Longson 2022).

Predation by wolves and bears in Unit 24B is likely limiting growth of the moose population (ADF&G 2001; Stout 2014, 2018). The Management Plan lists black bear predation on calves and wolf predation on all moose as significant mortality factors (ADF&G 2001). During Board discussion on Proposal P92-115, 100 moose were estimated to be predated by wolves from the Kanuti CUA each year, decreasing the harvestable surplus from 156 moose/year to 56 moose/year (FSB 1992). While the Kanuti NWR moose population has been statistically stable since 1999, the observed population increase in 2017 may be partially due to reduction in wolf numbers (Julianus and Longson 2018). From 2012-2018, ADF&G conducted wolf control in Unit 24B, including along the western boundary of Kanuti NWR (ADF&G 2018a; Julianus and Longson 2018). Mild winters since 2009 may also have enhanced overwinter calf survival, increasing recruitment, and contributing to population increases (Julianus and Longson 2018).

At the 2019 winter meeting of the Western Interior Alaska Subsistence Regional Advisory Council (Council), the Council Chair stated that 2018/19 was a very high snow year, raising concerns for this moose population. Deep snow increases moose mortality and has negative effects on moose production, survival and recruitment (WIRAC 2019). Based on the National Weather Service archived data, the winters of 2017/18 and 2018/19 were both considered severe. Even with two severe winters there has not been a significant decline in the moose population (Stout and Longson 2022).

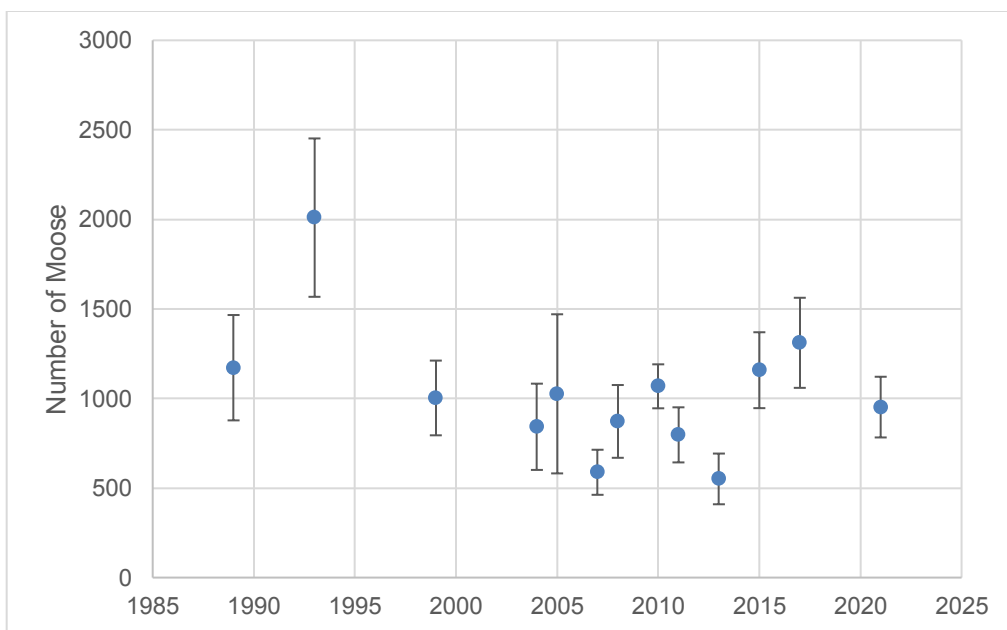


Figure 1. Population estimates for moose in Kanuti National Wildlife Refuge (Stout 2014, 2018, Julianus and Longson 2018).

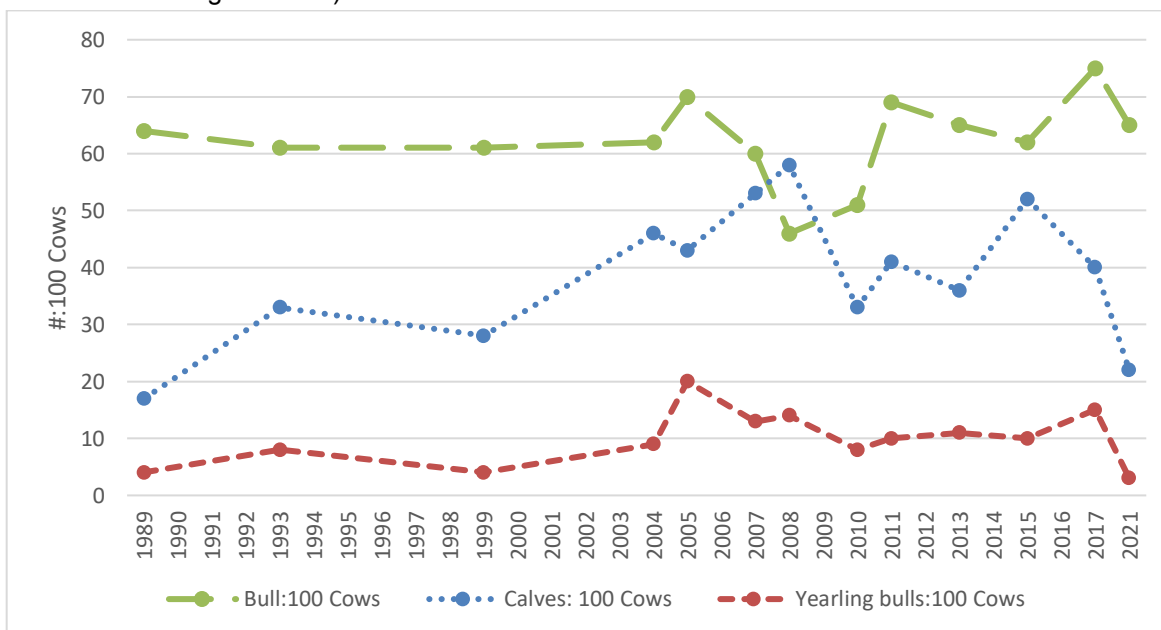


Figure 2. Bull:cow, calf:cow, and yearling bull:cow ratios for Kanuti National Wildlife Refuge (Stout 2014, 2018; Julianus and Longson 2018; Stout and Longson 2022).

Cultural Knowledge and Traditional Practices

The subsistence practices of the federally qualified subsistence users in Unit 24 reflect the cultural traditions of Koyukon Athabascans, Nunamiut Inupiat and Euro-American settlers. Subsistence culture is adaptive, opportunistic, and highly “flexible” (Nelson et al. 1978). It is based on broad knowledge of and dependence upon all available resources, which are affected by fluctuations of human and wildlife populations, migrations, and continuous environmental change (Nelson et al. 1978). The primary sources of protein in Upper Koyukuk subsistence harvests have shifted dramatically during living

memory (Nelson et al. 1978). Prior to the availability of caribou and moose, Upper Koyukuk Elders described reliance on small land mammals and birds (mostly hare and ptarmigan), black bear harvest in the spring-fall, and fish (salmon and Sheefish/whitefish) in summer (Nelson et al. 1978; Marcotte and Haynes 1985). As caribou (late 19th early 20th century) and moose (early 20th century) became more numerous, populations of small land mammals began to decline and caribou and moose became the dietary staple (Nelson et al. 1978; Marcotte and Haynes 1985). The population of the Western Arctic Caribou Herd decreased dramatically in the early 1970s and the Alaska Board of Game (BOG) severely limited caribou hunting in the Upper Koyukuk area (Nelson et al. 1978). Some residents attributed this decline to the Trans-Alaska oil pipeline, forest fires, and disruption of caribou herds caused by harvesting caribou herd leaders (Nelson et al. 1978; Marcotte and Haynes 1985; Marchioni and Andersen 2012).

People depended largely on moose for subsistence for much of the late 20th century. In 1976-77, anthropologist Richard Nelson worked with Upper Koyukuk River communities Alatna, Allakaket, Hughes and Huslia. Nelson reported, “At the present time, moose is by far the most important mammal in the economy of all Koyukuk villages...”. Village residents told Nelson that moose slowly began to arrive in the Upper Koyukuk approximately 100 years ago. They were first harvested locally in the 1930s and became established in the 1960s (Nelson 1978; Marcotte and Haynes 1985; FSB 1992). During the 1976-77 study, Upper Koyukuk residents said they were “...very protective of their moose, careful to husband the resource with prudence, concerned that it is the vital link holding them to their traditional livelihood” (Nelson et al. 1978). Nelson said, “The people are also deeply concerned today about conservation of moose in the face of growing pressure from outside hunters” (Nelson et al. 1978). At the 1992 Board meeting, participants expressed concerns about increased public access that might result after the opening of the Dalton Highway (FSB 1992).

The subsistence culture of the Upper Koyukuk continues because of the flexibility to adapt to shifting harvests. Both past and recent studies indicate; however, that residents have increasing concerns about decreases in fish and wildlife populations that are occurring at the same time and testing harvest flexibility (Nelson et al. 1978; Marcotte and Haynes 1985; Hutchinson-Scarborough et al. 2012; Wilson and Kostick 2016; Marchioni and Andersen 2012; FSB 1992).

During the most recent closure review in 2019, the Board maintained the closure because Allakaket and Alatna’s subsistence needs were not being met and residents were concerned about increased moose mortality due to deep snow and changing winter weather patterns (WIRAC 2019). Concerns for subsistence practices in Allakaket and Alatna and the low abundance of Kanuti CUA moose were the primary reasons for the original closure in 1992.

The Kanuti CUA is Allakaket and Alatna’s primary moose hunting area (Marcotte and Haynes 1992: 51). Tanana Chiefs Conference (TCC) submitted the original proposal to close the area, P92-115. They requested a moose hunting closure for all of Unit 24 except for five villages: Alatna, Allakaket, Bettles, Evansville and Hughes. Although TCC included these five villages: the Board discussion was focused on the unmet subsistence needs of Allakaket and Alatna. The TCC representative explained that Hughes would probably not hunt in the Kanuti CUA, because they hunt in an area with higher moose

density compared to Allakaket and Alatna, which “...biologists have always recognized ... has been a really poor area. The moose density is low” (FSB 1992). The Chair of the Interior Regional Council stated “...in recent years, the subsistence needs for moose has not been satisfied in the upper part and especially in Allakaket and Alatna” (FSB 1992).

At the 1992 FSB meeting, the Board discussed reasons for the scarcity of moose in the Kanuti CUA. Factors included high wolf predation, competition from sport hunters and winters with long periods of deep cold after mid-winter with repeated thaws and freezing. These conditions increase moose mortality and decrease recruitment (Nelson et al. 1978). Alaska Department of Fish and Game (ADF&G) biologists said the harvest of cow moose was a contributing factor (FSB 1992). The winter harvest of cow moose is common in subsistence economies, including the Upper Koyukuk, because they have much more fat than bulls (Nelson et al. 1978). There are cultural rules about the winter cow hunt; residents are not allowed to harvest them close to the village or when they have a calf (Hutchinson-Scarborough et al. 2012).

The “harvestable surplus” of moose was discussed in detail. At that time, the estimated moose population in the Kanuti CUA was 1,200. Biologists reported that wolves take approximately 100 moose per year, which left a harvestable surplus of about 56 moose for subsistence hunters (FSB 1992: 56-61). Attempts to address these issues include the continued prohibition of hunting for moose by plane in the Kanuti CUA and ADF&G implementation of wolf control in the area. Residents continue to state that wolf predation affects both moose and caribou mortality (Hutchinson-Scarborough et al. 2012; Marchioni and Andersen 2012).

Although subsistence users in the area have harvested and consumed less moose over the decades, moose continues to be a critical subsistence resource, especially since other resources have also become scarce. As early as Nelson’s 1976 research, Upper Koyukuk residents expressed concerns about decreasing numbers of salmon, which they attributed to commercial fishing (Nelson 1978). In 2011, harvest surveys indicated that large land mammals were filling the space left by declining salmon runs (Hutchinson-Scarborough et al. 2012; Wilson and Kostick 2016). **Table 2** shows that Allakaket moose harvests have declined substantially between 1997 and 2011.

The most recent subsistence data is from studies conducted in Allakaket and Alatna in 2011 by the ADF&G Division of Subsistence. These studies were funded as planning and compliance documents for multiple proposed infrastructure projects in the area (Brown et al. 2016; Holen et al. 2012). These data, presented in the figure and tables below, show the range of resource harvests over thirty years. **Figure 3** shows the pronounced decrease in salmon harvest and the increase in large land mammal harvest (Hutchinson-Scarborough et al. 2012).

Table 1 shows the pronounced decrease in the salmon harvest over 30 years; in 2011 the percentage of the salmon harvest is less than half of what it was in 1982 and in 2011, the large land mammal harvest is almost three times what it was in 1982 (Hutchinson-Scarborough et al. 2012).

Table 2 shows the numbers and types of large land mammals harvested from 1982-2011. The number of caribou harvested reflects the fluctuation in the migration routes of the caribou. The moose harvest

in 2011 was less than half of what it was in 2002 (Hutchinson-Scarborough et al. 2012). Allakaket residents stated that the high caribou harvest in 2011 was unusual because the caribou were much closer than they had been for some time (Hutchinson-Scarborough et al. 2012). The community stated that their moose harvests were lower in 2011 because of the availability of caribou (Hutchinson-Scarborough et al. 2012). Some community residents expressed concerns that the moose population seems to be low and cited increasing numbers of predators as a problem (Hutchinson-Scarborough et al. 2012).

The most recent subsistence harvest data from household surveys for Allakaket and Alatna are more than ten years old. While it would be helpful to have updated information, these data indicate that moose and caribou harvests are more critical because salmon harvests have decreased substantially since 2011 due to fishery closures. This situation shows the importance of considering the entire subsistence harvest when reviewing the harvest closure of one species.

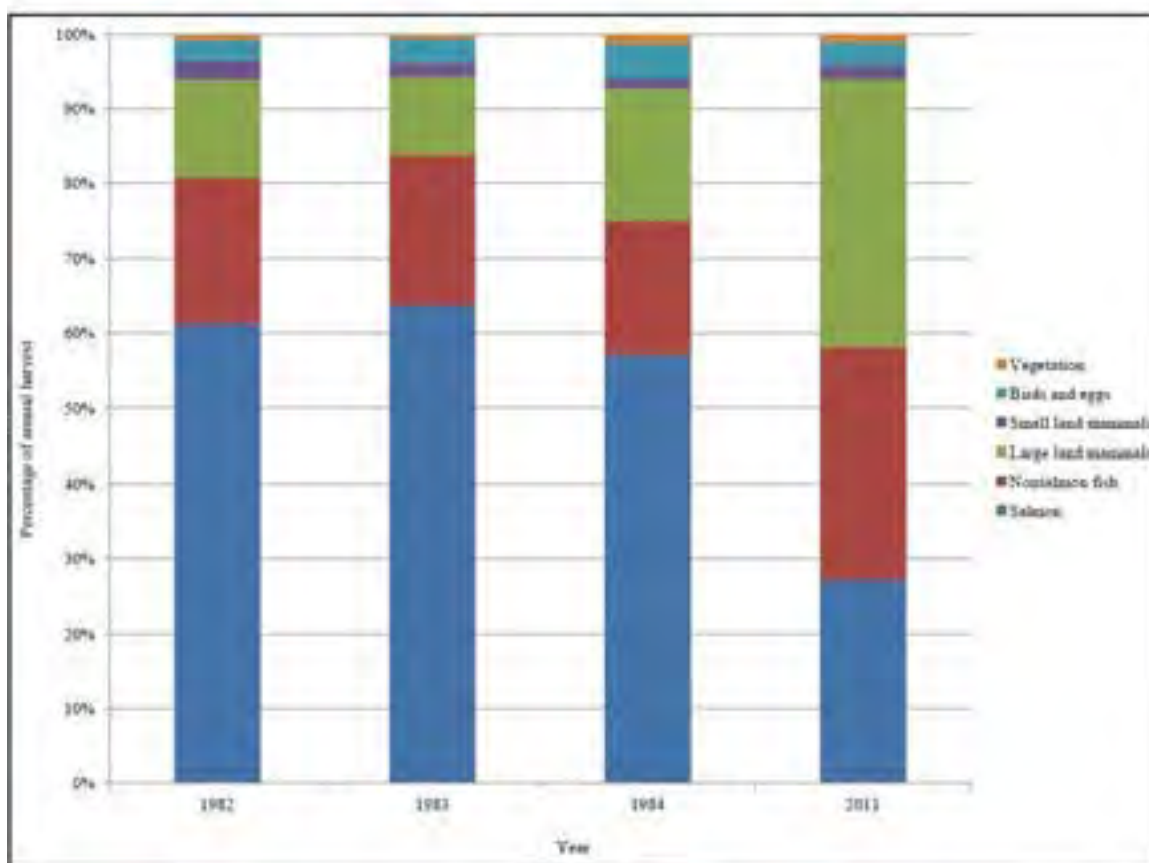


Figure 3. Percentage of harvests, Alatna and Allakaket, 1982, 1983, 1984, and 2011 (Hutchinson-Scarborough et al. 2012).

Table 1. Percentage of harvests by resource, Alatna and Allakaket, 1982, 1983, 1984, and 2011 (Hutchinson-Scarborough, L., D. Andersen, and M. Marchioni 2012).

Resource	Percent of total harvest			
	1982	1983	1984	2011
salmon	61.2%	63.8%	57.1%	27.2%
non-salmon fish	19.6%	20.1%	17.8%	31%

large land mammals	13.1%	10.5%	17.8%	35.7%
Small land mammals	2.6%	1.9%	1.4%	2%
Birds and eggs	2.7%	3.2%	4.6%	2.9%
Vegetation	.8%	.6%	1.3%	1.2%

Table 2. Estimated harvests of large land mammals, Alatna and Allakaket, 1982, 1983, 1984, and 2011 (Hutchinson-Scarborough, L., D. Andersen, and M. Marchioni 2012).

Resource	1982	1983	1984	1997	1998	1999	2001	2002	2011
black bear	21	8	21	14	11	11	25	19	26
brown bear	1	1	1	0	0	2	1	0	1
caribou	4	0	4	32	54	13	9	140	124
moose	39	26	39	52	42	43	41	47	21
Dall sheep	2	0	2	ND	ND	ND	ND	ND	4

Harvest History

The Management Plan prescribes a maximum annual harvest rate of 5% for the Kanuti CUA moose population (ADF&G 2001). The Management Plan considers this a conservative harvest rate that is necessary due to significant mortality from predation. Given the 2021 population estimate for Kanuti NWR (952 moose), the 2021 harvestable surplus for Kanuti NWR was 48 moose.

Given the closure to non-Federally qualified users, all moose harvest on Federal public lands in the Kanuti CUA occurs under Federal regulations by Federally qualified subsistence users. Users with C&T for moose in the Kanuti CUA include residents of Unit 24, Galena, and Koyukuk. However, the primary harvesters are from Allakaket, Alatna, Bettles, and Evansville (FSB 1992).

In 1992, when the Board closed the Kanuti CUA to moose harvest by non-Federally qualified users, an estimated 50-75 moose were being harvested from the CUA by both subsistence and sport hunters each year, although annual reported harvest was 30 moose. ADF&G and Kanuti NWR staff recommended harvest from the CUA not exceed 50 moose per year (FSB 1992). A representative from the TCC the proposal's proponent testified that harvest pressure on moose was increasing because local people were depending more on moose to meet their subsistence needs given declines in caribou abundance. The Chair of the Interior Regional Council testified that subsistence needs in Allakaket and Alatna were not being met. The ADF&G representative testified that unlike other portions of Unit 24, most of the harvest from the Kanuti CUA was by local residents because of aircraft restrictions (FSB 1992).

Between 2006 (when Unit 24 was divided into subunits) and 2018, moose harvest by Federal registration permit in Unit 24B totaled 37 moose, ranging from 0-5 moose reported harvested per year (OSM 2018). Over the same time period, a total of 371 Federal permits were issued, ranging from 13-72 permits per year, indicating low success rates (**Figure 4**) (OSM 2019). In 2018 Federal regulations were changed and only a State permit and harvest ticket were required, instead of a Federal permit.

Between 2006 and 2017, annual reported moose harvest under State regulations in Unit 24B ranged from 23 - 49 moose and averaged 34.5 moose (**Figure 5**) (ADF&G 2018b). Non-local hunters

accounted for the majority of the State-reported moose harvest in Unit 24B. Federally qualified subsistence users (those with C&T) only accounted for 28% of the reported moose harvest on average (ADF&G 2018b). Since the closure of the Kanuti CUA in 1992, reported moose harvest, moose hunters, and harvest success rates under State regulations in Unit 24B have all trended downward (**Table 3**) (ADF&G 2018b). Over 95% of reported harvests occur in September (Stout 2018).

Illegal and unreported moose harvest in Unit 24 is significant and hampers management (Stout 2014). Between 2006 and 2015, ADF&G has estimated unreported moose harvest for all of Unit 24 as 135-144 moose per year and that 60-70% of unreported harvests are cows (Stout 2014, 2018). Using community household survey data between 1997 and 2002, Stout (2018) estimated unreported harvest rates for non-local hunters and local residents of Unit 24 as 17.7% and 76%, respectively. Much of the unreported harvest likely occurs between October and March. These data are based on intermittent household surveys, historical information, and public interviews (Stout 2014, 2018). Additionally, household surveys are intended to demonstrate community harvest patterns and resource use, rather than precise harvest numbers.

Between 1997 and 2011, annual moose harvest by the communities primarily responsible for moose harvest within the Kanuti CUA (Alatna, Allakaket, Bettles, and Evansville) ranged from 26-55 moose/year according to household survey data and from 3-10 moose/year according to State harvest reports (**Table 4**) (ADF&G 2018b, 2018c). This corresponds to unreported harvest rates of 81%-92% (**Table 4**). The number of moose actually harvested from the Kanuti CUA is unknown. The household survey data does not specify area and the State harvest reports are for all of Unit 24B.

However, unreported harvest rates were much lower for the Federal registration permit hunt (**Figure 4**). While most of the moose harvest in Unit 24B occurs under State regulations, unreported harvest rates for the Federal hunt between 2006 and 2018 only averaged 18%, ranging from 0%-44% per year (OSM 2019). These high reporting rates are likely due, in part, to good communication between local residents and Kanuti NWR staff who administered the Federal hunt and issued the permits.

At the 2019 winter Council meeting, the Council Chair stated that recent moose harvest in Allakaket and Alatna has been fairly low. The Koyukuk River Advisory Committee reported that only nine moose had been killed in these communities during the 2018 fall season, one in the Koyukuk CUA and eight locally (WIRAC 2019). Additionally, moose started moving later in fall 2018 due to warmer weather, resulting in local hunters spending a lot of time and fuel searching for moose (WIRAC 2019).

Table 3. Averages of reported harvest, number of hunters, and harvest success rates for moose in Unit 24B according to State harvest reports (ADF&G 2018b, 2022).

Years	Moose Harvest	Moose Hunters	Success Rate (%)
1987-1991	59.6	116.2	51.5
1992-2004	45.2	108.4	41.5

2005-2017	34.5	98.0	35.5
1992-2017	39.8	103.2	38.5
2018-2021	32	85	38.0

*In 2018, Federal regulations were changed to require State harvest tickets and permits instead of a Federal registration permit.

Table 4. Community household survey and reported moose harvests (ADF&G 2018b, 2018c, OSM 2019).

	Alatna	Allakaket	Bettles	Evansville	Household Survey Total	Reported Harvest Total	% Unreported
1997	9	43	0	3	55	7	87.3
1998	5	37	7	4	53	10	81.1
1999	6	37	2	2	47	8	83.0
2001	6	35	no data	no data	41	6	85.4
2002	12	35	0	0	47	4	91.5
2011	4	19	2	1	26	6*	76.9

*includes 3 moose reported by Federal permit. (No Federal permit hunts existed before 2006)

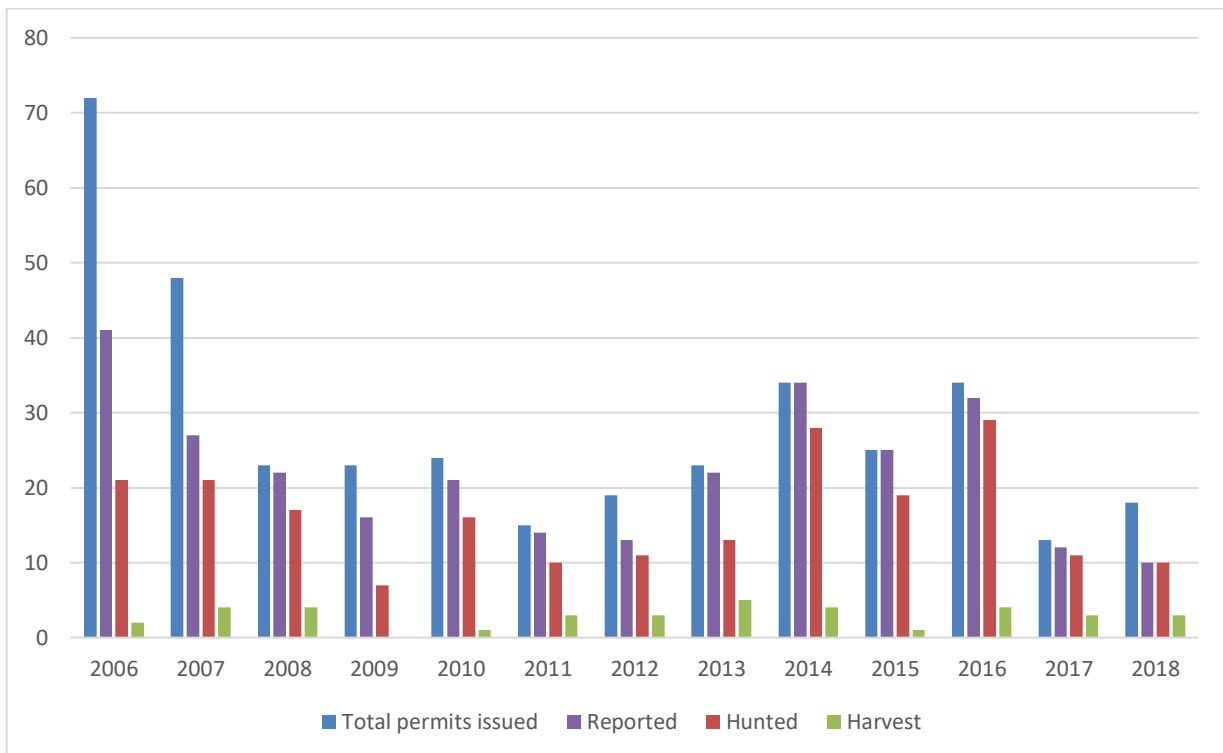


Figure 4. Number of permits issued and reported, hunters attempting harvest, and moose reported harvested for the Federal registration permit moose hunts (FM2401-FM2404) in Unit 24B (OSM 2019).

The vast majority of Federal permit holders (95%) lived in Allakaket or Alatna. The remaining 5% of permit holders lived in Bettles.

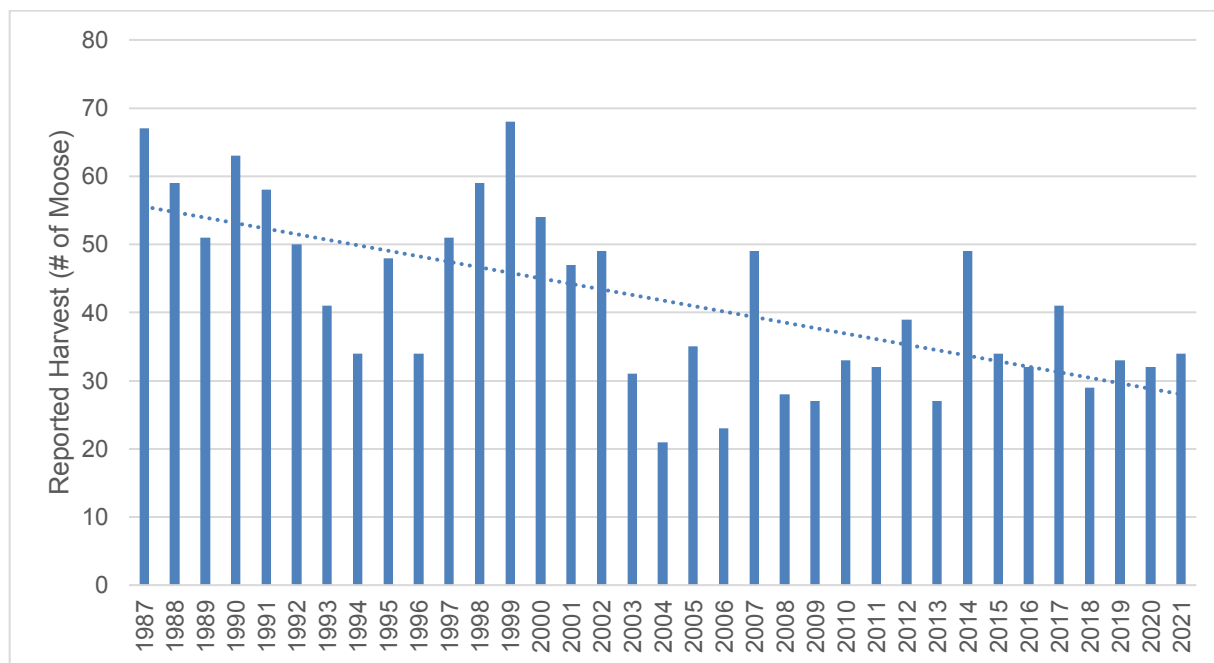


Figure 5. Reported moose harvested under State regulations in Unit 24B from 1987 to 2021 (ADF&G 2018b, 2022).

Effects

Retaining the status quo would continue to provide for continued subsistence priority. In 2020, when the closure was reviewed, it was determined that the communities of Allakaket and Alatna were not meeting their subsistence needs.

Biologically, the closure no longer seems warranted, due primarily to very high bull:cow ratios. Consistently high bull:cow ratios suggest there are surplus bulls available for harvest and only bulls can be legally harvested in Unit 24B. While the Kanuti CUA moose population has remained statistically stable since the closure was initiated in 1992, high calf:cow ratios and observed increases in the 2015 and 2017 population estimates indicate the moose population may be growing. Since 2018, two of the four winters have been considered severe, one mild, and one moderate. Even with these tough weather events the calf:cow ratios and observations remain within the levels considered to be stable.

Modifying the closure by eliminating the winter season portion of the closure during, Dec. 15 – Apr. 15, would be the conservative approach. Maintaining a closure from Aug. 15 – Oct. 1 helps community member of Allakaket and Alatna to meet their subsistence needs, while opening the winter season addresses the lack of conservation concern. The State season for moose is currently open to both residents and non-residents Sept. 5 – 25. Eliminating the closure during the Aug. 25 – Oct. 1 Federal season, may bring in a larger number of non-Federally qualified subsistence users to hunt the Kanuti CUA, resulting in unsustainable harvest.

OSM CONCLUSION:

- ☐ **Retain the Status Quo**
- ☐ **Rescind the Closure**
- ☒ **Modify the closure** to eliminate the closure during the winter season and clarify regulatory language
- ☐ **Defer Decision on the Closure or Take No Action**

The modified regulations should read:

Unit 24B–Moose

Unit 24B, remainder 1 bull by state harvest ticket

Aug. 25-Oct. 1

OR

1 antlered bull by State registration permit

Dec. 15-Apr. 15

*Federal public lands in the Kanuti Controlled Use Area, as described in Federal regulations, are closed to taking of moose **Apr. 16-Dec. 14**, except by Federally qualified subsistence users ~~of Unit 24, Koyukuk, and Galena~~ hunting under these regulations*

Justification

The Kanuti CUA was closed for conservation and continuation of subsistence uses reasons. Biologically, the closure no longer seems warranted, primarily due to very high bull:cow ratios, while population estimates since 1999 indicate a stable moose population. Moreover, harvest of mature bulls in a population with high bull:cow ratios should not materially affect population growth.

Prior to the 1992 closure, local hunters harvested most of the moose from the Kanuti CUA due to aircraft restrictions. Since 1992, average annual reported harvest from Unit 24B has declined, and most moose are harvested in September. This suggests opening the Kanuti CUA from, Dec. 15 – Apr. 15, to non-Federally qualified users may result in small increases in reported moose harvests. A rural subsistence priority would be maintained during the Federal fall season when the majority of moose are harvested.

However, it is not clear if the closure is needed for the continuation of subsistence uses. Harvest data in this area is limited, particularly over the last ten years. However, federally qualified subsistence users have noted that they are relying more on moose and other large mammals as salmon levels have declined. Estimated high unreported harvest rates and intermittent household surveys preclude accurate harvest information for Federally qualified subsistence users. Whether or not subsistence needs of

Federally qualified subsistence users are being met is unknown, although high bull:cow ratios indicate bull moose are available for harvest and meeting subsistence needs.

A conservative approach would be to open the Dec. 15 – Apr. 15 season to non-Federally qualified subsistence users, followed by an evaluation of any changes in the moose population, bull:cow ratios, and harvest, while leaving the Aug. 25-Oct. 1 season closed to non-Federally qualified users.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Western Interior Alaska Subsistence Regional Advisory Council

Modify the closure as recommended by OSM on WCR24-20. The Council is opposed to the elimination of the fall component of the closure. The Council is concerned with the current number of nonlocal hunters that come into the area adjacent to the closure during the fall and is also concerned that declining moose populations in other areas in the region will result in an even greater influx of nonlocal hunters into the area if the closure is eliminated entirely. The Council is supportive of eliminating the winter portion of this closure as information presented to the Council indicate there is little biological concern with the current bag limit of one antlered bull, and few nonlocals currently attempt to participate in the concurrent state winter hunt indicating no federally qualified subsistence users would be displaced while participating. The Council looks forward to being updates from the ongoing moose survey results in this area to ensure this recommendation is warranted.

INTERAGENCY STAFF COMMITTEE COMMENT

Wildlife Closure Review WCR24-20 reviews a closure that was established in 1992. In 2020, during the last review of this closure, the Federal Subsistence Board (Board) maintained the closure. The Board was concerned about the communities of Allakaket and Alatna who reported not meeting their subsistence needs, and the low abundance of moose in the Kanuti Controlled Use Area.

Biologically the moose population appears stable, but the Western Interior Alaska Subsistence Regional Advisory Council is opposed to the elimination of the fall component of the closure. They are concerned there will be an influx of non-local hunters in the fall. Modifying the closure to open the winter hunt only seems to be a reasonable compromise in deference to the Council and to support the continuation of subsistence uses.

ALASKA DEPARTMENT OF FISH AND GAME COMMENT

Wildlife Proposal WCR24-20

This is the routine review of the current closure to non-federally qualified users (NFQU) to moose hunting on federal public lands in the Kanuti Controlled Use Area (KCUA) in Game Management Unit (Unit) 24B.

Position

The Alaska Department of Fish & Game (ADF&G) **SUPPORTS** rescinding this closure. Under the Alaska National Interest Lands Conservation Act (ANILCA) the Federal Subsistence Board (FSB) has specific stipulations in which to enact closures. Section 815 of ANILCA authorizes federal restrictions on nonsubsistence uses on the public lands only if “necessary for the conservation of healthy populations of fish and wildlife” or if necessary to “continue subsistence uses.” Currently, these stipulations no longer apply as there are no longer any conservation concerns and there are no indications that opening hunting opportunities to NFQUs would impact subsistence uses.

Background

Harvestable surplus estimates for Unit 24B are calculated by multiplying the current moose abundance estimates by the prescribed harvest rate management of 5%. Moose abundance estimates in Unit 24B use the Kanuti National Wildlife Refuge (KNWR) survey data (Table 1), additional survey blocks completed in Unit 24B, and extrapolated estimates for unsurveyed portions of Unit 24B from similar habitats.

The 2021 moose abundance estimate for the Kanuti Refuge was 952 (783-1,121) moose, which was not significantly different from the long-term average (2004-21; \bar{x} = 917 moose). The bull composition was still high in the 2021 survey at 56 bulls:100 cows. Recruitment of calves and yearlings in 2021 (22 calves:100 cows, 2.8 yearling bulls:100 cows) was below previous surveys, likely due to severe winter weather from 2017-18 through 2019-20 (Table 1). Single year results of the 2021 survey are below previous counts but do not represent a trend in the current dataset and are indicative of a stochastic weather event.

Using all other available survey data and extrapolations, the Unit 24B moose population estimate for 2022 was 3,203 moose (2,353-4,053 moose), which provides for an annual harvestable surplus of at least 118-203 moose, at the prescribed harvest rate of 5%.

Table 1. Moose population estimates for surveys conducted on the Kanuti National Wildlife Refuge (RY89-RY21).

Regulatory year	Survey area (mi ²)	Bulls: 100 cows	Yearling bulls:100 cows	Calves: 100 cows	Twins:100 cows with calves	Percent calves	Moose (90% C.I.)	Moose/ mi ²
1999–2000 Kanuti NWR	2714	59	4.4	30.2	5.4	16.0	1003±20.7%	0.37

2004–2005 Kanuti NWR	2710	62	8.6	46.4	n/a	20.7	842±28.6%	0.31
2005–2006 Kanuti NWR	2710	70	20.1	42.9	30.1	19.7	1026±43.3%	0.38
2007–2008 Kanuti NWR	2715	60	12.8	52.6	22.3	24.7	588±21.4%	0.22
2008–2009 Kanuti NWR	2715	46	14.1	57.7	9.0	28.5	872±23.2%	0.32
2010–2011 Kanuti NWR	2715	51	7.5	32.9	6.8	17.5	1068±11.5%	0.39
2011–2012 Kanuti NWR	2715	69	9.5	40.9	18.5	19.9	797±19.3%	0.29
2013–2014 Kanuti NWR	2715	65	11.1	35.8	10.7	19.6	551±25.7%	0.20
2015–2016 Kanuti NWR	2715	62	9.5	50.4	17.7	24.7	1158±18.3%	0.43
2017–2018 Kanuti NWR	2715	75	15.1	39.5	13.4	17.7	1311±19.2%	0.48
2021–2022 Kanuti NWR	2715	56	2.8	21.8	12.2	12.1	952±17.8%	0.35

The average annual harvest (RY10-RY21) in Unit 24B was 65 moose (35 reported + 30 estimated unreported; Table 2), therefore the estimated harvest comes nowhere close to the harvestable surplus of at least 118-203 moose. Subsequently, Unit 24B can support an additional harvest of up to 53-138 moose. Because Unit 24B moose estimates are based upon “observed” moose, the actual annual harvest rates are conservative and likely lower than 2%. Since 1992, the Alaska Board of Game (BOG) and FSB have repeatedly affirmed that a harvestable surplus exists, with numerous season extensions in Unit 24B. In 1992, there were 32 days of state and federal moose hunting. There are currently 146 days of state and 255 days of federal moose hunting opportunity in Unit 24B.

