WCR24-35 - Unit 12, east of the Nabesna River and the Nabesna Glacier and south of the Winter Trail running southeast from Pickeral Lake to the Canadian border closed to caribou hunting by non-federally qualified users (Chisana caribou)

Current State Regulation

Unit 12 −Caribou

Residents and Nonresidents: Unit 12, remainder	*No open season*

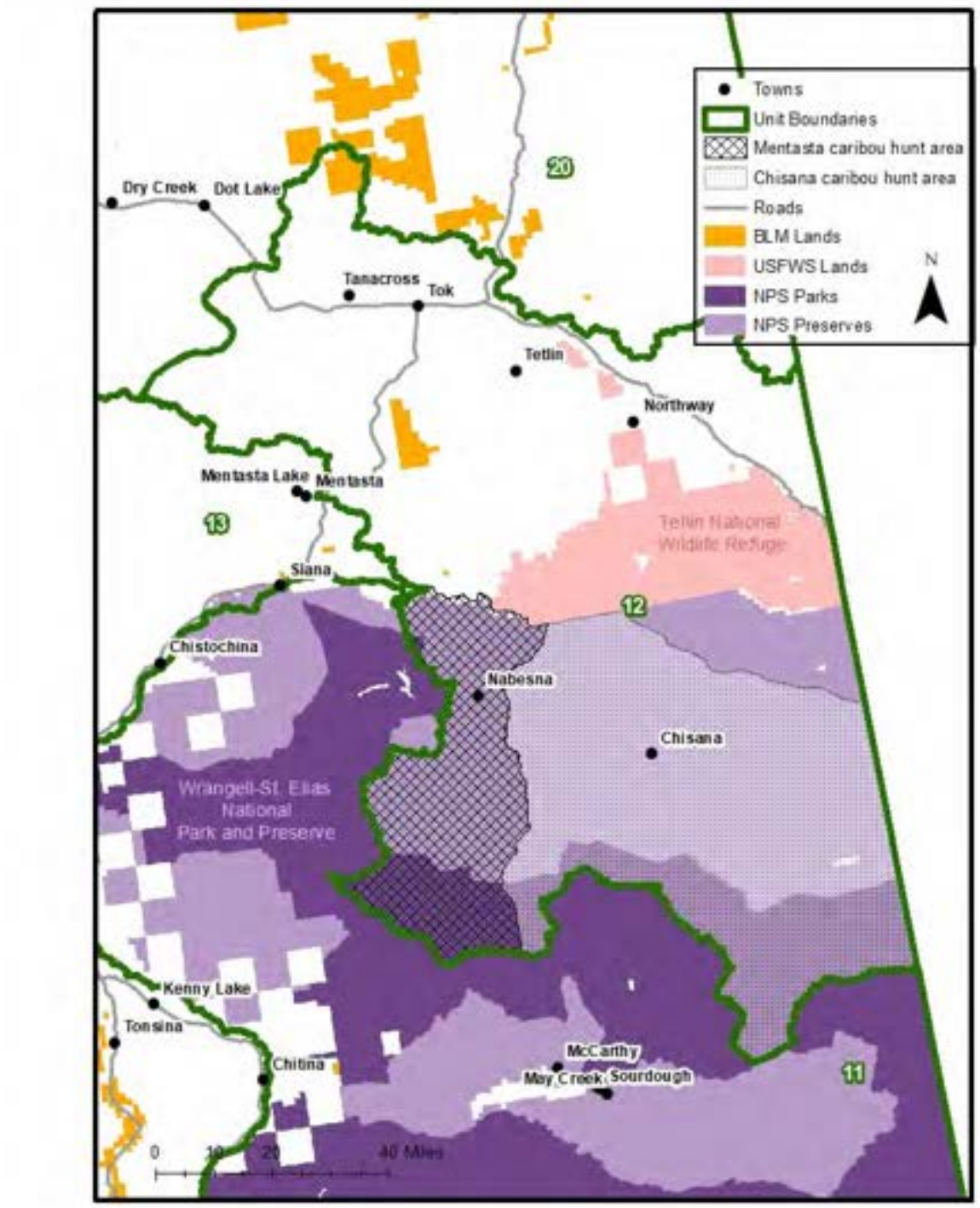
Regulatory Year Initiated: 1994, closed to all users; 2012, closed except by some Federally qualified subsistence users (§804 restriction); 2016, closed except by Federally qualified subsistence users.

Extent of Federal Public Lands/Waters

Federal public lands comprise approximately 61% of Unit 12 and consists of 48% National Park Service (NPS) managed lands, 11% U.S. Fish and Wildlife Service managed lands (FWS), and 2% Bureau of Land Management (BLM) managed lands (**Map 1**).

Federal public lands comprise nearly 100% of the closure area and consist of 100% NPS managed lands.

WCR24-35 - Unit 12, east of the Nabesna River and the Nabesna Glacier and south of the Winter Trail running southeast from Pickeral Lake to the Canadian border closed to caribou hunting by non-federally qualified users (Chisana caribou)



Map 1. Federal closures for caribou in Unit 12. The cross-hatched area targets the Mentasta Caribou Herd and is closed to all users. The stippled area targets the Chisana Caribou Herd and is closed to non-Federally qualified users.

Customary and Traditional Use Determination

Residents of Unit 12, Chistochina, Dot Lake, Healy Lake, and Mentasta Lake have a customary and traditional use determination for caribou in Unit 12.

Under the guidelines of Alaska National Interest Lands Conservation Act (ANILCA), National Park Service regulations identify qualified local rural subsistence users in National Parks and National Monuments by: (1) identifying Resident Zone Communities that include a significant concentration of people who have customarily and traditionally used subsistence resources on park lands; and (2) identifying and issuing subsistence use (13.440) permits to individuals residing outside of the Resident Zone Communities who have a personal or family history of subsistence use within the park or monument.

Wrangell-St. Elias National Park has 23 resident zone communities: Chisana, Chistochina, Chitina, Copper Center, Dot Lake, Gakona, Gakona Junction, Glennallen, Gulkana, Healy Lake, Kenny Lake, Lower Tonsina, McCarthy, Mentasta Lake, Nabesna, Northway, Slana, Tazlina, Tanacross, Tetlin, Tok, Tonsina, and Yakutat.

Regulatory History

Because of its small population size, the CCH has never supported a large harvest. Between 1989 and 1994 under State regulations, the harvest limit was one bull caribou and the annual harvest ranged between 16–34 animals (Gross 2005). The Federal subsistence regulation from 1990 to 1994 was one bull, Sept. 1- 20. By 1991, due to declining population numbers, the harvest was reduced through voluntary compliance by guides and local hunters. In 1994, the bull portion of the population declined below the Alaska Department of Fish and Game's (ADF&G) management objective and hunting of Chisana caribou was closed by both the Alaska Board of Game (BOG) and the Federal Subsistence Board (Board).

In 1994, the Board adopted Proposal P94-71, which closed Federal public lands east of the Nabesna River to the Canadian border to the harvest of caribou by all users to protect the declining CCH resulting in the following hunt areas (OSM 1994):

> *Unit 12 – That portion west of the Nabesna River within the drainages of Jack Creek, Platinum Creek, and Totschunda Creek.*
>
> *Unit 12 – That portion lying east of the Nabesna River and south of the Winter Trail running southeast from Pickerel Lake to the Canadian border.*
>
> *Unit 12 – remainder*

In 2000, the Board adopted Proposal P00-59, combining the hunt areas west and east of the Nabesna River into one hunt area to make regulations consistent for Unit 12 (OSM 2000):

> *Unit 12 – That portion of the Nabesna River drainage within the Wrangell-St. Elias National Park and Preserve and all Federal lands south of the Winter Trail running southeast from Pickerel Lake to the Canadian border.*

In 2002, the CCH was designated as "Specially Protected" under the Yukon Wildlife Act, which prohibits all licensed harvest of the CCH in Canada and requires a regulation change to initiate a harvest.

In 2010, the BOG approved to establish a joint State/Federal drawing permit for the CCH. This hunt would follow guidelines set in the Management Plan for the CCH. The hunt was authorized in the portion of Unit 12 within the White River drainage and that portion within the Chisana River drainage upstream from the winter trail that runs southeast from Pickerel Lake to the Canadian Border. However, on Federal public lands, which comprised the vast majority of that hunt area, the Federal closure superseded the existing State regulation and thus Federal public lands remained closed to hunting of the CCH under State regulations. The Board considered Proposal WP10-104 that requested establishment of a joint Federal/State draw permit for the CCH in Unit 12 with a harvest limit of one bull and a season of Sept. 1–Sept. 30. The Board deferred Proposal WP10-104 until more information could be gathered.

