

**Draft Wildlife Closure Review
WCR26-25**

ISSUE: Wildlife Closure Review WCR26-25 reviews the Federal public lands closure in Unit 26C to the harvest of muskox, except by residents of Kaktovik hunting under Federal regulations. It is the Federal Subsistence Board's (Board) policy that Federal public lands should be reopened when closures are no longer necessary, and that closures will be reviewed at least once every four years. The purpose of this review is to determine if these closures are still warranted.

Closure Location and Species: Unit 26C– Muskox

Closure Dates: Year-round

Current Federal Regulations

Unit 26C—Muskox

*Unit 26C—1 muskox by Federal registration permit (FX2604) only. May be announced
between July 15–Mar. 31
Federal public lands are closed to the harvest of muskox, except by
residents of Kaktovik hunting under these regulations.*

Current State Regulations

Unit 26C–Muskox

Unit 26C Both Residents and Nonresidents No open season

Regulatory Year Initiated: 1992

Closure last reviewed: 2022—WCR22-25

Justification for Original Closure

Section 815(3) of ANILCA states:

Nothing in this title shall be construed as – (3) authorizing a restriction on the taking of fish and wildlife for nonsubsistence uses on 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 adopted Proposal P92-092 with modification, closing Federal public lands in Unit 26C to muskox hunting by non-federally qualified users. The muskox population was below management objectives and additional harvest would be incompatible with the conservation of a healthy population in Unit 26C.

Council Recommendation for Original Closure

The closure was established prior to the existence of the Regional Advisory Councils.

State Recommendation for Original Closure

The State had no recommendation on the original closure. The proposed community harvest limit of 10 bulls provided harvest opportunities for the rural residents of Kaktovik in excess of the State's quota of 7. State biologists recognized this as an allocation, not a biological issue, since the difference between the harvest of seven and ten animals would not significantly impact the health of the population. However, the State had no position on the closure to muskox hunting in Unit 26C as stated in modified Proposal P92-092 (FSB 1992).

Extent of Federal Public Select Land or Water

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 National Wildlife Refuge (NWR).

Customary and Traditional Use Determination

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. Temporary Federal regulations were established in 1990 limiting harvest of muskox on Federal public lands in Units 26B and 26C to only residents of Kaktovik. There has not been an open season for muskox in Unit 26C under State regulations since RY 1992/93.

In 1992, the Board adopted Proposal P92-092 with modification, which closed Federal subsistence hunting of muskox in those portions of Unit 26B in the Arctic NWR, restricted the number of permits

issued to ten bulls for Unit 26C, and closed Federal public lands in Unit 26C 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 muskox permits for Unit 26C to 15 bulls via adoption of Proposal P96-67. Also in 1996, the Board increased the muskox 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 2001, Wildlife Special Action WSA01-15 requested that the Unit 26C muskox season be extended 10 days. The Board denied this request due to concerns that hunting in April would disturb breeding, leading to population declines.

In 2002, the Board approved Wildlife Special Action WSA02-10 which reduced the harvest quota from 15 muskox to 2 bulls, which represented harvesting 3% of the muskoxen population due to the low muskox population. This Special Action also shortened the RY 2002/03 season from July 15–Mar. 31 to Sept. 15–Mar. 31.

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 any Federal registration permits from 2003–2007 and from 2009–2014 with only one Federal 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 WCR22-25, the closure to muskox hunting on Federal public lands in Unit 26C 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 Board noted that the muskox population in Unit 26C remained very low and could not withstand any harvest.

In regulatory year 2023/24, the State opened muskox hunts in Unit 26B and the eastern portion of Unit 26A for the first time since 2004, issuing 12 permits, including 4 Tier II permits (TX108), 4 registration Tier I subsistence permits (RX110), and 4 drawing permits (DX112) (Nelson 2023, pers. comm.). 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 was Dec. 15, 2023–Mar. 30, 2024. 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. 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).

In 2024, the Board approved Proposal WP24-38 with modification. Both WP24-37 and WP24-38 requested removing regulatory language stipulating the number of permits issued will not exceed 3% of the number of muskoxen counted in Unit 26C during a pre-calving census, 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 a Delegation of Authority Letter (DAL) (**Appendix 1**). WP24-38 also requested changing the harvest limit to one muskox. The Board modified WP24-38 to include setting sex restrictions in the DAL. No action was taken on WP24-37, due to the action taken on WP24-38. These regulation changes provide hunt management flexibility and removed the 3% harvest restriction as no muskox surveys have been or are planned to be conducted in Unit 26C.