The transcripts of the 9 April 1992 Federal Subsistence Board meeting, when the Kanuti Closure was adopted, reveal that the FSB members could not reconcile the data presented but voted to close the KCUA regardless of that problem. The justification for the closure in 1992 used incorrect data, and subsequent reviews of the closure have persisted in affirming that flawed decision.

FSB transcripts

Issue#: P92-115

Board Date and Page: (04/09/92)44-61

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MR. BARTON: I understand from somebody's statement, and I don't remember who, that there were 50 to 75 animals per year harvested in that area. On page 635 of the Proposal 115, it states that there is an allowable harvest of 210. And I'm not sure who is the source of that. But if you assume that that's credible, then it seems like that there is 125 animals out there eligible to be harvested.

MR. MARSHALL: I believe that might refer to the whole GMU.

MR. BARTON: Pardon me?

MR. MARSHALL: I think the last figure, 200 and something, might refer to the whole GMU. In the controlled used area it would be about 50.

MR. BARTON: The allowable surplus would be - - or the harvestable surplus would be about 50 in the controlled...

MR. MARSHALL: For the controlled use area. I suspect, I'm not sure, that that figure might apply to the whole GMU.

MR. POSPAHALA: George, could I ask you to clarify that. I'm having a little trouble understanding this. But that's - - that figure that you use in the - - in the proposal itself, does it relate to the controlled use area and that's an allowable harvest of 210? That relates to the controlled use area?

MR. YASKA: To the Kanuti Controlled Use Area. Yes, it does.

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MR. BARTON: I'm still puzzled by the numbers. Given that last exchange it still sounds like there's 50 extra moose out there to be harvested.

MR. MARSHALL: Human take would be 50. Total human take.

MR. MCVEE: Basically we have two sets of numbers. We have, and probably can't rationalize the difference between - between those numbers at this point. It's kind of a matter of picking - - picking one and taking action on that basis. The motion is to close the Kanuit Special Management Area to non federal qualified users. Is that stated properly?

MR. POSPAHALA: On federal public lands.

MR. MCVEE: On federal public lands. Okay. Further discussion? Are you ready for the question?

MR. BUCKLE: Question.

MR. MCVEE: All in favor of the motion, aye?

IN UNISON: Aye.

MR. MCVEE: Opposed, nay?

MR. BARTON: Nay.

MR. MCVEE: Motion passed.

Furthermore, the participants in the discussion did not understand how harvestable surplus is calculated and did not understand that harvestable surplus is the surplus of moose that is available after all other mortality factors have been accounted for. The transcripts demonstrate all the participants were subtracting moose mortality due to wolves, from the harvestable surplus after wolf mortality had already been accounted for. They were clearly double counting wolf mortality.

FSB transcripts (cont.)**Board Date and Page: (04/09/92)44-61****Pg. 51**

MR. YASKA: Yeah. Sure. There was a moose census in this area and that's the figure we provided. After that discussion though, further with the refuge manager and the - - Tim (indiscernible) and his biologist and Tim Osborn, who's with the Department of Fish and Game based in Galena, we realized that we didn't account for the wolf predation which is substantial and growing. And the refuge itself has taken on wolf colony study to look at that problem. And that's a figure that we didn't account for. So theoretically it would at 210 allowable harvest but then there's the wolf harvest also, which we didn't account for.

MR. BARTON: 210 in what area?

MR. YASKA: Of the Kamuti Controlled Use Area. Or that's where the census is. There are also other census down on the Koyukuk River Controlled Use Area which is further gone into. And - - and I just wanted to add, to, that part of the problem here is this - - the people there are - - are dipping in both the population of both sex. And this is where the concern stems from, is that they're going further perhaps than they should and they'd like another means to address it.

...

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MR. MCVEE: Did I understand what George just said, the 210, you know, is both hunters and predators.

MR. YASKA: The - - well, I'm not sure if I got that right. The 210 figure is for - - is only accounting for human - - human take. However, we didn't consider the take of predation, rather the wolves. And in that case the allowable harvest then would drop from 210 to a lower number. And it hasn't been quite agreed on what that is yet.

...

This long-standing misunderstanding has never been addressed in any of the previous closure reviews and the misapplication of the closure has persisted. The moose population and harvest estimates have changed very little since 1992, and the moose population in 24B continues to provide more than twice as many moose then what are harvested. The recent OSM staff analysis is correct to conclude that there is no biological justification for the current closure.

Impact on Subsistence Users

The closure on federal lands only allows moose hunting by federally qualified users (FQU) residing in Unit 24, Galena, and Koyukuk. Rescinding this closure would allow all subsistence users to utilize this resource.

Impact on Other Users

If the closure on federal lands is eliminated in the Kanuti CUA other hunters would be able to take advantage of the persistent harvestable surplus that is present and hunt on federal public lands.

Opportunity Provided by State:

State customary and traditional use findings: The Alaska Board of Game (BOG) has made positive customary and traditional use findings for moose in Unit 24B.

Amounts Reasonably Necessary (ANS) for Subsistence: Alaska state law requires the Board of Game to determine the amount of the harvestable portion of a game population that is reasonably necessary for customary and traditional uses. This is an ANS. The BOG does this by reviewing extensive harvest data from all Alaskans, collected either by ADF&G or from other sources.

Contrary to its name, ANS does not indicate subsistence “need”. Instead, ANS provides the BOG with guidelines on typical numbers of animals harvested for customary and traditional uses under normal conditions. Hunting regulations can be re-examined if harvest for customary and traditional uses are consistently below ANS. This may be for many reasons: hunting regulations, changes in animal abundance or distribution, changes in human use patterns, etc.

The ANS for moose in Unit 24 (combined) is 170–270 animals. The season and bag limit for moose in Unit 24B is:

Open to	Unit/Area	Bag limit	Permit or hunt	Open Season
Residents	Kanuti Controlled Use Area	One bull, or	Harvest Ticket ^a	Sept 1–Oct 1
Residents		One antlered bull by permit available online or in person in Hughes, Allakaket, and Fairbanks beginning Dec 1	RM833 ^b	Dec 15–Apr 15
Nonresidents		One bull with 50-inch antlers or antlers with 4 or more brow tines on at least one side	Harvest Ticket ^c	Sept 5–Sept 25
Residents	24B Remainder	One bull, or	Harvest Ticket ^a	Sept 1–Sept 25
Residents		One antlered bull by permit available online or in person in Hughes, Allakaket, and Fairbanks beginning Dec 1	RM833 ^b	Dec 15–Apr 15
Nonresidents		One bull with 50-inch antlers or antlers with 4 or more brow tines on at least one side	Harvest Ticket ^c	Sept 5–Sept 25

^aSubsistence and General Hunt.

^bSubsistence Hunt.

^cGeneral Hunt.

The Allakaket/Alatna moose harvest is low, but stable based on Subsistence Section household surveys and reported harvest using harvest report cards. Reported harvest is variable, and reporting rates vary from 25% to 50% of the household survey estimates. Total harvest in Unit 24B is also stable (Table 2). Stable harvest levels and high bull:cow ratios corroborate the assessment that moose harvest is well below harvestable surplus. It is important to recognize that some Allakaket/Alatna harvest occurs outside of the KCUA, therefore harvestable surplus calculations cannot be isolated to just the KCUA. Additionally, Unit 24B constitutes the boundaries for assessing the moose population, not the KCUA boundaries. The proper areas for consideration of harvest and the moose population are fundamental to an accurate harvestable surplus calculation.

Table 2. Reported moose harvest data in Unit 24B obtained from Div. of Subsistence Household surveys and harvest reports turned in to Div. of Wildlife Conservation (RY11-RY21).

RY	Allakaket/Alatna Household Surveys ^a	Harvest Reports ^b		
	Estimated Harvest	Allakaket/Alatna harvest in 24(B)	Other Hunters	24(B) Total Harvest ^c
2011	16.2	4	28	32
2012	18.7	13	26	39
2013	11.8	3	24	27
2014	20.0	12	37	49
2015	18.3	7	27	34
2016	20.7	12	20	32
2017	18.0	10	31	41
2018	na	8	21	29
2019	na	10	23	33
2020	na	13	19	32
2021	na	11	24	35
Avg.	17.7	9.4	25.5	34.8

^aAlatna and Allakaket weighted averages calculated from Subsistence Division household surveys.

^bUnit 24(B) harvest reported on permits and harvest tickets.

^cAn unknown amount of moose harvest have occurred on federal harvest reporting mechanisms.

Special instructions: Kanuti Controlled Use Area – The area is closed to the use of aircraft for hunting moose, including transportation of moose hunters, their gear, and/or parts of moose. However, this prohibition does not apply to the transportation of moose hunters, their hunting gear, or parts of moose by aircraft between publicly owned airports, or the transportation into the area of game meat that has been processed for human consumption. The area consists of that portion of Unit 24B bounded by a line from a point at the northern most headwaters of Siruk Creek at 66° 48.557' N. lat. 153° 53.267' W. long., to the highest peak of Double Point Mountain at 66° 40.322' N. lat. 152° 30.132' W. long., to the northern end of Fish Creek Lake (including all water of the lake) at 66° 36.071' N. lat. 151° 27.936' W. long., to the east side of Old Dummy Lake (including all waters of the lake) at 66° 08.241' N. lat. 151° 49.276' W. long.,

to the south end of Lake Todatonten (including all waters of the lake) at 66° 07.556' N. lat. 152° 55.520' W. long., then back to the point of origination at Siruk Creek.

Conservation Issues

There are no conservation issues with the rescinding of this closure. Moose populations in the Kanuti CUA are stable and provide ample additional harvestable surplus. Even without the current prohibition on non-federally qualified users, harvest is unlikely to increase above sustainable levels. The prohibition on use of aircraft for moose hunting under state regulations, as well as distance to the hunt area will limit participation by nonlocal hunters.

Enforcement Issues

Determining if a moose was harvested on closed federal public lands or the adjacent state-managed hunt is difficult. Elimination of the federal closed area would simplify enforcement.

WP24-30/31 Executive Summary	
General Description	<p>Proposal WP24-30 requests closing Federal public lands in Units 23 to caribou hunting by non-federally qualified users from August 1 to October 31. <i>Submitted by: The Northwest Arctic Subsistence Regional Advisory Council</i></p> <p>Proposal WP24-31 requests closing Federal public lands in Units 23 to caribou hunting by non-federally qualified users from August 1 to October 31. <i>Submitted by: The North Slope Subsistence Regional Advisory Council</i></p>
Proposed Regulation	See page 1204 for full regulations.
OSM Conclusion	Support Proposal WP24-30/31 with modification to include a population threshold that would remove the closure once the Western Arctic Caribou Herd population exceeds 200,000 caribou.
Western Interior Alaska Subsistence Regional Advisory Council	Defer to home region
Seward Peninsula Subsistence Regional Advisory Council	Defer to home region
Northwest Arctic Subsistence Regional Advisory Council	Support
North Slope Subsistence Regional Advisory Council Recommendation	Support
Interagency Staff Committee Comments	Please see page 1221.
ADF&G Position	Oppose
Written Public Comments	None

STAFF ANALYSIS WP24-30/31

ISSUES

Wildlife Proposal WP24-30, submitted by the Northwest Arctic Subsistence Regional Advisory Council (Northwest Arctic Council), requests closing Federal public lands in Units 23 to caribou hunting by non-federally qualified users from August 1 to October 31.

Wildlife Proposal WP24-31, submitted by the North Slope Subsistence Regional Advisory Council (North Slope Council), requests closing Federal public lands in Units 23 to caribou hunting by non-federally qualified users from August 1 to October 31.

Note: Proposals WP24-28/29 also consider Federal caribou hunting regulations in Unit 23. Please refer to the WP24-28/29 analysis for duplicate information.

DISCUSSION

The Northwest Arctic Council and the North Slope Council stated that the Western Arctic Caribou Herd (WACH) population has been in decline for years and the low population level in 2022 is cause for concern. Both Councils are asking to close hunting of the WACH on Federal public lands in Units 23 to non-federally qualified users to help with conservation, while providing a meaningful subsistence priority for federally qualified subsistence users.

Existing Federal Regulation

Unit 23—Caribou

Unit 23—that portion which includes all drainages north and west of, and including, the Singoalik River drainage—5 caribou per day by State registration permit as follows:

<i>Bulls may be harvested</i>	<i>July 1–June 30</i>
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<i>Cows may be harvested. However, cows accompanied by calves may not be taken July 15–Oct. 14.</i>	<i>July 15–Apr. 30</i>
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Unit 23, remainder—5 caribou per day by State registration permit as follows:

<i>Bulls may be harvested</i>	<i>July 1–June 30</i>
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Unit 23–Caribou

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

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

Proposed Federal Regulation

Unit 23–Caribou

Unit 23—that portion which includes all drainages north and west of, and including, the Singoalik River drainage— 5 caribou per day by State registration permit as follows:

Bulls may be harvested July 1–June 30

Cows may be harvested. However, cows accompanied by calves may not be taken July 15–Oct. 14. July 15–Apr. 30

Federal public lands are closed to caribou hunting from Aug. 1–Oct. 31, except by federally qualified subsistence users hunting under these regulations

Unit 23, remainder— 5 caribou per day by State registration permit as follows:

Bulls may be harvested July 1–June 30

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

Federal public lands are closed to caribou hunting from Aug. 1–Oct. 31, except by federally qualified subsistence users hunting under these regulations

Unit 23–Caribou

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

Existing State Regulation

See WP24-28/29 analysis.

Extent of Federal Public Lands

See WP24-28/29 analysis.

Customary and Traditional Use Determinations

See WP24-28/29 analysis.

Regulatory History

See **Appendix 1** in WP24-28/29 analysis.

Current Events

State Proposals 38 request the same closure under State regulations. At their January 2024 meeting, the BOG amended Proposal 38 to open a nonresident drawing hunt with up to 300 permits, effective regulatory year 2025.

See WP24-28/29 analysis for current events pertaining to harvest limits for the WACH.

Biological Background

The TCH, WACH, and CACH have ranges that overlap in Units 26A and 24B (Map 1), and there can be considerable mixing of herds during the fall and winter (Prichard et al. 2020). As the wildlife proposals focus on conservation concerns for the WACH, this analysis will focus on the WACH. The TCH and CACH, primarily occupies Unit 26 (Dau 2011, 2015; Lenart 2011; Parrett 2011, 2015c, 2015d), and will not be considered further in this analysis.

See WP24-28/29 analysis.

Cultural Knowledge and Traditional Practices

The present-day human population in Unit 23 includes 11 regional Iñupiaq nations that were intact in the mid-19th century (Burch 1998). The estimated population of the Northwest Arctic Borough was 7,346 in 2022 (ADLWD 2022). Caribou have been a significant resource for the Iñupiat for thousands of years. Archaeological deposits at the Onion Portage site on the Kobuk River document 10,000 years of caribou hunting at this location, which is still used today (Anderson 1968, 1988), and even older archaeological deposits dated to circa 11,000 years ago occur in the Kivalina River drainage (Buvit et al. 2019).

The objective of the fall hunt has historically been to acquire large quantities of high-quality meat to freeze for winter (Burch 1994). Ideally, caribou harvesting occurs when the weather is cool enough to prevent spoilage of meat, but before freeze-up. Hunters search for caribou and attempt to intercept them at known river crossings, making the Kobuk and Noatak Rivers central to traditional hunt areas. Prior to freeze-up, bulls have traditionally been preferred because they are fatter than cows (Georgette and Loon 1993). After freeze-up, cows are preferred, because bulls are typically skinnier and in rut by then; the meat smells bad and is of poor quality (Braem et al. 2015). Small groups of caribou that have overwintered may be harvested by hunters in areas that are accessible by snowmachine.

During their March 7-8, 2023 meeting, Northwest Arctic Council members discussed the difficulties that communities have had in recent years in their efforts to harvest caribou. A Council member from Kotzebue said, “I had a lot of concerns regarding caribou. We know that they don't come through here anymore. I haven't gotten any fresh caribou meat within well over a year. It is a big concern.” He added, “This is beginning to get depressing because people aren't filling their freezers” (NWRAC 2023). Another Council member from Kotzebue said that caribou “didn't migrate down the last three years like they normally would...so that was another concern is that most of the villages where the caribou normally migrate didn't get caribou the last couple years or three years” (NWARAC 2023). These recent accounts build on several years of testimony showing that communities—especially those in the communities in the Kobuk River region—have been unable to harvest caribou at levels needed for subsistence (OSM 2022).

At their October 16-17, 2023 meeting, Northwest Arctic Council members gave updates on the availability of caribou during the fall season in progress. The Council Chair reported that hunters from Kotzebue had been traveling up the Noatak River to harvest caribou. The community of Noatak had also already had some success with their caribou harvest. Just as the Council met, caribou arrived in the Ambler area, and the Council member from Shungnak anticipated that caribou would arrive in his area soon also. However, The lower Kobuk River communities had not yet seen caribou.

Variability in resource availability is a feature of subsistence economies. Prior to settlement in permanent communities, residents of Northwest Alaska were seasonally nomadic, and were able to adapt to lack of local caribou availability by being mobile, as well as through extensive trading networks (Burch 1984). Communities depended on their Traditional Ecological Knowledge to remember how to draw on alternative resources and survive in difficult times (Minc 1986). Periodic severe shortages in subsistence resources caused larger and more permanent population shifts, such as outmigration from the Northwest Arctic region to the North Slope region in the 1880s (Burch 1984).

Caribou dominate subsistence harvest in most communities in the Northwest Arctic (Braem et al. 2015, 2017). In household harvest surveys conducted between 1964 and 2017, caribou were often the most harvested species, more than any other wild resource, in pounds of edible weight. Based on these surveys, the per person harvest of caribou has been as high as 430 pounds per year, as it was for Deering in 2013 (ADF&G 2021; **Table 7**).

Table 7 highlights variability in the estimated number of caribou harvested annually by Unit 23 communities, based on periodic subsistence surveys conducted by ADF&G, Division of Subsistence. Over time, estimated annual harvest tends to correspond with local availability of caribou. The average estimated annual pounds per person of caribou harvested across survey years ranges from a high of 255.3 pounds in Ambler to a low of 50.5 pounds in Point Hope (**Table 7**).

Table 8 compares percentages of surveyed Unit 23 households attempting to harvest caribou versus those succeeding in harvesting caribou, according to subsistence surveys. In practice, attempted harvest depends on the presence of caribou in traditional harvest areas. It is worth noting that the percentage of households attempting to harvest caribou in any year may adjust to perceived abundance or availability, so the percentage of households attempting to harvest caribou cannot be taken as a simple proxy of interest or need. However, the disparity between the percentage attempting to harvest and those harvesting can give us some limited information about whether caribou are available. The percent harvesting includes those who harvested even one caribou, so this measure cannot show whether people are getting as many caribou as they need.

Harvest data from comprehensive household surveys are not sufficiently up to date to provide accurate information on the full impact of reduced caribou numbers and delayed or truncated migration on subsistence harvest; new comprehensive subsistence surveys and key informant interviews are needed. Currently, ADF&G Division of Subsistence is conducting surveys of caribou harvest in Selawik, Shungnak, Noatak, Deering, and Kobuk. This research is scheduled to be completed in 2024 (Cold 2021).

In the current temporary closure to fall caribou hunting by non-federally qualified users in portions of Unit 23 and a small area in Unit 26A, approved by the Board in 2022 (WSA21-01a), the primary concern driving the Northwest Arctic Council's proposal was potential disruption of caribou migration pathways by transporters and non-local hunters. The rationale for the current proposal is based in the declining WACH population. Therefore, concerns about user conflict are not detailed here, but they continue to be a central concern for local residents, and the reader may refer to analysis of WSA21-01a (OSM 2022) for a full account of local concerns about the impacts of non-local hunters and transporters on caribou availability for federally qualified subsistence hunters.

Table 7. Two measures of caribou harvest between 1982 and 2018 in Unit 23 communities. Data is from the ADF&G, Division of Subsistence Community Subsistence Information System (CSIS 2021) with the following exceptions. Kotzebue data for 2002-2004 is from Whiting 2006; Noatak and Deering data for 2011 is from Mikow et al. 2014; 2018 data for Buckland is from Mikow and Cunningham 2020; Point Hope data for 2000-2001 is from Bacon et al. 2009, rev. 2011. Dashes indicate that no data is available.

Community	Year	Estimated Number of Caribou Harvested	Estimated Pounds of Caribou per Person
Kotzebue	2014	1,286	59
	2013	1,680	75
	2012	1,803	78
	2004	1,915	--
	2003	1,719	--
	2002	2,376	--
	1986	1,917	97
	Avg	1,814	77
Selawik	2011	683	109
	2006	934	165
	1999	1,289	249
	Avg	987	174.3
Kivalina	2010	86	32
	2007	268	85
	1992	351	138
	1983	564	283.9
	1982	346	179
	Avg	323	144
Noatak	2016	337	80
	2011	360	89.8
	2007	441	114
	2002	410	120
	1999	683	224
	1994	615	220
	Avg	474	141.3
Point Hope	2014	185	34
	2000-2001	219	--
	1994	355	67
	Avg	253	50.5
Lower Kobuk River			
Noorvik	2017	250	65
	2012	851	198
	2008	767	173
	2002	988	181

Community	Year	Estimated Number of Caribou Harvested	Estimated Pounds of Caribou per Person
	Avg	714	154.3
Kiana	2009	440	149
	2006	306	108.5
	1999	488	174
	Avg	411	143.8
Upper Kobuk River			
Ambler	2012	685	330
	2009	456	260
	2003	325	176
	Avg	489	255.3
Shungnak	2012	396	196
	2008	416	218
	2002	403	220
	1998	561	312
	Avg	444	236.5
Kobuk	2012	119	98
	2009	210	194
	2004	134	148
	Avg	154	146.7
Northern Seward Peninsula			
Buckland	2018	950	220
	2016	637	179
	2009	561	176
	2003	637	212
	Avg	696	196.8
Deering	2017	342	342
	2013	294	430
	2011-2012	237	206
	2007	182	161
	1994	142	131
	Avg	240	254

Table 8. Percent of surveyed Unit 23 households attempting to harvest and successfully harvesting caribou between 1986 and 2018. Data is from the ADF&G Division of Subsistence Community Subsistence Information System (ADF&G 2021) with the following exceptions. Noatak and Deering data for 2011 is from Mikow et al. 2014; 2018 data for Buckland is from Mikow and Cunningham 2020. Dashes indicate that no data is available.

Community	Year	Percent of Surveyed Households Attempting to Harvest Caribou	Percent of Surveyed Households Attempting to Harvest Caribou but Unsuccessful	Percent of Surveyed Households Harvesting Caribou
Kotzebue	2014	39%	10%	29%
	2013	43%	9%	34%
	2012	44%	5%	39%
	1986	50%	5%	45%
Selawik	2011	70%	16%	54%
	2006	65%	2%	63%
	1999	61%	0%	61%
Kivalina	2010	66%	37%	29%
	2007	64%	0%	64%
	1992	77%	3%	74%
Noatak	2016	70%	19%	51%
	2011	62%	12%	50%
	2007	73%	7%	66%
	2002	76%	5%	71%
	1999	74%	2%	72%
	1994	84%	0%	84%
Point Hope	2014	53%	23%	30%
Lower Kobuk River Communities				
Noorvik	2017	59%	19%	40%
	2012	60%	0%	60%
	2008	70%	0%	70%
	2002	72%	1%	71%
Kiana	2009	83%	3%	80%
	2006	62%	5%	57%
	1999	68%	3%	65%
Upper Kobuk River Communities				
Ambler	2012	70%	8%	62%
	2009	76%	2%	74%
	2003	74%	4%	70%
Shungnak	2012	52%	4%	48%
	2008	73%	5%	68%
	1998	74%	2%	72%
Kobuk	2012	66%	9%	57%
	2009	86%	4%	82%
	2004	82%	21%	61%
Northern Seward Peninsula				
Buckland	2018	68%	3%	65%
	2016	86%	3%	83%
	2003	61%	3%	58%
Deering	2017	63%	6%	57%

Community	Year	Percent of Surveyed Households Attempting to Harvest Caribou	Percent of Surveyed Households Attempting to Harvest Caribou but Unsuccessful	Percent of Surveyed Households Harvesting Caribou
	2013	44%	6%	38%
	2011	63%	0%	63%
	2007	55%	10%	45%
	1994	57%	3%	54%

Harvest History

See WP24-28/29 analysis.

Alternatives Considered

One alternative would close Federal public lands in Unit 23 to non-federally qualified users utilizing a population threshold. Federal public lands in Unit 23 would be open to all users when the WACH Working Group adopts a conservative management and harvest level (population $\geq 200,000$) with a stable or increasing population trend (Adult cow survival $\geq 80\%$ and calf recruitment $\geq 15:100$). Federal public lands in Unit 23 would be closed to non-federally qualified users when the herd status is at a preservative management level to provide subsistence priority for federally qualified subsistence users and help with the conservation and recovery of the WACH.

Another alternative considered was to close some, but not all, Federal public lands in Unit 23. However, due to the precipitous decline of the herd and need for conservation, this alternative was not further considered.

Effects of the Proposal

If Wildlife Proposals WP24-30/31 are adopted, Federal public lands in Unit 23 will be closed to the harvest of caribou by non-federally qualified users from Aug. 1-Oct. 31. Only federally qualified subsistence users, those with a customary and traditional use determination for caribou in Units 23, would be able to harvest caribou on Federal public lands in Unit 23 during this time.

This may increase hunting pressure on State or privately owned lands. State managed lands comprise 19% of Unit 23 and also encompass many of the villages in the unit. If this proposal is adopted, user conflicts and concern about the effects of non-local hunters on caribou migration may increase on State managed lands, particularly along the upper Kobuk River. If Unit 23 is closed to non-Federally qualified users, these users may be displaced onto Federal public lands in adjacent units (i.e. Unit 26A), which could impact hunting and harvest in those units.

If this proposal is adopted, those with a history of residency and family connection in Unit 23 who are now residing in nonrural areas would not be able to harvest caribou on Federal public lands in Units 23 from Aug. 1-Oct. 31, as they are not federally qualified subsistence users. Non-federally qualified users

who are Native corporation shareholders would still be able to hunt on Native corporation lands under State regulations if permission is granted by the landowners.

Harvest by non-federally qualified users on Federal public lands may decrease substantially. However, between 1998 and 2023, annual reported caribou harvest in Unit 23 by non-federally qualified users was small, ranging from 131-657 caribou (Hansen 2021a, pers. comm., WACHWG 2023). Any reduction in harvest may be negated by the fact that non-federally qualified users would still be able to access and harvest caribou on gravel bars below the mean high-water mark within Federal public lands, which are considered State land. Reports from law enforcement and nonlocal hunters indicate caribou are commonly harvested on such gravel bars, which may suggest limited impacts of the closure.

This closure is focused on current herd numbers and classification under WACH Working Group management levels; the herd is currently being managed at the “preservative declining” level (**Table 1**), and under this framework it is recommended to restrict harvest to residents only, and closure of some Federal public lands to non-federally qualified subsistence users may be necessary. Approving this proposal may result in increased subsistence opportunity for federally qualified subsistence users and a small reduction of harvest on the declining WACH. However, Wildlife Proposal WP24-28/29 was submitted to reduce the federally qualified subsistence user harvest on the WACH.

OSM CONCLUSION

Support Proposals WP24-30/31 **with modification** to include a population threshold that would remove the closure once the WACH population exceeds 200,000 caribou.

The modified regulations should read:

Unit 23–Caribou

Unit 23—that portion which includes all drainages north and west of, and including, the Singoalik River drainage— 5 caribou per day by State registration permit as follows:

Bulls may be harvested

July 1–June 30

Cows may be harvested. However, cows accompanied by calves may not be taken July 15–Oct. 14.

July 15–Apr. 30

Federal public lands are closed to caribou hunting from Aug. 1–Oct. 31, except by federally qualified subsistence users hunting under these regulations unless the Western Arctic Caribou herd population estimate exceeds 200,000 caribou.

Unit 23–Caribou

Unit 23, remainder— 5 caribou per day by State registration permit as follows:

Bulls may be harvested

July 1–June 30

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

July 31–Mar. 31

Federal public lands are closed to caribou hunting from Aug. 1–Oct. 31, except by federally qualified subsistence users hunting under these regulations unless the Western Arctic Caribou herd population estimate exceeds 200,000 caribou.

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

Justification

ANILCA §815(3) stipulates that restrictions on nonsubsistence uses are authorized if necessary for the conservation of healthy population of fish and wildlife or to continue subsistence uses of wildlife populations. OSM considers this closure necessary for both of these reasons as outlined below.

OSM supports measures to reduce conservation concerns for the WACH. The lengthy and precipitous decline of the WACH warrants strong measures to aid in the recovery and conservation of this population. Current harvest rates could prolong or worsen the current decline and hamper recovery efforts. Additionally, while causes of the decline are multi-faceted and uncertain, reducing human harvest is the most controllable factor. The WACH is currently being managed at the “preservative declining” level, and under this framework it is recommended to restrict harvest to residents only, and that closure of some Federal public lands to non-federally qualified users may be necessary as a tool to help in the recovery.

ANILCA Title VIII requires that Federal land managers give subsistence uses of fish and wildlife priority over other consumptive uses. With the continued decline of the WACH, and the concurrent proposals to reduce WACH harvest limits for federally qualified subsistence users, it is appropriate to also limit non-subsistence hunting activities in Unit 23. Many subsistence users have expressed concerns over food

security and the ability to meet their subsistence needs if harvest limits are reduced.

The current temporary closure applies to portions of Unit 23 and 26A, which were identified as potentially important to protecting migration routes. However, the current proposal is based on serious conservation concern over the declining WACH population, and therefore, it is reasonable to close all of Unit 23.

Adding a population threshold would ensure that the closure does not result in unnecessary restrictions to non-federally qualified users and that this restriction will not remain in effect longer than necessary when the population recovers. OSM considers 200,000 caribou as a reasonable threshold as this corresponds to the WACH Working Group's cut-off for the "Conservative" management level for a declining population.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Western Interior Alaska Subsistence Regional Advisory Council

Defer to home region.

Seward Peninsula Subsistence Regional Advisory Council

Defer to home region.

Northwest Arctic Alaska Subsistence Regional Advisory Council

The Council **supported** WP24-30/31 as written. Due to feedback from the communities, the Council must do what can be done to preserve the WACH in the region by limiting harvest and improving capacity to monitor harvest.

North Slope Subsistence Regional Advisory Council

The Council **supported** WP24-30/31 as written to mirror how the Northwest Arctic Council voted as it affects the Northwest Arctic region.

INTERAGENCY STAFF COMMITTEE COMMENTS

WP24-30/31 is requesting to close Unit 23 federal lands to caribou hunting by non-federally qualified users from August 1 to October 31. The closure area and time frame of the closure request varies somewhat from the previous Wildlife Special Action Request WSA21-01a, which did close Noatak National Preserve (including the Nigu River portion of the Preserve in GMU 26) and BLM managed lands between the Noatak and Kobuk rivers in Unit 23 to caribou hunting by non-federally qualified users from August 1-September 30 during the 2022-2023 and 2023-2024 regulatory years. The current temporary closure applies to portions of Unit 23 and 26A, which were identified as potentially important to protecting migration routes. However, the current proposal is based on concerns with the declining WACH population, and therefore focused on all of Unit 23.

The WACH population has continuously declined and is currently progressing in its downward trend. Since its December 2021 meeting, the Western Arctic Caribou Herd (WACH) Working Group (WG) has changed the management status of the WACH from “conservative declining” to “preservative declining”. At this management level, elimination of the non-resident season under State regulations, and closure of some Federal lands, is part of the herds management plan recommendations.

While many factors such as weather, climate change, and changes to the historical extent and timing of caribou migration may be contributing to lower harvest by Federally qualified subsistence users, it is the Board’s responsibility to ensure that rural residents are given the opportunity to meet their subsistence needs and to provide for a subsistence priority, as required under Section 804 of ANILCA. Therefore,

non-federally qualified harvest might be eliminated in some areas in times of shortage to ensure the continuation of subsistence uses of the caribou resource as described in Section 815(3) of ANILCA. Additionally, the harvestable surplus may already be exceeded and while accurate harvest information is not available, a conservative approach is warranted.

The suggested modification by the Office of Subsistence Management to include a population threshold that would remove the closure once the Western Arctic Caribou Herd exceeds 200,000 caribou is consistent with the management plan recommendations of the Western Arctic Caribou Herd Working Group. The WACH management plan specifies that the WACH is managed at a conservative management and harvest level when the population $\geq 200,000$ and exhibits a stable or increasing population trend (Adult cow survival $\geq 80\%$ and calf recruitment $\geq 15:100$).

ALASKA DEPARTMENT OF FISH AND GAME COMMENTS

Alaska Department of Fish and Game Comments

Wildlife Proposal WP24-30/31

These proposals would close federal public land in Unit 23 to caribou hunting by non-federally qualified users (NFQU) from August 1 to October 31.

Position

The Alaska Department of Fish & Game (ADF&G) **OPPOSES** these proposals. The closure of federal public land to caribou hunting for NFQUs from August 1 to October 31 had no biological significance when it was originally instated by WSA21-01 as well as seeing no change to caribou migration as was alluded to when this special action was being deliberated. Also, keep in mind nonresident hunting opportunity has been restricted once already when the population of the WAH first started to decline in 2015. The removal of primarily bull focused harvest has not proven to have a positive influence on the Western Arctic Caribou Herd (WAH) and promote its recovery. The continuation of this closure may actually have a negative impact on FQUs. Most FQUs attempt to take caribou as they cross major rivers in Unit 23. This proposal will only increase the likelihood that NFQUs will also start using state navigable waters to hunt caribou as well. The Alaska Board of Game (BOG) heard the concerns of the communities throughout the range of the WAH and implemented a draw hunt for Unit 23 capping the number of nonresident permits at 300 starting in the 2025 regulatory year. This was meant to give surety to those concerned with nonresident hunting that the number of permits cannot go any higher while the WAH is being closely monitored.

Background

The Western Arctic Caribou Herd is currently experiencing a long-term decline which started in 2003 and has resulted in a population level decrease from approximately 490,000 in 2003 to 152,000 in 2023 (Figure 1). While caribou populations are known to fluctuate naturally based on a variety of environmental factors, this decline is of significant concern due to the importance of caribou to various user groups. The home range of the WAH covers approximately 157,000 square miles and caribou are generally considered the primary terrestrial food source for many communities within that range (WACHWG 2022).



Figure 1. Western Arctic Caribou Herd population estimate 1970-2023. Minimum counts are indicated in red and estimated abundance is indicated with a blue diamond along with associated 95% confidence limits. Estimates produced using an estimate described by Rytved et al (1998).

Harvest of the WAH is difficult to determine due to the lack of harvest reporting by residents across a wide geographic area. The ADF&G conservatively estimates that around 10% of the actual harvest is reported from the region. Recent attempts to increase reporting have included the establishment of registration hunts (RC800 and RC907) and concerted outreach efforts to local communities focused on the need for harvest data. To fill in this data gap ADF&G previously used a model to determine harvest by using subsistence household surveys, and the local availability (distance, weather, etc.) to determine local harvest levels. This model has produced an average annual harvest of approximately 12,000 animals (Dau 2015). However, given changes to WAH distribution in recent years limiting access to the herd by local users, ADF&G has concluded the model is too coarse to track short term change and the use of the model has been discontinued at this time. It is generally understood that harvest rates have decreased due to reduction in access, however the information is too limited to understand the rate of reduction. The recommended harvest rate, based on figures presented in Table 2 of the Western Arctic Caribou Herd Working Group (WACHWG) management plan (2019) for the 2023 population of 152,000 animals, is ~4.8% or 7,296 animals. The NFQU, Alaska resident and nonresident, harvest on the WAH has historically represented around 3% of total estimated harvest (Figure 2), with most of that harvest coming from nonresidents.

Total WAH Harvest



■ Resident hunter harvest ■ Nonresident hunter harvest

Figure 2. Total WAH Harvest estimate showing hunter residency. Nonresident hunter harvest is shown in orange (3%) and Resident hunter harvest is shown in blue (97%).

Reporting of nonresident harvest of the WAH is nearly 100%. Most nonresident harvest occurs within Units 23 & 26A due to the current movements of the WAH. Federal public land closures to hunting by NFQUs under WSA21-01 has reduced the area available for these hunters in Unit 23. Annual nonresident harvest averaged 182 caribou of which 97.82% were bulls (2012-2022). Bull:cow ratios remain well above the 30:100 goal set by the Western Arctic Herd Working Group. Bull:cow ratios have been above 38:100 since 2001 and the most recent survey resulted in 50:100 in 2023. The removal of primarily bull focused harvest is unlikely to influence the WAH and promote its recovery.