In 2012, the Board considered proposals WP10-104 and WP12-65/66 (OSM 2012a). Proposal WP10-104 requested establishment of a joint Federal/State draw permit for the CCH in Unit 12 with a harvest limit of one bull and a season of Sept. 1–Sept. 30. Proposal WP12-65 requested establishment of a Federal registration hunt for the CCH with a harvest limit of one bull and a season of Aug. 10 – Sept. 30, while WP12-66 requested establishment of a Federal registration hunt with a harvest limit of one bull and a season of Sept. 1–Sept. 30, with the hunt restricted to Federal public lands in Unit 12 east of the Nabesna River and the Nabesna Glacier. OSM noted in its justification for WP12-66 that restricting the hunt west of the Nabesna River and Nabesna Glacier would protect the Mentasta Caribou Herd (MECH) with minimal impact to subsistence hunters wanting to harvest caribou from the CCH (OSM 2012a). The Board took no action on WP10-104 and WP12-65 and adopted WP12-66 with modification to list the communities allowed to harvest caribou in Unit 12, that portion east of the Nabesna River and Nabesna Glacier and south of the Winter Trail running southeast from Pickerel Lake to the Canadian border: Northway, Mentasta, Tetlin, Tok, Chisana, and Chistochina. The list of communities was based on an ANILCA §804 analysis. The authority to manage the Federal hunt was delegated to the Wrangell-St. Elias National Park and Preserve (WRST) Superintendent. The CCH was considered stable in 2010 and the bull:cow and calf:cow ratios were above the minimums set by the Draft Management Plan, which was finalized in the fall of 2011 (OSM 2012a, Chisana Caribou Herd Working Group 2012). As a result of the Board's action on WP12-66, the areas west and east of the Nabesna River were once again split out into two areas (OSM 2012a).

> *Unit 12 – that portion within the Wrangell-St-Elias National Park that lies west of the Nabesna River and the Nabesna Glacier.*

WCR24-35 - Unit 12, east of the Nabesna River and the Nabesna Glacier and south of the Winter Trail running southeast from Pickeral Lake to the Canadian border closed to caribou hunting by non-federally qualified users (Chisana caribou)

> *Unit 12 – that portion east of the Nabesna River and the Nabesna Glacier and south of the Winter Trail running southeast from Pickerel Lake to the Canadian border.*

Also in 2012, the Board adopted Proposal WP12-68, submitted by the Cheesh'na Tribal Council, which requested the residents of Chistochina be added to the Unit 12 caribou customary and traditional use determination (OSM 2012b).

In 2014, the Board adopted Proposal WP14-15/45 to expand the list of communities eligible to participate in the caribou hunt for the CCH under the ANILCA §804 analysis to also include residents of the hunt area and those living in Unit 12 along the Nabesna Road (mileposts 25-46) (OSM 2014a).

The Board also adopted Proposal WP14-49 with modification to change the fall season dates for the CCH hunt from Sept. 1-Sept. 30 to Aug. 10-Sept. 30, so that the bulls would be less likely to be in the rut, and thus, ensure the quality of the meat (OSM 2014b).

In 2016, the Board adopted Proposal WP16-60 opening Federal public lands in Unit 12, south of the Winter Trail and east of the Nabesna River and Glacier to all Federally qualified subsistence users. Permits issued from 2012 to 2014 and the number of animals harvested had been below quotas, allowing expansion of harvest opportunity for all Federally qualified subsistence users without concerns for overharvest (OSM 2016).

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, like 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 2020, the Board maintained status quo for closure review WCR20-42 due to continued conservation concerns. This closure review was a combined review of the closure to caribou hunting by all users in Unit 12 targeting the MECH within that portion of Wrangell-St. Elias National Park and Preserve that is west of the Nabesna River and Glacier and the closure to caribou hunting, except Federally qualified subsistence users targeting the CCH in Unit 12, east of the Nabesna River and Nabesna Glacier and south of the Winter Trail for.

In 2022, WRST issued an emergency special action closing the CCH caribou hunt because recruitment had fallen below the minimum threshold identified in the CCH management plan for sustainable harvest (Bobowski 2022).

Closure last reviewed: 2020 – WCR20-42

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…*

The Board adopted Proposal P94-71, which closed the CCH hunt to all users based upon the recommendation from the Eastern Interior Alaska Subsistence Regional Advisory Council (EI Council) and OSM that the closure was necessary to assure the continued viability of this herd. The Board's reauthorization of harvest limits in this area would be aided by the caribou management plan that NPS was developing with input from the interested agencies and affected parties including Regional Advisory Councils (OSM 1994).

In 2012, the Board modified the closure with the adoption of Proposal WP12-66 with modification to delegate authority to manage the Federal hunt to the WRST Superintendent. The CCH was considered stable in 2010 and the bull:cow and calf:cow ratios were above the minimums set by the Draft Management Plan, which was finalized in the fall of 2011. The Board concurred with The EI Council that while the harvest surplus is small, it should not pose a conservation concern with good in-season management. The Board also noted that the remoteness of the herd will limit access, but the proposal will provide increased subsistence opportunity.

In 2016, the Board modified the closure with the adoption of Proposal WP16-60 opening Federal public lands in Unit 12, south of the Winter Trail and east of the Nabesna River and Glacier to all Federally qualified subsistence users. Permits issued from 2012 to 2014 and the number of animals harvested had been below quotas, allowing expansion of harvest opportunity for all Federally qualified subsistence users without concerns for overharvest (OSM 2016)

Council Recommendation for Original Closure:

The Council concluded that the CCH should be protected from all hunting to stop the population decrease (OSM 1994). The justification for their decision was based on the following:

- Over the past 3 years (1990-1993) the CCH population had declined from 1,850 to 900 animals.
- The fall calf:cow ratio was below that which is required to balance the natural mortality of adults (≈15 %) for at least 4 consecutive years
- The potential for overharvest of this small herd was considered high since they cross international boundaries and are subject to an unknown amount of unreported harvest.

In 2012, the EI Council supported WP12-66 with modification to delegate authority to manage the Federal hunt to the WRST Superintendent. The EI Council stated that while the harvest surplus is small, it should not pose a conservation concern with good in-season management.

In 2016, The EI Council supported WP16-60 as modified by OSM. The EI Council stated that allowing all qualified Federal users in the hunt area to harvest the Chisana Caribou Herd would provide subsistence opportunity for these communities but only add about 200 people to the eligible list and therefore not cause any increase in competition for the resource. The EI Council further stated that there does not appear to be a conservation concern and it would be beneficial by allowing more opportunity for those who do wish to make the effort to hunt this herd

State Recommendation for Original Closure:

The ADF&G opposed this closure to caribou hunting of the CCH. ADF&G stated this Federal action is inappropriate and, as written, will create an undue administrative burden to management of the CCH.

In 2012, ADF&G supported portions of WP12-65, 66 and deferred WP10-104 with modification. The state recommended following the guidelines for a limited harvest of Chisana caribou shared between Alaska and Canada as laid out in the management plan and further recommended using a joint State/Federal permit to monitor harvest in Alaska. A joint Federal/State drawing permit would ensure continued cooperation between State and Federal managers who worked together to develop the herd management plan. If the harvest is limited to federal subsistence users only, a registration hunt should be used, and the season closed if the quota is met. Based on harvest records since the 1970s, the remote nature (aircraft access only), the likelihood of harvesting the quota is unlikely. A short reporting period should be adequate to ensure overharvest does not occur.

In 2016, ADF&G supported WP16-60 with OSM modification and the proposal was considered on the consensus agenda.

Biological Background

The ranges of the Mentasta, Chisana, and Nelchina caribou herds overlap in Unit 12 (**Map 2**). The Nelchina Caribou Heard (NCH) was declining and at the lower end of the State population objectives in 2018 (ADF&G 2018, Hatcher 2018, pers. comm.). In 2022, the NCH population had dropped to 21,000, well below the lower end of the State's fall population objective of 35,000 to 40,000 Nelchina caribou. Multiple Nelchina caribou hunts were closed early by Emergency orders, 04-02-22, 04-03-22, 04-06-22, and 04-08-22, due to harvest quotas being reached quickly (ADF&G 2022). However, since this closure is not associated with the NCH, the NCH is not considered further in this analysis.

The MECH occurs primarily in the western and northern portion of Unit 12 and the northern portion of Unit 11 within Wrangell-St. Elias National Park and Preserve (WRST). Since the overlap between the CCH and MECH is minimal, the MECH is be considered in a separate closure review analysis (WCR24-42).

The CCH is a small herd that occurs on the Klutan Plateau and near the headwaters of the White River in southwest Yukon Territory, Canada and east central Alaska in the southeastern portion of Unit 12. During the summer the CCH spends most of their time in Alaska primarily on Federal public lands within the WRST, although there is some overlap with Tetlin National Wildlife Refuge (NWR) and adjacent State lands. During the winter the CCH spends most of their time in the Yukon Territory, Canada on the Kluane Wildlife Sanctuary and the Asi Keyi Natural Environmental Park. Since this international herd ranges across multiple jurisdictions, multiple land agencies are involved and responsible for the management of the CCH.

The CCH is a genetically distinct population (Zittlau et al. 2000, Zittlau 2004). In Canada, the CCH is classified as woodland caribou, whereas in Alaska the CCH is classified a barren-ground caribou (Miller 2003). Genetic analysis of the CCH found large genetic distances between the CCH and the other five adjacent herds, which suggests that the herd has been unique for thousands of years (Zittlau et al. 2000). Behaviorally, the CCH is typical of other mountain herds, particularly with respect to calving females, where, rather than aggregating in certain areas like barren-ground caribou, they disperse up in elevation away from other calving females as an anti-predator strategy (Farnell and Gardner 2002). Occasionally the CCH mix with the Nelchina and Mentasta caribou herds during the winter in Alaska and in the vicinity of Beaver Creek, Yukon Territory, Canada. For example in 1989/1990, a large portion of the CCH shifted northeast into the upper and middle portions of Beaver Creek, where some mixing between the CCH, NCH, and MECH occurred (Lieb et al. 1994).