Biological Background

Muskoxen were reintroduced to the Arctic NWR coastal plain in 1969 and 1970 (Lent 1998). 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. This population is divided into two groups. The Eastern North Slope portion has historically been found in Unit 26B and small portion of eastern Unit 26A and western Unit 26C. The second portion of the Northeast Alaska-Yukon muskox population has historically been found in eastern Unit 26C moving across the Canadian border (Reynolds, 2015 pers. comm.; Wald 2015, pers. comm.; ANWR 2017; NSRAC 2023). 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 Unit 26C muskox population to only 29 muskoxen in 2003. In April 2008, 44 muskoxen were counted in Unit 26C during 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 muskox were observed just west of the international boundary in March 2016 (**Figure 1**) (Reynolds 2011, Lenart 2015, Wald 2015, pers. comm., ANWR 2017).

Local hunters and pilots report seeing small numbers of muskoxen throughout the year, indicating that they are likely residing within Unit 26C year-around (Nelson 2024, pers. comm.). 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 about 100 muskoxen in Yukon, Canada east of the Arctic NWR (Reynolds 2011, Lenart 2013).

The decline of muskox in Unit 26C 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).

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. Pre-calving muskoxen population estimates for the Unit 26B survey areas (which includes portions of eastern Unit 26A and western Unit 26C along the Canning River) were 373, 340, and 320 in 2022, 2023, and 2024, respectively (**Figure 2**) (NSRAC 2023; Nelson 2024 pers. comm.). Muskox groups have routinely been observed on the Unit 26B/26C border during ADF&G tracking flights since 2014 (Lenart 2021, Nelson 2024, pers. comm.).

Given the social 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).