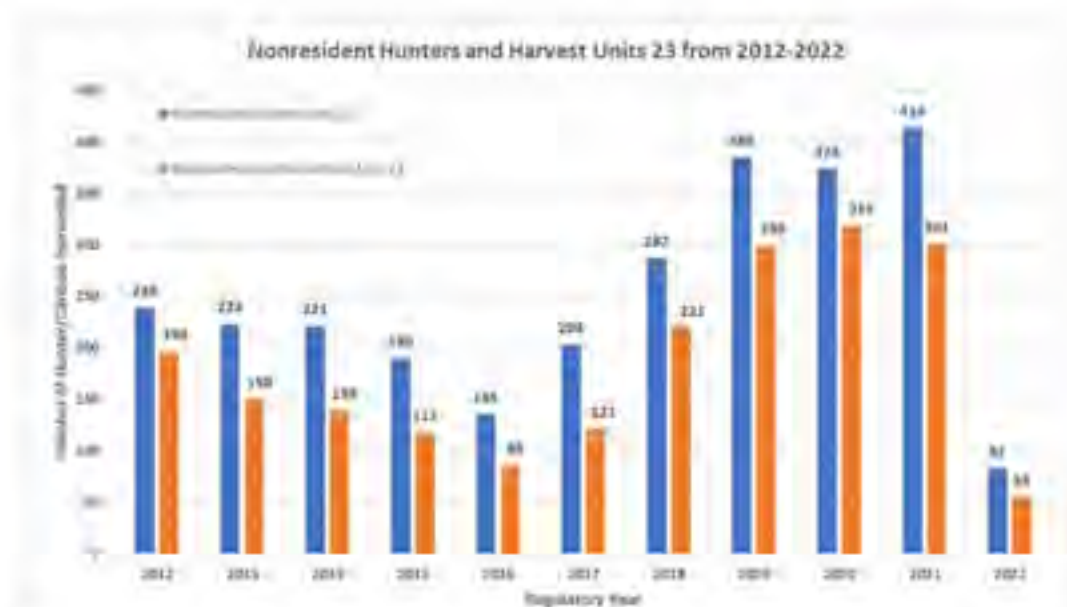


Figure 3: Nonresident Hunters and Harvest in Unit 23 from 2012-2022. Hunters are shown in Blue and Harvest is shown in Red.

Impact on Subsistence Users

If adopted this proposal will have little positive impact for FQUs. The closure that has been in place in Unit 23 during 2022-2023 has not alleviated any of the user conflicts and enhanced FQU success. There is a significant history of regulations limiting the hunting opportunity of NFQUs. In state regulations nonresident (the majority of NFQUs in Unit 23) season was changed from two caribou to 1 bull from Aug 1 – Sept 30 in RY15. Aircraft are the main transportation method by NFQUs; to address user conflicts surrounding this mode of transportation the first Noatak Controlled Use Area was created under state regulations in 1988. Currently a Noatak Controlled Use Area exists in both state and federal regulations. This area prevents all big game hunters from using aircraft to transport hunters, gear, or meat within 5 miles of the Noatak River from Aug 15 – Sept 30. The creation of this area was primarily designed to limit user conflict. Despite these measures, user conflicts persist, and locals have still express them as disrupting hunting activities. It should be noted that these issues persisted even when the WAH was close to 500,000.

In 2016 the FSB approved WSA16-01 which closed federal public land in Unit 23 to NFQUs for 2016/2017. In the Office of Subsistence Management (OSM) analysis for WSA24-30/31 it is noted that this approval was based largely upon local user support. These users have repeatedly expressed the view that nonlocal hunting activity is responsible for changing caribou movements however there has been no support for this view in research. Even in the OSM analysis it notes that Dai 2015 noted that significant transporter traffic in the Arisak drainage has not diverted migrations of the WAH. A study conducted by Fullman et al (2017) even concluded the sport

hunting did not inhibit the migration of caribou through the Noatak River area. Since 2016 the FSB has repeatedly continued or added to the initial closure (WSA17-03, WP18-46, WSA21-01a). During this time the WAH has continued to decline and the user conflicts have persisted. No data has been produced to show the positive effects of the closure while hunting opportunity and access to public lands has been limited. The continuation of this closure may actually have a negative impact on FQUs. Most FQUs attempt to take caribou as they cross major rivers in Unit 23. This proposal will only increase the likelihood that NFQUs will also start using state navigable waters to hunt caribou as well.

Nonlocal Alaska residents that want to come and hunt with relatives are one group that will be particularly discriminated against by this proposal. They will be forced to hunt on nonfederal public land or private land. In OSM's analysis, they seek to minimize this effect by saying that they can hunt Native Corporation land if they are shareholders. These hunters are losing opportunities that they have traditionally utilized and the fact that other opportunities exist does not change that. There are also hunters that are not Native Corporation shareholders that do not have this option. Nonlocal users that return to hunt with family members often help with the costs of hunting (purchasing gas, bringing gear or supplies, etc.), removing these hunters can significantly affect households' ability to get out and hunt.

Impact on Other Users

If adopted the proposal will limit the hunting opportunity for non-federally qualified users and perpetuate the crowding in areas that WSA21-01 has already perpetuated. Areas open to them currently include state public land, which includes navigable waterways.

This closure will also prevent many Alaskans from subsistence hunting on federal public land within Unit 23.

Opportunity Provided by State

State customary and traditional use findings: The Alaska Board of Game (BOG) has made positive customary and traditional use findings for caribou of the Western Arctic Herd.

Amounts Reasonably Necessary for Subsistence: Alaska state law requires the Board of Game to determine the amount of the harvestable portion of a game population that is reasonably necessary for customary and traditional uses. This is an ANS. The BOG does this by reviewing extensive harvest data from all Alaskans, collected either by ADF&G or from other sources.

ANS provides the BOG with guidelines on typical numbers of animals harvested for customary and traditional uses under normal conditions. Hunting regulations can be re-examined if harvests for customary and traditional uses consistently fall below ANS. This may be for many reasons: hunting regulations, changes in animal abundance or distribution, or changes in human use patterns, just to name a few.

The ANS for the WAH is combined with the TCH and is 8,000-12,000 animals.

Conservation Issues

The passage of this proposal will not alleviate any conservation issues that have arisen for the WAI. Yes, the WAI is experiencing a decline and to slow this decline harvest reductions are likely needed, however this reduction should be primarily focused on reducing the harvest of cows. The harvest by non-federally qualified users is almost entirely focused on bulls and is not biologically significant. The closure of these lands will not have significant impact on the conservation of the WAI. WP24-28/29 with its focus on reducing cow harvest is a more meaningful conservation measure.

Enforcement Issues

The lack of adequate harvest reporting remains an issue across the range of the WAI.

WP24-33 Executive Summary	
General Description	<p>Proposal WP24-33 requests that the fall moose season in Units 25B, 25C, and 25D remainder be extended until October 15.</p> <p><i>Submitted by: The Eastern Interior Alaska Subsistence Regional Council</i></p>
Proposed Regulation	<p>Units 25B, 25C, and 25D remainder—Moose</p> <p><i>Unit 25B—that portion within the Porcupine River drainage upstream from (but excluding) the Coleen River drainage—I antlered bull</i> <i>Aug. 25 – Oct. 715</i> <i>Dec. 1 – Dec. 10</i></p> <p><i>Unit 25B—that portion within Yukon-Charley National Preserve—I bull</i> <i>Aug. 20 - Oct. 7 15</i></p> <p><i>Unit 25B—that portion, other than Yukon-Charley National Preserve, draining into the north bank of the Yukon River upstream from (and including) the Kandik River drainage, including the islands in the Yukon River—I antlered bull.</i> <i>Sep. 5 - Oct. 7 15</i> <i>Dec. 1 - Dec. 15</i></p> <p><i>Unit 25B remainder—I antlered bull</i> <i>Aug. 25 - Oct. 7 15</i> <i>Dec. 1 - Dec. 15</i></p> <p><i>Unit 25C—I antlered bull</i> <i>Aug. 20 - Sep. 30</i> <i>Oct. 15</i></p> <p><i>Unit 25D remainder—I antlered moose</i> <i>Aug. 25 - Oct. 4 15</i> <i>Dec. 1 - Dec. 20</i></p>
OSM Conclusion	Support

Eastern Interior Alaska 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 Advisory Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Position	Oppose
Written Public Comments	None

STAFF ANALYSIS WP24-33

ISSUES

Proposal WP24-33, submitted by Eastern Interior Alaska Subsistence Regional Advisory Council (Council), requests that the fall moose season in Units 25B, 25C, and 25D remainder be extended until October 15.

DISCUSSION

The proponent states that this proposal would provide additional opportunity for federally qualified subsistence users to hunt moose in portions of Unit 25 after the State hunting season closes. These sub-units receive a great deal of harvest pressure, and the additional late fall season harvest opportunity would help decrease competition for this important subsistence resource.

Additionally, climate change is shifting weather patterns and it is not becoming cool until later in the fall. Hunting later in the fall during cooler weather reduces the chance for meat spoilage. It is colder during the end of September/October time frame, which is more conducive to hanging and drying meat for those who don't have a freezer and continue to process harvested meat the traditional way.

Existing Federal Regulation

Units 25B, 25C, and 25D remainder—Moose

<i>Unit 25B—that portion within the Porcupine River drainage upstream from (but excluding) the Coleen River drainage—I antlered bull</i>	<i>Aug. 25 – Oct. 7</i>
	<i>Dec. 1 – Dec. 10</i>
<i>Unit 25B—that portion within Yukon-Charley National Preserve—I bull</i>	<i>Aug. 20 - Oct. 7</i>
<i>Unit 25B—that portion, other than Yukon-Charley National Preserve, draining into the north bank of the Yukon River upstream from (and including) the Kandik River drainage, including the islands in the Yukon River—I antlered bull.</i>	<i>Sep. 5 - Oct. 7</i>
	<i>Dec. 1 - Dec. 15</i>
<i>Unit 25B remainder—I antlered bull</i>	<i>Aug. 25 - Oct. 7</i>
	<i>Dec. 1 - Dec. 15</i>

Unit 25C—1 antlered bull *Aug. 20 - Sep. 30*

Unit 25D remainder—1 antlered moose *Aug. 25 - Oct. 1*

Dec. 1 - Dec. 20

Proposed Federal Regulation

Units 25B, 25C, and 25D remainder—Moose

Unit 25B—that portion within the Porcupine River drainage upstream from (but excluding) the Coleen River drainage—1 antlered bull *Aug. 25 - Oct. ~~7~~ 15*
Dec. 1 - Dec. 10

Unit 25B—that portion within Yukon-Charley National Preserve—1 bull *Aug. 20 - Oct. ~~7~~ 15*

Unit 25B—that portion, other than Yukon-Charley National Preserve, draining into the north bank of the Yukon River upstream from (and including) the Kandik River drainage, including the islands in the Yukon River—1 antlered bull. *Sep. 5 - Oct. ~~7~~ 15*
Dec. 1 - Dec. 15

Unit 25B remainder—1 antlered bull *Aug. 25 - Oct. ~~7~~ 15*
Dec. 1 - Dec. 15

Unit 25C—1 antlered bull *Aug. 20 - ~~Sep. 30~~ Oct. 15*

Unit 25D remainder—1 antlered moose *Aug. 25 - Oct. ~~1~~ 15*
Dec. 1 - Dec. 20

Existing State Regulation**Units 25B, 25C, and 25D remainder—Moose**

<i>Residents: Unit 25B—within the Porcupine River drainage upstream from, but excluding the Coleen River drainage- One bull</i>	<i>HT</i>	<i>Sep. 10 – Sep.25</i>
<i>Nonresidents: Unit 25B—within the Porcupine River drainage upstream from, but excluding the Coleen River drainage- One bull with 50-inch antlers or antlers with 4 or more brow tines on at least one side</i>	<i>HT</i>	<i>Sep. 10 – Sep.25</i>
<i>Residents: Unit 25B remainder—I bull OR</i>	<i>HT</i>	<i>Sep. 5 – Sep.25</i>
<i>I bull OR</i>	<i>HT</i>	<i>Dec. 1 – Dec. 15</i>
<i>I bull by permit OR</i>	<i>CM001</i>	<i>Sep. 5 – Sep.25</i>
<i>I bull by permit</i>	<i>CM001</i>	<i>Dec. 1 – Dec. 15</i>
<i>Nonresidents: Unit 25B remainder—I bull with 50-inch antlers or antlers with 4 or more brow tines on at least one side</i>	<i>HT</i>	<i>Sep. 5 – Sep.25</i>
<i>Residents: Unit 25C—I antlered bull.</i>	<i>HT</i>	<i>Sep. 1 – Sep.15</i>
<i>Nonresidents: Unit 25C—I antlered bull with 50-inch antlers or antlers with 4 or more brow tines on at least one side</i>	<i>HT</i>	<i>Sep. 5 – Sep.15</i>
<i>Residents: Unit 25D remainder—I bull OR</i>	<i>HT</i>	<i>Sep. 10 – Sep.20</i>
<i>I bull OR</i>	<i>HT</i>	<i>Feb. 18 – Feb. 28</i>
<i>I bull by permit OR</i>	<i>CM001</i>	<i>Sep. 10 – Sep.20</i>
<i>I bull by permit</i>	<i>CM001</i>	<i>Feb. 18 – Feb. 28</i>
<i>Nonresidents: Unit 25D remainder— I bull with 50-inch antlers or antlers with 4 or more brow tines on at least one side</i>	<i>HT</i>	<i>Sep. 10 – Sep.20</i>

Extent of Federal Public Lands/Waters

Unit 25B is comprised of 82% Federal public lands and consists of 37% Bureau of Land Management (BLM) managed lands, 36% U.S. Fish and Wildlife Service (USFWS) managed lands, and 8% National Park Service (NPS) managed lands.

Unit 25C is comprised of 73% Federal public lands and consists of 63% BLM managed lands, 8% NPS managed lands, and 2% USFWS managed lands.

Unit 25D is comprised of 63% Federal public lands and consists of 62% USFWS managed lands, and 1% BLM managed lands.

Customary and Traditional Use Determinations

Residents of Units 20D, 20E, 25B, 25C, 25D, Tok and Livengood have a customary and traditional use determination for moose in Unit 25B and Unit 25C.

Residents of the remainder of Unit 25 have a customary and traditional use determination for moose in Unit 25D remainder.

Regulatory History

In 1995, the Board adopted Proposal P95-52, allowing the take of moose and caribou in Unit 25 from a snowmachine or motorboat. This was done to alleviate unnecessary restrictions on federally qualified subsistence users in Unit 25 as this provision was already allowed in other units across the State.

In 2012, the Board adopted Proposal WP12-63, which required edible meat to be left on the bones of caribou and moose harvested in Unit 25 until removed from the field and/or processed for human consumption. This was done to reduce meat spoilage.

Unit 25B

Federal moose hunting regulations for Unit 25B were adopted from State hunting regulations in 1990. There were three hunt areas: Unit 25B, that portion within the Porcupine River drainage upstream from but excluding the Coleen River drainage (Porcupine River hunt area); Unit 25B, that portion within the Yukon River drainage upstream from and including the Kandik River drainage (Yukon River hunt area); and Unit 25B remainder. The harvest limit for all hunt areas was one bull. The seasons for the Porcupine River and Unit 25B remainder hunt areas were Aug. 25 – Sep. 25 and Dec. 1 – 10. The season for the Yukon River hunt area was Sep. 5 – 25 and Dec. 1 – 10.

In 1992, the Yukon River drainage hunt area was not listed under Federal regulations; the fall season closing date for the Porcupine River hunt area was extended 5 days to Sep. 30; and the winter season closing date for Unit 25B remainder was extended 5 days to Dec. 15. In 1994, the harvest limit for moose in Unit 25B was changed to one antlered bull.

In 1996, the Board adopted Proposal P95-58, which established a hunt area along the Yukon River in Unit 25B with a season of Sep. 5 – 30 and Dec. 1 – 15. Specifically, the hunt area was Unit 25B, those portions draining into the north bank of the Yukon River upstream from and including the Kandik River drainage, including the islands in the Yukon River. This proposal was adopted to provide additional hunting opportunity to local hunters at the end of September when the weather was cooler and competition from State hunters was reduced.

In 1997, Proposal P97-72 was submitted by the Eagle Fish and Game Advisory Committee (Eagle AC) and requested changes to moose hunting seasons in Unit 20E and in the Yukon River hunt area of Unit 25B in order to provide local hunters more opportunity and relief from competition with nonlocal hunters. The Board adopted P97-72 with modification to only modify Unit 20E moose seasons with no regulatory changes for Unit 25B. The justification for maintaining the existing season in Unit 25B was to reduce regulatory complexity via continuing alignment of Federal and State seasons and because the proposal would not have had the desired effect of reducing competition from nonlocal hunters due to the lack of a customary and traditional use determination for moose in Unit 25B. Therefore, all rural residents would be able to hunt in Unit 25B under an extended Federal moose season.

In 1998, the Board adopted Proposal P98-105 with modification to create a new hunt area in Unit 25B within Yukon-Charley Rivers National Preserve with a season of Aug. 20-Sep. 30. The proposal, as submitted by the Eagle AC, also requested a March moose season to provide winter harvest opportunities during safer river trail conditions. However, due to conservation concerns about additional bull harvest, the proponent deferred the proposed March season until a C&T determination was made for moose in Unit 25B (and Unit 20E).

In 2000, the BOG established a community harvest permit program for the Chalkyitsik Community Harvest Area (CM001), which includes Unit 25D remainder and Unit 25B remainder (Caikoski 2014).

In 2018, the Board adopted Proposals WP18-53a and WP18-53b. Proposal WP18-53a refined the Customary and Traditional use determination (C&T) for moose in Units 25B and 25C to only include residents of Units 20D, 20E, 25B, 25C, 25D and communities of Tok and Livengood. Proposal WP18-53b extended the moose season to October 7 in Unit 25B, providing additional harvest opportunity for federally qualified subsistence users, easing meat care and reducing spoilage issues.

Unit 25C

In 2010, the Board adopted Proposal WP10-86, extending the moose season in Unit 25C from Sep. 1 - Sep. 15 to Aug. 20- Sep. 30 providing additional harvest opportunity and aligning fall season dates throughout the Yukon-Charley Rivers National Preserve.

In 2018, the Board adopted Proposal WP18-53a to modify the C&T for moose in Units 25B and 25C (see Unit 25B section above).

Unit 25D remainder

In the early 1980s, the Alaska Board of Game (BOG) divided Unit 25D into Unit 25D West and Unit 25D remainder to allow use of regulatory schemes that reflected the difference status of the moose

populations (permits are required in Unit 25D west due to low moose density and relatively high demand for moose by local residents, while harvest tickets are required in Unit 25D remainder) (Caikoski 2014).

In 1990, the Federal moose season for Unit 25D remainder ran from Aug. 25 – Sep. 25 and Dec. 1 – Dec. 10 with a harvest limit of one bull.

In 1991, the Federal Subsistence Board (Board) adopted Proposal P91-74 to extend the winter season in Unit 25D remainder 10 days to Dec. 20 in order to provide greater harvest opportunity, particularly to accommodate inclement weather in December.

In 1993, the Board adopted Proposal P93-61 to modify the harvest limit in Unit 25D remainder to one antlered moose.

In 2000, the BOG established a community harvest permit program for the Chalkyitsik Community Harvest Area (CM001), which includes Unit 25D remainder and Unit 25B remainder (Caikoski 2014).

In 2010, the Board adopted Proposal WP10-93 with modification to extend the closing date of the fall moose season in Unit 25D remainder from Sep. 25 to Oct. 1 to provide additional harvest opportunity. The modification only extended the fall season six days. This was consistent with the proponent's request to provide for some additional harvest opportunity, while addressing conservation and meat spoilage concerns of starting the fall season in early August.

Biological Background

Moose population status throughout Unit 25C is difficult to track due to infrequent surveys and low moose densities. Alaska Department of Fish and Game (ADF&G) monitor harvest in Unit 25C to determine if management objectives are being met. The State management objective for Unit 25C is to maintain a bull:cow ratio of $\geq 30:100$ in areas with aerial surveys and $\geq 20\%$ large bulls in the harvest in areas without aerial surveys (Hollis 2018).

Moose densities in Unit 25B have historically been low and recent population trends are not well understood due to limited data (Caikoski 2014). No population or composition surveys have been conducted for moose in all of Unit 25B since the late 1980s. However, reports from experienced guides and pilots suggest moose numbers in Unit 25B have declined since the late twentieth century. While uncertain, moose are currently believed to be widespread at low density throughout the unit (Caikoski 2014). Moose population data from adjacent subunits is the best available information for northern Unit 25B.

State management objectives for moose in Unit 25B and Unit 25D include (Caikoski 2018):

- Maintain a minimum of 40 bulls:100 cows in the posthunt population
- Maintain a 5-year running mean of ≥ 25 bulls harvested annually in Unit 25B.
- Maintain a 5-year running mean of $\geq 30\%$ success rate in Unit 25B.

Moose surveys have been conducted in Yukon-Charley Rivers National Preserve (YUCH) for nearly 30 years. The past seven surveys have occurred within a 30-40 mile wide corridor along the Yukon River between Eagle and Circle, and included portions of Units 20E, 25B, and 25C. Between 1997 and 2022, moose densities ranged from 0.20-0.37 moose/mi² (**Table 1**, Sorum et al., in review). Over the same time period, bull:cow ratios have remained consistently high, averaging 61 bulls:100 cows (Sorum et al., in review), which greatly exceeds the State management objective of 40 bulls:100 cows (**Table 1**).

Fall calf:cow ratios of < 20 calves:100 cows, 20-40 calves:100 cows, and > 40 calves:100 cows may indicate declining, stable, and growing moose populations, respectively (Stout 2010, 2012). Calf:cow ratios observed in YUCH surveys averaged 27 calves:100 cows between 1997 and 2022 (Sorum et al., in review), indicating a stable moose population in this area (**Table 1**). Moose densities have been historically low across Unit 25D. During the 1980s and 1990s, when ADF&G and USFWS began conducting regular surveys, moose densities ranged from a low of 0.1 moose/mi² in 1984 to a high of 0.64 moose/mi² in 1989 (Caikoski 2014). Between 1999 and 2007, moose densities in Unit 25D remainder averaged 0.25 moose/mi² (range: 0.18-0.34 moose/mi², **Table 2**). No population or composition surveys were completed in 2011 or 2012 due to poor survey conditions (Caikoski 2014). In 2015, moose density in Unit 25D remainder was estimated at 0.34 moose/mi² (Bertram 2017, pers. comm.).

Between 1999 and 2015, fall bull:cow ratios in Unit 25D remainder averaged 64 bulls:100 cows (range: 35-95 bulls:100 cows), meeting management objectives (40 bulls:100 cows) in all years except 2015 (**Table 2**, Caikoski 2014; Bertram 2017, pers. comm.). Between 1999 and 2007, fall calf:cow ratios in Unit 25D remainder averaged 48 calves:100 cows (range: 37-59 calves:100 cows), suggesting a stable or growing moose population (**Table 2**, Caikoski 2014). In 2015, fall calf:cow ratios were extremely high at 80 calves:100 cows (Bertram 2017, pers. comm.). However, Caikoski (2014) cautions that interpretation of demographic trends may be confounded by variations in survey areas and small sample sizes.

Habitat is not considered a limiting factor. Unit 25 as a whole, contains excellent moose habitat that is maintained by wildfires (Caikoski 2014). Within YUCH, improved forage quality from flooding (2009) and wildfires (1999 and 2004) may have contributed to increases in moose abundance (Sorum and Joly 2016). Predation by wolves and bears; however, appears to be limiting the Unit 25 moose population (Caikoski 2014). Lake et al. (2013) investigated wolf kill rates of moose in Unit 25D. They found that wolf kill rates approximated those in areas with higher moose densities, suggesting that wolf predation is contributing to persistent low moose densities (Lake et al. 2013). Similarly, Bertram and Vivion (2002) found that while calf production is high in Unit 25D, only 20% of radio collared calves survived their first year. Predation of neonates (< 1 month old calves) by black and brown bears was the primary source (84%) of mortality. High predation rates combined with illegal cow harvest and low predator harvest may act in concert to maintain low moose densities in Unit 25D (Bertram and Vivion 2002; Caikoski 2014).

Table 1. Bull:cow, calf:cow, and moose densities for Yukon-Charley Rivers National Preserve (Sorum et al., in review).

Survey Year	Bulls:100 Cows	Calves:100 Cows	Density (moose/mi ²)
1997	60	28	0.22
1999	51	36	0.30
2003	60	25	0.22
2006	73	33	0.20
2009	60	27	0.36
2012	68	24	0.25
2015	72	25	0.37
2019	49	28	0.28
2022	60	19	0.24

Table 2. Bull:cow, calf:cow and moose density for Unit 25D remainder (Caikoski 2014; Bertram 2017, pers. comm.).

Year	Bulls:100 cows	Calves:100 cows	Density (moose/mi ²)
1999	57	59	0.28
2000	79	49	0.25
2001	95	43	0.18
2004	43	51	0.26
2005	80	58	0.34
2006	60	37	0.27
2007	64	39	0.20
2015	35	80	0.34
Average	64	52	0.27

Cultural Knowledge and Traditional Practices

The moose hunt is central to the subsistence harvest of many Eastern Interior residents who are observing warmer weather later into the fall which delays the moose rut. When the rut is delayed, the pre-rut movement of bull moose is delayed. The pre-rut movement is the best time to harvest bull moose. When this movement occurs late in fall and after the regulatory hunting season, it is difficult for federally qualified subsistence users to harvest a moose, one of the most important resources upon which they depend.

The Athabascan peoples of the Eastern Interior region have a long history of harvesting moose. Indigenous and Traditional knowledge of moose and moose hunting is part of the culture of many Athabascan people (AFG&G 1992, Nelson 1973, Nelson et al. 1978). The communal harvest and sharing of moose is a central aspect of these subsistence economies (ADF&G 1992, Sumida and

Alexander 1985, Sumida 1988, 1989, 1990). Euro-Americans who reside in the area depend heavily on moose as a subsistence staple.

A 2012 study by the Council of Athabascan Tribal Governments and ADF&G Division of Subsistence with Yukon Flats communities provided local perspectives on the effects of changing weather patterns on subsistence moose hunters:

...hunters have expressed concerns about possible changes in moose behavior resulting from warmer fall temperatures. An elder from Fort Yukon observed that as temperatures stay warmer longer into the fall, the moose do not move around as much but instead, 'will stay back in the lakes and in the timber if it's too warm.' As a result, hunters have to look around more and travel farther in order to successfully harvest a moose. In the past, hunters relied on intimate knowledge of moose behavior, weather, and seasonal changes, such as the turning of leaves, to gauge the best time for hunting. The respondent believed that a rapidly changing climate has created a situation where such intergenerational knowledge of the seasons may no longer be valid. Other respondents reported observations of seasons shifting, with the cold fall temperatures characteristic of the expected time of the year that moose begin their rut, which is occurring later in September and into October. Additionally, some respondents reported experiencing August temperatures too warm for the proper care of moose meat following a harvest. These observations were accompanied by suggestions for shifting the regulatory moose seasons to coincide with shifts in the onset of the rut (Van Lanen et. al 2012: 45-46).

Residents of Circle shared similar observations:

One key respondent indicated that in recent years, he has started hunting earlier in September to avoid competition from other hunters: 'The last five years you have to go out right at the beginning of the hunting season, because if you don't there is other people that come in from [other communities].' Another key respondent said he has no choice but to hunt moose in late September when the weather is colder: 'Well, now we kinda have to wait till like the end of September, because we don't really have a way to freeze our moose and so we have to hang it until it freezes.' Finally, a key respondent said he tends to start moose hunting a little later than in the past because the moose mating season tends to start later: 'If you start hunting a little later, they are rutting a little later now. So, you have to hunt a little later.' (Trainor et. al 2020:69).

Although this proposal was submitted by the Eastern Interior Council, other regions of the state are also experiencing warm temperatures that last late into fall. In 2005, two members of the Western Interior Council described this change:

...the bulls were kind of moving late and so the Chairman of our Ruby Advisory Committee submitted a request for an emergency order for one week and I think that was -- it may have been granted by the Feds. But I think it's kind of late in the year I mean it's kind of late to -- I mean in the future if we had to do this again, I think that there was -- I think it would be good if there was a process where we could kind of speed that up and maybe not wait so

late...there's about half the population that did not get a moose this year and I have to agree with him that the season was late, it was warm, it was warm all through the season and they just weren't moving. Because they did get some moose right on the last day, and they were still good, you know, they weren't really into rut and stuff like that (WIRAC: 2005: 28-29).

Interdisciplinary researchers have documented these climate changes noting that warm weather in late fall causes meat spoilage for subsistence harvesters and that Board of Game proposals to change moose harvest seasons in Interior Alaska show that rural subsistence hunters are adapting to climate change (McNeeley and Shulski 2011; 468-470; Hasbrouck et. al 2020: 2).

Harvest History

Unit 25B

The average annual reported harvest in Unit 25B from 2011-2021 was 29 moose. The number of reported hunters during the same time period averaged 82 hunter/year with 70 being residents (**Figure 1**, Caikoski 2018; ADF&G 2023). Few household surveys have been conducted for communities in Unit 25B (ADF&G 2017b). Additionally, much of the harvest data collected from these surveys is not spatially explicit resulting in the proportion of the moose harvest occurring in Unit 25B to be uncertain. In household surveys of Unit 25D communities in regulatory years 2008/09, 2009/10, and 2010/11 (which extrapolate harvests from sampled households to the entire community, resulting in fractions of animals), 5.1 moose, 5.1 moose, and 12.4 moose were estimated as harvested in Unit 25B, respectively (Van Lanen et al. 2012; CATG 2011). Chalkyitsik and Fort Yukon accounted for most of the moose harvested from Unit 25B (Van Lanen et al. 2012; CATG 2011). As there are no communities in Unit 25B, the communities in Unit 25A are far from the Unit 25B boundary, and Eagle residents primarily hunt moose in southern Unit 25B along the Yukon River, these household survey data indicate moose harvest by local residents in northern Unit 25B is very low.

Unit 25C

In Unit 25C, most successful hunters resided outside of Unit 25, including nonlocal residents of Alaska and nonresidents. This difference can be attributed to the fact that relatively few people reside within Unit 25C but portions of the unit are on the road system. From 2011-2021 the annual reported harvest in Unit 25C was 84 moose. The number of reported hunters during the same time period averaged 352/year with 307 being residents (**Figure 2**; Hollis 2018). From 2003-2014 the number of reported hunters averaged 337/year. Only 19 of them were from Unit 25C on average; the rest were nonlocal or nonresidents. Furthermore, only five of the 19 local residents were successful each year on average (Hollis 2018).

Unit 25D remainder

The average annual reported harvest in all of Unit 25D from 2011-2021 was 42 moose. The total number of reported hunters during the same time period averaged 112/year with 97 being residents (**Figure 3**; ADF&G 2023). Most of the reported moose harvest in Unit 25D remainder occurs during the 2nd and 3rd weeks of September (Caikoski 2014, 2018). However, as the State season closes Sep. 20, any harvest reported during the last week of September is by federally qualified subsistence users (i.e. Unit 25 residents except residents of Unit 25D west). Household surveys of all Unit 25D

communities in 2008-2010 showed that the vast majority of moose harvest by local hunters occurs in September (~90%) with no harvest documented in October (CATG 2011; Van Lanen et al. 2012). Boats are the primary transport method used by moose hunters in Unit 25D remainder (Caikoski 2014).

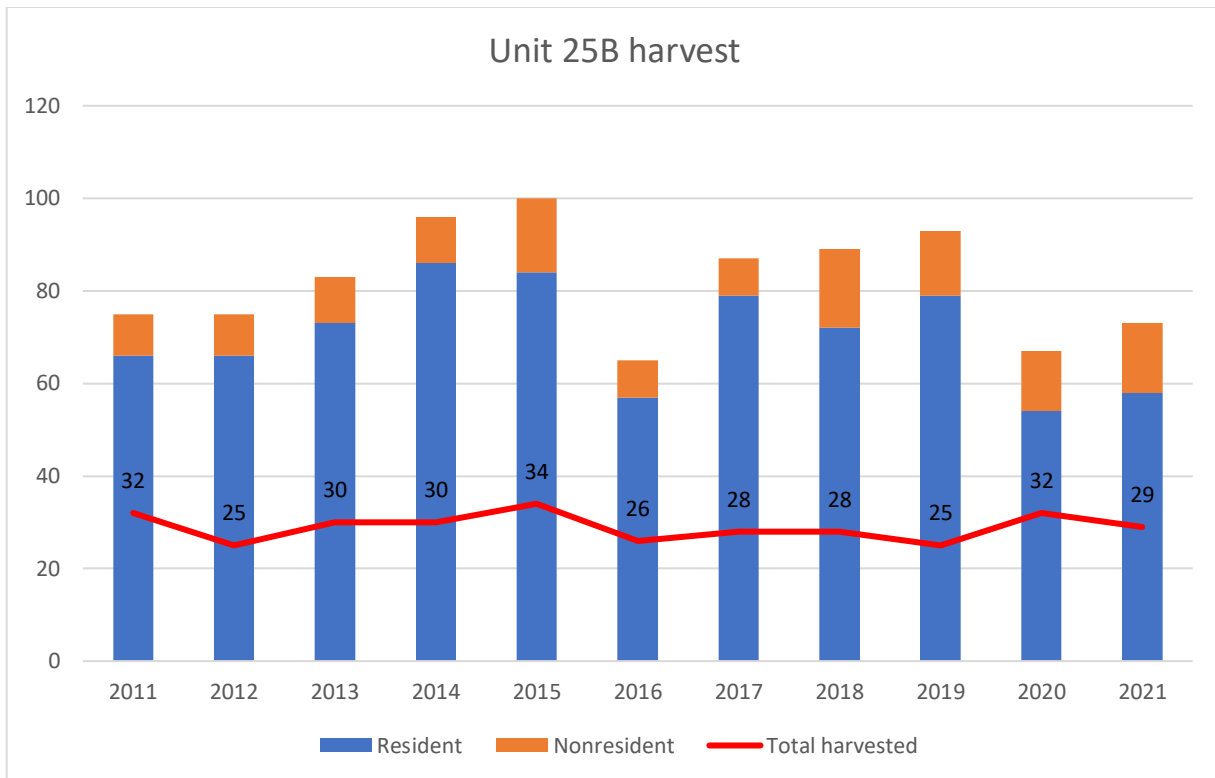


Figure 1. Reported moose harvest and number of hunters in Unit 25B (Caikoski 2018; ADF&G 2023).

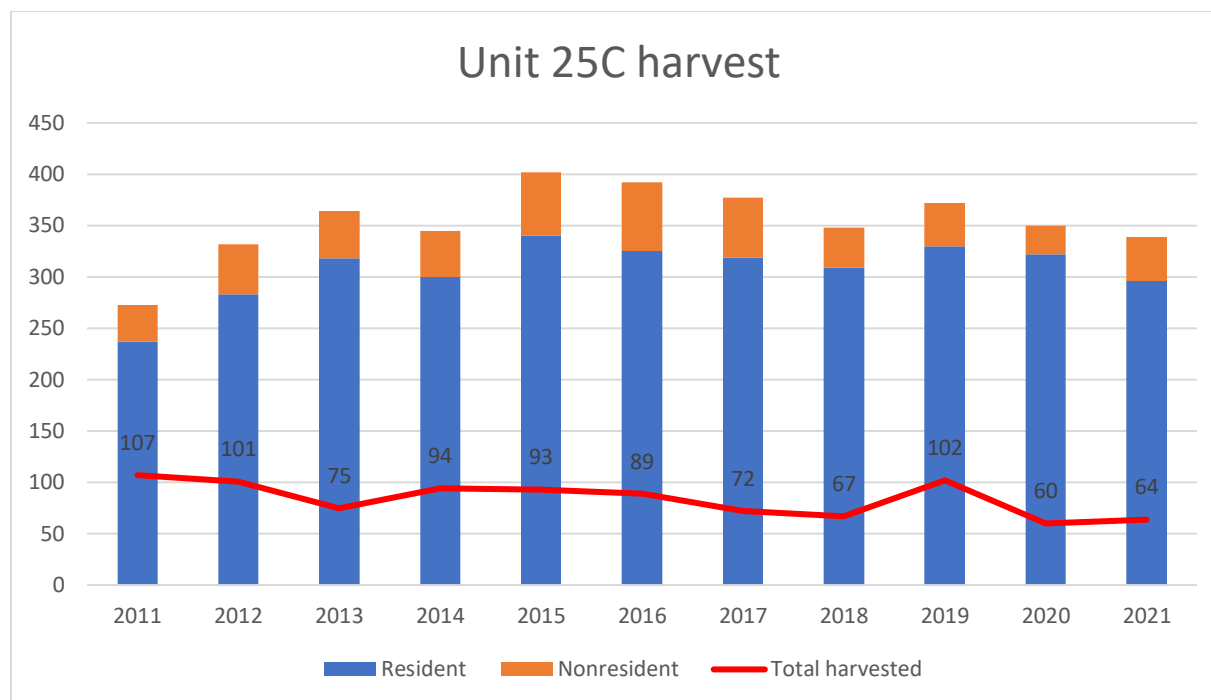


Figure 2 Reported moose harvest and number of hunters in Unit 25C (Hollis 2018; ADF&G 2023).

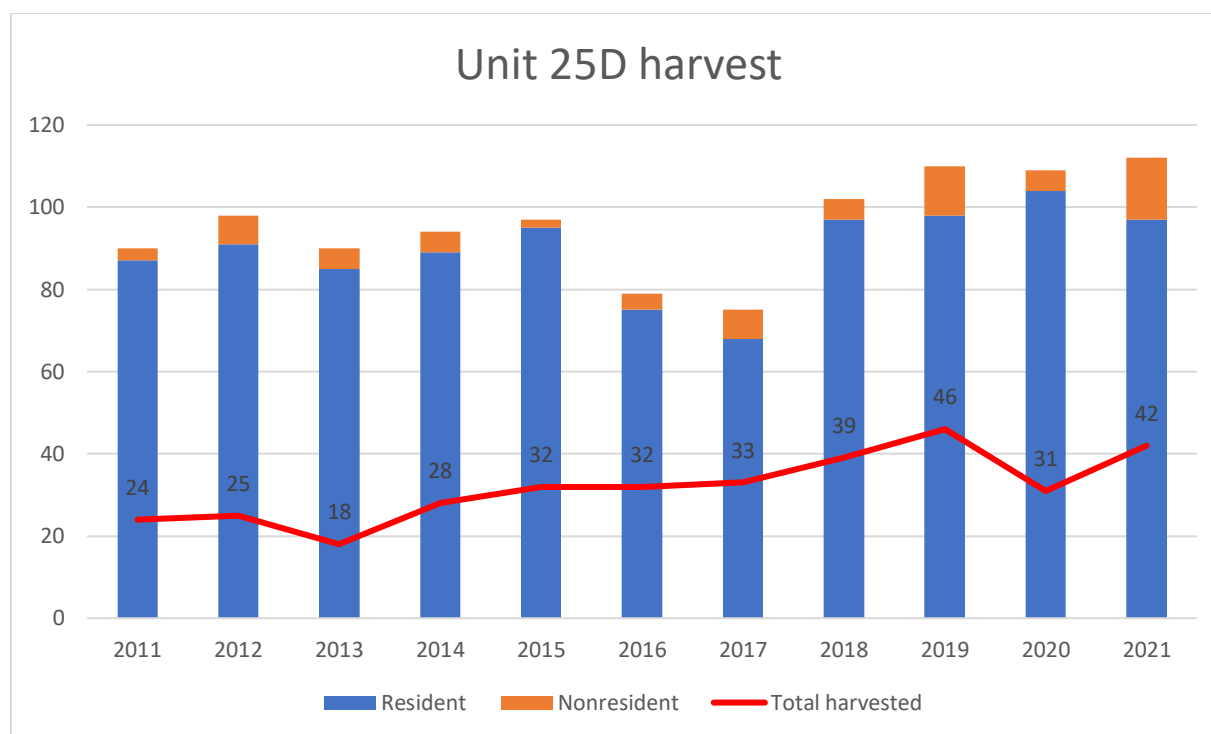


Figure 3 Reported moose harvest and number of hunters in all Unit 25D (Caikoski 2018; ADF&G 2023).