In Canada, the Canadian Wildlife Service (CWS) has designated the Northern Mountain Caribou population, which includes the CCH, as a species of "Special Concern" under the Canadian Federal Species at Risk Act (SARA). In 2002, the CCH was designated as "Specially Protected" under the Yukon Wildlife Act, which prohibits all licensed harvest of the CCH in Canada and requires a regulation change to initiate a harvest. A cooperative draft CCH Management Plan and Yukon CCH Recovery Plan were developed for the CCH in 2001 and 2002, respectively. In 2009, a working group consisting of members from the Government of Yukon, ADF&G, White River First Nation, Kluane First Nation, the NPS, and the USFWS developed a five-year Management Plan for the CCH (Chisana Caribou Herd Working Group 2012). The working group is now in the process of updating the plan (Cellarius 2022, pers. comm.).

The CCH Management Plan guidelines for harvest are as follows:

- A bull:cow ratio greater than 35 bulls: 100 cows.
- A calf:cow ratio greater than 15 calves: 100 cows based on a 3-year average, and
- A stable or increasing population trend.

The CCH Management Plan guidelines for harvest include a maximum harvest allocation of 2% of the herd size, a bull-only harvest, and an allocation equally distributed between Yukon Territory and Alaska (Chisana Caribou Herd Working Group 2012).

Information about the CCH prior to 1970s is limited. The population estimate from the first survey conducted in 1977 was about 1,000 caribou (Kellyhouse 1990). In 1988, the CCH reached a peak of 1,900 caribou (Kellyhouse 1990) and then declined to an estimated low of 315 in 2002 (Farnell and Gardner 2002). Since 1988, a majority of the CCH have been located east of the Nabesna River (Bentzen 2011). Adverse weather conditions, poor habitat, predation, and harvest pressure were factors for the low calf recruitment and high adult mortality associated with the 1990s decline (Farnell and Gardiner 2002).

From 2003-2006, a recovery effort, which included an intensive captive rearing program to increase recruitment and calf survival, was conducted by the U.S. Geological Survey and CWS. The recovery effort involved capturing pregnant cows and enclosing them in holding pens during the last weeks of gestation and for a few weeks following calving. An intensive radio-collaring program was also initiated in 2003 along with the captive rearing program, which resulted in more reliable population and composition data. Therefore, sex and age composition and herd size estimates prior to 2003 are not directly comparable to those after 2003 (**Table 2**) (Bentzen 2011, 2013; Gross 2015, Putera 2017b).

In 2010, the CCH population was stable at 696 animals and the 3-year average for the bull:cow and calf:cow ratios were 45 bulls:100 cows and 20 calves:100 cows (Bentzen 2011, Gross 2015). 2010 was the last year a population estimate was determined, but composition sample sizes from 2011-2021 ranged from 373-631 caribou (**Table 2**). The 2017 bull:cow ratio of 32 bulls:100 cows was below the minimum threshold of 35 bulls:100 cows set by the CCH Management Plan, triggering a meeting of the management authorities. This occurred as part of the conversations regarding updating the plan, and the consensus of the group was that a 3-year running average was a more appropriate threshold vs the minimum yearly threshold set by the Management Plan, therefore the 2018 hunt could occur (Cellarius 2018a). From 2018-2021, the bull:cow ratio was above the threshold averaging 42 bulls:100 cows. However, the calf:cow ratio averaged 14 calves:100 cows, which was below the minimum threshold set by the Management Plan, resulting in the closure of the 2022 CCH hunt (Cellarius 2022, pers. comm., Chisana Caribou Herd Working Group, 2012).

In 2020, 11 GPS/Iridium and 17 VHF radio collars were deployed on the Alaska side of the CCH range, and Yukon Environment planned to deploy collars on the Yukon side in 2021 (Putera 2021). As of October 2022, there were 42 active collars in the herd, a mix of 17 GPS/Iridium collars and 25 VHF collars (Cameron 2022).

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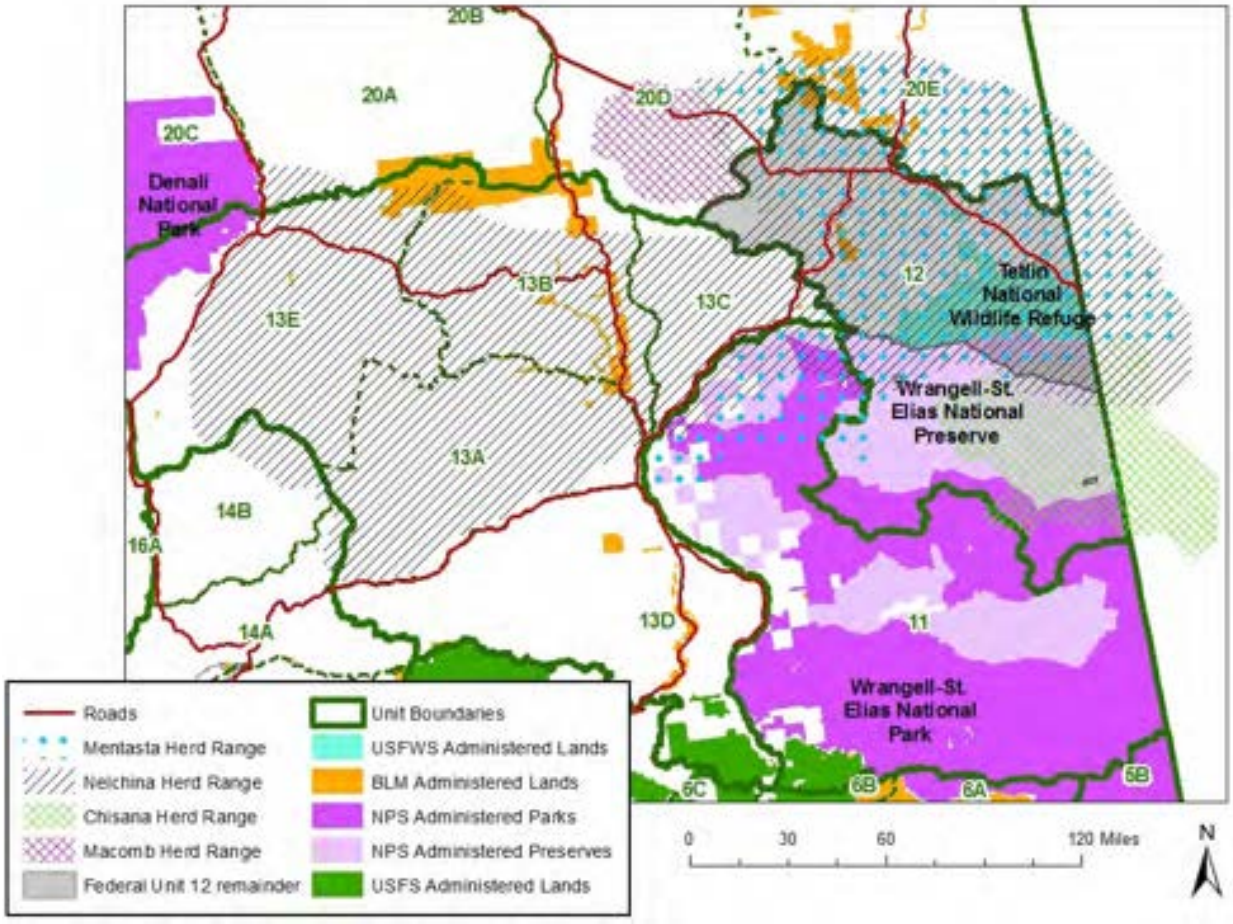

Map 2. Ranges of the Nelchina, Mentasta, Macomb, and Chisana caribou herds.

Table 2. Fall sex and age composition of the Chisana Caribou Herd, 2000-2021 (Chisana Caribou Herd Working Group 2012; Gross 2015; Putera 2014, 2017b, 2022; Taylor 2018; Cellarius 2022, pers. comm.; Cutting 2022 pers. comm.).

Regulatory Year	Total Bulls:100 Cows	Calves: 100 Cows	Calves (%)	Cows (%)	Bulls (%)	Composition Sample Size /Observed	Estimated Herd Size
2000[a]	20	6	5	80	15	412	425
2001[a]	23	4	3	79	18	356	375
2002[a]	25	13	10	72	18	258	315
2003[b]	37	25	15	62	23	603	720
2005[b]	46	23	14	59	27	646	706
2006[b]	48	21	13	59	28	628	-[c]
2007[b]	50	13	8	61	30	719	766
2008	44	21	13	61	27	532	-
2009	48	15	9	61	30	505	-
2010	42	23	14	61	25	622	697
2011	38	16	14	66	25	542	-
2013	49	16	-	-	-	631	-
2014	40	23	-	-	-	528	-
2015	40	19	-	-	-	399	-
2016	46	28	-	-	-	534	-
2017	32	21	-	-	-	533	-
2018	39	13	9	65	25	373	-
2019	43	17	11	63	27	445	-
2020[d]	-	-	-	-	-	-	-
2021	45	12	8	64	29	420	-

[a] Surveys conducted by ADF&G based on a visual search of the herd range.

[b] USGS survey results.

[c] Not available.