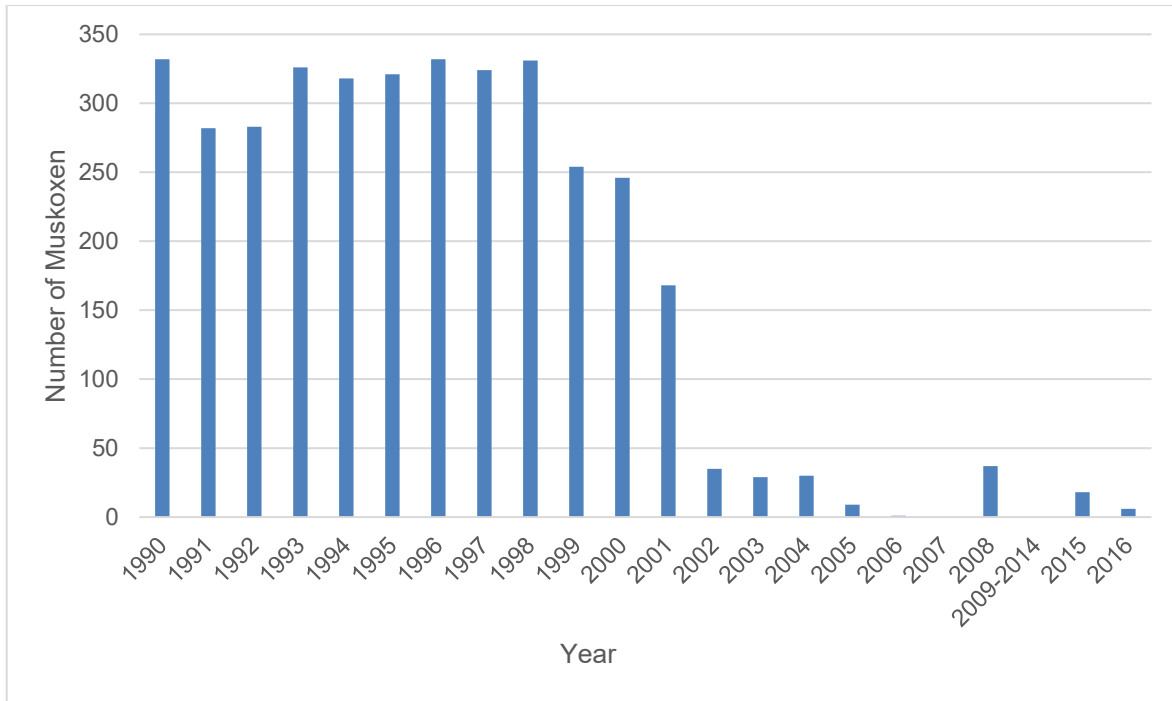


Figure 1. Number of muskoxen in Arctic National Wildlife Refuge, Unit 26C, observed during annual pre-calving censuses, 1990 – 2008. The 2015 and 2016 counts were collected while conducting flights for other purposes (Lenart 2015, Wald 2015, pers. comm., ANWR 2017). During 2007-2015, a group on the Canning River (Unit 26B-26C boundary) was included in the Unit 26B population estimate and not reported in Unit 26C (Lenart 2015).

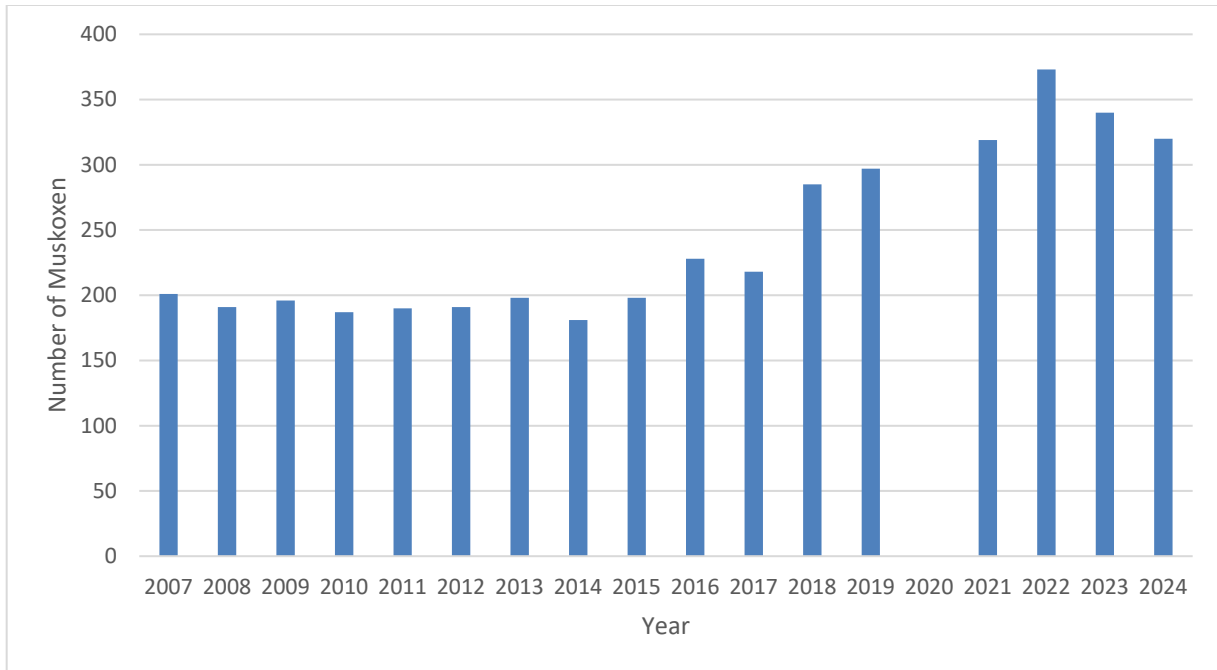


Figure 2. Pre-calving muskox population estimates from 2007-2024 for the Unit 26B survey area, which includes small portions of eastern Unit 26A and western Unit 26C. This is part of the Eastern North Slope muskox population (Lenart 2021; Nelson 2023; Nelson 2024 pers. comm.; NSRAC 2023). Eastern Unit 26A only included from 2007-2012 (Lenart 2021). Copy and paste box in appropriate location to applicable map, table, or figure.

Cultural Knowledge and Traditional Practices

In Iñupiaq, muskox 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 1,500 years.