Effects of the Proposal

If this proposal is adopted, federally qualified subsistence users would be able to harvest moose in Units 25B, 25C and Unit 25D, remainder until October 15, providing an additional 8-15 days of subsistence harvest opportunity on Federal public lands depending on hunt area. Given current trends of warmer falls due to climate change, extending the season could reduce meat spoilage and ease meat care as hunters could wait for cooler temperatures. While extending the Federal season would further misalign State and Federal regulations, it would also provide a greater Federal subsistence priority.

The peak rut for moose is September 26 through October 8. Most mating occurs during this time (Van Ballenberghe and Miquelle 1996). Extending the season to October 15 would put more harvest pressure on moose during the rut. The increased harvest pressure during and after the rut could significantly increase harvest success rates beyond a sustainable rate.

In Units 25B and 25C, where moose populations status is difficult to assess due to infrequent surveys and low moose densities, it is unknown if the additional harvest opportunities could pose a conservation risk. However, harvest pressure in Northern Unit 25B is very low, while high bull:cow ratios along the Yukon River suggest there are surplus bulls available for harvest. Furthermore, the Federal public lands in Unit 25C are primarily off the road system, which may limit harvest since access is more difficult.

OSM CONCLUSION

Support Proposal WP24-33.

Justification

This proposal will provide increased opportunity for federally qualified subsistence users and may ease meat care, reduce spoilage issues and provide additional time to meet subsistence needs. There are minimal conservation concerns for this proposal due to the bulls-only harvest limit, high bull:cow ratios and relatively low reported local harvest and harvest pressure after the State seasons close.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Eastern Interior Alaska Subsistence Regional Advisory Council

The Council **supported** WP24-33. The Council noted the continued trend of warm temperatures extending later into the fall and how this has been delaying the moose rut and making it more difficult to properly care for meat during the current season dates. Extending the season dates would allow for better meat care during later, cooler weather and help adapt regulations to changing climate patterns. The Council also noted that the proposal would provide additional opportunity for federally qualified subsistence users after the State season ends during which time they would not have to compete with as many hunters. The Council thought that a season extension for federally qualified subsistence users in these units would not lead to any conservation issues.

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.

ALASKA DEPARTMENT OF FISH AND GAME COMMENTS

Alaska Department of Fish and Game Comments

Wildlife Proposal WP24-33

This proposal would increase the moose hunting season length for federally qualified users (FQU) in Game Management Units (Unit) 25B, 25C, and 25D remainder.

Position

The Alaska Department of Fish & Game (ADF&G) **OPPOSES** this proposal. Under the Alaska National Interest Lands Conservation Act (ANILCA) Section 815 of ANILCA authorizes federal restrictions on nonsubsistence uses on the public lands only if "necessary for the conservation of healthy populations of fish and wildlife" or if necessary to "continue subsistence uses." The current federal subsistence hunting regulations for this area already provide more than enough additional hunting time for FQUs.

Background

The moose population in all three of these Units are stable at a relatively low density (<0.5 moose mi^2) and harvest at current season lengths is providing for adequate subsistence opportunity including many options for hunting later in the fall and winter which the proponent lists as the need for this extension. These units are rarely surveyed because these are low-density moose populations and are generally very stable and surveys are very expensive.

Impact on Subsistence Users

If adopted, this proposal would add between 8 and 15 days of additional moose hunting during October to each of the units listed below.

Table 1. Comparison of number of days open for resident moose hunting under the current state and federal seasons and the proposed additional days by WP24-33

Number of days open for resident moose hunting				
Unit		State season	Federal season	Proposed Fed. season
25B	within the Porcupine River drainage upstream from (but excluding) the Coleen River drainage	16	54	67
25B	within Yukon-Charley National Preserve	36	48	57
25B	other than Yukon-Charley National Preserve; draining into the north bank of the Yukon River upstream from (and including) the Kandik River drainage, including the islands in the Yukon	36	48	38
25B	remainder	36	59	67
25C	All	16	42	57

25D	remainder	22	58	77
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Impact on Other Users

If adopted this proposal will not have an impact on non-federally qualified users.

Opportunity Provided by State

The season and bag limits for moose in Units 25B, 25C, and 25D remainder are:

Unit/Area	Bag Limit	Open season (Permit/Hunt#)	
		Resident ^a	Nonresident
Unit 25B—within the Porcupine River drainage upstream from, but excluding the Coleen River drainage	One bull	10–25 September (harvest ticket)	
	One bull ^b		10–25 September (harvest ticket)
	One bull	5–25 September (harvest ticket)	
Unit 25B remainder	One bull	1–15 December (harvest ticket)	
	One bull	5–25 September (CM001)	
	One bull	1–15 December (CM001)	
	One bull ^b		5–25 September (harvest ticket)
	One bull	1–15 September (harvest ticket)	
Unit 25C	One bull ^b		5–15 September (harvest ticket)
	One bull	10–20 September (harvest ticket)	
Unit 25D remainder	One bull	18–28 February (harvest ticket)	
	One bull	10–30 September (CM001)	
	One bull	18–28 February (CM001)	
	One bull		

One bull ^B	10-20 September (harvest ticket)
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^A Subsistence and General Hunts
^B Independent bag limit is: One bull with 30 cows and/or yearlings with 4 or more cows (one or) at least one cow.

State customary and traditional use findings: The Alaska Board of Game (BOG) has made positive customary and traditional use findings for moose in Unit 25B, 25C, and 25D.

Amounts Reasonably Necessary for Subsistence: Alaska state law requires the Board of Game to determine the amount of the harvestable portion of a game population that is reasonably necessary for customary and traditional uses. This is an ANS. The BOG does this by reviewing extensive harvest data from all Alaskans, collected either by ADF&G or from other sources.

ANS provides the BOG with guidelines on typical numbers of animals harvested for customary and traditional uses under normal conditions. Hunting regulations can be re-examined if harvests for customary and traditional uses consistently fall below ANS. This may be for many reasons: hunting regulations, changes in animal abundance or distribution, or changes in human use patterns, just to name a few.

The ANS for moose in Unit 25B is 15-37 animals. The seasons and bag limits for 25B, 25C, and 25D are:

Unit (Moose)	Customary & Traditional Use Finding	Amount Necessary for Subsistence
25B	positive	15-37
25C*	positive	8-15
25D west	positive	50-70
25D east	positive	150-250

* that portion outside the boundaries of the Fairbanks-Nomadic Wildlife Area

Conservation Issues

Increasing the season length during October when the rut is occurring will increase the number of bull moose taken as they are the most susceptible to harvest during this time. However, it will be difficult to determine if there is a conservation concern with the increased season length because the units are rarely surveyed, and the population of moose is already at a stable but low level.

Enforcement Issues

There are no forecast enforcement issues with this proposal.

WP24-36 Executive Summary	
General Description	Wildlife Proposal WP24-36 requests to rescind the customary and traditional use determination for Dall sheep in Unit 25A for the residents of Kaktovik. <i>Submitted by: North Slope Subsistence Regional Advisory Council</i>
Proposed Regulation	Customary and Traditional Use Determination—Sheep <i>Unit 25A Residents of Residents of Arctic Village, Chalkyitsik, Fort Yukon, Kaktovik, and Venetie.</i>
OSM Conclusion	Oppose
North Slope Alaska Subsistence Regional Advisory Council	Support
Eastern Interior Alaska Subsistence Regional Advisory Council Recommendation	Take no action, defer to North Slope Council
Interagency Staff Committee Comments	<p>The Federal Subsistence Board decides which communities or areas have customarily and traditionally used a species. If a customary and traditional use determination has been validated by the Board, it is not revoked. It is a finding that under the standards established by law for the Federal subsistence management program, residents of a village or area are eligible to hunt or fish a specific species in an area because they have demonstrated a pattern of use.</p> <p>The people of Kaktovik have a demonstrated pattern of use of Dall sheep in Unit 25A. Removing Kaktovik from the customary and traditional use determination for Dall sheep in Unit 25A would be denying their pattern of use that exists, the importance of sheep as an alternative resource for the community, and the continuation of subsistence uses for future generations of Kaktovik residents.</p>
ADF&G Position	Neutral
Written Public Comments	None

STAFF ANALYSIS WP24-36

ISSUES

Proposal WP24-36, submitted by the North Slope Subsistence Regional Advisory Council (Council), requests that the Federal Subsistence Board (Board) rescind the customary and traditional use determination for Dall sheep in Unit 25A for the residents of Kaktovik.

DISCUSSION

The Council stated that the residents of Kaktovik have not demonstrated customary and traditional use of sheep in Unit 25A and considers the determination a mistake. The Council member from Kaktovik explained that hunters from Kaktovik do not harvest sheep in Unit 25A and the Arctic Village Sheep Management Area because it is across the Brooks Range from them.

Existing Federal Regulation

Customary and Traditional Use Determination—Sheep

Unit 25A

*Residents of Arctic Village, Chalkyitsik,
Fort Yukon, Kaktovik, and Venetie.*

Proposed Federal Regulation

Customary and Traditional Use Determination—Sheep

Unit 25A

*Residents of Arctic Village, Chalkyitsik,
Fort Yukon, ~~Kaktovik~~, and Venetie.*

Extent of Federal Public Lands/Waters

Unit 25A is comprised of 76.4% Federal public lands; 74.1% is U.S. Fish and Wildlife Service lands, the Arctic National Wildlife Refuge, and 2.3% is under the jurisdiction of the Bureau of Land Management (BLM).

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

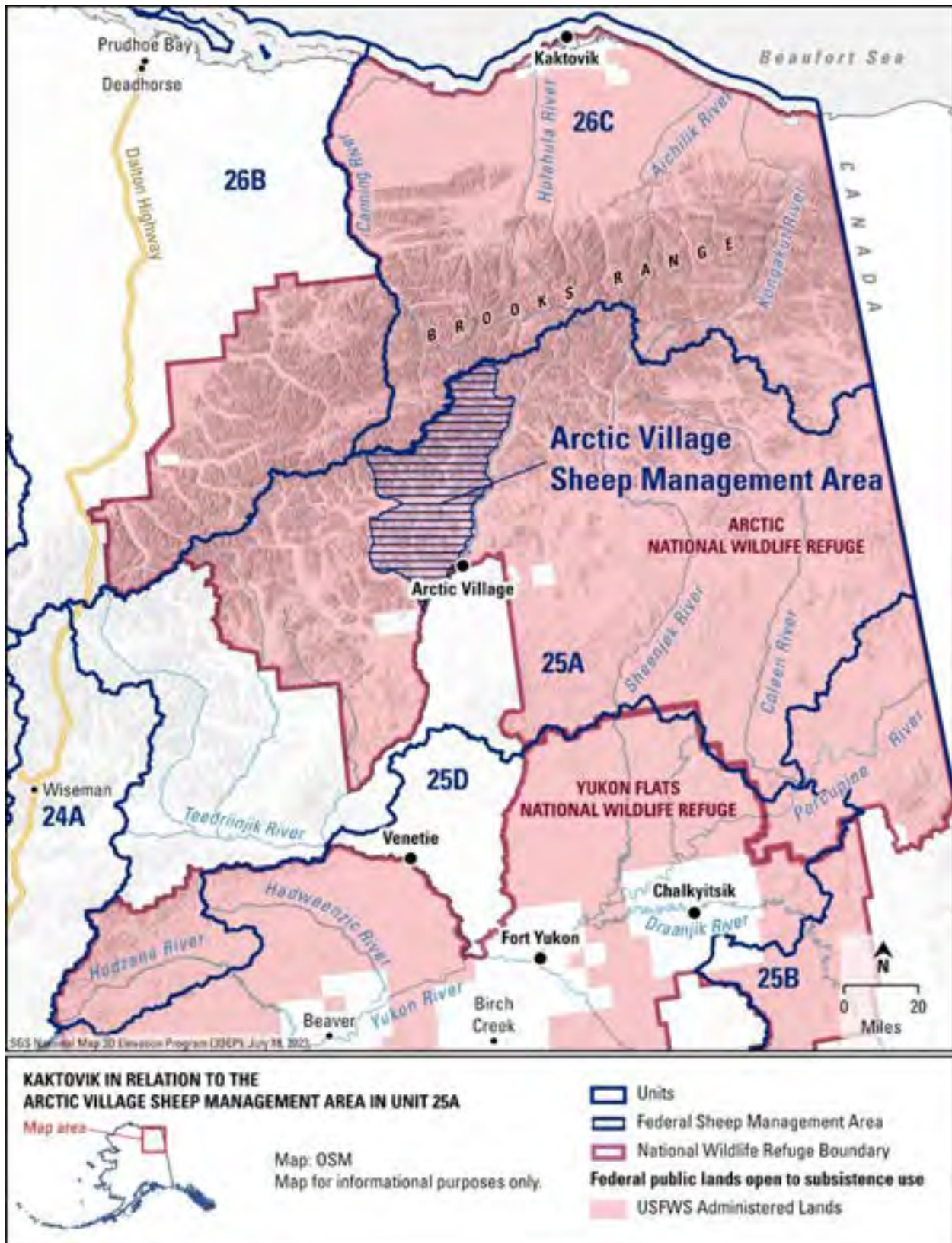


Figure 1. Kaktovik in relation to the Arctic Village Sheep Management Area.

Regulatory History

At the beginning of the Federal Subsistence Management Program in Alaska in 1990, existing State regulations were adopted into Temporary Subsistence Management Regulations (55 Fed. Reg. 126, 27117 [June 29, 1990]). The customary and traditional use determination for sheep in Unit 25A was and is for residents of Arctic Village, Chalkyitsik, Fort Yukon, Kaktovik, and Venetie. Prior to this proposal, the Board has not received a proposal to modify the determination.

Community Characteristics

Kaktovik is a North Slope community located on Barter Island in Unit 26C. The Arctic National Wildlife Refuge lies immediately to the south of the community. In 2020, the population of Kaktovik was estimated to be 283 people (ADCCED 2023). Kaktovik is an Inupiaq community, and the cultural and subsistence practices of its residents reflect their heritage. Residents primarily harvest caribou, marine mammals, whitefish, and char. However, residents rely on a wide range of wild foods including Dall sheep.

Eight Factors for Determining Customary and Traditional Use

A community or area's customary and traditional use is generally exemplified through these 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 some or all of 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.

In 2010, the Secretary of the Interior asked the Board to review, with Regional Advisory Council input, the customary and traditional use determination process, and present recommendations for regulatory changes. In June 2016, the Board clarified that the eight-factor analysis applied when considering customary and traditional use determinations is intended to protect subsistence use, rather than limit it. The Board stated that the goal of the customary and traditional use determination analysis process is to recognize customary and traditional uses in the most inclusive manner possible.

At least three sources support the inclusion of Kaktovik in the customary and traditional use determination for Dall sheep in Unit 25A because of Kaktovik's historic customary and traditional use of sheep in the area through trade and harvest. Although the use may be historic and irregular, this does not diminish the importance of sheep from Unit 25A to the residents of Kaktovik.

There were prehistoric and historic trading and kinship connections with Kaktovik (located in Unit 26C) and the other communities who share the customary and traditional use determination for sheep in Unit 25A (Arctic Village, Chalkyitsik, Fort Yukon, and Venetie). Several sources document these connections including public testimony by a Council member (see below) (FSB 2018), harvest data (OSM 2018), and an ethnographic account from 1963.

In 2018, Gordon Brower, former Chair of the North Slope Council referenced Kaktovik's use of the Arctic Village Sheep Management Area (AVSMA) during a discussion of WP18-56. The proposal requested opening the AVSMA to non-federally qualified subsistence users. Chairman Brower presented the Council's justification for opposing the proposal and noted that Kaktovik hunters hunt for sheep in Unit 25A:

The Council has heard testimony from Arctic Village as well as Kaktovik in the past. It was noted that hunters do go and hunt in this area when other animals are not available, and it is an important area because sheep can be reliably found around the natural mineral formations in that small area...It was noted that sheep become much more important for survival when the caribou do not come around the community and even if the harvest is low in some years, it is critical to maintain the population for food security when they need to shift harvest to more sheep in low caribou years (FSB 2018: 571).

In the same OSM analysis of Unit 25A sheep, WP18-56, harvest data for Unit 25A shows that Kaktovik hunters have traveled there to harvest sheep in recent history (**Table 1**):

Table 1. The harvest of sheep in Unit 25A reported on Federal permits by communities in the customary and traditional use determination, 1995-2015 cumulative (adapted from OSM 2018: 1,237).

FEDERAL PERMITS ONLY- Unit 25A Sheep Harvest						
Community	Arctic Village Sheep Management Area Permit FS2502			Unit 25A remainder Permit FS2503		
	Issued	Hunted	Taken	Issued	Hunted	Taken
Arctic Village	25	7	5	16	3	3
Fort Yukon	5	4	2	2	0	0
Kaktovik	0	0	0	6	4	4

For his 1963 doctoral dissertation, ethnographer Frederick Hadleigh-West conducted field work with the people in Arctic Village and Venetie, the Neets'aiti Gwich'in. The people he worked with shared descriptions of the community's relationship with the Inupiat people of the North Slope, the most immediate being the relationship with Kaktovik, the people of Barter Island:

The traditional enemies of the Netsi Kutchin [Neets'aiti Gwich'in] were the Eskimos [Inupiat] whose territory lay to the north. Nevertheless, there existed a well organized system of trade with the Eskimos. Trading with the Eskimos took place annually in the month of August. At that time, family groups of the Netsi Kutchin would be in the north hunting mountain sheep. The men would leave their families just on the north side of the Range and would go down to the coast to a place which they called *kle re ti tl*, 'meeting place'...At this place the Indians would meet Eskimos from Barrow, Barter Island and perhaps points farther east...Each Indian had a trading partner and there was said to exist between them considerable cordiality. In fact, they called each other friends...The Indians brought to the trade raw hides of wolverine, wolf, caribou, and sheep (258-259).

During fieldwork in Kaktovik conducted in the early 1990s, ADF&G researchers documented local perspectives on sheep. Residents described the use of fallback species and secondary harvest locations when "regular" resources are not available. They discussed the importance of "...an area and a resource which is not used under normal circumstances but actually provide the basis for household or community survival when other major resource categories fail" (Pederson et al. 1985: 72). First on the list of "emergency" resources is Dall sheep followed by a few fish species, seals, and small land mammals (Pederson et al. 1985: 72).

People in Kaktovik described multiple places they travel to harvest sheep, mostly when caribou are not available. They explained that they usually do not harvest the full agency allocation for sheep because other, more accessible, resources provide for their needs. This provides a window into the Indigenous management strategy for sheep. Subsistence harvesters often tell us they only harvest what they need. In this case, they are telling us that they are only harvesting the sheep they need and not harvesting their full "allocated" limit because they are leaving sheep as a way of growing "money in the bank" for a day when they may need to harvest them to survive (Pederson et al. 1985: 64-65).

Effects of the Proposal

If adopted, the removal of Kaktovik from the customary and traditional use of Dall sheep in Unit 25A would exclude the community from the opportunity to harvest sheep in Unit 25A.

OSM CONCLUSION

Oppose Proposal WP24-36.

Justification

The people of Kaktovik have a documented customary and traditional use of Dall sheep in Unit 25A. Hunting for sheep in Unit 25A is one of Kaktovik's places to harvest meat when other resources are not available. Although this area may not be used frequently by the people of Kaktovik, it remains important for the future.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

North Slope Alaska Subsistence Regional Advisory Council

The Council voted to **support** WP24-36 as written. Traditionally, residents of Kaktovik traded with Arctic Village, located on the south side of the Brooks Range, and occasionally harvested sheep in Unit 25A in the Arctic Village Sheep Management Area. The Council stated that residents of Kaktovik no longer harvest sheep near Arctic Village.

Eastern Interior Alaska Subsistence Regional Advisory Council

The Council **took no action** on WP24-36 and requested that the Board defer to the recommendation of the North Slope Council. The Council did not feel comfortable making a recommendation about a customary and traditional use determination for residents in the North Slope region and felt that the decision should be left to the home Council.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Federal Subsistence Board decides which communities or areas have customarily and traditionally used a species. If a customary and traditional use determination has been validated by the Board, it is not revoked. It is a finding that under the standards established by law for the Federal subsistence management program, residents of a village or area are eligible to hunt or fish a specific species in an area because they have demonstrated a pattern of use.

The people of Kaktovik have a demonstrated pattern of use of Dall sheep in Unit 25A. Removing Kaktovik from the customary and traditional use determination for Dall sheep in Unit 25A would be denying their pattern of use that exists, the importance of sheep as an alternative resource for the community, and the continuation of subsistence uses for future generations of Kaktovik residents.

ALASKA DEPARTMENT OF FISH AND GAME COMMENTS

Draft Comments on WP18-xx
1/31/2024, Page 1 of __

Alaska Department of Fish and Game

Wildlife Proposal WP24-36

This proposal would remove the community of Kaktovik from the communities currently listed as customarily and traditionally harvesting Dall sheep within Game Management Unit (Unit) 25A under federal regulation.

Position

The Alaska Department of Fish & Game (ADF&G) is **NEUTRAL** on eligibility requirements for participation in the subsistence program provided under the Alaska National Interest Lands Conservation Act (ANILCA). ADF&G recommends the Federal Subsistence Board (FSB) thoroughly and carefully review the data relevant to the Section 804 criteria for those communities that are currently eligible to participate in federal Dall sheep hunts in Unit 25A as described in this proposal.

Background

The ADF&G Subsistence Section has collected limited qualitative and quantitative data on harvest and use patterns of Dall sheep in Kaktovik. Although the harvest and use patterns for Dall sheep by Kaktovik residents have not been vigorously studied, the data that the Subsistence Section does have for this area demonstrates that there is a history of use, and that harvest are widely shared within the community. In Pedersen et al. (1985), Dall sheep are described as a key large land mammal resource for residents of Kaktovik. Additionally, in years when caribou, or other significant contributors to the diets of Kaktovik residents are less abundant, Dall sheep are more heavily relied on. Researchers also documented land use patterns for specific resources, including Dall Sheep. Surveyed households reported harvesting sheep within the boundaries of the Arctic Village Sheep Management Area in Unit 25A between 1965-1985 (Figure 1).

The Alaska Board of Game (BOG) established a positive customary and traditional use (C&T) determination for Dall Sheep in Units 23, 24, 25A and 26 (Brooks Range) in 1987. In 1990 the FSB adopted existing state regulations into Temporary Subsistence Management Regulations. The C&T determination for Dall sheep included residents of the communities of Arctic Village, Chalkyitsik, Fort Yukon, Kaktovik and Venetie.

Impact on Subsistence Users

If adopted, this proposal would remove the opportunity for residents of Kaktovik to harvest sheep for subsistence use in Unit 25A.

Impact on Other Users

If adopted, this proposal would have minimal effects on other users.

Draft Comments on WP18-cc
1/31/2024, Page 1 of __

Opportunity Provided by State

State customary and traditional use findings: The Alaska Board of Game (BOG) has made positive customary and traditional use findings for Dall Sheep in Unit 25A.

Amounts Reasonably Necessary for Subsistence: After making a positive Customary and Traditional Use determination for a population, the Board of Game must set the amount reasonably necessary for subsistence uses (ANS). The BOG does this by reviewing extensive harvest data from all Alaskans, gathered either by ADF&G or from other sources, when available.

ANS provides the BOG with guidelines on typical numbers of animals harvested for customary and traditional uses under normal conditions. Hunting regulations can be re-examined if harvests for customary and traditional uses consistently fall below ANS. This may be for many reasons: hunting regulations, changes in animal abundance or distribution, or changes in human use patterns, just to name a few.

The ANS for Dall Sheep in Units 23, 24, 25A and 26 is 75-125 animals.

Conservation Issues

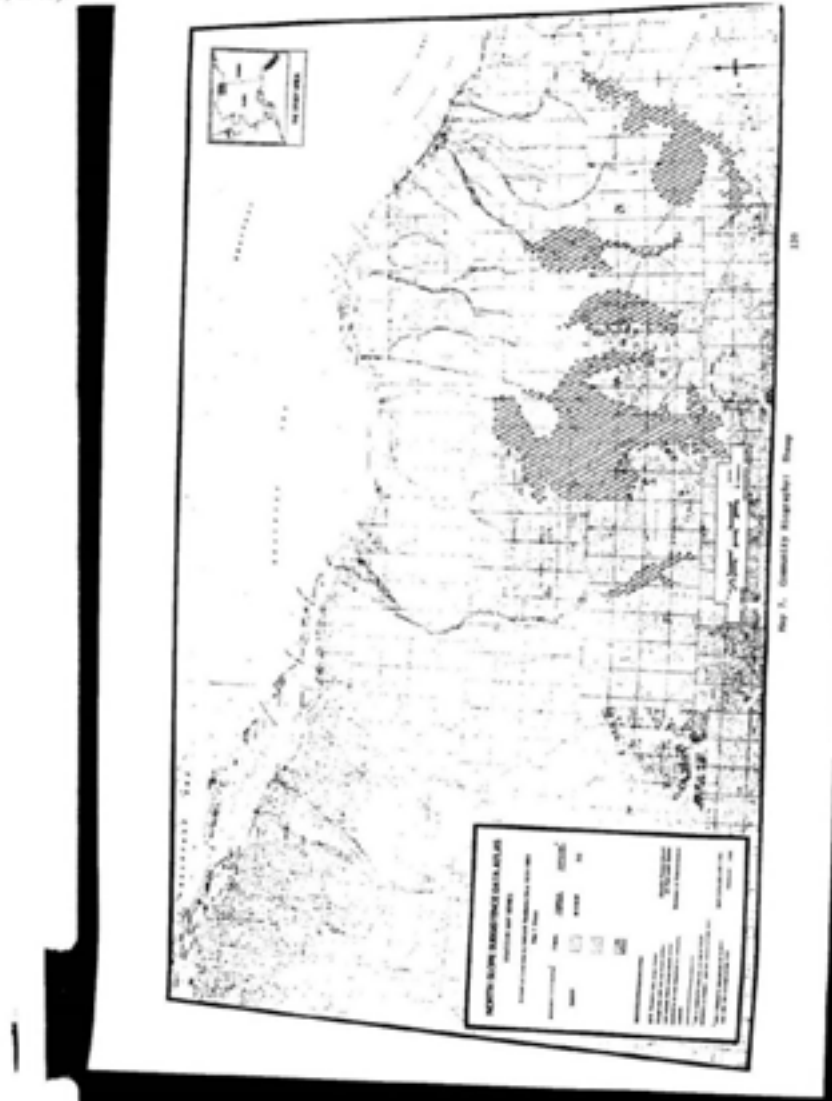
Adoption of this proposal would not result in any conservation issues for Dall sheep.

Enforcement Issues

Removing the community of Kaktovik from the list of communities that can hunt Dall sheep in Unit 25A under federal hunting regulations could result in the citing of Kaktovik residents for illegally hunting in the area.

Draft Comments on WP18-xx
1/31/2024, Page 1 of __

Figure 1. Search and Harvest Areas for Dall Sheep by residents of Kaktovik, Alaska between 1965-1985 (Pedersen et al., 1985).



WCR24–21 Executive Summary	
General Description	Wildlife Closure Review WCR24-21 reviews the closure to sheep hunting in the Arctic Village Sheep Management Area in Unit 25A, except by rural Alaska residents of Arctic Village, Venetie, Fort Yukon, Kaktovik, and Chalkyitsik.
Current Regulation	<p>Unit 25A—Sheep</p> <p><i>Unit 25A, Arctic Village Sheep Management Area – 2 Aug. 10–Apr. 30 rams by Federal registration permit only.</i></p> <p><i>Federal public lands are closed to the taking of sheep except by rural Alaska residents of Arctic Village, Venetie, Fort Yukon, Kaktovik, and Chalkyitsik hunting under these regulations.</i></p>
OSM Conclusion	Retain the Status Quo
Eastern Interior Alaska Subsistence Regional Advisory Council Recommendation	Retain the Status Quo
North Slope Subsistence Regional Advisory Council Recommendation	Take No Action
Interagency Staff Committee Comments	The closure of the Arctic Village Sheep Management Area (AVSMA) to the taking of sheep except by Federally qualified subsistence users was put in place to allow for the continuation of subsistence uses and for the conservation of healthy populations. The sheep population in the AVSMA was last surveyed in 2016 and appears to be stable at low density. The Federal Subsistence Board (Board) has approved retaining the closure to ensure the continuation of subsistence uses of sheep by

WCR24–21 Executive Summary	
	<p>federally qualified subsistence users, especially the community of Arctic Village since it was last reinstated in 2012.</p> <p>The Native Village of Venetie requested a Tribal consultation with members of the Board in an effort to seek more permanent alternatives to a closure review every four years. The Office of Subsistence Management, the Arctic National Wildlife Refuge, and other Federal partners are working to follow up with the Tribe on topics raised during the consultation. The Eastern Interior Alaska Subsistence Regional Advisory Council supports maintaining the closure and is supportive of maintaining subsistence uses of federally qualified subsistence users with a long and consistent pattern of traditional use in the Red Sheep and Cane Creek drainages.</p>
ADF&G Position	Rescind the Closure
Written Public Comments	1 Retain Status Quo

FEDERAL WILDLIFE CLOSURE REVIEW WCR24-21

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

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

Current Federal Regulation

Unit 25A—Sheep

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

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

Closure Dates: Year-round

Current State Regulation

Unit 25A—Sheep

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

OR

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

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

Regulatory Year Initiated:

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

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

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

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

Extent of Federal Public Lands/Waters

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

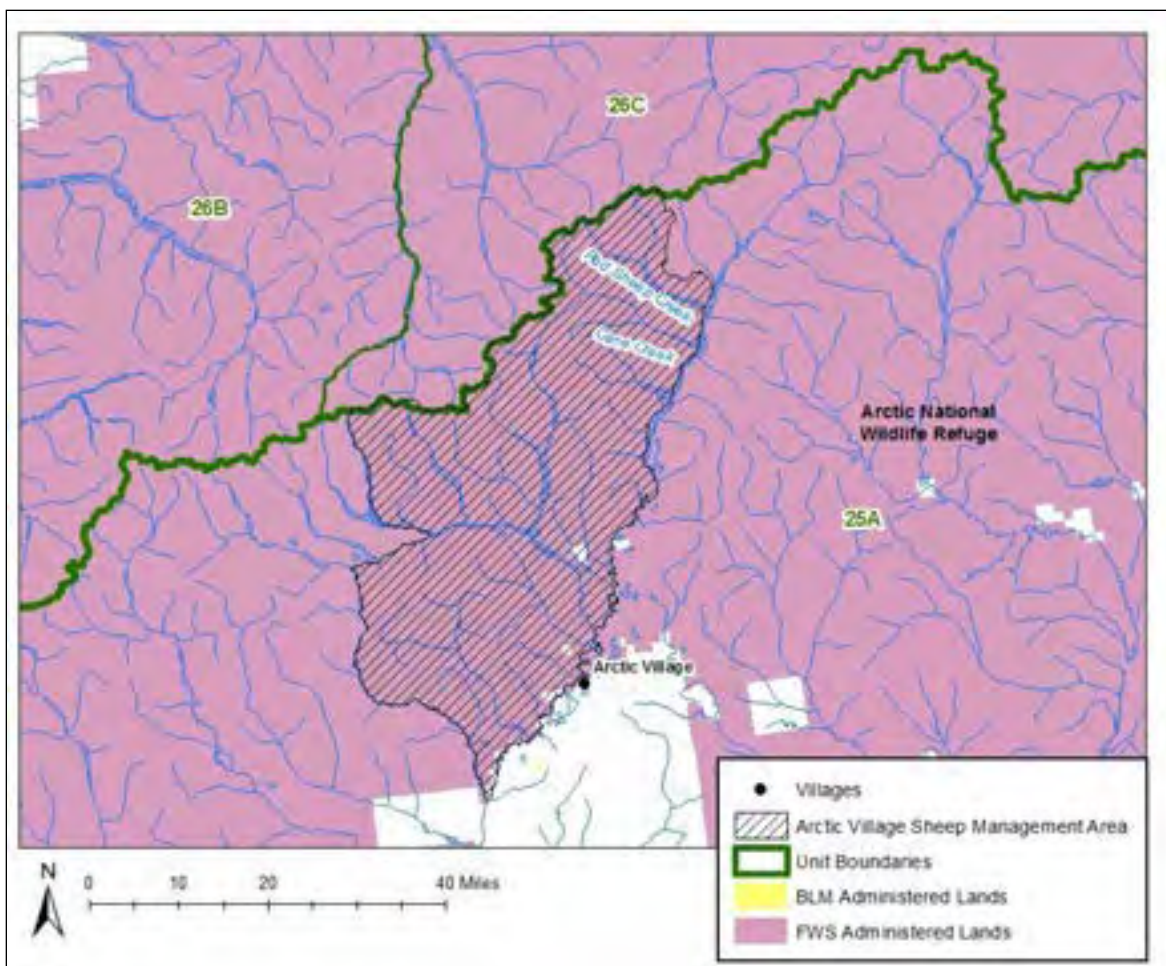


Figure 1. The Arctic Village Sheep Management Area in Unit 25A.

Customary and Traditional Use Determination

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

Regulatory History

Knowledge of regulatory history necessary to analyze Closure Review WCR24-21 is extensive. It is described in **Appendix 1**.

Current Events

On October 3, 2023, the Eastern Interior Council met in Arctic Village and held tribal consultation regarding this closure review. All participants including tribal officials and members of the public spoke in favor of continuing the closure to non-federally qualified users.

On March 1-2, 2023, the Eastern Interior Council met in Fairbanks and this closure review was presented to the Council. More than five representatives from Arctic Village and Venetie

attended the meeting and five provided extensive testimony in support of continuing the closure and making it permanent (EIRAC 2023: 177-214).

On March 16, 2023, Tanana Chiefs Conference passed Resolution 2023-12 in support of permanent closure of Arctic Village sheep management area to sport hunters (See public comment submission from TCC).

Proposal WP24-36, submitted by the North Slope Subsistence Regional Advisory Council (Council), requests that the Federal Subsistence Board (Board) rescind the customary and traditional use determination for Dall sheep in Unit 25A for the residents of Kaktovik.

Closure last reviewed: 2020 – WP20-49

Justification for Original Closure:

§815(3) of ANILCA states:

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

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

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

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

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

In 2020, the Board rejected a proposal to rescind the closure on public lands to non-federally qualified users for the take of sheep in Unit 25A (Arctic Village Sheep Management Area). The Board stated that there is still a significant conservation concern and the user group

conflicts have not yet been resolved (85 Fed. Reg. 226 74798 [November 23, 2020]).

Council Recommendation for Original Closure:

Federal Subsistence Regional Advisory Councils had not yet been established in 1991 when the AVSMA was established and closed to non-federally qualified users. There was no recommendation stated by the Interior Regional Council in the December 17, 1990, or June 4, 1991 Board meeting transcripts.

In 2005, the Eastern Interior and North Slope Regional Advisory Council recommendations on Proposal P95-54 were in support of the Arctic Village positions to maintain the closure to non-federally qualified users and to expand the closure to include the drainages of Red Sheep Creek and Cane Creek within the AVSMA.

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

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

State Recommendation for Original Closure:

No recommendation by the State is stated in the December 17, 1990, or June 4, 1991 Board meeting transcripts; however, the State's subsequent proposals and Requests for Reconsideration indicate its opposition to the AVSMA closure. The State has consistently demonstrated support for opening the AVSMA to non-federally qualified hunters (please refer to Appendix I for detailed regulatory history). In 1995, the State submitted RFR95-06 to request Board reconsideration of its decision to adopt proposal 95-54 to add the Cane Creek and Red Sheep drainages to the AVSMA. In 2007, the State submitted WP07-56 to open the sheep harvest in the Cane and Red Creek drainages to non-federally qualified hunters. The Board adopted the closure. After the Board rescinded the closure in 2012, the Eastern Interior Council submitted WP14-51 which requested the re-opening of the Cane and Red Sheep Creek drainages to non-federally qualified hunters. The Board adopted the proposal. In 2019, the State submitted WP20-49 requested the re-opening of the Cane and Red Sheep Creek drainages to non-federally qualified hunters. The Board rejected the proposal.

Biological Background

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

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

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

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

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

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

The sheep population in the AVSMA likely declined between 2012 and 2015 due to several years of poor lamb production and severe winters (particularly the winters of 2012-13 and 2013-14). In 2012, surveys within and near the AVSMA indicated an average sheep density of 0.79 sheep/mi² and 27 lambs:100 ewes (Arthur 2017, pers. comm.). Density north and south of Cane Creek ranged from 1.5–1.8 sheep/mi² and 0.25–0.7 sheep/mi², respectively (Wald 2012). In 2015, estimated sheep density for

the same areas averaged 0.67 sheep/mi² and the lamb:ewe ratio was 34 lambs:100 ewes. The 2015 survey also indicated a decline in rams of all age classes (Arthur 2017, pers. comm.).