[d] No composition count

Harvest History

The CCH has historically been an important food source for the Athabascans of Alaska and the First Nations of the Yukon in Canada (Gross 2007). During the early to mid-1900s, the CCH was used as a subsistence food source by the Ahtna and Upper Tanana Athabascans. Although subsistence hunting has declined in recent years, the CCH continues to be an important aspect of Upper Tanana and Ahtna Athabascan culture. Subsistence use of the CCH declined after 1929. For the last 60 years, few people in Alaska or the Yukon have depended on the CCH as a food source (Bentzen 2011), although First Nation members continued to harvest from the CCH in the Yukon through the 1990s.

In addition to providing an important subsistence resource, in the late 1920s, Chisana caribou became economically important to local hunters as guided hunting became common in the Chisana area. Caribou from the Chisana herd were harvested by nonresident hunters guided by local guides until 1994, when the CCH closed under State and Federal regulations. Primarily five guide/outfitters hunted the herd (4 operated in Alaska and 1 in the Yukon). Bulls were desired by sport hunters, because of their large stature. In 1989 and 1990 the reported harvest of Chisana caribou in the Yukon was 18 and 11 animals, and in Alaska was 34 and 34 animals, respectively (Gross 2005). From 1990 to 1994, 43% of the hunters participating in the CCH hunt were nonresidents, who were responsible for 58% of the CCH harvest. Local subsistence users accounted for only 9% of the CCH harvest during that time period (Gross 2005).

Gross (2005) also reported that the estimated unreported harvest of Chisana caribou between 1989 and 2002 ranged from 1-20 in the Yukon and 1-3 caribou in Alaska each year. After 2001, Yukon First Nation members voluntarily stopped harvesting Chisana caribou and there continues to be no legal harvest of Chisana caribou in the Yukon. Additionally, no legal harvest of CCH occurred in Alaska between 1994 and 2012. The hunt was closed under State and Federal regulations between 1994 and 2010. The hunt remained closed under Federal regulations from 2010 and 2012 but limited harvest of the CCH consistent with the herd's management plan was authorized by the State in 2010. A concurrent proposal, WP10-104, was submitted to the Board but was deferred in 2010.

At its January 2012 meeting, the Board authorized a limited harvest of the CCH consistent with the CCH Management Plan. The Board delegated authority to the WRST Superintendent to open and close the season and to announce the harvest quota, the number of permits to be issued and the reporting period. Based on the estimated population size and the guidance in the management plan, the harvest quota for the 2012 hunt was set at seven animals.

The NPS met with participating communities, associated tribal governments and other stakeholders to ask for their input regarding permit distribution. As a result, a decision was made to allocate two permits to each of the four eligible communities with Federally recognized tribal governments (Chistochina, Mentasta Lake, Northway, and Tetlin) with the understanding that all community residents, not just tribal members, would be considered for permit distribution. Any remaining permits would be made available to Tok and Chisana residents on a first come-first served basis. The number of permits was limited to fourteen and the reporting period requirement was set at within three days of harvest. However, after several years, WRST learned that the remote location for this hunt resulted in few permits being issued. Therefore, permits are issued on a first-come, first-served basis, and WRST has not exercised its authority to limit the number of permits issued (Celarius 2022, pers. comm.).

Between 2012 and 2021, only eight permits have been issued per year on average, a total of fourteen Chisana caribou have been taken, and success rates have averaged < 35% per year (**Table 3**, FWS 2022). For the 2022 season, the WRST superintendent issued an Emergency Special Action setting the harvest quota to zero due to the 3-year rolling calf:100 cow ratio dropping to 14 calves:100 cows

(Bobowski 2022). The threshold set in the CCH Management Plan guidelines for harvest is 15 calves:100 cows.

Table 3. Summary of the Chisana caribou harvest in the southeast portion of Unit 12 (FC1205) (FWS 2022).

Year	Permits Issued (FC1205)	Individuals Hunting (Permits used)	Caribou Harvest	Success Rate (%)[a]
2012	9	8	2	25.0
2013	9	7	3	42.9
2014	11	8	2	25.0
2015	11	7	0	0
2016	8	8	1	12.5
2017	9	3	0	0
2018	6	2	2	100.0
2019	4	3	1	33.3
2020	7	4	3	75
2021	5	1	0	0
2022[b]	0	0	0	0

[a] Success rate is calculated based on the number of individuals hunting, not total permits issued.
[b] Hunt was closed for the entire 2022 season.

Effects

The CCH population has remained low with poor composition metrics. In 2022 an emergency special action set the harvest quota at zero due to low calf:cow ratios, effectively closing the 2022 hunt. Sustainable harvest is already relatively low under the current closure to caribou harvest by non-Federally qualified users. Rescinding the closure would increase harvest opportunities for non-Federally qualified users, but could lead to unsustainable harvest levels if the State opened a drawing permit hunt.

Retaining status quo for this closure would continue to provide for subsistence harvest opportunity when herd metrics allow for a sustainable harvest. Retaining status quo would also protect the CCH from overharvest and continue to provide management flexibility and the ability to quickly respond to changing herd conditions by maintaining the WRST Superintendent's delegated authority to open and close the season, and to announce the harvest quota, the number of permits issued, and the reporting period.

The closure could be modified to include all user groups. This would eliminate all hunting pressure on the CCH within the closure area. However, this would also preclude subsistence harvest opportunity by removing the WRST Superintendent's ability to announce harvest quotas and issue permits to Federally qualified subsistence users when the CCH meets the criteria outlined in the CCH Management Plan guidelines for harvest.

OSM PRELIMINARY CONCLUSION:

X Retain the Status Quo
_ Rescind the Closure
_ Modify the closure to . . .
_ Defer Decision on the Closure or Take No Action

Justification

While the 2022 CCH hunt was closed due to conservation concerns, the WRST Superintendent has Delegated Authority to open and close the season, and to announce the harvest quota, the number of permits issued and the reporting period. Thus, allowing flexibility for in-season management based on the current status of the herd optimizes subsistence hunting opportunity and conservation of the CCH. This is also consistent with recommendations and management guidelines in the CCH Management Plan (Chisana Caribou Herd Working Group 2012).

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WRITTEN PUBLIC COMMENTS

Wrangell-St. Elias National Park
Subsistence Resource Commission
P.O. Box 439
Mile 106.8 Richardson Hwy.
Copper Center, AK 99573

March 1, 2023

Anthony Christianson, Chair
Federal Subsistence Board
U.S. Fish and Wildlife Service
Office of Subsistence Management
1011 E. Tudor Road, MS-121
Anchorage, AK 99503

Subject: Comments on Wildlife Closure Reviews for Caribou in Unit 12

Dear Mr. Christianson:

The Wrangell-St. Elias National Park Subsistence Resource Commission (SRC) met in Copper Center, Alaska, on February 23, 2023. The commission is a federal advisory committee that represents subsistence users of federal lands within Wrangell-St. Elias National Park and Preserve. At this meeting, the SRC reviewed two wildlife closure reviews for caribou in Unit 12 and would like to provide the following comments.

WCR24-35 Portion of Unit 12 closed to caribou hunting by non-federally qualified subsistence users (Chisana caribou). The Wrangell-St. Elias National Park Subsistence Resource Commission unanimously supported maintaining the closure. With the low calf population, there is justification for only having the area open to federal users. The Wrangell-St. Elias superintendent has a delegation of authority to manage the federal hunt if needed. Authorizing state harvest would increase competition.

WCR24-42 Portion of Unit 12 closed to caribou hunting by all users (Mentasta caribou). The Wrangell-St. Elias National Park Subsistence Resource Commission unanimously supported maintaining the closure. There is a conservation concern for the Mentasta caribou herd due to the low population numbers.

Thank you for the opportunity to comment.

Sincerely,

Susan L. Entsminger

Susan L. Entsminger
Chair

Chair: Susan L. Entsminger; Members: Mike Christenson, Mike Cronk, Don Horrell, Suzanne McCarthy, Kaleb Rowland, Daniel E. Stevens, and Gloria Stickwan

cc: Superintendent, Wrangell-St. Elias National Park and Preserve
Eastern Interior Alaska Subsistence Regional Advisory Council
Southcentral Alaska Subsistence Regional Advisory Council

Ahtna Intertribal Resource Commission

PO Box 613 - Glennallen, Alaska 99588
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connect@ahtnatribal.org

June 30, 2023

Federal Subsistence Board
Office of Subsistence Management
Attn: Theo Matuskowitz
1011 E. Tudor Rd. MS-121
Anchorage, AK 99503-6199

Submitted to: subsistence@fws.gov

Re: Written comments on WP24-09 and Federal Wildlife Closure Reviews WCR24-35 and WCR 24-42

Dear Chairman Anthony Christianson:

The Ahtna Intertribal Resource Commission (AITRC) serves the eight Federally recognized Tribal governments and the two Alaska Native Corporations within the Ahtna Territory, including portions of Game Management Units 11, 12, and 13.

WP24-09 Nelchina Caribou Herd Delegation of Authority Changes and Changes in Harvest Limit

AITRC supports Wildlife Proposal 24-09 submitted by the Bureau of Land Management's Glennallen Field Office. This proposal would (1) relocate the current delegated authority found in unit-specific caribou hunting regulations to the Delegation of Authority Letter, (2) expand the Scope of Glennallen Field Office Manager's Delegated Authority, and (3) revise the harvest limit from "2 caribou" to "up to 2 caribou," given the ongoing conservation concerns associated with the Nelchina Caribou Herd.

Relocating the delegation authority language from harvest regulations to the Delegation Letter seems to be a matter of housekeeping and consistency, which AITRC supports. We also support AITRC being specifically listed in the Delegation of Authority Letter to further advance the cooperative federal management partnership between AITRC and the US Department of the Interior in 2016.