Historically, muskox provided fat when caribou were lean in late winter and early spring, while also providing 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, Wishart 2004). During ethnographic fieldwork conducted in Kaktovik in the 1960s, Gubser identified historical 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. Many residents of the North Slope consider muskox to be a subsistence resource alongside caribou and sheep, despite their temporary extirpation from the region (Pederson et al. 1991). Iñupiaq hunters observe that game populations can periodically fluctuate, at times disappearing from their region in response to

environmental factors, or in response to how people make use of that species (Pederson et al. 1991). Iñupiaq worldviews see game species as capable of responding to people's actions, leaving an area if harvested animals are wasted, and only returning if hunters reform their practices (Pederson et al. 1991).

Residents of Kaktovik were heavily involved with the reintroduction of muskox in Unit 26C and helped to monitor translocated animals with the understanding that eventually their community would benefit from a subsistence hunt (Pedersen et al. 1991, FSB 1992: 510). Data from 1985-1992 show that in years when muskoxen were able to be harvested, they are distributed widely throughout the community, providing an important food source **Table 1**. The ability to harvest and share muskox may be an important aspect of food security in the region, especially when caribou are less abundant or do not migrate through a community's area (Tomaselli et al. 2018). Local knowledge shared by residents of the North Slope indicate that muskox and caribou are typically not found in the same areas (NSRAC 2024).

Discussions at Council meetings highlight the challenges posed by the transient nature of muskox moving between Unit 26C and Canada. While Federal land managers aim to establish a resident population in Unit 26C, some local users suggest the muskox in Unit 26C should be considered part of the larger resident population in Canada (NSRAC 2017: 112-115). A member of the Council explained how this perspective may impact harvest opportunities:

“So, it seems like there's that transient nature of these animals that we're trying to regulate, when it should be an opportunistic hunt, because they finally come over. And it seems to me over the course of the 15 years I've been on this RAC, or more, or greater, we've been arguing whether or not they're resident or not. They fluctuate. They go. They come back. They go back to Canada. They go over the Brooks Range, they come back. And yet we still have a serious limitation on harvesting them. And I think even if we harvested them that the transient nature that is being described, they will come again. And I don't know the population in Canada, if it's in the thousands or in the 50s or only if there's 20 of them over there. But wherever the larger population they move from should be considered in their status. If there's 20,000 of them in the Canadian side, then the harvestable surplus should be calculated from the Canadian side and extrapolated over to the Alaska side. And if it's well within means of harvesting, we should be able to harvest five of them, or something like that...If you're going to try to regulate them in an area where they're just moving in and out, it seems to be impossible..., other than they should be just there for viewing, like they're visitors (NSRAC 2017: 112).”

These discussions highlight the current frustration over continued limited muskox hunting opportunities, and discrepancies in management perspectives.

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. However, details presented by Pederson et al. (1991) indicate that local residents' access to Unit 26C muskox remained limited and contentious. From 1983-1985, hunting occurred under a State draw permit system with a \$500 tag fee. Kaktovik residents did not apply for these permits, and as a result were not able to legally hunt muskox during these years. The Alaska Board of Game (BOG) determined in 1986 that residents of Unit 26C did not have customary & traditional use of muskox because they were an introduced species, which meant that all hunting would continue to occur under State sport hunting regulations. This same year, as a result of local efforts, the BOG changed the Unit 26C muskox hunt to a registration permit hunt with a \$25 fee and 5 permits were issued in Kaktovik. By 1988, 10 permits were issued each year, 5 of which were being issued in Fairbanks. From 1986–1988, Kaktovik residents received between 2–5 permits each year while non-local hunters received between 1–5 permits each year. In 1989, non-local hunters flew to Kaktovik and waited in line to acquire permits, resulting in only 1 of the 10 issued permits going to a Kaktovik resident. Notable conflict between local residents and non-local hunters occurred because of this process (Pederson et al. 1991).

Following the issuance of permits in 1989, the BOG reversed their earlier decision and determined that residents of Unit 26 displayed customary and traditional use of muskox, and that a subsistence hunt in Units 26B and 26C for which only residents of Kaktovik qualified should be established (Pederson et al. 1991). In the 1990/91 season, 11 Tier II permits were issued, 9 of which went to residents of Kaktovik (Abbott 1991). Following the establishment of the Federal Subsistence Management Program (FSMP) and closure of Federal lands in 1992, only residents of Kaktovik were permitted to harvest muskox on Federal lands in Unit 26B and 26C, so all issued permits were for local hunters (**Table 2**). However, very few permits were issued after 2001 due to muskox population declines. From 2002–2023, only 3 permits were issued—2 in 2002 and 1 in 2008 (**Table 2**).