In 2016, a larger area was surveyed, including the Hulahula River drainage in Unit 26C, which contains higher sheep densities than the AVSMA. While the 2016 overall sheep density averaged 0.86 sheep/mi², density within the AVSMA was likely 0.70-0.75 sheep/mi² (Arthur 2017, pers. comm.). The ram:ewe ratio for the entire survey area averaged 28 rams:100 ewes, and the density of full-curl rams was 0.005/mi². Due to improved lamb production in 2015 and 2016 (>30 lambs:100 ewes), the sheep population in the AVSMA has likely not declined below 2015 levels and may be increasing. However, it will be at least 3–5 years before an increase in mature (8+ year old) rams are observed in the population (Arthur 2017, pers. comm.; 2019 pers. comm.). No surveys have been conducted since 2016.

Cultural Knowledge and Traditional Practices

Cultural Context:

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

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

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

Neets'aii Gwich'in follow(ed) routes to the arctic coast that were situated within the AVSMA. Gwich'in regularly visited the arctic coast for the purposes of trade (Burch 1979).

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

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

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

Hadleigh-West described Neets'aii Gwich'in relationship to the land and mountains and the nature of the sheep hunt, as described below by (1963):

The extent to which the Neets'aii Kutchin are adapted to their mountainous environment is evidenced by the willingness and agility with which they attack it. Hiking trails usually take the shortest route between two points. This always entails some climbing. Another evidence is inherent in their knowledge of the country; it is "impossible" to become lost in *Netsai'*. Hunting mountain sheep,

nowadays viewed as a kind of family outing, often demands of the hunter an agility approaching that of the quarry. In this connection, too, the former use of a special climbing staff, surely is indicative of a mountaineering people (Hadleigh-West 1963:270).

After caribou, Dall sheep are the most important large land mammal harvested for food. Moose were scarce (Hadleigh-West 1963: 172). Neets'aii Gwich'in relied upon sheep as a food source primarily in late summer or whenever caribou were scarce. Hadleigh-West (1963: 138) identified four very specific sheep hunting areas used by Arctic Village residents: 1.) along the Junjik River, 2.) East Fork Chandalar River, 3.) Cane Creek, and 4.) Red Sheep Creek. All are within the AVSMA.

The customary and traditional use determination for sheep in Unit 25A, including the AVSMA, consists of five communities with a total population of roughly 1,100 people according to the 2020 U.S. Census. (The other communities are Kaktovik, Fort Yukon, Chalkyitsik, and Venetie.)

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

The public record demonstrates that Arctic Village residents have a long history of using the Cane Creek and Red Sheep Creek drainages, which continue to be culturally significant, sacred areas to harvest sheep and for other activities. Extensive discussion included in previous proposal analyses (OSM 1993, 1995a, 2014a, 2018, 2020) and testimony received during Council and Board meetings (EIRAC 2006, 2007, 2011, 2017, 2019, FSB 2020) demonstrate regular use of these drainages by residents of Arctic Village. Gustafson (2004), in

a study of traditional ecological knowledge, discussed the importance and continued use of the Red Sheep Creek drainage for sheep hunting. Discussions with Refuge Information Technicians from Arctic Village, other Arctic NWR staff, researchers working in the area, and subsistence hunters from Arctic Village also confirm continued sheep hunting in the Cane Creek and Red Sheep drainages (Bryant 2011, pers. comm.; Dinero 2011 pers. comm.; Mathews 2011, pers. comm.; John 2011, pers. comm.).

The trip from Arctic Village to Red Sheep Creek and back is about 90 miles, requiring great effort both physically and economically, to hunt sheep in this area (Bryant 2011, pers. comm.; John 2011, pers. comm.; Gilbert 2011, pers. comm.; Swaney 2011, pers. comm.). Residents of Arctic Village have repeatedly expressed concerns about non-federally qualified users hunting sheep in Red Sheep Creek and Cane Creek drainages. These residents have provided testimony and public comment at numerous Council and Board meetings to attest to the importance of Red Sheep Creek, to describe their use of the area, and to explain that the presence of non-federally qualified users has affected their access and reduced their harvest opportunities (EIRAC 2006, 2007, 2011, 2017, 2019; FSB 1991a:291-311, 1995, 2006a, 2007:292–306, 2012, 2020; OSM 1993, 1995a, 1996, 2006b, 2007a, 2014a; 2020; Swaney 2011, pers. comm.; Gilbert 2011, pers. comm.; John 2011, pers. comm.).

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

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

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

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

Hadleigh-West's account provides context for the AVSMA closure. Arctic Village residents have commented that allowing non-federally qualified users to harvest sheep in Red Sheep Creek and Cane Creek drainages during the time when Arctic Village residents harvested sheep affects Arctic Village residents' ability to access an important sheep hunting area. Since 1993, Arctic Village residents have commented to the Board that the planes used by non-federally qualified users have interfered with their ability to successfully hunt sheep in the Red Sheep and Cane Creek drainages. Residents reported that plane fly-overs "spook" sheep and that "older rams can climb to higher elevations, making them more difficult to hunt" (OSM 1993, see also OSM 1995a for additional discussion). Gideon James from Arctic Village explained that Red Sheep and Cane Creek are both very narrow valleys, and consequently, flights through the area disturb sheep (FSB 2012:201). These disturbances have also been described by Arctic NWR staff (Mathews 2011, pers. comm.), and local residents (Swaney 2011, pers. comm., John 2011 pers. comm., Gilbert 2011, pers. comm.). This phenomenon was documented by Frid (2003) who found that fixed-wing aircraft disrupted resting or caused fleeing behavior in Dall sheep in the Yukon Territory during overflights.

Harvest History

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

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

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

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

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

Since 1995, federally qualified subsistence users have been required to get a Federal registration permit (FS2502) to hunt for sheep in the AVSMA. **Table 1** shows Federal permit data from 1995 through 2018. During this time period, a total of 40 permits were issued to residents of Arctic Village and Fort Yukon and nine sheep were reported harvested. Only some hunters submitted harvest reports, so these data are incomplete. Hunters did not always report areas they used to hunt for sheep within the AVSMA. Of these incomplete data, three hunters reported using the Red Sheep Creek drainage to hunt for sheep and one sheep harvest was reported. Sixteen hunters reported the type of transportation they used to reach hunt areas: one by boat, 14 by airplane, and one reported using no transportation, perhaps walking or hiking. Of those reporting, hunting trips lasted an average of 5 days (OSM 2019).

ADF&G maintains a harvest reporting database where hunting efforts by users hunting under State regulations are recorded (ADF&G 2019a). Complete records were not kept until the mid-1980s, and it is likely that many Gwich'in hunters have not reported their harvest efforts or have reported their harvest efforts on Federal permits (see above). The following description of hunter effort and success is for Unit 25A.

From 1983 to 2017 regulatory years, hunters with State harvest tickets and permits reported harvesting 1,746 sheep (about 50 sheep annually) from Unit 25A (see **Table 2**, ADF&G 2019a).

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

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

Table 2. State harvest tickets and permits only: Reported effort to harvest sheep and reported sheep harvested in Unit 25A, from 1983 through 2017, by user group (Source: ADF&G 2019a).

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

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

Effects

Continuation of this closure will allow for the continuation of culturally important subsistence sheep harvest by federally qualified subsistence users without user conflict.

If the closure were rescinded, non-federally qualified users would be able to hunt sheep in the AVSMA. This could result in more user conflict and interfere with sheep harvest by Federally qualified subsistence users. There are questions about the viability of these sheep populations.

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

OSM CONCLUSION:

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

Justification

The current closure is still necessary to continue subsistence uses of the AVSMA for federally qualified subsistence users, especially the residents of Arctic Village. User conflict, concerns about the health of the AVSMA Dall sheep population and the importance of the area for the continuation of subsistence sheep harvests have consistently been cited as reasons for the closure. In 2020, in response to proposal WP20-49, the Board stated that there is still a significant conservation concern and that user group conflicts have not yet been resolved (85 Fed. Reg. 226 74798 [November 23, 2020]).

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Eastern Interior Alaska Subsistence Regional Advisory Council

The Council voted to **retain the status quo**. The Council supports the continuation of this closure because of conservation concerns for sheep in the Arctic Village Sheep Management Area.

The Council also wishes for the Board to consider the unique cultural significance of sheep from the Red Sheep Creek and Cane Creek drainages within the closure area. In their discussion, Council members acknowledged that this closure should also be maintained for cultural reasons because to the people of Arctic Village, conservation is multi-faceted and biology and culture are intertwined. The people of Arctic Village have been testifying about the importance of these sheep for cultural, spiritual, and food security reasons since the inception of the Federal Subsistence Management Program. There have been previous Tribal consultations on this topic and there was another Tribal consultation on this closure review prior to the fall 2023 Council meeting in Arctic Village. The Council encourages the Board and U.S. Fish and Wildlife Service to work with the Arctic Village Council and the Native Village of Venetie Tribal government to further explore options that would provide more permanent protections for this particular sacred area and resource and, as importantly, reduce the burden on the community and Tribe from having to advocate to retain this closure every four years. The Council noted that this is a perfect opportunity for co-management. In the meantime, the Council encourages the Board to review their closure review policy and determine if an exception can be made for this area to extend the closure review cycle to longer than 4 years.

Additionally, the Council noted that if this closure were ever to be rescinded and opened to non-federally qualified users, that several specific actions would need to be taken prior. Specifically, the hunter education course for the Arctic Village Sheep Management Area (known as Eastern Brooks Range Management Area in State regulations) that was passed as a drawing hunt permit requirement by the Alaska Board of Game would need to be developed in collaboration with the Arctic Village community. Currently, no such course has been developed.

North Slope Subsistence Regional Advisory Council

The Council voted to **take no action**.

INTERAGENCY STAFF COMMITTEE COMMENTS

The closure of the Arctic Village Sheep Management Area (AVSMA) to the taking of sheep except by Federally qualified subsistence users was put in place to allow for the continuation of subsistence uses and for the conservation of healthy populations. The sheep population in the AVSMA was last surveyed in 2016 and appears to be stable at low density. The Federal Subsistence Board (Board) has approved retaining the closure to ensure the continuation of subsistence uses of sheep by federally qualified subsistence users, especially the community of Arctic Village since it was last reinstated in 2012.

The Native Village of Venetie requested a Tribal consultation with members of the Board in an effort to seek more permanent alternatives to a closure review every four years. The Office of Subsistence Management, the Arctic National Wildlife Refuge, and other Federal partners are working to follow up with the Tribe on topics raised during the consultation. The Eastern Interior Alaska Subsistence Regional Advisory Council supports maintaining the closure and is supportive of maintaining subsistence uses of federally qualified subsistence users with a long and consistent pattern of traditional use in the Red Sheep and Cane Creek drainages.

ALASKA DEPARTMENT OF FISH AND GAME COMMENTS

Draft Comments on WP24-21
1/31/2024, Page 1 of __

Alaska Department of Fish and Game Comments

Wildlife Closure WCR24-21

This is the routine review of the closure to the hunting of Dall sheep in the Arctic Village Sheep Management Area (AVSMA) in Game Management Unit (Unit) 25A, except by rural Alaska residents of Arctic Village, Venetie, Fort Yukon, Kaktovik, and Chalkyitsik.

Position

The Alaska Department of Fish & Game (ADF&G) **SUPPORTS** rescinding the closure. Sheep are managed in Alaska with the conservative full-curl management strategy. With this in mind, the closure is not needed for biological concerns as the Alaska Board of Game (BOG) has already passed regulations reducing harvest opportunity in this area.

Congress enacted Title VIII of the Alaska National Interest Lands Conservation Act (ANILCA) to ensure the continued opportunity for subsistence uses by rural residents of Alaska. Congress also clarified in ANILCA Section 815(3) that Title VIII is not intended to restrict non-subsistence uses of fish and wildlife generally permitted on public lands (other than national parks and park monuments) unless necessary for the conservation of healthy populations of fish and wildlife and as necessary pursuant to Sections 804 and 816. ADF&G believes that there is a viable sheep population within the AVSMA with a harvestable surplus that could be utilized under the conservative full-curl management strategy it employs throughout the state.

Background

Dall sheep in this area are managed using the conservative full-curl ram harvest management strategy. The full-curl strategy is conservative because it focuses harvest pressure on 1) older-aged animals, 2) males-only, and 3) a small segment of the population. Dall sheep rams on average become full-curl at 8 years of age or older, and previous research has shown that these older rams have naturally higher mortality rates than younger aged rams. Therefore, when hunters harvest a full-curl ram, this has a lower impact on the population compared to harvesting a younger ram because there is a higher likelihood the older ram would have died of natural causes anyways. Additionally, older males are more likely to have breed and passed on their genes, maintaining the genetic diversity of the population. Limiting harvest to males-only reduces the impact of harvest on the overall population because male survival rates have a drastically lower impact on population growth compared to female survival rates. Finally, the full-curl strategy is extremely conservative because full-curl animals compose a very small proportion of most sheep populations. As a result, the number of animals that are legally available to hunters is a small proportion of the population and this imposes a self-limit on overharvest of the population. Taken collectively, the full-curl harvest strategy limits harvest to only older-aged rams and is thus a conservative, self-limiting strategy that allows for maximum hunter opportunity while simultaneously preventing overharvest and has minimum impacts on population growth.

Draft Comments on WP24-21
1/31/2024, Page 1 of ____

Impact on Subsistence Users

If the closure is rescinded this area would be open to FQUs and NFQUs alike and sheep would be managed under the full-curl management strategy.

Impact on Other Users

If the closure is rescinded this area would be open all users and sheep management would return to the full-curl management strategy where currently the area would only be open to sheep hunting by a youth hunt, a drawing permit hunt, and a registration subsistence hunt (see below).

Opportunity Provided by State

State customary and traditional use findings: The Alaska Board of Game has made positive customary and traditional use findings for Dall sheep in Unit 23, 24, 25A, and 26 (Brooks Range).

Amounts Reasonably Necessary for Subsistence: Alaska state law requires the Board of Game to determine the amount of the harvestable portion of a game population that is reasonably necessary for customary and traditional uses. This is an ANS. The BOG does this by reviewing extensive harvest data from all Alaskans, collected either by ADF&G or from other sources.

ANS provides the BOG with guidelines on typical numbers of animals harvested for customary and traditional uses under normal conditions. Hunting regulations can be re-examined if harvests for customary and traditional uses consistently fall below ANS. This may be for many reasons: hunting regulations, changes in animal abundance or distribution, or changes in human use patterns, just to name a few.

The ANS for Dall sheep in Units 23, 24, 25A, and 26 is 75 - 125 animals. The season and bag limit for 25A Eastern Brooks Range Management Area (EBRMA) which directly overlaps the AVSMA is:

Unit/Area	Bag Limit	Open season (Permit/Hunt#)	
		Resident*	Nonresident
Unit 25A - that portion within the Eastern Brooks Range Management Area	One ram with full-curl horn or larger	1-5 August (Youth hunt)	
	One ram with full-curl horn or larger every 4 regulatory years	10 August-20 September (Drawing permit)	10 August-20 September (Drawing permit)
	One ram with 3/4 curl horn or larger every 4 regulatory years	1 October-30 April (Registration permit)	

* Subsistence and General Hunts.

Draft Comments on WP24-21
1/31/2024, Page 1 of ____

Conservation Issues

There are no conservation issues with this proposal. There is currently a harvestable surplus of sheep in the AVSMA that are not being utilized.

Enforcement Issues

If the closure is rescinded there would be no enforcement issues.

WRITTEN PUBLIC COMMENTS



Tanana
Chiefs
Conference

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June 30, 2023

Federal Subsistence Board
Office of Subsistence Management
Attn: Tracy Matukowita
1011 E. Tudor Rd, MS-121
Anchorage, AK 99503-6199

Submitted to: subsistence@fws.gov

RE: Written comments on 2024-2026 Federal Wildlife Closure Reviews WCR24-20 and WCR 24-21

Dear Chairman Anthony Christianson,

Tanana Chiefs Conference (TCC) represents the Interior Alaska 42 communities, including 37 federally-recognized Tribes, where 34 are located along the Yukon River drainage. TCC fully supports the continuation of the closures to all but Federally qualified subsistence users of the Kanuti Controlled Use Area and the Arctic Village Sheep Management Area.

The US Congress, in passing Sections 804 and 815 of the Alaska National Interest Lands Conservation Act (ANILCA), established the Federal subsistence priority over other consumptive uses on Federal public lands. ANILCA Title VIII authorizes restrictions on the taking of wildlife by non-Federally qualified users to support the conservation of healthy populations of wildlife and the continuation of Federal subsistence uses.

Closure of the Kanuti Controlled Use Area to All but Federally Qualified Subsistence Moose Hunters

The Federal Subsistence Board determined that rural Alaskan residents of Game Management Unit 24 and the communities of Koyukuk and Galena in Unit 21 have a Federal Customary and Traditional Use determination for moose in Unit 24. The Kanuti Controlled Use Area is closed during the moose hunting season to the use of aircraft for hunting moose, including the transportation of any moose hunter or moose part under State of Alaska or Federal moose hunting regulations.

Federal public lands within the Kanuti Controlled Use Area are closed to non-Federally qualified moose hunters due to the low-density moose population of the area to support the continuation of Federal customary and traditional moose hunting ways of life.

Closure of the Arctic Village Sheep Management Area to All but Federally Qualified Subsistence Sheep Hunters

The Federal Subsistence Board determined that rural Alaska residents of Arctic Village, Chalkyitsik, Fort Yukon, Kaktovik, and Venetie have a Federal Customary and Traditional Use determination of sheep in Unit 25A and the Arctic Village Sheep Management Area. Federal public lands are closed to the taking of sheep except by rural Alaska residents of Arctic Village, Chalkyitsik, Fort Yukon, Kaktovik, and Venetie.



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due to the low-density sheep population of the area to support the conservation of the local Dall sheep population and the continuation of Federal customary and traditional sheep hunting ways of life.

TCC's Full Board of Directors Final Resolution 2022-02 entitled, "Protect Hunting Opportunities for TCC Region Village Residents," directed TCC staff to advocate and consult with the Federal Subsistence Management Program to support the Federal subsistence priority given that an increase in non-local hunters visiting our traditional local hunting areas limits the opportunity for Federally qualified subsistence hunters to provide food for village residents, especially elders.

Most recently, TCC's Full Board of Directors adopted Resolution 2023-12 entitled, "Opposing the Opening of Traditional Subsistence Use Hunting Area to Sport Hunters in the Arctic Village Sheep Management Area Permanently and Closing Other Critical Subsistence Areas in Need of Protection." This resolution directs TCC's Tribal Stewardship Program to advocate for a permanent solution to closing the Arctic Village Sheep Management Area and other critical subsistence use areas to sport hunting and fishing and outside interests that negatively affect subsistence rights and the food security of our indigenous people (see attached TCC Resolution 2023-12).

In conclusion, TCC supports the continued closures of moose hunting in the Kanuti Controlled Use Area and to sheep hunting in the Arctic Village Sheep Management Area except by Federally qualified subsistence users.

Sincerely,

TANANA CHIEFS CONFERENCE

Brian Ridley
Chief/Chairman

**OPPOSING THE OPENING OF TRADITIONAL SUBSISTENCE
USE HUNTING AREA TO SPORT HUNTERS IN THE ARCTIC
VILLAGE SHEEP MANAGEMENT AREA PERMANENTLY AND
CLOSING OTHER CRITICAL SUBSISTENCE AREAS IN NEED
OF PROTECTION**

- WHEREAS,** Tanana Chiefs Conference (TCC) is an Alaska Native tribal health and social services consortium established by the Interior Alaska tribes and tribal communities, to provide a unified voice in advancing sovereign tribal governments through the promotion of physical and mental wellness, education, socioeconomic development and culture of the Interior Alaska Native; and
- WHEREAS,** Alaskan Natives have stewarded their territories for over 10,000 years to ensure the health, well-being, social and cultural foundation, and spiritual existence of their peoples, as well as that of the animals, lands, and waters since time immemorial; and
- WHEREAS,** The Arctic Village Sheep Management Area is a critical subsistence use sheep hunting area of historical and cultural significance where our ancestors have hunted on this sacred site before us since time immemorial; and
- WHEREAS,** The Neets'ii Gwich'in and all Interior Tribes have managed their subsistence resources in common with their traditional laws. For the Neets'ii Gwich'in this has translated to this important subsistence use area being closed off to sport hunters; and
- WHEREAS,** High air traffic activity caused by sport hunting and guiding parties within our traditional hunting areas has created a high influx of hunters that compete with the Neets'ii Gwich'in subsistence hunting and the current Sheep population cannot sustain this; and
- WHEREAS,** Every two years sport hunters or outside interests propose to open the Arctic Village Red Sheep Creek Management Area to outside sport hunters; and the Neets'ii Gwich'in have to endlessly advocate to keep the area closed to sport hunters and stay abreast of these efforts; and
- WHEREAS,** While the Neets'ii Gwich'in of Arctic Village will bear the greatest impact of opening the Arctic Village Red Sheep Creek Management area these nonindigenous stressors impact our collective wildlife populations and need additional support and advocacy efforts to keep the area closed off to sport hunters permanently; and

RESOLUTION 2023 - 12
Tanana Chiefs Conference Full Board of Directors



WHEREAS, Sport and commercial hunting and fishing interests are threatening critical subsistence resources throughout the Tanana Chiefs region and have led to a drastic decline in the Chinook salmon runs in the Yukon-Kuskokwim Rivers and the Western Arctic caribou herd; and

WHEREAS, TCC and its member villages are endlessly having to advocate at Alaska Department of Fish and Game for limits on commercial and sport hunting and fishing to protect our food security and survival of our people;

NOW THEREFORE BE IT RESOLVED that the Tanana Chiefs Conference Full Board of Directors does hereby support the Neets'ii Gwich'in traditional sheep management decision to maintain the Red Sheep Creek and Crane Creek closures to sport hunters within the Arctic Village Sheep Management Area permanently; and

BE IT FURTHER RESOLVED the Tanana Chiefs Board of Directors does hereby support all TCC communities to advocate and encourage permanent solutions to protecting the food security of our people; and

BE IT FURTHER RESOLVED that the Tanana Chiefs Board of Directors does direct the Tribal Stewardship Program to work with Arctic Village and other TCC villages to advocate for a permanent solution to closing the Arctic Village Sheep Management Area and other critical subsistence use areas to sport hunting and fishing and outside interests that negatively affect subsistence rights; and

BE IT FINALLY RESOLVED that this resolution shall be the policy of Tanana Chiefs Conference.

CERTIFICATION

I hereby certify that this resolution was duly passed by the Tanana Chiefs Conference Full Board of Directors on March 16, 2023 at Fairbanks, Alaska and a quorum was duly established.




 Charlie Wright
 Secretary/Treasurer

Submitted by: Arctic Village Council

APPENDIX 1

REGULATORY HISTORY

At the beginning of the Federal Subsistence Management Program in Alaska in 1990, existing State regulations were adopted into Temporary Subsistence Management Regulations (55 Fed. Reg. 126. 27117 [June 29, 1990]). The customary and traditional use determination for sheep in Unit 25A was and continues to be (in 2022) for residents of Arctic Village, Chalkyitsik, Fort Yukon, Kaktovik, and Venetie. At this point in FSB history, the Board was operating under the assumption that the State would soon resume fish and wildlife management on Federal public lands in Alaska (FSB 1991c: 164-168).

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

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

In June 1991, the Board met and considered proposals received during the public comment period on wildlife regulations that included actions taken by the Board at its March 1991

meeting, described above (56 Fed. Reg. 73 15433 [April 16, 1991]). Proposals 09, 10, and 11 were submitted by the Arctic Village Council and Proposal 21 was submitted by Brooks Range Arctic Hunts. In Proposal 09, the Arctic Village Council requested the Board to include Cane Creek and Red Sheep Creek drainages in the Arctic Village Sheep Management Area, which had been closed to the harvest of sheep except by federally qualified subsistence users. The proponent said that the area set aside did not include all of the areas that must be included to accommodate customary and traditional uses of sheep by residents of Arctic Village (OSM 1991). The Board adopted the Interagency Staff Committee recommendation and rejected the proposal. The Board said Arctic Village residents used Cane Creek and Red Sheep Creek only for a short time when air taxi service was available. These two areas could support both subsistence and sport harvest (FSB 1991a:297–299). Proposals 10 and 11 requested that the Board eliminate harvest limits in the Arctic Village Sheep Management Area (Proposal 10) or increase the harvest limit to 3 sheep (Proposal 11). The Board adopted the Interagency Staff Committee recommendations and rejected both proposals. The Board said the sheep population in the Sheep Management Area was extremely low and the proposed regulations would jeopardize the continuation of healthy populations of sheep (FSB 1991a:299–301). The Board adopted the Interagency Staff Committee recommendation and also rejected Proposal 21, which requested the Board to open the Sheep Management Area to the harvest of sheep by non-federally qualified users. The Interagency Staff Committee said that the sheep population was extremely low, and subsistence users must be afforded a priority (OSM 1991).

In 1992, Request for Reconsideration (RFR) 23 was submitted by the Arctic Village Council requesting that the Board reconsider its decision on Proposal 9, described above, which if adopted would have added Cane Creek and Red Sheep Creek drainages to the Arctic Village Sheep Management Area, which had been closed to the harvest of sheep except by federally qualified subsistence users. The Office of Subsistence Management incorporated the request into Proposal 58 of the 1993 regulatory cycle, described below (OSM 1993). The Arctic Village Council made the same request during the 1992 regulatory cycle in Proposals 118A and 118B, seeking to eliminate harvest limits in the Sheep Management Area, or alternatively to increase the harvest limit from 2 rams to 3 sheep. In Proposal 118B, the Arctic Village Council requested the Board to include Cane Creek and Red Sheep Creek drainages to the Sheep Management Area. The Board adopted Proposal 118A with modification, in the remainder of Unit 25A, outside of the Sheep Management Area, to lengthen the season from Aug. 10 – Sept. 20 and Oct. 1 – Apr. 30 to Aug. 10 – Apr. 30 and to modify the harvest limit from 1 ram with 7/8 curl horn in fall season to 3 sheep throughout the season (57 FR 103, 22557 [May 28, 1992]). Furthermore, the Board directed the staff to seek alternatives to a Federal registration permit before the opening of the 1992 season for implementation at that time. The Board followed the Interagency Staff Committee recommendation and rejected Proposal 118B because biological data indicated that the sheep population in the Cane Creek

and Red Sheep Creek drainages could support both sport and subsistence use. The Board stated that the Council had not provided adequate justification that subsistence sheep hunting opportunities were being limited. (FSB 1992:59–99).

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

In 1995, the Board extended the original boundary of the AVSMA to include the Cane Creek and Red Sheep Creek drainages to protect the opportunity for subsistence harvest (60 Fed. Reg. 115 31545 [June 15, 1995]; 60 Fed. Reg. 157 42127 [August 15, 1995]). Proposal 54 was submitted by the Arctic Village Council requesting that the Board add Cane Creek and Red Sheep Creek drainages to the Arctic Village Sheep Management Area. The Eastern Interior Council took no action on the proposal (EIRAC 1995:88–97, OSM 1995a:359). The North Slope Subsistence Advisory Council (North Slope Council) recommended that the Board adopt the proposal (NSSRAC 1995:206, OSM 1995a:359). The Board adopted the proposal with modification. The Board said that although there was no biological reason for closing Cane Creek and Red Sheep Creek drainages to the harvest of sheep except by federally qualified subsistence users, it had heard substantial testimony regarding the fact that due to the customary and traditional hunting practices of the residents of Arctic Village, not adopting the proposal would deny a subsistence opportunity to the residents of Arctic Village (FSB 1995:611–634, 686–693; 60 Fed. Reg. 115, 31545 [June 15, 1995]).

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

In 1996, ADF&G submitted Proposal 55, requesting that the Board open Cane Creek and Red Sheep Creek drainages to the harvest of sheep by non-federally qualified users. The Eastern Interior Council recommended opposing the proposal. The Eastern Interior Council said it had

heard no compelling evidence to overturn recent Board action closing these drainages. Opposition to the proposal came before the Council from an Arctic Village resident's testimony, a letter from the Arctic Village Council, and from the Eastern Interior Alaska Council's representative from Arctic Village. The Eastern Interior Alaska Council affirmed its support for the existing Arctic Village Sheep Management Area. The North Slope Council recommended deferring action for one year until more information concerning Kaktovik residents' use of AVSMA was available, however, the Council expressed desire to "defer to wishes of their neighbors to the south" (OSM 1996:12). The Board rejected the proposal referring to its action on Proposal 54 the previous year in 1995, described above, and because there had been no dialogue between the State and Arctic Village (FSB 1996:20).

This Regulatory History contains more information on each regulatory proposal below than above. This is because official records of Council and Board justifications were not kept until after 1995. Justification for Board actions that were provided in letters to the Councils, as mandated in ANILCA Section 805(c), were reviewed and compared to transcripts and provide an accurate description of the Board's justifications.

In 2006, Proposal WP06-57 was submitted by ADF&G. It requested that the Board open the AVSMA to the harvest of sheep by non-federally qualified users. The Eastern Interior Council recommended opposing the proposal and said that it needed to see results from sheep population surveys before considering reopening to non-federally qualified users. The Council said that people of Arctic Village were totally dependent on the land for food for their nutritional and cultural needs. The Council said managers cannot only depend on harvest tickets for harvest information. It continued that there was a problem with transporters throughout the region. Transporters brought people up to this area, and they did not clean up after themselves. The Eastern Interior Council heard testimony from Arctic Village residents during the meeting that sheep have been harvested but not reported by subsistence users in this area. The Council indicated there was a need for a meeting with the people of Arctic Village and a need for more work on this issue before the area was opened to non-federally qualified users. The Council said there was no biological reason given to support this proposal, and here was an opportunity for the people in the area to work with non-subsistence users before submitting a proposal (OSM 2006b:452–453). The North Slope Council recommended deferring the proposal to get more information on the status of the sheep population and more harvest information. The Council said it would feel very uncomfortable making a decision that might be detrimental when there was a lack of information (OSM 2006a:452–453). The Board rejected the proposal. The Board said it had listened to public testimony on this proposal and was unable to pass a motion to allow non-federally qualified users to hunt sheep in the drainages of Red Sheep Creek and Cane Creek or to defer action on the proposal with respect to the remainder of the AVSMA. The Board did not see a need for action at this time because

of the commitment of the Arctic National Wildlife Refuge staff to conduct sheep surveys in the area the following summer (FSB 2006:261–283, OSM 2006a:6).

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

In 2007, Proposal WP07-56 was submitted by ADF&G. It requested that the Board open Cane Creek and Red Sheep Creek drainages to the harvest of sheep by non-federally qualified users from Aug. 10 - Sept. 20. The Eastern Interior Council recommended the Board defer action on the proposal for one year to allow formation of a working group of representatives from affected villages, hunting interests, and agencies to decide what an acceptable sheep harvest or number of sheep hunters would be in this area, and then draft a proposal to the Alaska Board of Game (BOG) for its March 2008 meeting. The Council said the proposal could contain the number of non-federally qualified users to be allowed to hunt in the Cane Creek and Red Sheep Creek area. The Council said the working group timeline would give the Board time to monitor the progress of the working group, the BOG proposal(s), and the actions of the BOG before the Board met later in the spring of 2008. The Council said it had received testimony from Arctic Village sheep hunters, local elders, and Arctic Village Tribal Council members who all had requested the closure of the Red Sheep and Cane Creek area remain in effect. Testimony included the cultural importance of the area because of burial sites, allotments, and a traditional area where they hunt sheep, and that they would not be able to compete with other hunters if the area was opened to non-federally qualified users. The Council said testimony also included the high cost of accessing the area and the difficulty reaching the area other than by aircraft. Council members discussed the relationship of caribou migrations and the need to hunt for sheep as well as the desired time to harvest sheep. When caribou and moose are plentiful, local hunters do not hunt for sheep, but when caribou and moose are not plentiful, they depend on sheep. The Council shared that the last time a similar proposal to open the area to other hunters was submitted, the Council had unanimously opposed it but was overridden by the Board. The Council sympathized with Arctic Village concerns, but believed the closure of the Cane Creek and Red Sheep Creek drainages would be lifted by the Board based on its action with the recent special action to open the area (WSA06-03, which the Board approved). Several Council members worked with village leaders to see what options were available to limit the number of other hunters allowed to hunt in the area; hence, the recommendation to defer to a working group (OSM 2007a). The North Slope Council recommended the Board oppose the proposal. The Council said that there was no evidence that passage of this proposal

would not impact villages. The Council said resource needs should be assessed to ensure subsistence users' needs were being met at each village. The sheep population was so small, it could not support harvest by commercial and sport hunters (OSM 2007a).

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

In 2012, the Board re-established the closure to sheep hunting by non-federally qualified users in the Red Sheep and Cane Creek drainages during the fall because the Board said there was no conservation concern, and the closure was needed to ensure the continuation of traditional subsistence uses of sheep by Arctic Village hunters (OSM 2012b:7; 77 Fed. Reg. 114 35485 [June 13, 2012]). Proposal WP12-76 was submitted by the Eastern Interior Council. It requested that the Board close Cane Creek and Red Sheep Creek drainages to the harvest of sheep by non-federally qualified users from Aug. 10 - Sept. 20. The Eastern Interior Council recommended the Board support the proposal. The Council said the proposal enhanced the ability of the residents of Arctic Village to pursue subsistence opportunities and might reduce incidents of trespass and resource damage. The Council said it appreciated the information provided during public testimony and recognized the powerful connection between residents of Arctic Village and the subject area as one that was deeply culturally rooted. The Council said it was compelled by extensive and detailed public testimony and that subsistence users were concerned that non-subsistence users were interfering with subsistence users, particularly the people of Arctic Village. The North Slope Council also recommended the Board support the proposal. The Council said that the travel time by rural residents was a concern due to long distance required and the cost of fuel. The Board adopted the proposal (OSM 2012a:355).

In 2014, Proposal WP14-51 was submitted by ADF&G. It requested the Board to open Cane Creek and Red Sheep Creek drainages to the harvest of sheep by non-federally qualified users from Aug. 10 - Sept. 20. It also requested that hunters be required to complete courses on

hunter ethics and orientation, including land status and trespass information. The Eastern Interior Council recommended the Board oppose the proposal. The Council said it had heard extensive testimony from Tribal and community members from Arctic Village and Venetie expressing the importance of sheep in this area to their culture and community. The Council said public testimony also noted that air traffic disturbance and hunter activity was pushing sheep further away and higher. The Council said that the cultural importance of the sheep and the area to Arctic Village and other residents was their overriding concern. The North Slope Council also recommended the Board oppose the proposal. The Council said deflection or disturbance of sheep by sport hunters and aircraft flights made it difficult for Arctic Village residents to reach sheep for subsistence hunting. The Council said these sheep were a very important subsistence food shared within the community, and even if local harvest numbers were not high, effort to reach the animals was considerable and the sharing of the meat and organs was widespread and important. The Council said these sheep and this location had special cultural and medicinal value due to their history and relationship with the community as well the mineral licks that the sheep frequented in this area, which made their meat contain unique qualities (OSM 2014a:350).

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

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

In 2014, WRFR14-01 was submitted by the State of Alaska requesting that the Board reconsider its actions on Proposal WP14-51, described above. In September 2015, the Board denied the request (OSM 2017). The Board determined that none of the claims in the request met the criteria to warrant further reconsideration, as set forth in 50 CFR Part 100.20.

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

The North Slope Council opposed Proposal WP18-56. The Council found this proposal alarming in that it could potentially take away a very important subsistence priority on Federal public lands that, despite being small in size, has been vital to the community of Arctic Village for generations and was very important to other rural communities in the region with cultural and traditional use of sheep in this area. The Council said opening the AVSMA to hunting by non-federally qualified users would be detrimental to subsistence users, and it was necessary to restrict these other uses in order to provide for subsistence needs. The Council highlighted that there is a considerable amount of historical discussion, and the importance of this area to the local communities is well-supported. There was need for stability and for food security in these communities. The importance of protecting the subsistence opportunity in this area was

well documented and recognized through repeated proposal reviews. The historic and contemporary hunting patterns exist to provide food security to the community, and the closure had allowed for the continued traditional harvest of sheep. The Council also stressed that the concern was not only the harvest of sheep by non-federally qualified users, but also the deflection of these sheep by nonresident hunting and plane activity pushing sheep further and higher up into the mountains, displacing them away from the local community. The Council stated it had heard testimony from Arctic Village as well as Kaktovik in the past. It noted that hunters from Kaktovik hunted in the AVSMA when other animals were not available, and it was an important area because sheep have been reliably found around the natural mineral formations in that small area (OSM 2018a).

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

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

In 2019, ADF&G submitted Proposal WP20-49, which requested re-opening the AVSMA in Unit 25A to the harvest of sheep by non-federally qualified users. ADF&G stated that the closure to non-federally qualified users was not necessary to accommodate local subsistence uses because harvest records indicate (according to the proponent) that residents of the communities rarely hunt sheep. Further, ADF&G claimed that there were no conservation concerns with reopening this hunt and that because of the full-curl ram harvest limit during the fall hunting season, there would be no effect on the sheep population. ADF&G continued that it was unknown if federally qualified subsistence users would be impacted by adoption of this proposal and, based on biological data, federally qualified subsistence users would retain

opportunity to meet their subsistence needs if non-federally qualified users regained opportunity to harvest sheep in the AVSMA. The Eastern Interior and North Slope Councils opposed, and the Board rejected this proposal. The Board stated that there is still a significant conservation concern and the user group conflicts have not yet been resolved (85 Fed. Reg. 226 74798 [November 23, 2020]).