AITRC agrees with the proponent of WP24-09 that the scope of the Federal In-Season Manager should be expanded to including closing, opening, and adjusting season dates, as well as setting harvest limits, including any sex restrictions or to set any needed permit condition. These are important management tools that the BLM Field Office Manager should have available to

respond to fluctuating Nelchina Caribou Herd population dynamics and any potential conservation crisis. Existing authorities found in the harvest regulations are inadequate to support responsible conservation management and to ensure the continuation of Federal subsistence uses when possible, during periods of conservation concern.

AITRC also supports, albeit reluctantly, the requested revision of the harvest limits for Nelchina caribou from 2 caribou to "up to 2 caribou" for times of conservation concern given the reconnection that the population status may not support a bag limit of two animals and that in order to continue Federal subsistence uses, it may be necessary to limit the harvest limit to one bull caribou until such time that the herd's population is rebuilt to be within management objective.

Chisana Caribou Herd Wildlife Closure Review WCR24-35

Federal public lands are closed to the harvest of Chisana caribou except by Federally qualified subsistence users. Presently, the hunting of Chisana caribou is limited to the Federally qualified rural residents of Unit 12, Chistochina, Dot Lake, Healy Lake, and Mentasta Lake.

AITRC supports the continuation of the closure of caribou hunting of the Chisana Caribou Herd to all but federally qualified subsistence users. Given the small size of the Chisana caribou population and the negative customary and traditional use determination established by the Alaska Board of Game, it would be detrimental to Federal subsistence uses to open up caribou hunting to sport and recreational hunters at this time.

Mentasta Caribou Herd Wildlife Closure Review WCR24-42

All hunting of the Mentasta Caribou Herd is prohibited on Federal public lands. However, in 2022, the Federal Subsistence Board approved WP22-35, as amended, which established a may be announced Federal subsistence hunt in Game Management Unit 11 for bull caribou when Nelchina caribou are present in sufficient abundance to warrant an opportunity. While the present population status of the Nelchina Caribou Herd may be insufficient to support a limited federal subsistence hunt within the range of the Mentasta Caribou Herd at this time, AITRC supports a revision of the current Wildlife Closure of caribou hunting in Unit 11 to allow for this newly established "May be announced" hunt.

Sincerely,

Karen Linnell
Executive Director AITRC

WCR24-42 - Unit 12, within Wrangell-St. Elias National Preserve that lies west of the Nabesna River and the Nabesna Glacier closed to caribou hunting by all users (Mentasta caribou)

WCR24-42 Executive Summary	
General Description	Wildlife Closure Review WCR24-42 reviews the closure to caribou hunting by all users in the southwestern portion of Unit 12. The closure targets the Mentasta Caribou Herd and applies to all users.
Current Regulation	**Unit 12−Caribou** *Unit 12, remainder – Residents and Nonresidents.* — *No Federal open season*
OSM Preliminary Conclusion	**Retain the Status Quo**
Southcentral Subsistence Regional Advisory Council	
Eastern Interior Subsistence Regional Advisory Council	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	**1–Support, 1–Recommend a modification**

FEDERAL WILDLIFE CLOSURE REVIEW
WCR24-42

Issue: Wildlife Closure Review WCR24-42 reviews the closure to caribou hunting by all users in the southwestern portion of Unit 12. The closure targets the Mentasta Caribou Herd and applies to all users.

Closure Location and Species: Unit 12, that portion within the Wrangell-St. Elias National Park that lies west of the Nabesna River and the Nabesna Glacier – Caribou (**Map 1**).

Current Federal Regulation

Unit 12−Caribou

Unit 12—that portion within the Wrangell-St. Elias National Park and Preserve[1] that lies west of the Nabesna River and the Nabesna Glacier.	*No Federal open season*
All hunting of caribou is prohibited on Federal public lands.	

[1]The Code of Federal Regulations (CFR) only includes Wrangell-St. Elias (WRST) National Park in this regulation and not WRST National Preserve. This is an error that will be corrected administratively as soon as possible.

Closure Dates: Year-round

Current State Regulation

Unit 12 −Caribou

Unit 12, remainder – Residents and Nonresidents	*No open season*

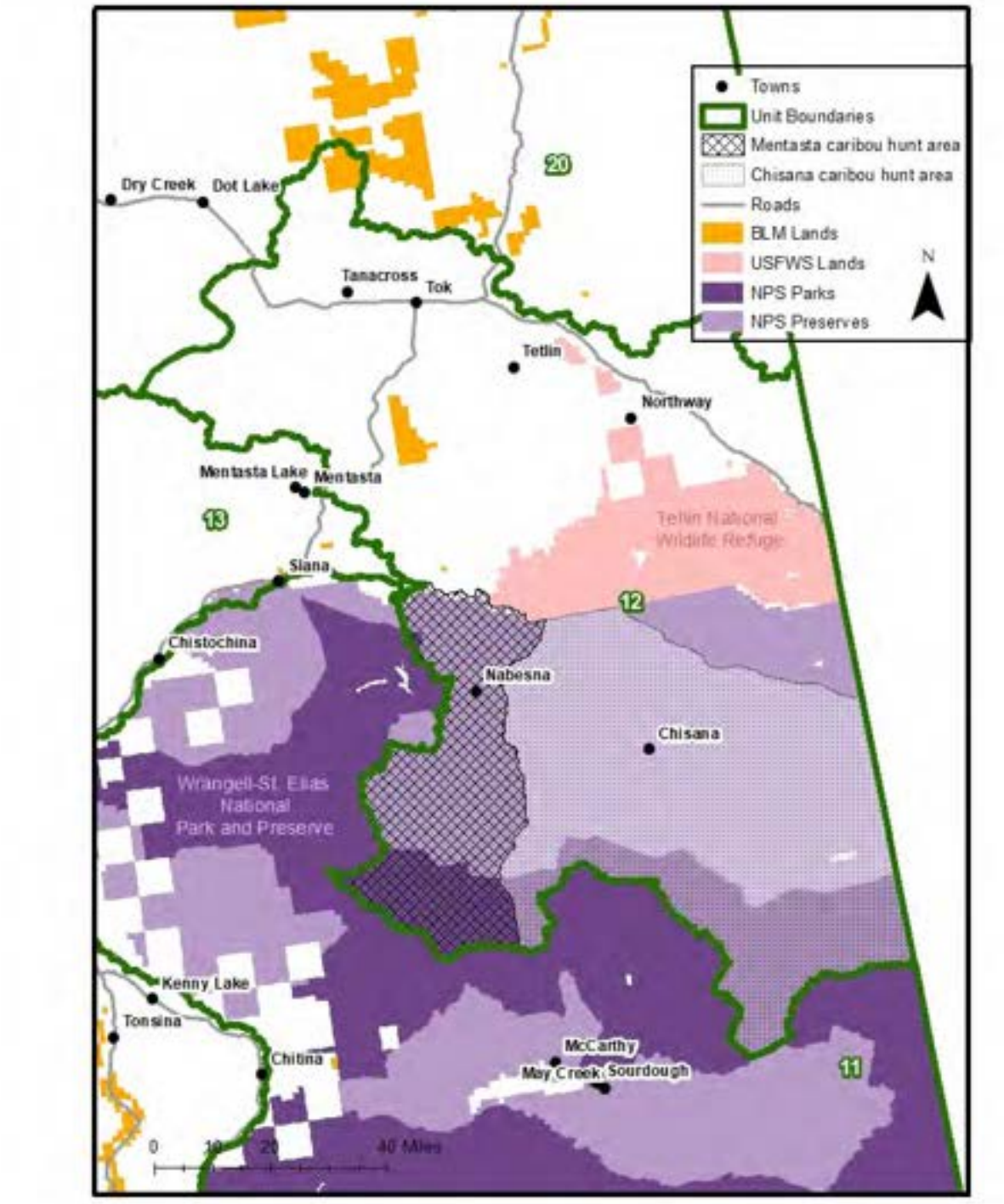
Regulatory Year Initiated: 1993

The original closure was for: *that portion west of the Nabesna River within the drainages of Jack Creek, Platinum Creek, and Totschunda Creek - The taking of caribou is prohibited on public lands.*

Extent of Federal Public Lands

Federal public lands comprise approximately 61% of Unit 12 and consists of 48% National Park Service (NPS) managed lands, 11% U.S. Fish and Wildlife Service managed lands (FWS), and 2% Bureau of Land Management (BLM) managed lands.

Federal public lands comprise nearly 100% of the closure area and consist 100% of NPS managed lands (**Map 1**).



Map 1. Federal closure for caribou in Unit 12. The cross-hatched area targets the Mentasta caribou herd and is closed to all users. The stippled area targets the Chisana caribou herd and is closed to non-Federally qualified users.

Customary and Traditional Use Determination

Residents of Unit 12, Chistochina, Dot Lake, Healy Lake, and Mentasta Lake have a customary and traditional use determination for caribou in Unit 12.
Under the guidelines of Alaska National Interest Lands Conservation Act (ANILCA), National Park Service regulations identify qualified local rural subsistence users in National Parks and National Monuments by: (1) identifying Resident Zone Communities that include a significant concentration of people who have customarily and traditionally used subsistence resources on park lands; and (2) identifying and issuing subsistence use (13.440) permits to individuals residing outside of the Resident Zone Communities who have a personal or family history of subsistence use within the park or monument.
Wrangell-St. Elias National Park has 23 resident zone communities: Chisana, Chistochina, Chitina, Copper Center, Dot Lake, Gakona, Gakona Junction, Glennallen, Gulkana, Healy Lake, Kenny Lake, Lower Tonsina, McCarthy, Mentasta Lake, Nabesna, Northway, Slana, Tazlina, Tanacross, Tetlin, Tok, Tonsina, and Yakutat.