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 no harvest has occurred (**Table 2**) (Lenart 2015, FWS 2015, Reynolds 2011). Due

to low population numbers, there has been no State season for muskox in Unit 26C since RY 1991/92. Additionally, the current Federal public lands closure precludes any muskox harvest under State regulations.

Federal subsistence regulations previously stated 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 in 2003 when the muskox population was decreasing, and less than 50 muskoxen were being counted on Arctic NWR (**Figure 1**). At least 36 animals needed 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, and/or no surveys were conducted. 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.).

The Eastern North Slope muskox population has reached the management objective minimum of 300 muskoxen and is growing, including muskox routinely observed on the Unit 26B/26C boundary. 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 population growth (Lenart 2021). In RY 2023/24, five muskoxen were harvested under State regulations. Four muskoxen were harvested under DX112 permit, one was harvested under the TX108 permit (**Table 3**) (ADF&G 2024).

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	0	0	0	0
2008/09	USFWS	1	0	0	0
2009/10 – 2022/24 ^a	USFWS	0	0	0	0

^a No permits were issued because the population of muskox from the pre-calving survey was below the threshold of 3% and/or no surveys were conducted.

Table 3. RY 2023/24 State muskox hunting permits for eastern Unit 26A and 26B (ADF&G 2024).

Number	Type	Permits issued	Permits hunted	Muskox harvested
DX112	Draw	4	4	4
RX110	Tier I	4	1	0
TX108	Tier II	4	3	1

Alternative(s) Considered

One alternative considered is to change the regulatory language to clarify that muskox hunting is open to all federally qualified subsistence users and that there is no §804 restriction in place. Only residents of Kaktovik have a customary and traditional use determination for muskox in Unit 26C. Therefore, only Kaktovik residents are federally qualified subsistence users for Unit 26C muskox. This change could also be done administratively.

Effects

If this closure were eliminated, muskox hunting in Unit 26C could occur under State regulations. While the State muskox hunt in Unit 26C is currently closed, the BOG could approve a proposal to establish one. Hunting of muskox under State regulations in Unit 26 was closed from 1991–2023, but recently reopened with limited opportunities in Units 26A and 26B. Establishing other muskox hunts in Unit 26C could pose conservation concerns and diminish the limited muskox hunting opportunities for federally qualified subsistence users.

Although residents of Kaktovik were instrumental in helping to reintroduce muskox to the region, hunting opportunities have been fairly limited since hunting was permitted beginning in 1983. Opportunities remain extremely limited today due to conservation concerns, with no muskoxen having been harvested in Unit 26C under Federal subsistence regulations since the 2001/02 regulatory year. Maintaining this closure would ensure that federally qualified subsistence users maintain priority for the very limited muskox hunting opportunities on Federal public lands in Unit 26C, which may be especially important for food security.

While the Eastern North Slope muskox population has increased to harvestable levels in adjacent Unit 26B, it is unknown how many muskoxen occupy Unit 26C. While muskox occur on the border of Units 26B and 26C, no surveys have been conducted in Unit 26C since 2009. It is possible more muskoxen occur in Unit 26C but they have not been documented. The regulation changes adopted in 2024 (WP24-38) provide more management flexibility for the Unit 26C muskox hunt and could allow limited harvest opportunity by Kaktovik residents.

OSM PRELIMINARY CONCLUSION

- Retain the Status Quo**
- Rescind the Closure**
- Modify the Closure** to clarify the regulatory language
- Defer Decision on the Closure or Take No Action**

The draft regulations read: (These are draft regulations written by staff to convey OSM's conclusion. OSM maintains leeway in revising the regulatory language below, if needed to most accurately reflect OSM's conclusion and the Boards motion on record.)

Unit 26C—Muskox

Unit 26C—1 muskox by Federal registration permit (FX2604) only. May be announced between July 15–Mar. 31

*Federal public lands are closed to the harvest of muskox, except by ~~residents of Kaktovik~~ **federally qualified subsistence users** hunting under these regulations.*

Justification

The documented Unit 26C muskox population remains extremely low, and federally qualified subsistence users have only been issued 1 Federal muskox permit in the past 22 years. The uncertainty of the muskox population within Unit 26C on Federal public lands does not currently support harvest. Retaining status quo will continue to provide for Federal subsistence uses of muskox when muskox population levels permit harvest.