As stated above, the Eastern Interior Council opposed the proposal. However, prior to their October 2019 meeting, the Council attempted to address issues to decrease tension between ADF&G and the Board in regard to the AVSMA closure by submitting Proposal 82 to the BOG (EIRAC 2019: 69-70). In this proposal, the Council stated that it "...intends for this proposal to become a joint effort between the State Board of Game, the Federal Subsistence Board and Arctic Village residents to find a workable solution to a historically contentious issue and build mutual respect between parties" (BOG 2020: 95). Proposal 82 requested that the BOG establish a new hunt area akin to the AVSMA with the following hunt: 1) a draw permit hunt for residents and non-residents in the fall (Aug. 10-Sept. 20) with a harvest limit of one ram with full-curl horn or larger every four regulatory years; 2) a registration permit (RS595) hunt for residents in the winter (Oct. 1-Apr. 30) with a harvest limit of one ram with full-curl horn or larger every four regulatory years; and 3) a youth hunt by harvest ticket in August (Aug. 1-5) with a harvest limit of one ram with full-curl horn or larger. These proposed harvest limits were intended as a compromise to reduce the harvest of non-federally qualified subsistence users. It was not intended as a harvest limit for federally qualified subsistence users. The Council also requested elimination of the nonresident youth hunt in the AVSMA. The Council expressed hope that the BOG would develop a hunter ethics and orientation course for non-federally qualified hunters that included land status and trespass information. According to Proposal 82, the BOG "...addressed this issue by requiring sheep hunters in this area to complete a department approved" course which it required (5 AAC 92.003(i)) but had not been implemented because the AVSMA had been closed to non-federally qualified users (BOG 2020: 97).

In 2020, the EIRAC attempted to form a hunter ethics subcommittee and workshops to address issues in the AVSMA. OSM staff reported on this workshop at the October 2019 meeting, which also informed consideration of Proposal WP20-49 and State Proposal 82. These efforts included tribal officials and residents from Arctic Village and Venetie. A full array of tribal, state, and federal government partners as well as non-governmental organizations attended workshops and developed plans for local community hunter liaisons, coordination and communication to connect with hunters from military bases and a statewide hunter education campaign to encourage awareness and understanding of the wide range of cultural values related to hunting across the spectrum of user groups (EIRAC 2019: 22-31). Prior to the Council meeting, the Council Chair conducted outreach that led to an informal meeting with the First and Second Chiefs of Arctic Village, the Chief of Native Village of Venetie, officials from Village of Venetie Tribal Government, Arctic Village Council, and

Elders (EIRAC 2019: 5, 581). This informal meeting occurred the night before the Council meeting began and led to the Tribal government officials attending the Council meeting and providing extensive testimony through a roundtable discussion (EIRAC 2019: 15). Much of the discussion focused on the issue of harvest data and how lack of data definitely does not indicate lack of harvest or need (EIRAC 2019: 102, 105, 111, 115). Extensive traditional knowledge was shared including the sacredness of Red Sheep Creek, sharing of sheep meat with other villages, traditional management which includes direction from a hunting chief as to when it is and is not appropriate to hunt, and observations of extremely low numbers of sheep in the Red Sheep and Cane Creek drainages (EIRAC 2019: 42-49, 51-54). Most pointed, however, was the repeated emphasis by Tribal officials and some Council members that the issue of the AVSMA must be addressed through formal government-to-government Tribal consultation (EIRAC 2019: 50, 64, 66, 117). Evon Peter, former Chief of Arctic Village stated:

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

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

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

In March 2020, the BOG voted to amend Proposal 82, resulting in the current State regulations. It created the Eastern Brooks Range Management Area (EBRMA) which covers the same area as the AVSMA, and required the hunter education class for all hunters planning to hunt in the AVSMA/EBRMA. Harvest limits were changed under the winter registration permit hunt (RS595) from three sheep to one ram with $\frac{3}{4}$ -curl horn or less every four years and a draw permit fall hunt was established for residents and non-residents as proposed (FSB 2020: 562). Much like at the Eastern Interior Council meeting, Tribal officials and residents of Arctic Village and Venetie shared traditional ecological knowledge and information about the sacredness of sheep and the low numbers of sheep in Red Sheep and Cane Creeks during the BOG meeting (BOG 2020). Again, tribal officials, including the Vice-President of Tanana Chiefs

Conference (TCC) repeatedly emphasized that the path to addressing the AVSMA is formal, government-to-government Tribal consultation (BOG 2020).

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

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

WP24–37/38 Executive Summary	
General Description	<p>Wildlife proposal, WP24-37, proposes to remove regulatory language, change the season to “may-be-announced” Nov. 1-Mar. 31, and delegate authority to the Arctic National Wildlife Refuge manager to manage the hunt. <i>Submitted by: Arctic National Wildlife Refuge</i></p> <p>Wildlife proposal, WP24-38, proposes to remove regulatory language, change the season to “may-be-announced” Jul. 15-Mar. 31, change the harvest limit to one muskox, and delegate authority to the Arctic National Wildlife Refuge manager to manage the hunt. <i>Submitted by: North Slope Fish and Game Advisory Committee</i></p>
Proposed Regulation	<p><u>WP24-37</u></p> <p>Unit 26C–Muskox</p> <p><i>Unit 26C—1 bull by Federal registration permit only. July 15– The number of permits that may be issued only to the residents of the village of Kaktovik will not exceed three percent (3%) of the number of musk oxen counted in Unit 26C during a pre-calving census. Mar. 31 May be announced between</i></p> <p><i>Public lands are closed to the taking of muskox muskoxen, except by rural Alaska residents of the village of Kaktovik hunting under these regulations Nov. 1–Mar. 31</i></p> <p>The Arctic NWR manager may announce season dates between November 1 and March 31 and the number of permits issued annually via delegation of authority letter (Appendix 1).</p> <p><u>WP24-38</u></p> <p>Unit 26C–Muskox</p> <p><i>Unit 26C—1 musko muskox bull by Federal registration permit only. The number of permits that may be issued only to the residents of the village of Kaktovik will not exceed three percent (3%) of the number of musk oxen counted in Unit 26C during a pre-calving census. May be announced between July 15–Mar. 31</i></p>

WP24–37/38 Executive Summary	
	<p><i>Public lands are closed to the taking of muskox^{musk}, except by rural Alaska residents of the village of Kaktovik hunting under these regulations</i></p> <p>The Arctic NWR manager may announce season dates between July 15 and March 31 and the number of permits issued annually via delegation of authority letter (Appendix 1).</p>
OSM Preliminary Conclusion	Support Proposal WP24-37 with modification to change the harvest limit to 1 muskox and take no action on Proposal WP24-38.
OSM Conclusion	Support Proposal WP24-38 with modification to delegate authority to set sex restrictions via a delegation of authority letter (Appendix 1) and take no action on Proposal WP24-37.
North Slope Subsistence Regional Advisory Council Recommendation	Support WP24-37/38 with Council modification to request a muskox survey be completed in Unit 26C.
Interagency Staff Committee Comments	Please see page 1321.
ADF&G Position	Oppose
Written Public Comments	None

STAFF ANALYSIS

WP24-37/38

ISSUES

Proposal WP24-37, submitted by Arctic National Wildlife Refuge (Arctic NWR) and Proposal WP24-38 submitted by the North Slope Fish and Game Advisory Committee (AC), request removing regulatory language stipulating that the number of permits will not exceed 3% of the number of muskox counted in Unit 26C, changing the season to “may-be-announced”, and delegating authority to the Arctic NWR manager to announce season dates and the number of permits issued via Delegation of Authority Letter (DAL) (**Appendix 1**). WP24-37 requests a harvest of one bull, while WP24-38 requests a harvest of one muskox.

DISCUSSION

WP24-37

The proponent for Proposal WP24-37 states that muskox populations in the Central North Slope are now abundant enough to allow harvest under State regulations in Unit 26B. Muskox in the eastern portion of Unit 26B spend time in both Unit 26B on State lands and in Unit 26C on Federal lands on either side of the Canning River. Since a muskox hunt is allowed on the adjacent State lands and hunt unit and muskox periodically occupy the neighboring Federal public lands of Arctic NWR, it is desirable to provide subsistence opportunities for federally qualified subsistence users in Kaktovik to harvest one bull muskox on Federal lands in Unit 26C.

The population in this unit has been historically low, but stable. However, animals frequently use and occupy the Canning River drainage on the far western side of the unit. A harvest of a single bull annually would not imperil conservation of the herd, would be minimally additive to the overall harvest occurring under State regulations in Unit 26B, and would provide additional subsistence harvest opportunity.

Due to low abundance of muskox on Arctic NWR lands, and the low priority conservation status as a refuge value, biologists do not annually survey the muskox population in Unit 26C. Given the low priority of dedicated, annual surveys for muskox, the Arctic NWR supports removing the requirement of achieving a specific population threshold within Unit 26C before a limited muskox hunt can be opened.

WP24-38

The proponent for Proposal WP24-38 states that the muskox population in the Western and Central Arctic coastal plain has increased and remains stable enough to allow a hunt in these areas under State regulations. The muskox population in Unit 26B sometimes occupies Federal public lands in Unit 26C on either side of the Canning River. Because a limited muskox hunt is allowed on the adjacent State

lands and unit, and some of those animals occupy the neighboring Federal public lands of Arctic NWR, it would be desirable to provide a subsistence opportunity to the federally qualified subsistence users of Kaktovik for the harvest of one muskox in Unit 26C under Federal regulations.

The proponent states, this population of muskox is low but stable, and the limited harvest of muskox would not represent a conservation concern or additive mortality given the harvest allowed under State regulations in Unit 26B. This would allow federally qualified subsistence users of Kaktovik an opportunity to provide this nutritional resource to their community. Because the Arctic NWR does not conduct an annual population census of muskox on refuge lands, management of this population cannot be based on annual pre-calving surveys and a specific population threshold; allowing a limited hunt for the residents of Kaktovik is appropriate.

Existing Federal Regulation

Unit 26C–Muskox

Unit 26C—1 bull by Federal registration permit only. The number of permits July 15-Mar. 31 that may be issued only to the residents of the village of Kaktovik will not exceed three percent (3%) of the number of musk oxen counted in Unit 26C during a pre-calving census.

Public lands are closed to the taking of musk ox, except by rural Alaska residents of the village of Kaktovik hunting under these regulations

Proposed Federal Regulation

WP24-37

Unit 26C–Muskox

Unit 26C—1 bull by Federal registration permit only. ~~The number of permits July 15-Mar. 31 that may be issued only to the residents of the village of Kaktovik will not exceed three percent (3%) of the number of musk oxen counted in Unit 26C during a pre-calving census.~~

Public lands are closed to the taking of musk ox, except by rural Alaska residents of the village of Kaktovik hunting under these regulations

***May be
announced
between Nov. 1-
Mar. 31***

The Arctic NWR manager may announce season dates between November 1 and March 31 and the number of permits issued annually via delegation of authority letter (Appendix 1).

WP24-38**Unit 26C–Muskox**

Unit 26C—1 muskox bull by Federal registration permit only. ~~The number of permits that may be issued only to the residents of the village of Kaktovik will not exceed three percent (3%) of the number of musk oxen counted in Unit 26C during a pre-calving census.~~ May be announced between July 15-Mar. 31

Public lands are closed to the taking of musk ox, except by rural Alaska residents of the village of Kaktovik hunting under these regulations

The Arctic NWR manager may announce season dates between July 15 and March 31 and the number of permits issued annually via delegation of authority letter (Appendix 1).

Existing State Regulation

Note: Both the codified and 2023/24 regulatory year State regulations for muskox in a portion of Unit 26B and Unit 26C are included below.

Codified regulations**Unit 26–Muskox**

<i>Unit 26B – that portion east of the Dalton Highway</i>	<i>Residents: 1 bull by drawing permit only if the harvestable surplus is greater than 4 muskoxen; up to 5 muskoxen may be taken</i>	<i>Sept. 20-Oct. 10 Mar. 10-Mar. 30</i>
	<i>Residents: 1 muskox by Tier I permit only</i>	<i>To be announced</i>
	<i>Nonresidents</i>	<i>No open season</i>
<i>Unit 26C</i>	<i>Residents</i>	<i>Fall season to be announced</i>
	<i>Nonresidents</i>	<i>No open season</i>

Regulatory Year 2023/24 Regulations**Unit 26–Muskox**

<i>Unit 26B – east of the Dalton Highway Management Corridor Management Area</i>	<i>Residents: 1 bull</i>	<i>DX112</i>	<i>Sept. 1-Oct. 10</i>
			<i>Mar. 10-Mar. 30</i>
	<i>Residents: 1 muskox by Tier I permit only</i>	<i>RX110</i>	<i>Dec. 15-Mar. 30</i>
	<i>Nonresidents</i>		<i>No open season</i>
<i>Unit 26C</i>	<i>Residents and Nonresidents</i>		<i>No open season</i>

Extent of Federal Public Lands

Unit 26C is comprised of approximately 98% Federal public lands and consists of 98% U.S. Fish and Wildlife Service (USFWS) managed lands, contained entirely within the Arctic NWR.

Customary and Traditional Use Determinations

Residents of Kaktovik have a customary and traditional use determination for muskox in Unit 26C.

Regulatory History

From regulatory years (RY) 1982/83 until 1990/91, the State of Alaska managed the muskox hunt in Unit 26C, increasing the number of permits from 5 to 10 bulls by RY 1988/89. In RY 1991/92, the Federal government assumed management of muskox on Federal public lands in Unit 26C, which are part of the Arctic NWR. There has not been an open season for muskox in Unit 26C under State regulations since RY 1992/93.

In 1992 the Federal Subsistence Board (Board) adopted Proposal P92-092 with modification, which closed Federal subsistence hunting of muskoxen in those portions of Unit 26B in the Arctic NWR, restricted the number of permits issued to 10 bulls for Unit 26C, and closed Federal public lands to the harvest of muskox except by residents of Kaktovik. Unit 26B was closed to harvest under Federal regulations because very few muskoxen occupied Federal lands in the unit at that time.

In 1996, the Board increased the number of permits to 15 bulls via adoption of Proposal P96-67. Also in 1996, the Board increased the season length in Unit 26C from 2 months (October and March) to the current 8.5-month season of July 15 to March 31 via adoption of Proposal P96-67. In 1998, the Board permitted the harvest of cows (3 cows, 12 bulls) via adoption of Proposal P98-109.

In 2002, the Board approved Wildlife Special Action WSA02-10 which reduced the harvest quota from 15 muskox to 2 bulls and shortened the season from July 15–Mar. 31 to Sept. 15–Mar. 31 because of the low muskox population.

In 2003, the Board adopted Proposal WP03-53, which established a bulls-only harvest limit by Federal registration permit, with the number of permits based on 3% of the number of muskoxen counted during spring pre-calving muskox surveys in Unit 26C.

In 2012, Federal public lands remained closed to hunting muskox due to conservation concerns (WCR12-25), except by residents of Kaktovik. Muskox populations in Unit 26C were below the 3% threshold level required to issue Federal registration permits from 2003 to 2007 and from 2009-2014 with only one permit being issued in 2008.

At their winter 2017 meeting, the North Slope Subsistence Regional Advisory Council (Council) reviewed Wildlife Closure Review WCR15-25 and voted to maintain the closure because of conservation concerns. Most muskox emigrated to Yukon, Canada with only 2-4 muskox sometimes observed in Unit 26C (NSRAC 2017).

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

In 2022, the Board reviewed the closure WCR22-25 for the harvest of muskox on Federal public lands to everyone except residents of Kaktovik. The Board voted to maintain the status quo for this closure as part of the consensus agenda at its April 2022 meeting. The muskox population in Unit 26C remained very low and could not withstand any harvest.

Current Events

In regulatory year 2023/24 there were 12 muskox permits for Unit 26B and 26C issued. There were 4 Tier II permits (TX108), 4 registration subsistence permits (RX110) and 4 drawing permits (DX112) (Nelson 2023).

In September 2023, the State issued Emergency Order R3-5-23, which opened the state resident registration permit hunt, RX110, for any muskox in the portion of Unit 26B east of the Dalton Highway Corridor. Four permits were available – two in Kaktovik and two in Nuiqsut. The season is Dec. 15-Mar. 30. The RX110 hunt is a subsistence only, Tier I permit hunt that limits permits to one per household and requires trophy destruction if horns are transported out of Unit 26. The use of aircraft is also prohibited (ADF&G 2023).

This is the first time this hunt has been opened since 2004. The Unit 26B muskox population can support limited harvest as it has remained above 300 muskoxen since 2018, currently numbering 380 muskoxen (ADF&G 2023).

Biological Background

Muskoxen were reintroduced to the Arctic NWR coastal plain in 1969 and 1970. The reintroduced population grew rapidly, expanding its range east into Yukon, Canada and west into Unit 26B after 1986. The Northeast Alaska-Yukon muskox population ranges from eastern Unit 26A in northern Alaska to the Babbage River in northern Yukon, Canada. Numbers of muskox in Unit 26C remained relatively stable (average = 331) between 1987 and 1998 but declined sharply in the early 2000s (**Figure 1**). Continued declines in calf survival and recruitment and increasing adult mortality reduced the population to 29 muskoxen in 2003. In April 2008, 44 muskoxen were counted in the pre-calving census but most of these animals came from Canada the previous summer and returned to the Yukon in late October (Reynolds 2008). An annual pre-calving census on Arctic NWR has not been conducted since 2009; however, there have been sightings when conducting flights for other purposes. A small group of 18-20 muskox were observed in the Kongakut River drainage along the coastal plain of the Arctic NWR during the summer of 2015, and a small group of six were observed just west of the international boundary in March 2016 (**Figure 1**) (Reynolds 2011, Lenart 2015, Wald 2015, pers. comm., ANWR 2017).

Currently, no mixed groups of muskoxen live year-round in Unit 26C on Arctic NWR. Small groups move across the border between eastern Unit 26C and Canada as well as between western Unit 26C and Unit 26B (Reynolds, 2015 pers. comm.; Wald 2015, pers. comm.; ANWR 2017; NSRAC 2023). Population surveys conducted over the total range between 2006 and 2011 suggest that the population was relatively stable at about 300 animals, with about 200 muskoxen in Unit 26B, west of the Arctic NWR, and 100 muskoxen in Yukon, Canada east of the Arctic NWR (Reynolds 2011, Lenart 2013).

West of the Arctic NWR, in Unit 26B, muskox abundance increased between the mid-1990s and 2003 to about 302 individuals (Lenart 2007, 2009, 2011, 2013, 2015; Reynolds 2011). The Unit 26B muskox population remained stable at about 200 muskoxen from 2007-2015 and then began increasing in 2016. In 2022, ADF&G conducted a population survey for muskox in Unit 26B and the eastern portion of Unit 26A, with a total count of 373 muskox (**Figure 2**) (NSRAC 2023). During tracking flights, groups of them have been located along the border between Units 26B and 26C (**Figure 3**) (Lenart 2021).

The State of Alaska closed muskox hunts in Unit 26B west of the Arctic NWR in RY 2005/06 (Lenart 2011). State management objectives were revised in 2013 to increase the Eastern North Slope muskox population to 300 and considered growing in eastern Unit 26A, 26B, and 26C by reducing brown bear predation on muskox in Unit 26B (Lenart 2013). From 2007–2011, ADF&G determined that 62% of the adult mortality in Unit 26B was the result of brown bear predation (Lenart 2013). ADF&G anticipates the low harvest rate will not impede the goal of increasing the muskox population to the historical high of 650 muskoxen across eastern Unit 26A, Unit 26B and Unit 26C (Lenart 2015).

The decline of muskox was likely caused by low calf survival in some years, increased adult mortality, and changes in distribution of the population. Weather, predation, quality and quantity of winter forage, and exposure to parasites and disease are all factors affecting calf recruitment, muskox survival, and population distribution (Lenart 2013, 2015; Afema et al. 2017).

Given the gregarious nature of muskox, mature bulls are important for predator defense, foraging, and group cohesion in addition to breeding (Schmidt and Gorn 2013). For example, mature bulls may protect groups of females with calves against predators, effectively increasing calf survival and recruitment. Therefore, muskox may be more sensitive to selective harvest of mature males than other species (Schmidt and Gorn 2013).

Muskoxen reduce movements during the winter to conserve energy (Nelson 1994). Muskoxen depend on areas with low snow cover as they cannot forage in deep, hard-packed snow. Therefore, disturbance to muskox groups during the winter by hunters or predators could decrease survival through increased energetic requirements and movement to unsuitable habitat (Nelson 1994).

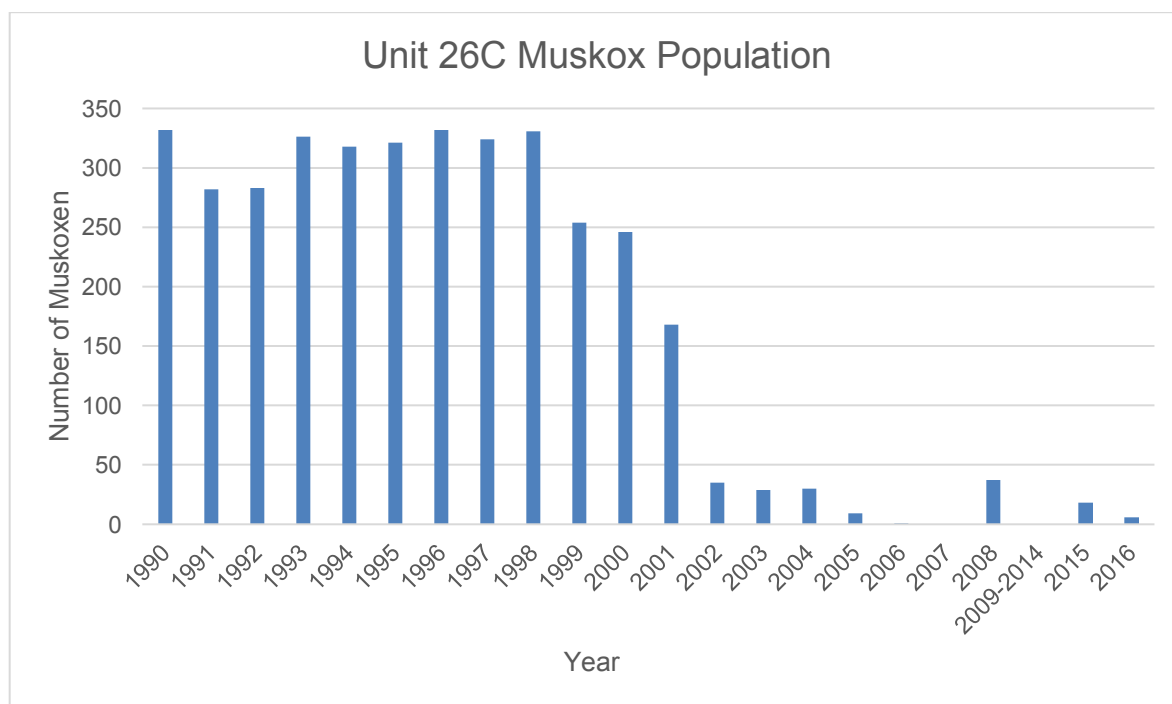


Figure 1. Number of muskoxen in Arctic National Wildlife Refuge, Unit 26C, observed during annual pre-calving censuses, 1990 – 2016. During 2007-2015, a group on the Canning River (Unit 26B-26C boundary) was included in the Unit 26B population estimate and not reported in Unit 26C (Lenart 2015).

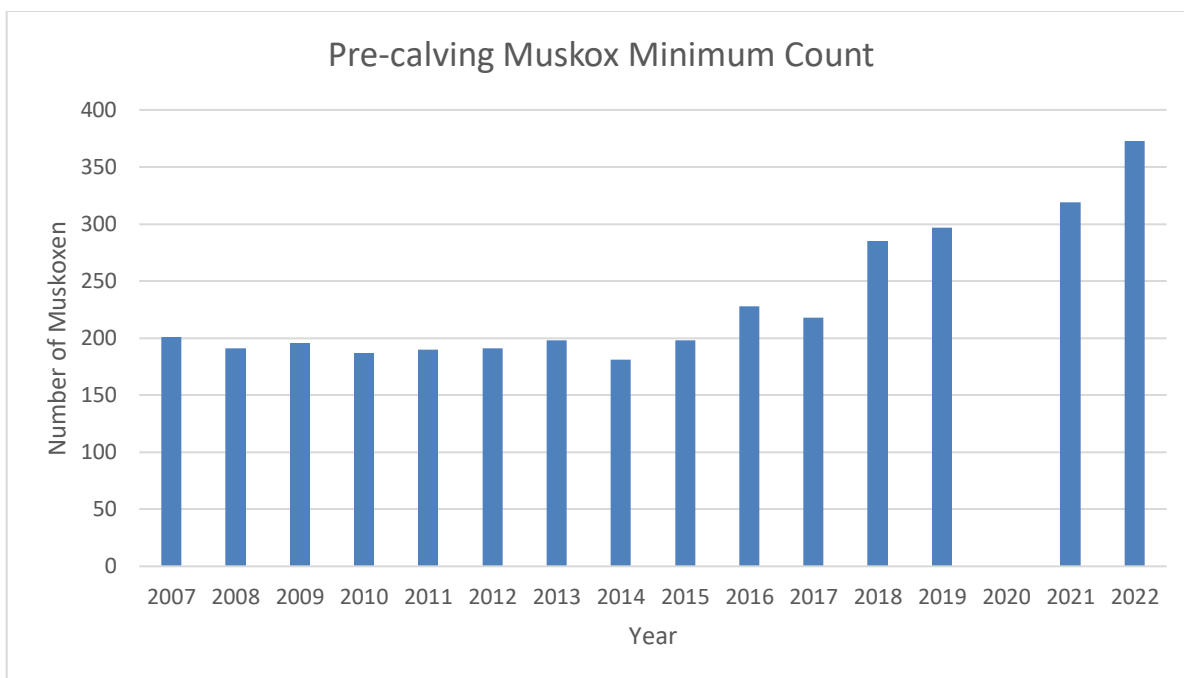


Figure 2. Eastern Unit 26A, Unit 26B, and western Unit 26C pre-calving muskox population estimate from 2007-2022 (Lenart 2021; Nelson 2023; NSRAC 2023). Eastern Unit 26A is not included from 2007-2012 (Lenart 2021).

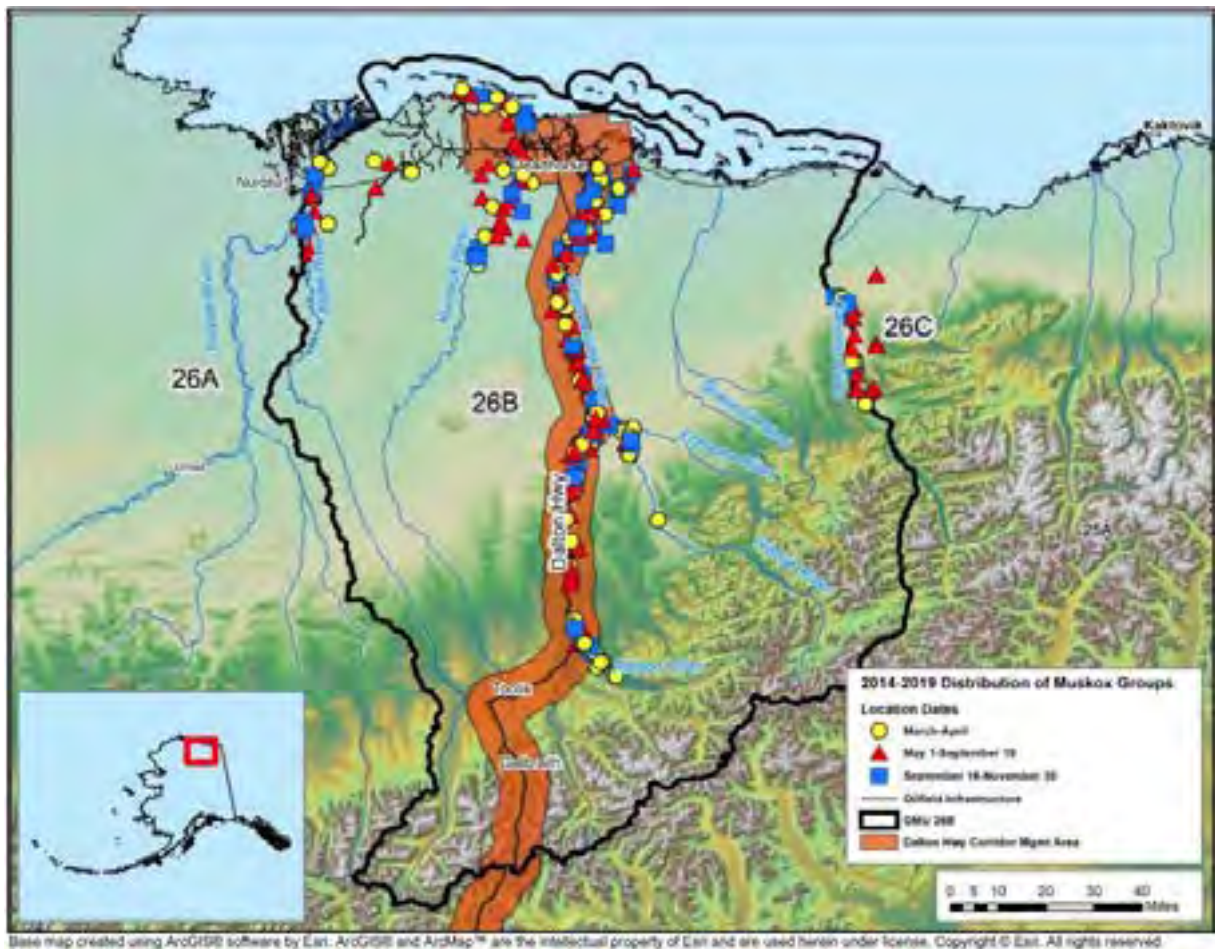


Figure 3. Location of muskox groups located during tracking flights conducted by ADF&G in Units 26B and 26C, from 2014-2019 (Lenart 2021).

Cultural Knowledge and Traditional Practices

In Iñupiaq, muskoxen are called *umingmak*, "the one with hair like a beard" (Lent 1999). The earliest archaeological evidence for use of muskoxen in arctic Alaska dates to Birnirk culture, beginning in approximately 600 A.D. (Lent 1999). Muskoxen were likely always present at relatively low numbers, and their use was limited but continuous over approximately 1500 years.

Historically, muskoxen provided fat when caribou were lean in late winter and early spring and provided an alternative food source in years when caribou were scarce. Muskoxen were more heavily hunted following the introduction of firearms and were also intensively harvested by whalers, trappers, and traders in the 1800s. Muskoxen persisted in the eastern Brooks Range until the 1890s before being extirpated (Lent 1999). During ethnographic fieldwork conducted in the 1960s, Gubser identified known previous muskox hunting areas on the mid and lower Canning River (Gubser 1965, cited in Pederson et al. 1991).

Muskoxen were reintroduced to the Arctic NWR coastal plain in 1969 and 1970. Residents of Kaktovik assisted with this reintroduction, with the hope that eventually their community would benefit from a subsistence hunt (Pedersen et al. 1991). Following the establishment of a hunt, residents of Kaktovik worked to establish a priority for local hunters, and to reestablish traditions related to muskox hunting, which had been interrupted by their extirpation (Pedersen et al. 1991).

Kaktovik is the only community with a customary and traditional use determination for muskoxen in Unit 26C. In 2022, the estimated population of Kaktovik was 265 (ADLWD 2022). The last year in which a resident of Kaktovik was able to harvest muskoxen under Federal regulation with the FX2604 permit was over 20 years ago, in 2001 (OSM 2023, **Table 2**). Thus, Kaktovik has experienced a second, though shorter, interruption in practice and transmission of subsistence practices related to muskoxen.

Data from earlier ADF&G, Division of Subsistence surveys in which muskox harvest was documented for surveyed Kaktovik households are shown in Table 1. Although outdated, this information gives a general sense of patterns of use and sharing of muskoxen for Kaktovik, given available permits.

Table 1. Four measures of muskox use by surveyed Kaktovik households (CSIS 2023).

	Percent of Surveyed Households Using Muskox	Percent of Surveyed Households Harvesting	Estimated Number of Muskoxen Harvested	Estimated Pounds per Person Harvested
1985	43%	2.4%	1	4.0
1986	68%	4.3%	2	7.3
1992	53%	8.5%	5	16.5
Avg	55%	5%	2.6	9.3

Harvest History

Legal hunting of muskoxen in Unit 26C began in 1982. The total annual harvest of muskoxen in Unit 26C generally increased between RY 1982/83 and 1996/97 as the number of permits increased. Total annual harvest subsequently declined through RY 2002/03, after which only one Federal permit was issued in 2008 (**Table 2**) (Lenart 2015, FWS 2015, Reynolds 2011). There has been no State season for muskox in Unit 26C, due to low population numbers, since RY 1991/92. Additionally, the current Federal public lands closure would preclude any muskox harvest under State regulations.

Federal subsistence regulations state that the number of muskox permits issued to residents of Kaktovik will not exceed 3% of the numbers of animals observed in pre-calving censuses of Unit 26C. This was put into codified Federal regulations when the muskox population was decreasing, and less than 50 muskoxen were being counted on Arctic NWR (**Figure 1**). At least 36 animals need to be observed during pre-calving surveys to have 1 permit issued. From 2002-2007 and from 2009-2022 the Arctic NWR issued no muskox permits because too few muskoxen occupied Unit 26C or the

population was too low. In 2008, the Arctic NWR, issued one permit for Unit 26C as the pre-calving census was 44 muskoxen. However, no harvest occurred (Reynolds 2011; Reynolds 2015, pers. comm.; Leacock 2020, pers. comm.).

However, the Eastern North Slope population has reached the management objective minimum of 300 muskoxen and is growing. The State plans to allow for a harvest rate of 1-3% per year of the spring pre-calving population estimate in eastern Unit 26A and Unit 26B, which is not anticipated to impede growth (Lenart 2015). See Current Events section for information on the 2023/24 muskox hunt in Unit 26B under State regulations.

Table 2. History of muskox harvest in Unit 26C by agency (FWS 2015, Leacock 2020, pers. comm.).

Regulatory Year	Managing Agency	Permits Issued	# Bulls Harvested	# Cows Harvested	Total Harvested
1982/83	ADF&G	5	4		4
1983/84	ADF&G	5	5		5
1984/85	ADF&G	5	4		4
1985/86	ADF&G	5	3	1	4
1986/87	ADF&G	5	5	0	5
1987/88	ADF&G	5	5	1	6
1988/89	ADF&G	10	6	3	9
1989/90	ADF&G	10	10		10
1990/91	ADF&G	11	8		8
1991/92	ADF&G	11	5		5
1992/93	USFWS	10	10		10
1993/94	USFWS	10	8		8
1994/95	USFWS	10	8		8
1995/96	USFWS	10	8	1	9
1996/97	USFWS	15	12	3	15
1997/98	USFWS	15	9	1	10
1998/99	USFWS	13B/2C	8	0	8
1999/2000	USFWS	12B/3C	8	0	8
2000/01	USFWS	12B/3C	5	1	6
2001/02	USFWS	12B/3C	2	0	2
2002/03	USFWS	2	0	0	0
2003/04 – 2007/08 ^a	USFWS				
2008/09	USFWS	1	0	0	0
2009/10 – 2022/23 ^a	USFWS	–			

^a No permits were issued because the population of muskox from the pre-calving surveys was below the threshold of 3%.

Effects of the Proposal

If proposals WP24-37 and WP24-38 are adopted, the Federal muskox hunt in Unit 26C will become more flexible, adaptive, and provide for greater subsistence hunting opportunity. Specifically, removing the regulatory language stipulating that the number of permits issued cannot exceed the number of muskoxen counted in Unit 26C during a pre-calving census will enable much greater flexibility in opening hunts and allowing harvest by Kaktovik residents, especially since pre-calving

censuses are seldom conducted in Unit 26C. Additionally, changing the season to “may be announced” and delegating authority to the Arctic NWR manager to announce the season and the number of permits issued each year will further allow for flexible, adaptive hunt management. This also mitigates conservation concerns as season length and permit numbers can be adjusted annually in response to herd status and hunt conditions.

Effects on the muskox population in Unit 26C are unknown as little biological and harvest information is currently available. However, the Eastern/Central Coastal Plain muskox population has been increasing since 2014 (**Figure 2**), but primarily occurs in Unit 26B. It now exceeds the State’s minimum population threshold of 300 muskox required to open a limited hunt under State regulations. Due to the lack of data for Unit 26C muskoxen, the harvestable surplus and sustainability of a Unit 26C hunt is uncertain. When possible, aerial surveys need to occur to determine the Unit 26C muskoxen population.

In RY 2023/24, the State issued 4 Tier I, 4 Tier II, and 4 drawing muskox permits for Unit 26B with fall and winter seasons. Adoption of these proposals would allow federally qualified subsistence users to harvest muskox from this population as it continues to grow and expand into Unit 26C. However, WP24-37 would preclude the option of a late summer and fall muskox hunt. These proposals provide the management flexibility needed for a recovering muskox population, as well as optimize subsistence opportunity for the residents of Kaktovik.

OSM PRELIMINARY CONCLUSION

Support Proposal WP24-37 **with modification** to change the harvest limit to 1 muskox and **take no action** on Proposal WP24-38.

The modified regulation should read:

Unit 26C–Muskox

Unit 26C—1 muskox ~~bull~~ by Federal registration permit only. ~~The number of permits that may be issued only to the residents of the village of Kaktovik will not exceed three percent (3%) of the number of musk oxen counted in Unit 26C during a pre-calving census.~~ **May be announced between Nov. 1 – Mar. 31**

Public lands are closed to the taking of musk ox, except by rural Alaska residents of the village of Kaktovik hunting under these regulations

Justification

These proposals provide the management flexibility needed for a recovering muskox population, mitigate conservation concerns through annual adaptive management, and optimize subsistence

opportunity for the residents of Kaktovik. As the Unit 26B muskox population increases and expands into Unit 26C, there is opportunity for harvest by residents of Kaktovik.

Adoption of WP24-37 provides a meaningful Federal subsistence preference. Providing in-season management authority to the Arctic NWR manager through a Delegation of Authority Letter provides the flexibility in management to address any conservation concerns, while maximizing subsistence opportunity. WP24-37 proposed a harvest limit of 1 bull muskox. Muskox may be more sensitive than other species for harvest of mature bulls; therefore, one muskox is more appropriate. (Schmidt and Gorn 2013).

WP24-38 proposes maintaining the current muskox season of Jul. 15–Mar. 31. Complications with a hunt during July-October include the ability to access the hunt area when the ground isn't frozen. A hunt prior to November limits access to boat only, reducing the ability to successfully harvest muskox. Travel during the winter, when the tundra is frozen, not only provides better access, but is also in line with preservation of the resources on Arctic NWR.

No action needs to be taken on Proposal WP24-38 due to action taken on WP24-37.