Regulatory History

In 1991, two hunt areas were identified in the Federal subsistence hunting regulations for caribou in Unit 12. For Unit 12 west the Nabesna River within the drainages of Jack Creek, Platinum Creek and Totschunda Creek, the regulations were one bull by Federal registration permit with a quota of up to 50 bulls in Units 11 and 12 combined and a season of Aug. 10 to Sept. 30. For Unit 12 remainder the regulations were one bull from Sept. 1-20 and one caribou during a to-be-announced winter season for residents of Tetlin and Northway only as they had a customary and traditional use determination for the Nelchina Caribou Herd (NCH) in Unit 12 (OSM 1991a). Dates for the September season in the remainder have remained unchanged since then; however, some of the area was subsequently closed to the harvest of caribou due to conservation concerns.

Also in 1991, the Federal Subsistence Board (Board) approved Special Action Requests S91-05 and S91-08. Special Action S91-05 opened the winter caribou hunt in Unit 12 remainder on Oct. 28 (OSM 1991b) and S91-08 closed it on Dec. 9 after subsistence needs had been met (OSM 1991c).

In 1992, the Board rejected Proposals P92-105 (OSM 1992a) and P92-106 (OSM 1992b) due to biological concerns. Proposal P92-105 requested eliminating the to-be-announced winter caribou season in Unit 12 remainder and Proposal P92-106 requested lengthening the fall caribou season in Unit 12 remainder from Sept. 1-20 to Aug. 20-Sept. 20. The Board determined that there was no biological reason to eliminate the winter hunt and that extending the September hunt could impact the declining Mentasta Caribou Heard (MECH) and jeopardize the more popular winter hunt.

Also in 1992, the Board adopted Proposal P92-107, which changed the harvest limit for the winter caribou season in Unit 12 remainder from one caribou to one bull in order to protect the declining MECH, which mixes with the NCH in Unit 12 during the winter (OSM 1992c).

In 1993, the Board adopted Proposal P93-034 to close all of Unit 11 and the area in Unit 12 west of the Nabesna River within the drainages of Jack Creek, Platinum Creek, and Totschunda Creek to caribou hunting to protect the declining MECH (OSM 1993). There has been no Federal open season and Federal public lands have remained closed to all users since 1993 for Unit 12 west of the Nabesna River and Nabesna Glacier.

In 1994, the caribou hunt areas in Unit 12 were split from two areas: 1) Unit 12, that portion lying west of the Nabesna River within the drainages of Jack, Platinum, and Totschunda creeks and 2) Unit 12-remainder, to three hunt areas: 1) Unit 12 west of the Nabesna River within the drainages of Jack, Platinum, and Totschunda creeks, 2) Unit 12, that portion lying east of the Nabesna River and south of the Winter Trail running southeast from Pickerel Lake to the Canadian border, and 3) Unit 12-remainder (OSM 1994). In 1994, the Board also adopted Proposal P94-71, which closed the area east of the Nabesna River to the Canadian border to the harvest of caribou to protect the declining Chisana Caribou Herd (CCH) (OSM 1994). The closure for the MECH remained in effect for the area west of the Nabesna River.

In 2000, the areas previously designated west and east of the Nabesna River were combined into one hunt area via adoption of Proposal P00-59. This combination of hunt areas was because 1) the winter ranges of the Mentasta and Nelchina herds overlap and 2) with the popularity of the Nelchina herd, additional regulations prohibiting the taking of caribou in the proposal area are necessary to protect the Mentasta herd (OSM 2000):

The entire area remained closed to caribou hunting under Federal subsistence regulations until 2012. In 2012, the Board considered Proposals WP10-104 and WP12-65/66, which all requested establishing hunts for the CCH (OSM 2012a). WP12-66 requested restricting the hunt to Federal public lands in Unit 12 east of the Nabesna River and the Nabesna Glacier. OSM noted in its justification for WP12-66 that restricting the CCH hunt to this area would protect the MECH with minimal impact to subsistence hunters wanting to harvest caribou from the CCH (OSM 2012a). The Board took no action on WP10-104 and WP12-65 and adopted WP12-66 with modification, resulting in the areas west and east of the Nabesna River once again being divided into two hunt areas (OSM 2012a): 1)

Unit 12 – that portion within the Wrangell-St-Elias National Park and Preserve that lies west of the Nabesna River and the Nabesna Glacier, and 2)

Unit 12 – that portion east of the Nabesna River and the Nabesna Glacier and south of the Winter Trail running southeast from Pickerel Lake to the Canadian border.

Also in 2012, the Board adopted Proposal WP12-68, submitted by the Cheesh'na Tribal Council, which requested the residents of Chistochina be added to the Unit 12 caribou customary and traditional use determination (OSM 2012b).

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, like 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 2020, the Board voted to maintained status quo for Closure Review WCR20-42 due to continued conservational concerns. This closure review was a combined review of the closure targeting the MECH in the southwestern portion of Unit 12 and the closure targeting the CCH in the southeastern portion of Unit 12.

In 2022, the Board adopted Proposal WP22-35 with modification. Proposal WP22-35 requested establishing a may-be-announced caribou season in Unit 11 with a harvest limit of one bull by Federal registration permit. The modification was to delegate authority to the Wrangell-St. Elias National Park and Preserve (WRST) Superintendent to announce season dates, harvest quotas, and the number of permits to be issued; to define harvest areas; and to open and close the season in Unit 11 via a delegation of authority letter only. The intent of this proposal was to increase hunting opportunities for Federally qualified subsistence users when Nelchina caribou migrate through Unit 11, while protecting the MECH. The modification provided for timely in-season management, mitigating impacts on the MECH while allowing for subsistence hunting when Nelchina caribou are present.

Closure last reviewed: 2020 – WCR20-42

Justification for Original Closure:

Section §816(b) of ANILCA states:

> *Except as specifically provided otherwise by this section, nothing in this title is intended to enlarge or diminish the authority of the Secretary to designate areas where, and establish periods when, no taking of fish and wildlife shall be permitted on the public lands for reasons of public safety, administration, or to assure the continued viability of a particular fish or wildlife population.*

The Board adopted Proposal P93-034, which established the closure because it was necessary to assure the Mentasta herd's continued viability. The available biological data clearly demonstrated that the MECH was of great conservation concern due to severe population declines, poor calf survival, and potential overharvest. The Board stated that the regulation would clarify that public lands are closed to all caribou hunting in Unit 11 and a portion of Unit 12 (OSM 1993).

Council Recommendation for Original Closure:

This closure was initiated prior to the establishment of the Federal Subsistence Regional Advisory Councils.

State Recommendation for Original Closure:

ADF&G supported the closure because the State season for Mentasta caribou in this area had been closed for several years (OSM 1993). From 1985-1992, the MECH decreased from a peak population

of 3,100 caribou to 1,300 and the fall calf:cow ratio had fallen below the threshold level required to balance the mortality of the adults (≈15%) during the previous 2-3 years. The near total reproductive failure in 1991 and 1992 resulted in the population age structure being skewed towards the older age classes, which generally results in delayed recovery (OSM 1993).

The MECH is subject to unknown harvest when it mixes with the NCH during the winter. In addition, the extent of the illegal harvest is unknown, but considering the number of small rural communities they pass through during migration, it is likely high. Thus, the potential for over-harvest of this small herd is high. Thus, closing the subsistence hunt on the MECH was necessary to assure the herd's continued viability (OSM 1993).

Biological Background

The ranges of the Mentasta, Chisana, and Nelchina caribou herds overlap in Unit 12 (**Map 2**). The MECH occurs primarily in the western and northern portion of Unit 12 (Unit 12, remainder and Unit 12, southwest) and the northern portion of Unit 11 within WRST. The MECH disperses across Unit 12 and southern Unit 20E in winter, often intermingling with the NCH (MECH Mgmt. Plan 1995).

While the NCH and MECH are considered distinct herds because females calve in separate areas, the herds mix during some breeding seasons, resulting in male-mediated gene flow (Roffler et al. 2012). Therefore, the Nelchina and Mentasta herds function as a genetic metapopulation, although Nelchina and Mentasta cows have discrete mitochondrial DNA (Roffler et al. 2012).

The NCH was declining and at the lower end of the State population objectives in 2018 (ADF&G 2018, Hatcher 2018, pers. comm.). In 2022, the NCH population had dropped to 21,000 caribou, well below the lower end of the State's fall population objective of 35,000 to 40,000 Nelchina caribou. Multiple Nelchina caribou hunts were closed early by Emergency orders (04-02-22, 04-03-22, 04-06-22, and 04-08-22) due to harvest quotas being reached quickly (ADF&G 2022) However, since this closure targets the MECH and is not associated with the NCH, the NCH is not considered further in this analysis.