Clarifying Federal public lands in Unit 26C are open to all federally qualified subsistence users eliminates confusion over whether or not a §804 restriction is in place.

LITERATURE CITED

- Abbot, S.M. 1991. Annual performance report of survey-inventory activities 1 July 1990- 30 June 1991: Muskox. Alaska Department of Fish and Game, Division of Wildlife Conservation, Federal Aid in Wildlife Restoration. Juneau, AK. Annual performance report, survey-inventory activities 1 July 1990-30 June 1991 - muskox (alaska.gov). Retrieved 30 August 2024.
- ADF&G. 2023. Muskox registration hunt RX110 to open in Unit 26B. Alaska Department of Fish and Game. Juneau, AK. <https://www.adfg.alaska.gov/static/applications/publicnotification/2023/releases/R3-AA-23-1106.pdf>. Retrieved: January 15, 2024.

ADF&G. 2024. Muskox hunting in Alaska: Harvest statistics. Alaska Department of Fish and Game. Muskox Hunting Harvest Statistics, Alaska Department of Fish and Game. Retrieved 1 October 2024.

ADLWD (Alaska Department of Labor and Workforce Development). 2024. Alaska population estimates by borough, census area, and census designated place (CDP), 2020 to 2023. <https://live.laborstats.alaska.gov/pop/estimates/data/TotalPopulationPlace.xlsx> . Retrieved: 30 August 2024.

Afema, J.A., K.B. Beckman, S.A. Arthur, K. Burek Huntington, and A.K. Mazet. 2017. Disease complexity in a declining muskox (*Ovibos moschatus*) Population. *Journal of Wildlife Diseases* 53(2):1-19.

ANWR. 2017. Summary of Activities: Arctic NWR – Prepared for the North Slope Regional Advisory Council, March 2017. Arctic NWR (ANWR), Fairbanks, AK. 17 pp.

FSB. 1992. Transcripts of the Federal Subsistence Board proceedings. April 6-10, 1992. Office of Subsistence Management, USFWS. Anchorage, AK.

FWS. 2015. Federal Subsistence Management harvest database. Accessed: August 10, 2015.

Gubser, N.J. 1965. *The Nunamiut Eskimos: Hunters of Caribou*. Yale. New Haven, CT.

Kutz, S., J. Rowell, J. Adamczewski, A. Gunn, C. Cuyler, et al. 2017. Muskox Health Ecology Symposium 2016: Gathering to Share Knowledge on “Umingmak” in a Time of Rapid Change. *Arctic* 70(2): 225-236.

Leacock, W. 2020. *Wildlife Biologist*. Personal communication: e-mail. Arctic National Wildlife Refuge. U.S. Fish and Wildlife Service. Fairbanks, AK.

Lenart, E.A. 2007. Units 26B and 26C muskox. Pages 49-69 in P. Harper, editor. Muskox management report of survey-inventory activities 1 July 2004-30 June 2006. Alaska Department of Fish and Game. Project 16.0. Juneau, AK.

Lenart, E.A. 2009. Units 26B and 26C muskox. Page 48-69 in P. Harper, editor. Muskox management report of survey and inventory activities 1 July 2006-30 June 2008. ADF&G. Project 16.0. Juneau, AK, USA.

Lenart, E.A. 2011. Units 26B and 26C muskox. Pages 63-84 in P. Harper, editor. Muskox management report of survey and inventory activities 1 July 2008 – 30 June 2010. Alaska Department of Fish and Game. Project 16.0. Juneau, AK.

Lenart, E.A. 2013. Units 26B and 26C muskox. Pages 75-97 in P. Harper, editor. Muskox management report of survey and inventory activities 1 July 2010 – 30 June 2012. Alaska Department of Fish and Game, Species Management Report ADF&G/DWC/SMR-2013-2, Juneau, AK.

Lenart, E.A. 2015. Units 26B and 26C muskox. Chapter 4, pages 4-1 through 4-26 in P. Harper and L.A. McCarthy, editors. Muskox management report of survey and inventory activities 1 July 2012 – 30 June 2014. Alaska Department of Fish and Game, Species Management Report ADF&G/DWC/SMR-2015-4, Juneau, AK.