ANALYSIS ADDENDUM

OSM CONCLUSION

Support Proposal WP24-38 **with modification** to delegate authority to set sex restrictions via a delegation of authority letter (**Appendix 1**) and **take no action** on Proposal WP24-37.

The modified regulation should read:

Unit 26C–Muskox

Unit 26C—1 ~~muskox bull~~ by Federal registration permit only. ~~The number of permits that may be issued only to the residents of the village of Kaktovik will not exceed three percent (3%) of the number of musk oxen counted in Unit 26C during a pre-calving census.~~ May be announced between July 15-Mar. 31

Public lands are closed to the taking of musk ox, except by rural Alaska residents of the village of Kaktovik hunting under these regulations

Justification

OSM supports optimizing flexibility in managing the Unit 26C muskox hunt to effectively respond to changing herd and hunt conditions. Changing the harvest limit to one muskox and delegating authority to announce sex restrictions balances conservation with subsistence hunting opportunity. Similarly, changing the season to may-be-announced within the current season window of July 15-March 31 maintains opportunity and allows the Arctic refuge manager to annually announce season dates.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

North Slope Subsistence Regional Advisory Council

Support WP24-37/38 with modification. The Council supported WP24-37/38 with modification to request a muskox survey be completed in Unit 26C; there is a need for a recent population survey as one has not been conducted since 2016. The Council supported offering hunt opportunities as the muskox population has rebounded. The Council acted on these proposals together and did not distinguish between them. The Council mentioned that WP24-38 provides a longer season and more liberal harvest limit, but due to time and technical constraints, further refinement was not possible.

INTERAGENCY STAFF COMMITTEE COMMENT

The Interagency Staff Committee (ISC) would like to share contextual information from the North Slope Subsistence Regional Advisory Council (Council). The Council acted on proposal 37 and 38 together and did not distinguish between them. While the Council did not specifically identify which proposal they supported, the discussion at their meeting favored the July 15 to March 31 season dates with a harvest limit of one muskox.

The current regulatory language relies on muskox population metrics to determine the number of permits to issue. Since the Refuge does not have population data nor plans on collecting such information, it appears to make sense to remove the 3 percent requirement. As the Unit 26B muskox population increases and expands into Unit 26C, there may be additional subsistence opportunity closer to home for harvest by residents of Kaktovik. Due to the lack of data for Unit 26C muskoxen, it is unknown if a hunt is sustainable at this time. The North Slope Council requested a muskox survey be completed for Unit 26C.

Supporting the OSM modification for WP24-38 with the addition of delegating authority to set sex restrictions, may accurately represent the Council's intent during its discussion on the record. Providing a Delegation of Authority Letter to the Arctic NWR manager will specify coordination with the Alaska Department of Fish and Game and the Council Chair which will aid in an exchange of knowledge on surveys, population data, permits issuance, and any conservation concerns. The benefit of making this change from the current language in regulation acknowledges that muskoxen have not been counted separately in Unit 26C since 2016.

ALASKA DEPARTMENT OF FISH AND GAME COMMENT**Wildlife Proposal WP24-37/38**

These proposals would modify the federal language around hunting muskox in Game Management Unit (Unit) 26C and allow the Arctic National Wildlife Refuge (ANWR) to issue permits.

Position

ADF&G **OPPOSES** these proposals. It is premature to replace the current management strategy for muskox in Unit 26B and provide additional harvest opportunities when a muskox hunt just opened in an adjacent portion of Unit 26B.

Background

Muskoxen were reintroduced to the North Slope in 1969 and again in 1970. Since that time the population increased through the mid-1990s to a high of 500–650 muskoxen in Units 26B and 26C. The population then declined and by 2004 the population had fallen below the management objective of 300 muskoxen and the hunts were cancelled. Since 2004, the population has stabilized and began to slowly grow and by 2018 was just barely above the 300 muskoxen objective. Since 2018, the population has continued to grow slowly and has stayed above the 300 muskoxen threshold and is now between about 380 and 400 muskoxen. Starting in Regulatory Year (RY) 23 the hunt was reinstated for the first time in nearly 20 years with the same structure as before the closure in 2004. This includes four Tier II permits, four registration subsistence permits, and four drawing permits. With a population of 380 muskox the harvestable surplus at a 3% harvest rate is 11 muskoxen. The current state hunt structure provides an opportunity for subsistence hunters of Kaktovik as well as any other subsistence user in Alaska.

Impact on Subsistence Users

If adopted, this would give the ANWR Refuge Manager the ability to issue permits at their discretion.

Impact on Other Users

If adopted there would not be an impact on other users because Unit 26C is currently closed under state regulations.

Opportunity Provided by State

The season and bag limit for Unit 26 is:

<u>Unit/Area</u>	<u>Bag Limit</u>	<u>Open season (Permit/Hunt#)</u>	
		<u>Resident^a</u>	<u>Nonresident</u>
<u>Unit 26A and 26B - east of 153° W. longitude, and west of the Dalton Highway</u>	<u>One muskox</u>	<u>1 August -31 March (Tier II permit TX108)</u>	<u>no open season</u>
<u>Unit 26B - east of the Dalton Highway Corridor Management Area</u>	<u>One muskox</u>	<u>Season dates to be announced (Registration permit RX110) Permit available in Kaktovik and Nuiqsut beginning October 1</u>	<u>no open season</u>
<u>Unit 26B - east of the Dalton Highway</u>	<u>One bull</u>	<u>1 September-10 October 10-30 March (Drawing permit DX112)</u>	<u>no open season</u>
<u>Unit 26C</u>	<u>-</u>	<u>no open season</u>	<u>no open season</u>

^a Subsistence and General Hunts.

State customary and traditional use findings: The Alaska Board of Game (BOG) has made positive customary and traditional use findings for musk oxen in Unit 26.

Amounts Reasonably Necessary for Subsistence: Alaska state law requires the Board of Game to determine the amount of the harvestable portion of a game population that is reasonably necessary for customary and traditional uses. This is an ANS. The BOG does this by reviewing extensive harvest data from all Alaskans, collected either by ADF&G or from other sources.

ANS provides the BOG with guidelines on typical numbers of animals harvested for customary and traditional uses under normal conditions. Hunting regulations can be re-examined if harvests for customary and traditional uses consistently fall below ANS. This may be for many reasons: hunting regulations, changes in animal abundance or distribution, or changes in human use patterns, just to name a few.

The ANS for musk oxen in Unit 26B and 26C is in the table below.

<u>Unit (Musk oxen)</u>	<u>Customary & Traditional use finding</u>	<u>Amount Necessary for Subsistence</u>
Unit 26A that portion east of the Topagoruk River following 156° W. Long. South to the Unit 26A border, and Unit 26B, that portion west of the Dalton highway Corridor	positive	20 animals

Unit 26B that portion east of the Dalton Highway Corridor	positive	4 animals
Unit 26C	positive	15 animals

Conservation Issues

If this proposal is adopted the language from WP24-37 is preferred that recommended a one bull hunt as opposed to the one muskox hunt language from WP24-38.

Enforcement Issues

There may be enforcement issues associated with the passage of this proposal as it will create conflicting state and federal hunting regulations for the area.

Appendix 1

Arctic Wildlife Refuge Manager
U.S. Fish and Wildlife Service
101 12th Avenue, Room 236
Fairbanks, Alaska 99701

Dear Refuge Manager:

This letter delegates specific regulatory authority from the Federal Subsistence Board (Board) to the manager of the Arctic National Wildlife Refuge (Arctic NWR) to issue emergency or temporary special actions if necessary to ensure the conservation of a healthy wildlife population, to continue subsistence uses of wildlife, for reasons of public safety, or to assure the continued viability of a wildlife population. This delegation only applies to the Federal public lands subject to Alaska National Interest Lands Conservation Act (ANILCA) Title VIII jurisdiction within Unit 26C 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), representatives of the Office of Subsistence Management (OSM), and the Chair of the affected Council(s) to the extent possible. The Office of Subsistence Management will be used by managers to facilitate communication of actions and to ensure proposed actions are technically and administratively aligned with legal mandates and policies. Federal managers are expected to work with managers from the State and other Federal agencies, the Council Chair or alternate, local tribes, and Alaska Native Corporations to minimize disruption to subsistence resource users and existing agency programs, consistent with the need for special action.

DELEGATION OF AUTHORITY

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

2. 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 announce the season dates between July 15 and March 31** (WP24-37: Nov.1-Mar. 31)
- **To determine the number of permits issued annually**
- **To announce sex restrictions** (OSM modification)

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

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 populations. All other proposed changes to codified regulations, such as customary and traditional use determinations, shall be directed to the Board.

The Federal public lands subject to this delegated authority are those within Unit 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 provide subsistence users in the region a local point of contact about Federal subsistence issues and regulations and facilitate a local liaison with State managers and other user groups.

You will review special action requests or situations that may require a special action and all supporting information to determine (1) consistency with 50 CFR 100.19 and 36 CFR 242.19, (2) if the request/situation falls within the scope of authority, (3) if significant conservation problems or subsistence harvest concerns are indicated, and (4) what the consequences of taking an action or no action may be on potentially affected Federally qualified subsistence users and non-Federally qualified users. Requests not within your delegated authority will be forwarded to the Board for consideration. You will maintain a record of all special action requests and rationale for your decision. A copy of this record will be provided to the Administrative Records Specialist in OSM no later than sixty days after development of the document.

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

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

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

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

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

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

Sincerely,

Anthony Christianson
Chair

Enclosures

cc: Federal Subsistence Board

Assistant Regional Director, Office of Subsistence Management
Deputy Assistant Regional Director, Office of Subsistence Management
Subsistence Policy Coordinator, Office of Subsistence Management
Wildlife Division Supervisor, Office of Subsistence Management
Subsistence Council Coordinator, Office of Subsistence Management
Chair, North Slope Subsistence Regional Advisory Council
Deputy Commissioner, Alaska Department of Fish and Game
Special Projects Coordinator, Alaska Department of Fish and Game
Interagency Staff Committee
Administrative Record

WCR24–31 Executive Summary	
General Description	Wildlife Closure Review WCR24-31 reviews the closure to moose hunting in Units 26B, remainder and 26C, except by residents of Kaktovik.
Current Regulation	<p>Unit 26B remainder and 26C–Moose</p> <p><i>1 moose by Federal registration permit (FM2606) by residents of Kaktovik only. May be announced</i></p> <p><i>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.</i></p>
OSM Conclusion	Retain Status Quo
North Slope Subsistence Regional Advisory Council Recommendation	Retain Status Quo
Interagency Staff Committee Comments	The Interagency Staff Committee found the analysis to be a thorough and accurate evaluation of the closure and that it provides sufficient basis for the Regional Advisory Council recommendation and Federal Subsistence Board action.
ADF&G Position	Rescind the closure
Written Public Comments	None

FEDERAL WILDLIFE CLOSURE REVIEW WCR24-31

Issue: Wildlife Closure Review WCR24-31 reviews the closure to moose hunting in Units 26B, remainder and 26C, except by residents of Kaktovik.

Closure Location and Species: Unit 26B remainder and 26C—Moose (**Map 1**)

Current Federal Regulation

Unit 26B remainder and 26C—Moose

1 moose by Federal registration permit (FM2606) by residents of Kaktovik only. *May be announced*

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

Closure Dates: Year-round

Current State Regulation

Units 26B and 26C—Moose

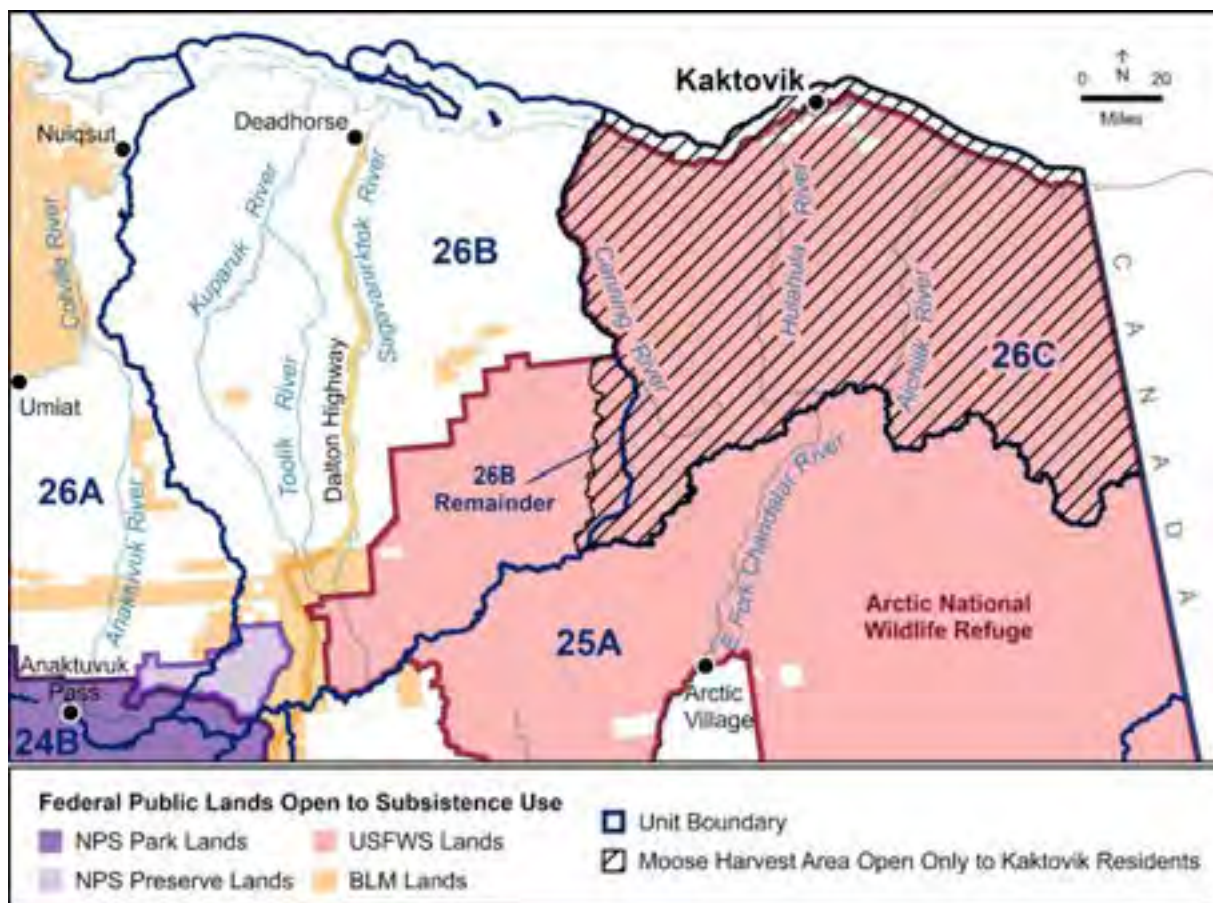
Residents and Nonresidents *No open season*

Regulatory Year Initiated: 2004, closed except by residents of Kaktovik, 2007, closure area modified

Extent of Federal Public Lands

Federal public lands comprise approximately 29% of the lands in Unit 26B and consist of 78% U.S. Fish and Wildlife (FWS) managed lands, 12% Bureau of Land Management (BLM) managed lands, and 10% National Park Service (NPS) managed lands (**Map 1**).

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



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

Customary and Traditional Use Determination

Residents of Unit 26 (excluding the Prudhoe Bay-Deadhorse Industrial Complex), Point Hope, and Anaktuvuk Pass have a customary and traditional use determination for moose in Unit 26.

Regulatory History

Prior to 1996, Federal and State seasons allowed for the harvest of moose in Units 26B and 26C.

In 1996, Wildlife Proposal WP96-66, requested changes to the moose season in Unit 26A (OSM 1996). The Interagency Staff Committee modified the proposed regulation separating Unit 26 into Unit 26A - except that portion of the Colville River drainage downstream from the mouth of the Anaktuvuk River and Unit 26 remainder, which also included Units 26B and 26C. Unit 26, remainder moose regulation was modified to no open season. This modification was adopted by the Federal Subsistence Board (Board) at the April 1996 meeting (FSB 1996). While the modification resulted in no federal open season for moose in Unit 26, remainder, it did not close Federal public lands, meaning moose hunting could still occur under State regulations. However, during this time the State also had closed moose hunts in all of Unit 26, except that portion of the Colville River drainage downstream from the mouth of the Anaktuvuk River.

In 2003, the Board approved WSA03-04 with modification to temporarily allow residents of Kaktovik to harvest one moose in Units 26B or 26C for that year's Thanksgiving feast and 1 moose for that year's Christmas feast; however, only 1 of the 2 moose could be harvested in Unit 26C (OSM 2003).

In 2004, Proposal WP04-86b, submitted by the City of Kaktovik, requested that a moose season with a community harvest quota of five moose be established for the residents of Kaktovik only in Unit 26C. Analysis of WP04-86b also included ANILCA § 804 analysis for moose in 26C. The Board adopted Proposal WP04-86b with modification to allow a total harvest quota of 3 moose in Units 26B and 26C with the restrictions that no more than 2 bulls and no cows could be harvested in Unit 26C by residents of Kaktovik (OSM 2004a). The modification also included closure of Federal public lands to the taking of moose except by Kaktovik residents holding a Federal registration permit, resulting in the current closure. Proposal WP04-86a requested narrowing of the existing customary and traditional use determination to give priority to residents of Kaktovik only to harvest moose in Unit 26C, but the proposal was withdrawn so an ANILCA § 804 analysis could be completed as part of analysis for WP04-86b (OSM 2004b).

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

In 2007, the Board adopted Proposal WP07-63 with modification to lift the closure of Federal public lands to non-Federally qualified users in the portion of Unit 26B outside of the Canning River drainage (establishing a new hunt area) based on increasing moose numbers (FSB 2007). Therefore, the closure now applied to Federal public lands in Unit 26C and areas within the Canning River drainage in Unit 26B (now called Unit 26B remainder), except for residents of Kaktovik (OSM 2007). The Board rejected Proposal WP07-58, requesting that Federal qualified subsistence users could use a bow and arrow within the Dalton Highway Corridor Management Area (DHCMA). This proposal was opposed by the Western Interior Alaska, Eastern Interior Alaska, and the North Slope Subsistence Regional Advisory Councils (Council), which all stated that it is not an effective method of harvesting the moose needed for subsistence (FSB 2007).

Proposal WP08-54 requested an increase of the moose harvest quota in Unit 26C to 5 moose (4 bulls and 1 of either sex) and a shorter harvest season of Jul. 1 - Dec. 31 versus Jul. 1 - Mar. 31 for Kaktovik residents in Unit 26C. The proposal also requested lifting the closure of Federal public lands in Unit 26B remainder (OSM 2008). The Board adopted the proposal with modification to keep the closure in place in Unit 26B remainder; but changed the harvest quota for the entire hunt area 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 2010 (WCR10-31) and 2012 (WCR12-31), the closure of moose hunting in Units 26B remainder and 26C, except residents of Kaktovik was reviewed. The North Slope RAC voted to maintain the closure, continuing to limit the moose hunt. For both reviews, there was a conservation concern for the moose population, and the closure was found to be in alignment with ANILCA Section 815(3) (OSM 2010 and 2012).

In March 2012, the Alaska Board of Game (BOG) adopted Proposal 174A to establish a moose season in a portion of Unit 26C, which includes the Firth River, Mancha Creek and Upper Kongakut river drainages due to an increase in the moose population large enough to have a harvestable surplus (Lenhart 2018). While the hunt remains in regulation, no State hunt has occurred because the area consists of Federal public lands that are closed to the harvest of moose, except by residents of Kaktovik.

In 2013, Emergency Special Action (WSA12-12) requested that the moose season in Unit 26B, remainder and 26C be extended two weeks from July 1 – March 31 to July 1 to April 14, and that the harvest limit be increased from three moose to five moose. The Board approved WSA12-12 with modification to allow Kaktovik residents to harvest one additional moose in Unit 26B remainder and to extend the season through April 14, 2013 (OSM 2013). The one additional moose increased the harvest quota to four: two moose in Unit 26B remainder and two bulls in Unit 26C.

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

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

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

In May 2014, the BOG reduced harvest limits and season dates for resident moose hunts in Units 26A and 26B, excluding the Canning River drainage, in response to low moose 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, excluding the Canning River drainage, for the 2014/15 regulatory year (ADF&G 2014a). The seasons were closed to allow for moose population recovery.

In 2014/15, due to the population decline on the North Slope, the Board closed the Federal moose season on Federal public lands in Units 26B remainder and 26C by adopting Temporary Special Action WSA14-02 (OSM 2014c).

In 2015, the Board approved Temporary Special Action WSA15-08 to close the moose season in Units 26B remainder and 26C for 2015/16 regulatory year. This request, submitted by the Arctic National Wildlife Refuge (NWR), was in response to the continued low moose numbers along the coastal plain of Unit 26C and 26B remainder (OSM 2015). Surveys conducted in April 2014 by the Arctic NWR and ADF&G indicated that the North Slope moose populations in the affected area had declined by approximately 50% since 2011 (Wald 2014).

In 2016, the Board adopted Proposal WP16-65 with modification to create a may-be-announced moose season in Units 26B remainder and 26C; remove regulatory language referencing harvest quotas and delegate authority to the Arctic NWR manager 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 (**Appendix 1**) only (OSM 2016). The delegation of authority allows for better management of the moose population without submitting special action requests every year.

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

In 2020, the Board voted to maintain status quo on Closure Review WCR20-31, continuing to limit the Units 26B, remainder and 26C moose hunt to Federally qualified subsistence users in Kaktovik (FSB 2020). The Arctic NWR manager has delegated authority to manage the hunt, allowing them to determine sustainable harvest levels based on the status and health of the moose population north of the Brooks Range in Units 26B remainder and 26C.

Closure last reviewed: 2020 – WCR20-31

Justification for Original Closure:

§815(3) of ANILCA states:

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

The combination of low moose numbers and low recruitment were direct indicators of a continuing conservation concern. While it was withdrawn, the analysis for Proposal WP04-86 (OSM 2004a, b) also included an ANILCA §804 analysis (prioritizing amongst Federally qualified subsistence users for a limited subsistence resource such as moose) to limit the moose season, with a small quota, to only the residents of Kaktovik.

Council Recommendation for Original Closure:

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

State Recommendation for Original Closure:

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

Biological Background

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 2018):

- Unit 26B – maintain a population of at least 300 moose with a 3-year mean proportion of at least 15% short yearlings (10 to 11 month old calves) in the population.
- Unit 26C – maintain a population of at least 150 moose with a 3-year mean proportion of at least 15% short yearlings (10 to 11 month old calves) in the population.

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 portion of the moose population in the eastern portion of Unit 26C calves and spends the summer in Old Crow Flats in the Yukon and migrates to the Firth, Mancha, and Upper Kongakut river drainages in Unit 26C, and the Sheenjek and Coleen rivers 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. 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). This decline is thought to be 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 migratory behavior of the North Slope moose population makes it difficult to estimate the total population size. Data from surveys conducted by ADF&G and USFWS suggested that a significant decline in moose populations north of the Brooks Range occurred between 2012 and 2014. Survey results indicated that there had been approximately a 50% reduction of moose since 2011 in Units 26A and 26B. The number of moose counted declined from approximately 400 moose in 2013 to 104 in 2015 in Unit 26A (ADF&G 2014b; Lenart 2015, pers. comm). Although Unit 26A is west of the area affected by this wildlife closure review, it documents widespread declines in moose populations across the North Slope. In Unit 26B remainder, the number of moose counted declined from 176 in 2013 to 57 in 2014, including no short yearlings (10-11 month old calves) (Lenart 2012b). From 2014 to 2018 the moose population in Unit 26C increased to 94 moose, which is the largest population estimate since 1984 (Churchwell 2018).

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 these units as habitat is limited in the region (Lenart 2012a).

The moose population in the eastern portion of Unit 26B, including the Canning River, rebounded from low levels of approximately 150 from 1998–2000 to 339 moose in 2008 (**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 in Unit 26B remainder and 26C was opened under Federal regulations in 2004. The hunting closure on Federal public lands in Unit 26B was lifted in 2007, except for the Canning River drainage (Unit 26B remainder), which remained open only to Kaktovik residents. The moose population in eastern Unit 26B subsequently declined to 104 moose in 2015 following peak counts in 2005–2008, but then increased to 212 Moose in 2017 (**Figure 1**).

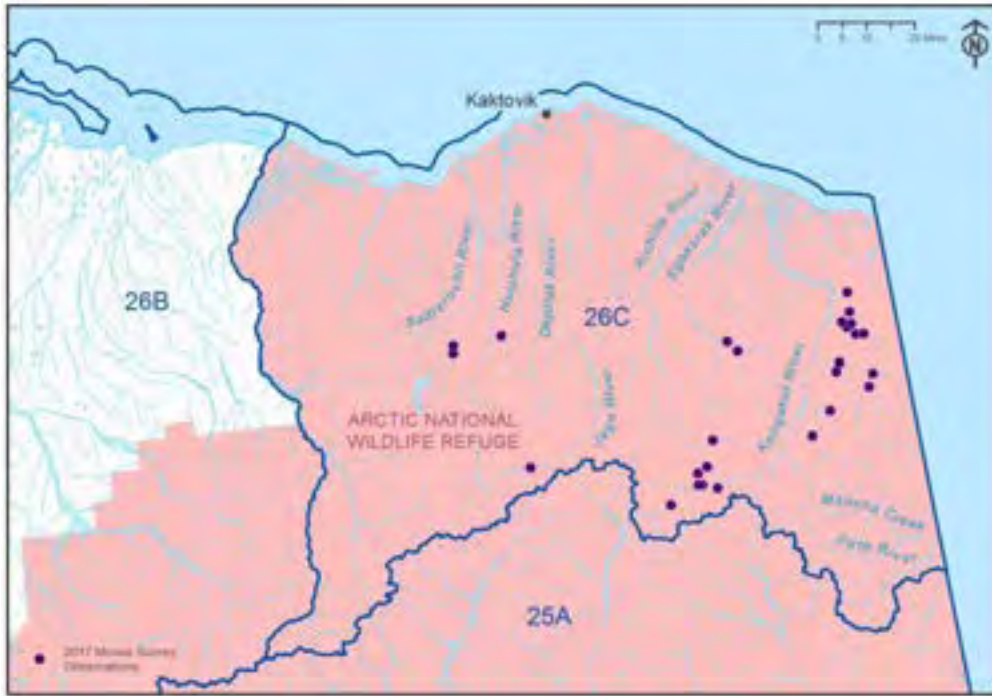
The North Slope population in Unit 26C was surveyed every two years between 2003 and 2018 by Arctic NWR staff (Wald 2014, ANWR 2017a, b). This population occurs on the Coastal Plain from the

Canadian border to the Canning River and from the Beaufort Sea coast to the foothills of the Brooks Range. Moose survey observations from 2017 and 2018 show most of the moose in the Kongakut River drainage (**Map 2 and 3**).

The calf or short-yearling survival increased from 0 in 2014 to 9 in 2017. Based on trend counts between 2003 and 2017, the Unit 26C North Slope moose population reached a low of 23 in 2014 and has since increased to 94 in 2018 (**Figure 2**), which is the largest number since 1984 (Lenart 2012a).



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



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

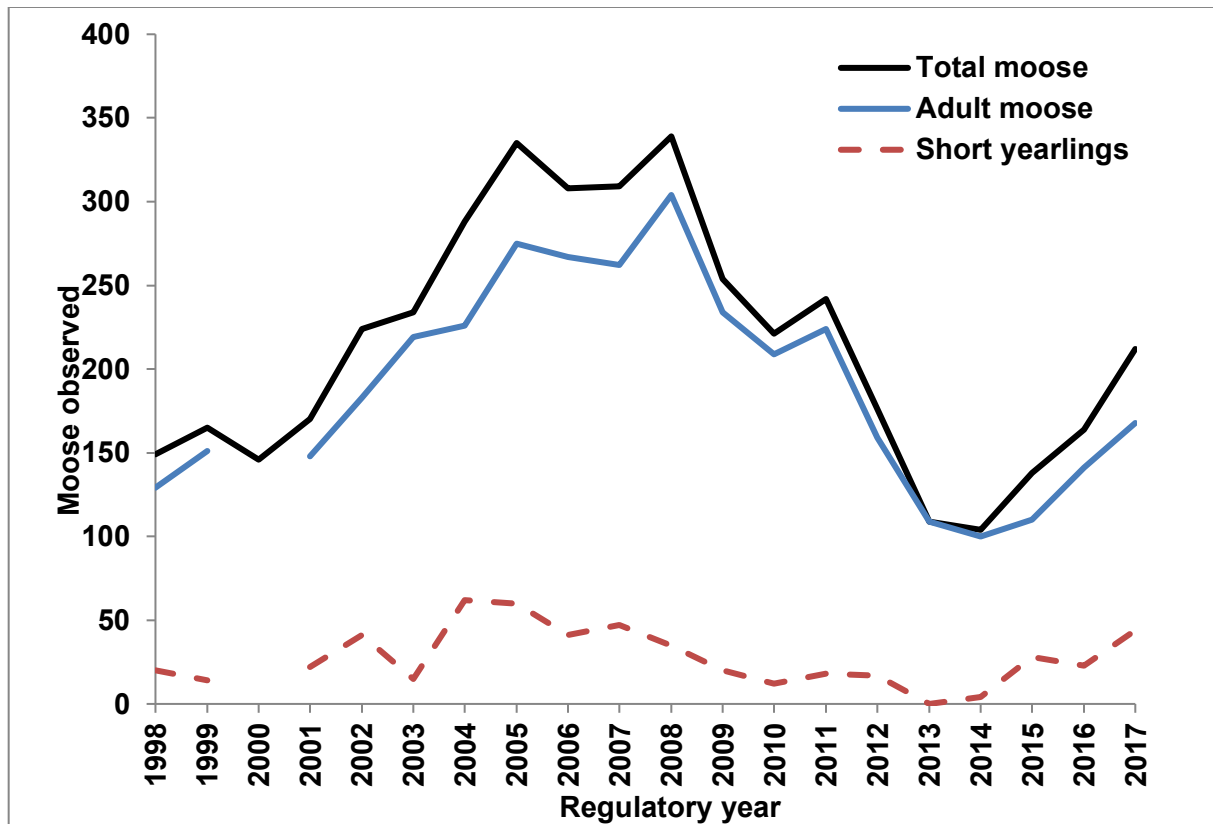


Figure 1. Aerial composition survey counts of moose in Unit 26B, east of the Sagavanirktok River and including the Canning River. Surveys were conducted in regulatory years 1998/1999 to 2016/2017 and moose presented as adults or short yearlings (11-month olds) (Lenart 2012a; 2015, pers. comm.; 2018, pers. Comm).

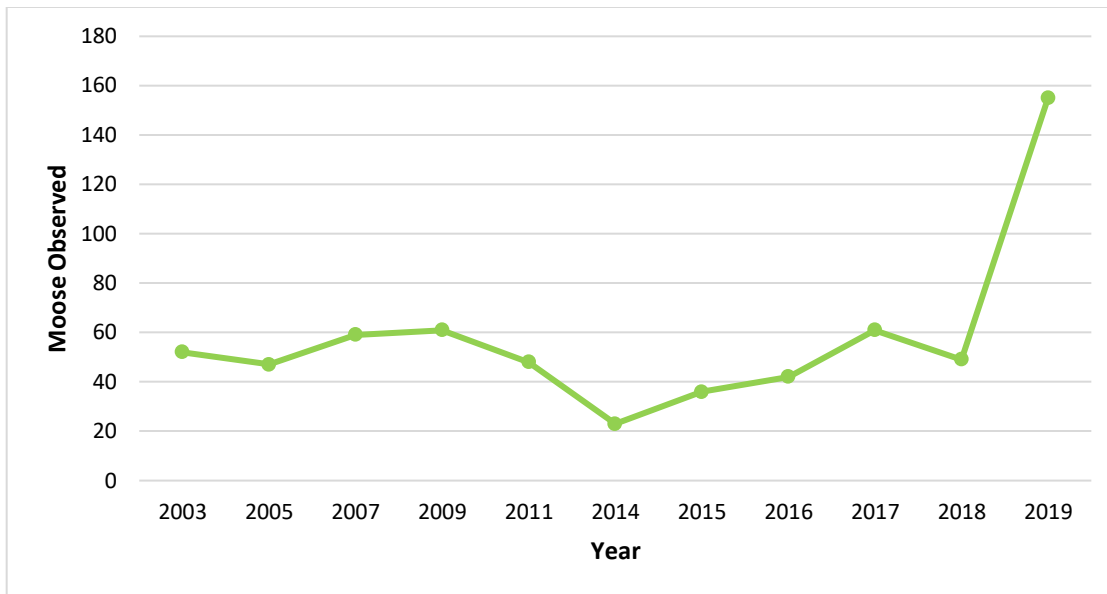


Figure 2. Moose observed during aerial surveys of trend count areas, conducted every other year by the U.S. Fish and Wildlife Service, for the North Slope Population in Unit 26C, 2003–2018 (Wald 2011, 2014, ANWR 2017a, b, 2022).

Cultural Knowledge and Traditional Practices

In 2019, the estimated population of Kaktovik was 265 (ADLWD 2022). Residents of Kaktovik hunt moose at a relatively low level compared to other subsistence resources. They are hunted in the areas around the Sadlerochit, Hulahula and Okpilak rivers during winter and spring, with April and September being the months of highest moose harvest activity (NSB 2015). Based on subsistence household surveys conducted between 1985 and 2010, the average estimated annual number of moose harvested by Kaktovik is 2.8, for an average estimated 6.6 pounds of edible meat per person (Table 1, ADF&G 2022).

Table 1. Three measures of moose harvest and use by residents of Kaktovik for survey years 1985 to 2010. (ADF&G 2022). Values for estimated number of moose harvested are rounded to whole numbers.

Survey year	Estimated number of moose harvested	Estimated pounds per person harvested	Percent using
1985	4	10.1	45%
1986	1	3.1	17%
1992	4	10.4	36%
1994	1	2.6	no data
2010	4	6.8	16%
Average	2.8	6.6	29%

Harvest History

Harvest quotas for North Slope moose populations are currently determined using a 3% harvest rate (Lenart 2017, pers. comm.; Wald 2013, pers. comm.). Moose harvest on Federal public lands within the closure area occurs only under Federal regulations by residents of Kaktovik. Since 2016, the Arctic NWR manager announces the harvest quota and the number of permits to issue each year via delegated authority.

Since 2004, 10 bull moose have been reported harvested (**Table 2**). No additional moose were taken by Kaktovik residents in Unit 26B remainder during the two-week extension under Emergency Special Action WSA12-12. Only one moose has been taken between regulatory years 2013/14 and to 2019/20.

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

Table 2. Federal moose registration permits (FM2606) issued to Kaktovik residents and harvest for Units 26B and 26C from 2004 to 2017(Twitchell 2013, pers. comm.; Wald 2015; ANWR 2017a, b; ANWR 2019; OSM 2022).

Regulatory Year	Permits issued	Permits used	Harvest
2004/2005	4	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
2015/2016	0	0	0
2016/2017	2	1	1
2017-2018	2	- ^a	0
2018-2019	2	1	0
2019-2020	4	4	0
2020-2021	- ^a	- ^a	- ^a

^a Data not available for the report.

Other Alternatives Considered

There appear to be two separate populations of moose in Unit 26C, one of them is on the coastal plain and the foothills. The second population of moose tends to be in the Firth River, Mancha Creek and the upper Kongakut River, where they have historically moved south toward Old Crow Flats. Since 2014, the southern moose population has been increasing (**Figure 1**). Small scale minimum counts were conducted of areas where moose congregate in 2017 and 2018 (**Maps 2 and 3**). These drainages may contain enough moose to support a limited harvest; however, updated population information would be needed.

This alternative was not presented to the North Slope Council for consideration.

Effects

Retaining the status quo would continue to limit this moose hunt to Kaktovik residents only.

Conservation concerns remain for this low moose population, which is on the fringe of its range. The harvest quota determined annually by the Arctic NWR manager helps ensure sustainable harvests, while providing opportunity for the Federally qualified subsistence users determined to be most dependent on this moose resource.

Modifying the closure to allow hunting by all Federally qualified subsistence users but retaining the closure to non-Federally qualified users would allow for additional subsistence opportunity. However, due to the extremely low harvest quotas, it would reduce opportunity for Kaktovik residents. Due to the harvest quota, no impact to moose population would be expected. Modifying the closure to close to all users would preclude all subsistence opportunity.

Rescinding the closure would allow moose hunting by both residents and non—residents under State regulations, although State hunts are currently closed. If a State hunt were opened, the moose population could not sustain the additional harvest pressure, increasing conservation concerns. Increased hunting pressure may result in unsustainable harvest levels given the small North Slope populations in limited area of Units 26B, remainder and 26C.

OSM CONCLUSION:

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

Justification

Most of the North Slope moose population occurs in the Kongakut River drainage and remains low elsewhere in the Arctic coastal plain. Current regulations allow management flexibility for the Arctic NWR to determine sustainable harvest quotas each year based on the status and health of the small moose populations north of the Brooks Range in Units 26B remainder and 26C. Recent annual quotas and the number of permits issued has been very low, indication a very low harvestable surplus and that this moose population cannot withstand additional harvest. Continuing to limit the moose hunt to Kaktovik residents only is recommended given the small North Slope population and to provide a meaningful preference.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

North Slope Subsistence Regional Advisory Council

Retain status quo on WCR24-31. The Council supported retaining the status quo as Kaktovik residents have difficulty in finding and harvesting moose as there are few in the area. Traditional knowledge shared indicated the moose generally move down the mountains and come within proximity to the community. Allowing only Kaktovik residents to hunt provides Kaktovik residents the opportunity to harvest an important resource to share amongst the community.

INTERAGENCY STAFF COMMITTEE COMMENT

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

ALASKA DEPARTEMENT OF FISH AND GAME COMMENT

Wildlife Closure WCR24-31

This is the routine review of the closure to moose hunting in Game Management Units (Unit) 26B, remainder and 26C, except by residents of Kaktovik.

Position

ADF&G **SUPPORTS** rescinding the closure in its entirety, or at the very least in the drainages of the Firth River, Mancha Creek, and the upper Kongakut River, upstream from and including Drain creek in southeast Unit 26C. Opening these drainages will not impact moose hunters from Kaktovik as we know from past studies that moose in that area do not move to the north and northwest where they would be available to Katovik residents for harvest.