The CCH is a shared population between Alaska and Southern Yukon Territory, Canada. Since this international herd ranges across multiple jurisdictions, multiple land agencies are involved and responsible for the management of the CCH. In Alaska the CCH occurs primarily on Federal public lands within the WRST, although there is some overlap with Tetlin National Wildlife Refuge (NWR) and adjacent State lands. In the Yukon Territory, the CCH ranges within the boundaries of Kluane Wildlife Sanctuary and Asi Keyi Natural Environmental Park. Since the overlap between the CCH and MECH is minimal, the CCH is considered in a separate analysis (WCR24-35).

The MECH calves and summers within the upper Copper River Basin and the northern and western flanks of the Wrangell Mountains (OSM 2018). The calving grounds for the MECH are located in northern Unit 11 within WRST (MECH Mgmt. Plank 1995, **Map 2**). Barten et al. (2001) found that parturient cows from the Mentasta herd used birth sites that lowered the risk of predation and traded-off forage abundance for increased safety. Minimizing risk of predation of neonates may result in

ungulates selecting habitats that compromise their ability to optimize foraging (Bowyer et al. 1999, Barten et al. 2001). Female Mentasta herd caribou used sites at higher elevations with sub-optimal forage, presumably to avoid predators, and, when <10 day old neonates were lost, females descended from the higher elevations to join other non-parturient females. In addition, females with neonates >10 days old also descended to join the larger group of females, which coincides with moving out of the riskiest period of predation on ungulate neonates (Adams et al. 1995a).

In 1995, Federal and State biologists completed the Mentasta Herd Cooperative Management Plan, which specifies the following management objectives (MECH Mgmt. Plan 1995):

- To the extent possible, allow for human harvest that will have minimal effects on the production, composition, and abundance of Mentasta caribou.
- To provide harvest priority to Federally-eligible subsistence users and to allow State authorized hunting to occur whenever possible.
- To monitor the herd demographics and harvest such that all pertinent data on the health of the herd are collected and disseminated to all agencies and citizens concerned with their management.

The MECH Management Plan (1995) states "an annual fall harvest quota will be established between 15 and 20 percent of the previous 2-year mean calf recruitment as long as such recruitment is at least 80 calves. In addition, at population levels below 2,000 the harvest limit will be limited to "bulls only" and will be closed if the 2-year mean bull:cow ratio drops below 35 bulls:100 cows." When fall annual quotas are greater than 70 both non-Federally and Federally qualified users are allowed to hunt the MECH during the fall season. When the fall annual quota falls below 70, only Federally qualified subsistence users are allowed to hunt the MECH during the fall season. If it is below 30, a §804 analysis will determine the allocation of permits among the Federally qualified subsistence users.

Since 2000, managers at Tetlin NWR have used a 20:1 mixing ratio of Nelchina caribou to Mentasta caribou as the minimum threshold for considering winter season openings. The Tetlin NWR monitors the location and movement of radio-collared Mentasta and Nelchina caribou through aerial surveys. This information is used to determine a reliable mixing ratio with the NCH. In 2016 and 2017 the number of active collars in the MECH declined to 10, which was too few to adequately determine a reliable mixing ratio with the NCH. In 2018-19, staff from the WRST and ADF&G deployed an additional 20 GPS/Satellite radio-collars in the MECH (Putera 2021, pers. comm.). ADF&G has also deployed several GPS/Satellite collars in the NCH.

The MECH population declined from an estimated 3,160 caribou in 1987 to an estimated 495 caribou in 2021 (**Table 1**). The fall population estimate in 2020 was 1,150 caribou; however, the increase from 479 caribou in 2019 is not explained by calf production the previous year but may be due in part to Nelchina caribou returning late from their winter range. Some of these late returning caribou may have failed to migrate back to their traditional calving grounds, remaining within the Mentasta summer range. This theory is supported by the presence of three radio-collared Nelchina caribou in the Mentasta caribou summer range in 2020. The number of caribou observed during the Mentasta caribou

survey in June 2021 dropped back to levels observed in 2019, further supporting the temporary presence of Nelchina caribou in the Mentasta caribou summer range in 2020. However, one radio collared Nelchina cow was present during the 2021 June census (Putera 2021, pers. comm.).

The extremely low calf:cow ratios of 2-6 calves: 100 cows from 1991-1993 (OSM 1992d) resulted in a complete failure of fall recruitment of young in the MECH (Jenkins and Barton 2005). Dale (2000) postulated that this may have been due to poor body condition from poor forage quality in the summer. Poor forage quality in the summer can cause cow caribou to skip a breeding season to regain body condition due to being nutritionally stressed. The resulting decrease in body condition in female caribou can have a negative effect on productivity by causing lower weight gain or survival in calves (Crete and Huot 1993, Dale 2000).

Between 1990 and 1997, Jenkins and Barten (2005) confirmed predation, particularly by gray wolves and grizzly bears, as the proximate cause of the MECH population decline. Grizzly bears were the most important predators of neonates, and gray wolves mostly predated on older juvenile caribou in the MECH. The combined predation by bears and wolves was 86% during the neonate and summer periods. In comparison, predation of calves in the Denali Caribou Herd from 1984 to 1987 by wolves and bears was only 53% (Adams et al. 1995b). Factors such as the timing of birth and habitat at the birth site, particularly snow patterns, affected the vulnerability and survival of neonates, and birth mass affected the survival of juveniles through summer (Jenkins and Barten 2005). The MECH declined at the greatest rate from 1990-1993 compared to 1994-1997. Winter severity was postulated to decrease the birth mass of neonates and, thus, the survival and vulnerability of neonates and juveniles (Jenkins and Barton 2005).

The MECH population has remained stable at relatively low levels since 2000 as evidenced by low calf productivity (barring the anomalous 2020 population estimate) (Putera 2021, pers. comm.). Between 2000 and 2022, June and fall calf:cow ratios fluctuated ranging from 1-38 calves:100 cows and 0-34 calves:100 cows, respectively (**Table 1**, OSM 2018). Low calf production and survival and high cow mortality from 1987-2009 were the primary causes for the population declines in the MECH. The number of cows observed during the fall surveys declined from 2,065 in 1987 to 54 in 2016 (OSM 2012b).

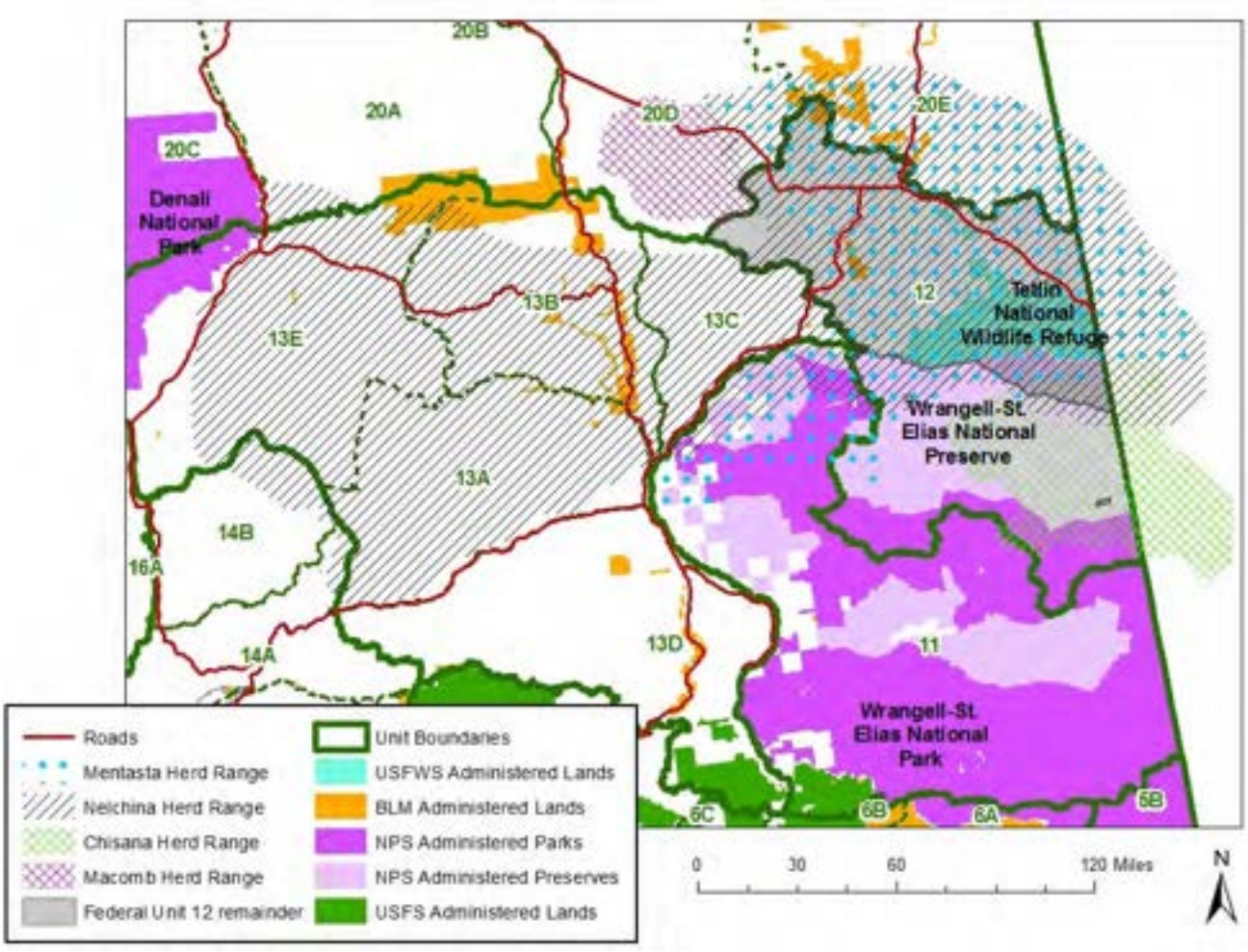
Between 1987 and 2021, the bull:cow ratio has fluctuated widely (Putera 2019, Putera 2021, pers. comm.), ranging from 35-142 bulls:100 cows and averaging 66 bulls:100 cows. Fall surveys conducted within the same 23-year period also revealed severe declines in total observed Mentasta bulls from 847 bulls in 1987 to 40 bulls in the fall 2011 survey. Since 2011, the number of Mentasta bulls has slightly rebounded to 78 bulls observed in the fall 2021 survey (**Table 1**). Although observed fall bull:cow ratios appear high, the number of cows observed is small and the bull component likely includes a significant number of Nelchina bulls. While Nelchina bulls have wintered within the range of the Mentasta herd (OSM 2018), the range of the Nelchina herd has varied widely due to burns and their effect on lichen availability within the Nelchina herd's traditional area (Collins et al. 2011). Thus, there is limited ability to predict the extent or frequency of mixing between Nelchina and Mentasta bulls,

and it is impossible to discern whether the harvest of a bull would be from the Nelchina or Mentasta herd.