Lenart, E.A. 2021. Muskox Management Report and Plan, Game Management Unit 26C and 26C Eastern North Slope: Report Period 1 July 2014-30 June 2019, and Plan Period 1 July 2019-30 June 2024. Alaska Department of Fish and Game, Species Management Report Plan ADF&G/DWC/SMR&P-2021-11, Juneau, AK.

- Lent, P.C. 1998. Alaska's indigenous muskoxen: A history. *Rangifer* 18 (3-4): 133-144.
- Lent, Peter C. 1999. *Muskoxen and their hunters*. University of Oklahoma Press. Norman, OK.
- Mason, R. 2015. Managing muskoxen in Northwest Alaska: from ice age relic to subsistence species, source of cash, and nuisance animal. Paper given at the 75th Society for Applied Anthropology Meeting: Continuity and Change. March 24-28, 2015. Pittsburgh, PA.
- Nelson, M. 2023. Alaska Department of Fish and Game Area Biologist. Personal communication: email. Fairbanks, AK.
- Nelson, M. 2024. Alaska Department of Fish and Game Area Biologist. Personal communication: email. Fairbanks, AK.
- Nelson, R. 1994. Seward Peninsula Cooperative Muskox Management Plan. Alaska Department of Fish and Game, Division of Wildlife Conservation, Nome, AK.
- NSRAC. 2017. Transcripts of the North Slope Subsistence Regional Advisory Council proceedings. March 15, 2017. Utqiagvik, AK. Office of Subsistence Management, USFWS. Anchorage, AK.
- NSRAC. 2023 Transcripts of the North Slope Subsistence Regional Advisory Council proceedings. February 23, 2023. Kaktovik, AK. Office of Subsistence Management, USFWS. Anchorage, AK.
- NSRAC. 2024. Transcripts of the North Slope Subsistence Regional Advisory Council proceedings. March 8, 2024. Anchorage, AK. Office of Subsistence Management, USFWS. Anchorage, AK.
- Pedersen, S., T.L. Haynes, and R.J. Wolfe. 1991. Historic and current use of muskox by North Slope residents, with specific reference to Kaktovik, Alaska. ADF&G, Div. of Subsistence Tech. Paper 206.
- Reynolds, P.E. 2008. Muskoxen in the Arctic NWR Game Management Unit 26C, 2007-2008. Arctic NWR, Fairbanks, AK.
- Reynolds, P.E. 2011. 2011 precalving census of muskoxen in Arctic NWR 26C and adjacent regions. Unpublished report. Arctic NWR, Fairbanks, AK.
- Reynolds, P. 2015. Wildlife biologist. Personal communication: email. Fairbanks, AK.
- Schmidt, J.H., T.S. Gorn. 2013. Possible secondary population-level effects of selective harvest of adult male muskoxen. *PLoS ONE* 8(6): e67493. doi:10.1371/journal.pone.0067493.
- Tomaselli, M., Gerlach, S.C., Kutz, S.J., Checkley S.L., and Community of Iqaluktutiaq, 2018. Iqaluktutiaq voices: Local perspectives about the importance of muskoxen, contemporary and traditional use practices. *Arctic* 71(1): 1-14.
- Wald, E. 2015. Wildlife biologist. Personal communication: phone. Arctic NWR, Fairbanks, AK.
- Wishart, R.P. 2004. A story about muskox: Some implications of Tetlit Gwich'in human-animal relationships. In: D.G. Anderson and M. Nuttall, eds. *Cultivating Arctic Landscapes: Knowing and Managing Animals in the Circumpolar North*. Berghahn Books. 254 pp.

APPENDIX 1



Federal Subsistence Board

Office of Subsistence Management
1011 East Tudor Road, MS 121
Anchorage, Alaska 99503 – 6199



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

June 20 2024

FOREST SERVICE

In Reply Refer To:
OSM.B24042

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
- To determine the number of permits issued annually
- To announce sex restrictions

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 Consultation Policies (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.

Sincerely,



Anthony Christianson
Chair

Arctic Wildlife Refuge Manager

4

cc: Federal Subsistence Board
Office of Subsistence Management
Benjamin Mulligan, Deputy Commissioner, Alaska Department of Fish and Game
Mark Burch, Wildlife Conservation Assistant Director, Alaska Department of Fish and
Game
Interagency Staff Committee
Administrative Record