Background

There is no biological justification supporting the closure at this time. The current state regulations are sufficient to allow subsistence opportunity to harvest moose and conserve the moose population in the low-density units (see below).

The only federally qualified users (FQU) allowed to hunt moose in this area are residents of Kaktovik and according to the Office of Subsistence Management (OSM) analysis Kaktovik residents focus their limited moose hunting effort on the Sadlerochit, Hulahula, and Okpilak rivers during winter and spring. Residents of Kaktovik do not hunt moose in the upper Kongukut drainage above Drain Creek, in the Firth River, or in the Mancha Creek drainages. We know from past studies that moose in the upper reaches of the Coleen, Sheenjek, Firth, and Kongukut Rivers that over a year 75% of those moose regardless of collaring location moved to the south and east into the Old Crow Flats. The remaining moose eventually moved towards Old Crow Flats or stayed in close proximity to where they were collared. None of the moose moved to the north or northwest (USFWS 2001).

Impact on Subsistence Users

If the closure is rescinded the effect would be largely the same in that FQUs could hunt moose under federal regulations in Unit 26B remainder and Unit 26C. The biggest change would be that FQUs outside the community of Kaktovik would now have the opportunity to hunt for moose in this area under federal subsistence regulations.

Impact on Other Users

If the closure is rescinded, a small portion of 26C (that portion in the drainages of Firth River and Mancha Creek and the upper Kongakut River, upstream and including Drain Creek) would be open under state hunting regulations for moose hunting under a limited drawing permit. The rest of Unit 26C and 26B remainder will still only be open to moose hunting under federal regulations by federally qualified users.

Opportunity Provided by State

State customary and traditional use findings: The Alaska Board of Game (BOG) has made positive customary and traditional use findings for moose in Unit 26.

Amounts Reasonably Necessary for Subsistence: Alaska state law requires the Board of Game to determine the amount of the harvestable portion of a game population that is reasonably necessary for customary and traditional uses. This is an ANS. The BOG does this by reviewing extensive harvest data from all Alaskans, collected either by ADF&G or from other sources.

ANS provides the BOG with guidelines on typical numbers of animals harvested for customary and traditional uses under normal conditions. Hunting regulations can be re-examined if harvests for customary and traditional uses consistently fall below ANS. This may be for many reasons: hunting regulations, changes in animal abundance or distribution, or changes in human use patterns, just to name a few.

The ANS for moose in Unit 26 is 21–48 animals, including 15–30 animals in Unit 26A. The season and bag limit for moose in Unit 26B remainder and Unit 26C is:

Unit/Area	Bag Limit	Open season (Permit/Hunt#)	
		Resident ⁴	Nonresident
Unit 26B - Remainder		no open season	no open season
Unit 26C - that portion in the drainages of Firth River and Mancha Creek and the upper Kongakut River, upstream and including Drain Creek	One bull	1–25 September (Drawing permit)	
	One bull with 50-inch antlers or antlers with 4 or more brow tines on at least one side		1–25 September (Drawing permit)
Unit 26C - Remainder		no open season	no open season

⁴ Subsistence and General Hunts.

Conservation Issues

This is a low density moose population at the northern edge of their range. However, limiting harvest to bulls only and to 3% or less of the population will allow for the opportunity to harvest animals and conserve the population. The current federal system allows for subsistence opportunity and if the closure is rescinded state regulations will provide an opportunity to harvest moose in an area that is not used by federally qualified users from Kaktovik according to the OSM analysis.

Enforcement Issues

There are no enforcement issues with rescinding this closure.

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APPENDIX 1



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

Federal Subsistence Board

1011 East Tudor Road, MS121
Anchorage, Alaska 99503



FOREST SERVICE

JUN 21 2016

FWS/OSM 16027.PM

Refuge Manager
Arctic National Wildlife Refuge
101 12th Ave, Room 236
Fairbanks, Alaska 99701

Dear Refuge Manager:

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 Office of Subsistence Management, 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

I. 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**. 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.

Refuge Manager

2

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.

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 by 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 Federally qualified 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.

Refuge Manager

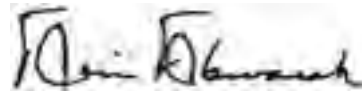
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You will consult with OSM and coordinate with local ADF&G managers, the National Park Service (Superintendent, Gates of the Arctic National Park and Preserve, the BLM Arctic Field Office, and the Chair of the North Slope Subsistence Regional Advisory 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 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 and Wildlife Service, and Department of the Interior.

Sincerely,



Tim Towarak
Chair

cc: Commissioner, Alaska Department of Fish and Game
 Assistant Regional Director, Office of Subsistence Management
 Deputy Assistant Regional Director, Office of Subsistence Management
 Subsistence Council Coordinator, Office of Subsistence Management
 Chair, North Slope Subsistence Regional Advisory Council
 Manager, Bureau of Land Management Arctic Field Office
 Federal Subsistence Liaison Team Leader, Alaska Department of Fish and Game
 Federal Subsistence Board
 Interagency Staff Committee
 Administrative Record

**LOWER COPPER RIVER AREA SALMON FISHERY
FULL ANALYSIS
REQUEST FOR RECONSIDERATION FRFR22-01**

INTRODUCTION

Ahtna, Incorporated, submitted request for reconsideration FRFR22-01 to the Federal Subsistence Management Program asking the Federal Subsistence Board (Board) to rescind its April 2022 decision on Fisheries Proposal FP21-10. Through Proposal FP21-10, the Board created a Federal dipnet and rod and reel salmon fishery one half mile above and below the highway bridge on the lower Copper River.

For the initial threshold assessment of the request, the Office of Subsistence Management (OSM) reviewed the request and identified substantive claims that may meet the criteria outlined in 36 CFR 242.20(d) and 50 CFR 100.20(d). The three criteria are: (1) provides information not previously considered by the Board, (2) demonstrates that existing information used by the Board is incorrect, or (3) demonstrates that the Board's interpretation of information, applicable law, or regulations is in error or contrary to existing law.

A total of eight substantive claims from the request were assessed. Four of the claims were categorized under Criterion 1 and four claims were categorized under Criterion 3.

Board Action on Threshold Analysis

OSM staff presented the threshold analysis to the Board on February 3, 2023. The OSM conclusion was to oppose the request to reconsider Proposal FP21-10, having found no merit to any of the claims. The Board took action on the FRFR22-01 threshold analysis, taking into consideration information from the OSM threshold assessment and testimonies from the public, including proponents of FP21-10, Cordova residents Jesse Carter and Robert Jewell, and Karen Linnell, the Executive Director for Ahtna Intertribal Resource Commission. The Board found potential merit with claim 4.1 and directed OSM staff to initiate a full analysis of the claim.

FULL ANALYSIS OF CLAIM 4.1

The Claim

Claim 4.1 is that the Board based its approval of FP21-10 on an erroneous interpretation of information regarding the estimated impact and popularity of/participation in a new Federal subsistence fishery. In the request for reconsideration, the proponent wrote:

The Board based its approval of FP21-10 on an erroneous interpretation of information regarding the estimated impact and popularity of a new Federal subsistence fishery. OSM's Staff Analysis projected that participation in the fishery would be minimal and that the harvest

of sockeye and Chinook salmon from the Lower Copper River dipnet fishery created by FP21-10 would also be minimal – no more than 2,000 fish. These projections are based upon faulty assumptions that limited participation in and access to a subsistence fishery (that participation in nonetheless met subsistence needs) would translate into a similarly limited participation in – and limited harvest of sockeye and Chinook salmon from – a new subsistence fishery (Anderson, 2022).

Claim 4.1 suggests the Board misinterpreted information on the projected impacts of a new Federal subsistence fishery in the lower Copper River on federally qualified subsistence users in the Upper Copper River Districts. The claim asserts the harvest projections in the analysis were based on faulty assumptions. During a public testimony when the Board acted on RFR22-01 at the 2023 Winter Board meeting, Karen Linnell, expanded on this claim. She said:

I do believe throughout this meeting we have heard that the Board was missing some information because the C&T was based on the supposed 2,000 people in Cordova that would be using this dipnet fishery but then the whole of Prince of William Sound, including Tatitlek and Chenega and other communities will also be eligible and those numbers were not put before this Board when they were considering this proposal. And when -- you know, we tried to get this -- even part of it is only just to Cordova, it was shot down and so there is information that was withheld from the Board although it might not have been in Ahtna's letter (FSB 2023:77).

Ms. Linnell's explanation suggests that harvest estimates for the Lower Copper River Area Fishery in the FP21-10 staff analysis were erroneously based on the population of Cordova rather than the population of the Prince William Sound Area, who are the residents with a customary and traditional use determination for salmon in the area under consideration - the remainder of the Prince William Sound Area. Her explanation also suggests that harvest estimates based on the population of Cordova were presented to both the Southcentral Alaska Subsistence Regional Advisory Council (Southcentral Council) and the Eastern Interior Alaska Subsistence Regional Advisory Council (Eastern Interior Council) when they took actions on FP21-10 at their respective fall 2020 Council meetings. This was corroborated by Eastern Interior Council Co-Chair Charlie Wright, who in response to her testimony said, "just for the record it was stated for Cordova; that's all we heard. So, I believe that she's right." The Board moved to fully analyze Claim 4.1 to explore potential inaccuracies and misinterpretations of the harvest estimates presented with FP21-10 that may have confused the Councils and the Board. In her justification for the motion for OSM to proceed with a full analysis of Claim 4.1, Board Member Creachbaum of the National Park Service stated, "[the] Justification is there was an erroneous interpretation of information regarding the scope of impacts and communities involved. This will allow for greater input and participation by public and Regional Advisory Councils."

The following analysis explores two aspects regarding Claim 4.1. The first section focuses on the projected harvest estimates in the analysis of FP21-10, and the second section focuses on the processes of communicating those estimates and associated information at the Regional Advisory Council meetings and Federal Subsistence Board meeting.

The projected harvest estimates for the Lower Copper River Area fishery

Claim 4.1 suggests the Board based its decision on faulty information from the OSM staff analysis about impacts of the proposed Lower Copper River Area fishery on federally qualified subsistence users in the Upper Copper River Districts. The claim also asserts the harvest projections in the analysis were based on incorrect assumptions.

When it approved FP21-10, the Board listed three items in its justification of the action to create the Federal subsistence fishery. First, the current Federal fisheries in the Cordova area did not constitute a reasonable Federal subsistence priority for those living there. At the Board meeting, member Dave Schmid stated, “[the current Federal subsistence fishery] leaves a significant portion of the Cordova community without a means to obtain Federal subsistence salmon” (FSB 2022: 83). Second, the new Federal subsistence fishery provided opportunity for a subset of federally qualified subsistence users who lacked access to other Federal subsistence fisheries. Board member Schmid explained, “the subsistence fishery would provide a first opportunity for federally qualified rural users that don’t have access to marine waters to obtain Copper River salmon coming out of winter when the need for salmon subsistence fish is greatest.” (FSB 2022:83)

Third, the Board stated that the impacts of harvest from the new Federal subsistence fishery on upstream users would be negligible. On this final point, the Board considered information about Copper River salmon populations and harvesting practices. The Board explained that the projected harvest from the Lower Copper River Area salmon fishery would not have significant impacts on the abundance of fish available to upstream users. Board member Schmid explained:

The proposed subsistence dipnet fishery [harvest] on the Lower Copper is very low and anticipated to be at a maximum of 2,000 sockeye salmon annually. This is less than one-tenth of one percent, .08 percent, of the total average annual Copper River sockeye salmon run and less than one percent, .63 percent, of the total annual Copper River chinook salmon run. Such low harvest levels are not likely to have a significant impact on the overall in-river salmon abundance relative to other existing fisheries (FSB 2022:84).

In the analysis of FP21-10, the harvest estimate of 2,000 Sockeye Salmon and 300 Chinook Salmon was based on harvesting success in adjacent fisheries, harvesting methods of the proposed Federal subsistence fishery, and the likely number of participants. In its analyses of proposals, OSM staff use a variety of data and other information to produce as accurate of estimates and projections as reasonably possible. The analysis of FP21-10 states, “This estimate is based on the annual State subsistence gillnet harvest in the Copper River District; taking into account the smaller pool of qualified users, and reduced efficiency of allowable gear type (dip net compared to drift gillnet). (OSM 2021: 25).

Analysts proceeded with the following two assumptions while estimating the interest and participation in the Lower Copper River dip net fishery: dip nets are less efficient than gillnets and there would be less participation in the Lower Copper River Area Federal subsistence fishery than the area State subsistence fisheries.

The first assumption about dip net efficiency, which is the most efficient legal gear in the Lower Copper River Area fishery, holds true in nearly all cases. Comparative gear efficiency depends on several factors. In large glacial river deltas like the Copper River, it is reasonable to assume that an up-to 300-foot gillnet in marine waters in front of the river mouth is considerably more efficient than a dip net in the river. The second assumption is that there would be less participation in the Lower Copper River Area fishery compared to the State subsistence gillnet fishery. Residents of the Prince William Sound Area have a customary and traditional use determination for salmon in the remainder of the Prince William Sound Area, which includes the Federal waters of the Lower Copper River Area. However, it is unlikely that residents throughout the Prince William Sound Area will use the Lower Copper River Area fishery and instead would elect to fish closer to home because it is more efficient and economical. The only reasonable access to the Lower Copper River Area is the Copper River Highway, and the only community connected to the Copper River Highway is Cordova. Those not residing in Cordova would need to first travel by air or boat to Cordova, then drive over 30 miles to access the Copper River. Air transportation to Cordova is expensive from Prince William Sound Area communities so harvesters from those communities are more likely to fish for salmon closer to home. Harvesters from Whittier, Chenega Bay, Tatitlek, and Ellamar who have boats capable of reaching Cordova could participate in the fishery. However, they would have a much higher probability of success fishing in the State fishery in marine waters at the mouth of the Copper River rather than boating to Cordova and driving to the Lower Copper River Area. Based on this, a reasonable conclusion would be that most harvesters participating in the Lower Copper River Area fishery would be residents of Cordova.

It is also unlikely that all residents of Cordova that harvest Copper River salmon would use the Lower Copper River Area fishery. First, many of the harvesters have access to more productive marine fisheries and it is unlikely that those residents would choose to participate in the Lower Copper River Area fishery instead of harvesting from more productive fisheries. The primary means for a number of Cordova residents to harvest Copper River Salmon is through homepack from commercial fisheries, which is salmon caught in the commercial fishery that is kept for personal use, or via the State subsistence fishery in the marine waters near the mouth of the Copper River. It is easier for commercial fishers to access the commercial fisheries than the Lower Copper River Area and the gear types used for commercial fishing are far more effective than dip netting in the Lower Copper River Area. After the commercial fishery, the second most productive salmon fishery near the mouth of the Copper River is the State subsistence gillnet fishery. The recent 10-year average of permits fished in this fishery is 231 with an average of 530 Chinook Salmon and 3,674 Sockeye Salmon harvested annually (Scannell et al. 2023). As already explained above, gillnets are more efficient than dip nets, and it is unlikely that participants of this State fishery would switch to a less productive fishery when they have access to boats and drift gillnets. However, like the commercial fishery, the State subsistence gillnet fishery takes place only in boat accessible marine waters in the Copper River District and is open to all Alaska residents. Therefore, it is assumed that most of those who would participate in the Lower Copper River Area salmon fishery are Cordova residents that are unable to participate in the State marine fisheries. Following this logic, reasonable estimates were made about the number of households that would participate in the Lower Copper River Area fishery. Further,

harvest from the Lower Copper River Area fishery is not additive to other Copper River salmon harvest so harvesters could not take a limit from both fisheries.

As part of its justification, the Board concluded that the projected harvest from the Lower Copper River Area Federal subsistence fishery would be “the smallest of any user group in the Copper River system” (FSB 2022). The harvest estimates outlined in the analysis have not been contested with other sources of data, and information from the first season of the new Federal subsistence fishery supports the predicted insignificant magnitude of the harvest relative to other Copper River salmon fisheries.

The Lower Copper River Area fishery commenced in 2022 and only residents of Cordova participated, with 69 household permits issued to Cordova households. Harvest reports and local accounts of the fishery indicate that the fishing was difficult and confined almost exclusively to one small portion of the Lower Copper River Area. Total reported harvest for the 2022 season was 111 Sockeye Salmon and 3 Chinook Salmon. For the 2023 season, 71 permits were issued exclusively to residents of Cordova. The total reported harvest in 2023 was 176 Sockeye Salmon and 4 Chinook Salmon.

The component of the Board’s justification relating to the estimated annual harvest from the Lower Copper River Area fishery was based on a reasonable interpretation of best available information contained in the OSM analysis. OSM analyses follow a lengthy process and are subjected to several reviews by a diverse group of experts. The resulting Board version of the analysis was vetted twice by the Interagency Staff Committee, who was satisfied with the quality of the analysis and the OSM conclusion and provided a comment in support of the proposal.

Aside from the reasonable estimate of potential harvest from the fishery, the Board also considered the deliberations and recommendations of the Southcentral Council, the comment of the Eastern Interior Council, the comments developed at the joint meeting of the Councils, comments provided in Tribal consultations, written public testimony, and oral public testimony provided at the Board meeting.

Communication of Eligibility, Expected Users, and Harvest Estimates

The second component of the analysis of claim 4.1 is an assessment of how well analysts communicated information regarding the projected harvest estimates at public meetings. To analyze this component, OSM staff reviewed the published FP21-10 analysis and transcripts from the Fall 2020 Eastern Interior Council meeting, the Fall 2020 Southcentral Council meeting, the 2021 Board Fisheries Regulatory meeting, the 2022 Eastern Interior Council and Southcentral Council joint meeting on FP21-10, the 2022 Board Wildlife Regulatory meeting, and the 2023 Board Fisheries Regulatory meeting. The results demonstrate that staff communicated the customary and traditional use determinations for salmon in the Lower Copper River Area fishery, the expectations that users of the Lower Copper River Area fishery would primarily be residents of Cordova, and the rationale for developing the projected harvest estimates of the Lower Copper River Area fishery. Results also suggest that this information was not confusing or a matter of concern for attendees at the meetings.

First, examination of the FP21-10 analysis shows that it contained all relevant information. OSM published the FP21-10 analysis in each of the meeting books provided to Council and Board members

prior to their public meetings. OSM also published the analysis on its website (<https://www.doi.gov/subsistence/archives>) for public access. The Customary and Traditional Use Determinations section of the analysis defines the group of eligible federally qualified subsistence users of the Lower Copper River Area fishery: “residents of the Prince William Sound Area have a customary and traditional use determination for salmon in the remainder of the Prince William Sound Area.” (OSM 2021:10). The Effects section of the proposal analysis says, “[the Lower Copper River Area fishery] would provide additional subsistence opportunities for federally qualified subsistence users living in the Prince William Sound Area, especially those in the community of Cordova.” (OSM 2021:25). As explained above, the Lower Copper River Area fishery is in Cordova and can only be accessed by residents of other communities by boat or plane. The analysts therefore reasoned that residents of Cordova would be the primary users. The Effects section of the proposal analysis explains the parameters staff used to develop the projected harvest estimates, as already stated above:

The projected harvest would be the smallest of any user group in the Copper River system, up to 2,000 Sockeye Salmon and 300 Chinook Salmon annually (Figures 4 and 5). This estimate is based on the annual State subsistence gillnet harvest in the Copper River District; taking into account the smaller pool of qualified users, and reduced efficiency of allowable gear type (dipnet compared to drift gillnet) (OSM 2021:26).

Thus, the analysis specifies all the relevant information: residents of the Prince William Sound Area have a customary and traditional use determination for salmon in the Lower Copper River Area fishery, eligible residents of Cordova are expected to be the primary users of the Lower Copper River Area fishery, and the projected harvest estimates are based on best available information including the likely number of participants.

Second, review of the transcripts of presentations of FP21-10 also demonstrates that staff communicated the relevant information at all meetings. In each of the meetings, the presenter of the analysis explained that all rural residents of Prince William Sound Area had a customary and traditional use determination for the Lower Copper River Area fishery and that it was expected that the residents of Cordova would be the primary users of the fishery. The standard statement made in most presentations was, “[the fishery] would provide additional subsistence opportunities for federally qualified subsistence users living in the Prince William Sound area, especially those in the community of Cordova” (SCRAC EIRAC FP21-10 joint-meeting, FSB 2022, FSB 2021). The presentation of the analysis at the Fall 2020 Southcentral Council meeting was the briefest, and the statement on the eligible users of the Lower Copper River Area fishery was likewise the shortest. At the Fall 2020 Southcentral Council meeting, the presenter stated, “The proposal provides an opportunity for federally qualified users in Cordova that do not have access to a saltwater capable boat and drift gillnet gear to fish for salmon in the lower Copper River” (SCRAC 2020:40). The presenter did not explicitly state that rural residents of Prince William Sound Area had a customary and traditional use determination for the Lower Copper River Area fishery. However, his statement implies that there are more federally qualified subsistence users than just those living in Cordova and explains that residents of Cordova will

be the primary users. The presenter at the Fall 2020 Eastern Interior Council meeting provided a more thorough explanation about eligibility in the Lower Copper River Area fishery. He said:

For reference, residents of the Prince William Sound area have a customary and traditional use determination for salmon in the remainder of the Prince William Sound area. What this means is that all residents of the Prince William Sound area which includes the Prince William Sound and the entire Copper River drainage, even upriver, would qualify for this fishery but functionally because of restrictions and access and with the limitations in ferry service, functionally it would probably be just rural residents of Cordova that would participate in this fishery (EIRAC 2020:133).

These results show that presenters of the analysis communicated that rural residents from throughout the Prince William Sound Area were eligible to harvest salmon from the Lower Copper River Area fishery and that it's expected that the primary users would be residents of Cordova.

Third, the review of transcripts of the presentations likewise indicate that presenters clarified that the projected harvest estimates were based on the resident population of Cordova at all meetings. For the most part, presenters repeated above the statement from the analysis that explains the analyst "[took] into account the smaller pool of qualified users, and reduced efficiency of allowable gear type" to produce the harvest estimate (SCRAC 2020:40, EIRAC and SCRAC 2022:46, FSB 2022:450). At the 2021 Federal Subsistence Board Fisheries Regulatory meeting, the presenter provided the least number of details on the projected harvest estimates. He read the projected estimate of 2,000 salmon but did not explain that this estimate was partially based on a limited number of Cordova residents. The presenter at the Fall 2020 Eastern Interior Council meeting, on the other hand, provided more details than was written in the analysis. He explained:

And I made a couple assumptions in the generation of that number of 2,000 salmon and that is that a smaller user pool of people could participate in this fishery, whereas the State subsistence gillnet fishery, all State residents can participate in and whereas, you know, because of the access to Cordova being limited, it's the pool of people that are in Cordova in the summertime, but it includes a large part of the commercial fleet that don't live in Cordova year-round, and namely that's the Russian component of the fleet, they're allowed to participate in the State subsistence fishery say when there is no commercial fishery open. So it would only be year-round Cordova residents that could participate in this fishery. And also I assumed that the dipnetting, mostly from the bank would be less effective than these boats using gillnets, so that's where I arrived at roughly 2,000 fish would be projected as harvested from this fishery, which as you can see, is, you know, a very, very minor amount in comparison to other fisheries on the river and then total estimated run size and spawning escapement" (EIRAC 2020:138).

The results confirm that in nearly all cases, presenters explained to meeting attendees that the projected harvest estimate for the Lower Copper River Area fishery was based on the pool of eligible federally qualified subsistence users living in Cordova.

Lastly, review of the discussions on FP21-10 from meeting transcripts suggest that the meeting attendees were not confused about the relevant information. Throughout the discussions, no one asked the presenters questions about the customary and traditional use determinations of the Lower Copper River Area fishery, the assumption that the users of the Lower Copper River Area fishery will primarily be residents of Cordova, or the rationale used to develop the projected harvest estimates. Likewise, the Councils, the Board, and other meeting attendees did not discuss these topics during the meetings. The discussions on FP21-10 focused on the abundance of salmon in the Copper River, the recent declines in run sizes of Copper River Salmon, and the accessibility of alternative fisheries for residents of Cordova. The results therefore suggest that attendees were not concerned or confused by the information that had been written in the analysis and presented to them at the meetings on the eligibility of the Lower Copper River Area fishery, the expected users of the fishery, and the projected harvest estimates.

OSM CONCLUSION

Oppose the request to reconsider FP21-10.

Justification

The Board's purview is to provide opportunity for federally qualified subsistence users to harvest fish and wildlife, to conserve those populations when necessary, and to uphold the Federal rural subsistence priority. FP21-10 asked to establish a Federal subsistence fishery in the Prince William Sound Area where none meaningfully existed. Through the proposal process and analysis, the Board determined there is a need for additional Federal subsistence fishing opportunities in the Prince William Sound Area. The OSM staff analysis used the best available information about current harvest levels, harvest practices, and potential participants to estimate the possible harvest from this fishery. OSM staff then presented this information at meetings and were available to answer questions. Board adoption of the proposal was not based solely on the estimated future harvest from this fishery. The Board used information from the analysis, as well as input from the Councils and public, to extend opportunity to federally qualified subsistence users. The primary reason the Board approved this fishery was the underserved Cordova residents that did not have adequate access to, or a meaningful Federal priority for, Copper River salmon.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATION OR COMMENT

Southcentral Alaska Subsistence Regional Advisory Council Recommendation

Oppose RFR22-01. The Southcentral Council found the harvest during the first two years of this fishery to be so small as to not impact other user groups. They noted that this fishery supports the priority use of resources by subsistence users as stated in Title VIII of ANILCA. They are aware of the concerns upriver, and they noted that community members dealt with the high water issues this past summer that affected harvest and opportunity. They recommended that instead of focusing on tribe versus tribe or upriver versus lower river, restrictions be focused on nonsubsistence user groups and harvest in times of conservation need.

Eastern Interior Alaska Subsistence Regional Advisory Council Comment

The Eastern Interior Council voted to provide a comment to the Board in support of the Southcentral Council's recommendation on RFR22-01. The Southcentral Council opposed RFR22-01 and the Eastern Interior Council agrees with their recommendation based on the reasons stated in the Southcentral Council's justification.

INTERAGENCY STAFF COMMITTEE COMMENTS

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

ALASKA DEPARTMENT OF FISH AND GAME RECOMMENDATION

Support original request to repeal the Lower Copper River Federal subsistence salmon fishery.

PUBLIC SUBMISSION

As of: April 13, 2023
Received: April 07, 2023
Status: Posted
Posted: April 13, 2023
Tracking No. lg7-46iq-wsdm
Comments Due: April 12, 2023
Submission Type: API

Docket: FWS-R7-SM-2022-0105

Subsistence Management Regulations for Public Lands in Alaska—2024–25 and 2025–26 Subsistence Taking of Wildlife Regulations

Comment On: FWS-R7-SM-2022-0105-0001

Subsistence Management Regulations for Public Lands: Alaska; Taking of Wildlife

Document: FWS-R7-SM-2022-0105-0015

Comment from Southcentral Alaska Subsistence Regional Advisory Council

Submitter Information

Email: jessica_gill@fws.gov

Government Agency Type: Federal

Government Agency: Southcentral Alaska Subsistence Regional Advisory Council

General Comment

See attached file.

Attachments

SCRAC Unit 6 proposal_March 2023

SCRAC Unit 6 proposal_March 2023

WILDLIFE PROPOSAL TO THE FEDERAL SUBSISTENCE BOARD

Name: Southcentral Alaska Subsistence Regional Advisory Council

What regulation do you wish to change? To rescind the delegated authority to the Cordova District Ranger for in-season management of moose and deer in Unit 6.

Why should this regulation be changed? The original Delegation of Authority letter was born from a Wildlife Special Action and should never have become a permanent fixture. The Southcentral Alaska Subsistence Regional Advisory Council supported the action and resulting DAL contingent on a sunset clause of two years that was never incorporated into the DAL. Members of the Council feel the DAL is too broad in regulation, is not necessary due to the small amount of Federal harvest, and RAC members are left out of the consultation process when management decisions are made.



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

Federal Subsistence Board

**1011 East Tudor Road, MS121
Anchorage, Alaska 99503-6199**



FOREST SERVICE

OCT 26 2018

OSM 180088.CM

**Cordova District Ranger
Chugach National Forest
P.O. Box 280
Cordova, Alaska 99574**

Dear Cordova District Ranger:

This letter delegates specific regulatory authority from the Federal Subsistence Board (Board) to the Cordova District Ranger of the U.S. Forest Service to issue emergency or temporary special actions if necessary to ensure the conservation of a healthy wildlife population, to continue subsistence uses of wildlife, for reasons of public safety, or to assure the continued viability of a wildlife population. This delegation only applies to the Federal public lands subject to Alaska National Interest Lands Conservation Act (ANILCA) Title VIII jurisdiction within Unit 6, for the management of moose and deer on these lands.

It is the intent of the Board that actions related to management of moose and deer by Federal officials be coordinated, prior to implementation, with the Alaska Department of Fish and Game (ADF&G), representatives of the Office of Subsistence Management (OSM), Bureau of Land Management (BLM) Anchorage Field Office Manager (for BLM-effected lands), National Park Service (NPS) Wrangell – St. Elias National Park and Preserve Superintendent (for NPS-effected lands), and the Chair of the affected Council(s) to the extent possible. The Office of Subsistence Management will be used by managers to facilitate communication of actions and to ensure proposed actions are technically and administratively aligned with legal mandates and policies. Federal managers are expected to work with managers from the State and other Federal agencies, the Council Chair or alternate, local tribes, and Alaska Native Corporations to minimize disruption to subsistence resource users and existing agency programs, consistent with the need for special action.

Cordova District Ranger

DELEGATION OF AUTHORITY

1. Delegation: The Cordova District Ranger is hereby delegated authority to issue emergency or temporary special actions affecting moose and deer on Federal public lands as outlined under the **Scope of Delegation**. Any action greater than 60 days in length (temporary special action) requires a public hearing before implementation. Special actions are governed by Federal regulation at 36 CFR 242.19 and 50 CFR 100.19.

2. 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 the 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 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. You may also close Federal public lands to the take of moose and deer by all users.

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

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

The Federal lands subject to this delegated authority are those within Unit 6.

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

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

Cordova District Ranger

Federal subsistence issues and regulations and facilitate a local liaison with State managers and other user groups.

You will review special action requests or situations that may require a special action and all supporting information to determine (1) consistency with 50 CFR 100.19 and 36 CFR 242.19, (2) if the request/situation falls within the scope of authority, (3) if significant conservation problems or subsistence harvest concerns are indicated, and (4) what the consequences of taking an action or no action may be on potentially affected Federally qualified subsistence users and non-Federally qualified users. Requests not within your delegated authority will be forwarded to the Board for consideration. You will maintain a record of all special action requests and rationale for your decision. A copy of this record will be provided to the Administrative Records Specialist in OSM no later than sixty days after development of the document.

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

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

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

You will issue decisions in a timely manner. Before the effective date of any decision, reasonable efforts will be made to notify the public, OSM, affected State and Federal managers, law enforcement personnel, and Council members. If an action is to supersede a State action not yet in effect, the decision will be communicated to the public, OSM, affected State and Federal managers, and the local Council members at least 24 hours before the State action would be effective. If a decision to take no action is made, you will notify the proponent of the request

Cordova District Ranger

immediately. A summary of special action requests and your resultant actions must be provided to the coordinator of the appropriate Council(s) at the end of each calendar year for presentation to the Council(s).

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

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

Sincerely,



Anthony Christianson
Chair

Enclosures

cc: Federal Subsistence Board

Assistant Regional Director, Office of Subsistence Management
Deputy Assistant Regional Director, Office of Subsistence Management
Subsistence Policy Coordinator, Office of Subsistence Management
Wildlife Division Supervisor, Office of Subsistence Management
Council Coordinator, Southcentral Alaska Subsistence Regional Advisory Council
Chair, Southcentral Alaska Subsistence Regional Advisory Council
Commissioner, Alaska Department of Fish and Game
Special Assistant to the Commissioner, Alaska Department of Fish and Game
Superintendent, Wrangell-St. Elias National Park and Preserve
Anchorage Field Office Manager, Bureau of Land Management
Interagency Staff Committee
Administrative Record

PUBLIC SUBMISSION

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Subsistence Management Regulations for Public Lands in Alaska—2024–25 and 2025–26 Subsistence Taking of Wildlife Regulations

Comment On: FWS-R7-SM-2022-0105-0001

Subsistence Management Regulations for Public Lands: Alaska; Taking of Wildlife

Document: FWS-R7-SM-2022-0105-DRAFT-0012

Comment from FWS

Submitter Information

Email: andy_aderman@fws.gov

Government Agency Type: Federal

Government Agency: FWS

General Comment

See attached file: NPCH Delegation of Authority proposal 4 April 2023

Attachments

NPCH Delegation of Authority proposal 4 April 2023

1995_NPCH_permit_distribution

NPCH_permit_allocation_justification

Include bolded language under Delegation of Authority #3 "DAL for caribou in Units 17A and 17C - the Refuge Manager has authority to set harvest quota, harvest limit, # of permits issued, **# of permits available by community**, and close the season."

**NUSHAGAK PENINSULA CARIBOU HERD
SUBSISTENCE HUNT - JANUARY 1 - MARCH 31, 1995
DISTRIBUTION OF PERMITS**

Total permits available for the 1995 subsistence hunt is 100 based on the last population estimate of 1007 (January 1994) and a desired harvest level of 10% as identified in the final draft of the Nushagak Peninsula Caribou Management Plan. The Planning Committee decided that each of the villages would receive a minimum of 5% of available permits with the remainder to be distributed based on village population size.

Village Name	Population <u>Size (%)</u>	Total Permits Available
Dillingham	2017 (60%)	46
Togiak	613 (18%)	18
Manokotak	385 (12%)	13
Aleknagik	185 (6%)	9
Twin Hills	66 (2%)	7
Clarks Point/Ekuk	<u>60/3 (2%)</u>	<u>7</u>
	3329 (100%)	100

We will continue working with the Nushagak Peninsula Caribou Planning Committee and the Alaska Department of Fish and Game on these existing authorities and the proposed allocation of permits available to eligible communities. Currently there are 33 eligible communities that could hunt caribou on the Nushagak Peninsula. Twenty-six of these communities were added the C & T determination when WP 18-23 was supported by the FSB. The initial C & T determination included the 7 communities (Aleknagik, Clark's Point, Ekuk, Dillingham, Manokotak, Twin Hills, and Togiak) nearest to the Nushagak Peninsula. Most of the caribou harvested from the Nushagak Peninsula were by residents of Dillingham, Manokotak, and Aleknagik. The other communities (Clark's Point, Twin Hills, and Togiak) hunted caribou on the Nushagak Peninsula intermittently due to distance to get there and opportunity to hunt Mulchatna caribou closer to their communities. Ekuk has 2 residents. The Ekuk Village Council office is located in Dillingham.

Federal Registration Caribou Permits have been distributed to the local traditional/village councils a couple of ways. For the initial hunt in 1995, permits were allocated primarily by village population size (see attached file: 1995_NPCH_permit_distribution.pdf). When caribou numbers were near/below the population objective, the number of permits available were 5-10. The Committee supported giving the permits to Manokotak in RYs 2006-2008, and 2020. In RYs 2009 and 2021, permits were also provided to Aleknagik and Dillingham. When the caribou numbers were above the population objective, available permits increased to unlimited in RYs 2016 and 2019.



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

Federal Subsistence Board

**1011 East Tudor Road, MS121
Anchorage, Alaska 99503-6199**



FOREST SERVICE

OCT 26 2018

OSM 180108.CM

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

Dear Refuge Manager:

This letter delegates specific regulatory authority from the Federal Subsistence Board (Board) to the manager of the Togiak National Wildlife Refuge to issue emergency or temporary special actions if necessary to ensure the conservation of a healthy wildlife population, to continue subsistence uses of wildlife, for reasons of public safety, or to assure the continued viability of a wildlife population. This delegation only applies to the Federal public lands subject to Alaska National Interest Lands Conservation Act (ANILCA) Title VIII jurisdiction within 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), representatives of the Office of Subsistence Management (OSM), the Bureau of Land Management, the Nushagak Peninsula Planning Committee and the Chair of the affected Council(s) to the extent possible. The Office of Subsistence Management will be used by managers to facilitate communication of actions and to ensure proposed actions are technically and administratively aligned with legal mandates and policies. Federal managers are expected to work with managers from the State and other Federal agencies, the Council Chair or alternate, local tribes, and Alaska Native Corporations to minimize disruption to subsistence resource users and existing agency programs, consistent with the need for special action.

DELEGATION OF AUTHORITY

1. 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**. Any action greater than 60 days in length (temporary special

Refuge Manager

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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:

- To determine the harvest quota and set the harvest limit, close the season, 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 also permits you to close and reopen Federal public lands to nonsubsistence hunting, but does not permit you to specify methods and means, permit requirements, or harvest and possession limits for State-managed hunts.

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

The Federal public lands subject to this delegated authority are those within 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 provide subsistence users in the region a local point of contact about Federal subsistence issues and regulations and facilitate a local liaison with State managers and other user groups.

You will review special action requests or situations that may require a special action and all supporting information to determine (1) consistency with 50 CFR 100.19 and 36 CFR 242.19, (2) if the request/situation falls within the scope of authority, (3) if significant conservation

Refuge Manager

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

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

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Refuge Manager

4

should not be considered when immediate management actions are necessary for conservation purposes. The Board may determine that a special action request may best be handled by the Board, subsequently rescinding the delegated regulatory authority for the specific action only.

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

Sincerely,



Anthony Christianson
Chair

Enclosures

cc: Federal Subsistence Board

Assistant Regional Director, Office of Subsistence Management
Deputy Assistant Regional Director, Office of Subsistence Management
Subsistence Policy Coordinator, Office of Subsistence Management
Wildlife Division Supervisor, Office of Subsistence Management
Subsistence Council Coordinator, Office of Subsistence Management
Chair, Bristol Bay Subsistence Regional Advisory Council
Commissioner, Alaska Department of Fish and Game
Special Assistant to the Commissioner, Alaska Department of Fish and Game
Interagency Staff Committee
Administrative Record

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