Higher numbers of adult bulls in the population are important as it helps maintain synchrony in parturition. Holand et al. (2003) showed that skewed sex ratios and an increased proportion of young bulls in populations of reindeer could result in fewer adult females conceiving during their first estrous cycle due to their hesitation to mate with young bulls. Maintaining synchrony in parturition also provides increased survival chances for calves since parturition is typically timed with the start of plant growth (Bergerud 2000). Late-born offsprings have been shown to have lower body mass than caribou offspring produced earlier in the season (Holand et al. 2003), which can lead to lower juvenile survival rates due to density dependent factors of winter food limitation (Skogland 1985) and deep snows (Bergerud 2000).

The term ecotype designates populations of the same species that evolved different demographic and behavioral adaptations to cope with specific ecological constraints. The MECH is considered a sedentary and low-density ecotype (Bergerud 1996, Hinkes et al. 2005) versus a migratory and high density ecotype, such as the Nelchina herd, and is thus more susceptible to extreme random events. A key factor in distinguishing between two ecotypes is whether animals are dispersed or aggregated when young are born (Seip 1991, Bergerud 2000). The chronic low calf productivity and recruitment of the MECH could make random environmental events a primary driver for a more severe population decline (Tews et al. 2006). Increased winter mortality due to icing events may result in malnutrition and starvation for more susceptible calves as well as for bulls with depleted energy reserves following the rut (Dau 2011, Miller and Gunn 2003). Bull caribou die at a higher rate than cows due to greater energy demands during early winter rutting activities, which greatly reduce their body reserves (Russell et al. 1993, Miller and Gunn 2003).

WCR24-42 - Unit 12, within Wrangell-St. Elias National Preserve that lies west of the Nabesna River and the Nabesna Glacier closed to caribou hunting by all users (Mentasta caribou)



Map 2. Ranges of the Nelchina, Mentasta, Macomb, and Chisana caribou herds.

Table 1. Population size and composition of the Mentasta caribou herd (OSM 2012b, 2018, 2020; FWS 2018, Putera 2019, Putera 2021, pers. comm.).

Year	June Calves:100 Cows[a]	Fall Cows	Fall Calves	Fall Bulls	Fall Calves: 100 cows	Fall Bulls: 100 cows[b]	Fall Population Estimate[c]
1987	18	2065	248	847	12	41	3,160
1988	34	1540	277	662	18	43	2,480
1989	31	1615	727	258	16	45	2,600
1990	-	-	-	-	-	-	-
1991	3	1347	27	566	2	42	1,940
1992	16	973	58	399	6	41	1,430
1993	9	683	27	260	4	38	970
1994	19	591	65	224	11	38	880
1995	26	541	119	189	22	35	850
1996	16	534	59	187	11[d]	35[d]	780

WCR24-42 - Unit 12, within Wrangell-St. Elias National Preserve that lies west of the Nabesna River and the Nabesna Glacier closed to caribou hunting by all users (Mentasta caribou)

Year	June Calves:100 Cows[a]	Fall Cows	Fall Calves	Fall Bulls	Fall Calves: 100 cows	Fall Bulls: 100 cows[b]	Fall Population Estimate[c]
1997	15	432	23	159	5	40	610
1998	13	350	35	150	10	42	540
1999	13	230	22	177	10	77	430
2000	1	297	0	175	0	59	470
2001	11	228	12	150	5	66	586[g]
2002	21	190	55	86	29	45	410[g]
2003	17	223	38	101	16	46	522[g]
2004	8	-	-	-	5[e]	-	293[f]
2005	23	113	17	78	15	69	261
2006	-	66	20	51	30	77	-
2007	23	93	27	72	29	77	280
2008	14	89	18	65	20	73	319[h]
2009	12	79	8	68	10	86	421[h]
2010	25	88	22	106	25	120	336[h]
2011	-	101	29	40	29	40	
2012	-	58	20	49	34	84	-
2013	38	88	20	68	23	77	512
2014	-	-	-		-	-	-
2015	-	60	20	44	33	73	-
2016	-	54	18	77	33	142	-
2017	11	91	18	79	18	87	389
2018		72	16	66	22	92	470
2019		113	29	100	26	95	479
2020	6	98	18	75	18	77	1150
2021	12	100	14	78	14	78	495

[a] Includes small bulls that are indistinguishable from cows during fixed-wing flights.

[b] Observed high bull:cow ratios likely due to presence of Nelchina bulls.

[c] Population estimates between 2008 and 2017 are based on a June census of cows corrected for sightability, the fall calf:cow ratio, and a fall ratio of 30 bulls:100 cows.

[d] 1996 fall composition count was not conducted, because of early mixing with the NCH. Fall calf/cow was estimated from postcalving calf/cow ratio and survival radio-collared cows (0.70; 30 June – 30 September).

[e] 2004 Fall composition count was not conducted due to budget restraints. Fall calf/cow ratio estimated from post-calving calf:cow ratio and average (1987-2003) calf survivorship (0.63).

[f] 2004 population estimate is based on extrapolation from June census, adjusted for average calf survivorship and average bull ratios.

[g] September population estimates are adjusted based on sightability probabilities.

[h] September population estimates are adjusted based on sightability probabilities and assuming a ratio of 30 bulls: 100 cows within the MECH to adjust for mixing with the NCH.

Harvest History

There has been no Federal open season since 1993 for the area west of the Nabesna River and Nabesna Glacier in Unit 12. In Unit 11, there was a small Federal subsistence harvest from 1996–1998 due to MECH management objectives being met for calf production and recruitment (MECH Cooperative Management Plan 1995). Harvest in the 1996/97 season was one caribou with 15 permits issued. In the 1997/98 season, 12 permits were issued but no caribou harvest was reported. There has been no reported harvest from the MECH since 1998 as both State and Federal seasons have remained closed. However, some incidental harvest of Mentasta caribou may take place during winter hunts targeting the Nelchina and Forty-mile Caribou Herds in Unit 12, remainder. While the MECH Management Plan does not specify an appropriate mixing ratio, the 20:1 ratio has been used as the minimum threshold for considering winter season openings by the Federal in-season managers since at least 2000 (OSM 2000). The MECH Management Plan suggests that incidental harvest of Mentasta caribou is usually minimal (MECH Management Plan 1995). In 2012, the Board excluded the area west of the Nabesna River and Nabesna Glacier to protect the MECH when it established a Federal registration hunt for the CCH in Unit 12 east of the Nabesna River and Nabesna Glacier and south of the Winter Trail (OSM 2012a). The caribou hunt established in 2022 in Unit 11 may also result in incidental harvest of Mentasta caribou, if announced, although the hunt was designed to mitigate harvest from the MECH.

Other Alternatives Considered

One alternative considered is to delegate authority to the WRST Superintendent to announce season dates, harvest quotas, and the number of permits to be issued; to define harvest areas; and to open and close the season for caribou on Federal public lands in the southeastern portion of Unit 12, similar to the may-be-announced caribou hunt just established in Unit 11 via adoption of Proposal WP22-35. The location, timing and numbers of the NCH mixing with the MECH varies year-to-year and in some years Nelchina caribou do not mix with the MECH. Granting delegated authority to the WRST Superintendent would allow harvest and seasons to reflect when the NCH is present and allow use of the most current biological data to minimize incidental harvest of Mentasta caribou, while providing for subsistence opportunity. This would also align the eastern portion of WRST in Unit 12 with the recent changes in the western portion of WRST in Unit 11.

Delegating authority to define harvest areas would facilitate opening areas of WRST to harvest where the caribou present are primarily from the Nelchina herd, while avoiding areas with concentrated numbers of Mentasta caribou.

However, this is outside of the scope of a closure review and would require a proposal be submitted.

Effects

The MECH remains at very low numbers and any harvest from the herd would be of conservation concern. If the closure is rescinded, then all users could hunt caribou in this area. However, proposals would need to be submitted and adopted to establish hunts as State and Federal seasons are both currently closed. Similarly, if the closure were modified to open to Federally qualified subsistence users only, there'd be potential for increased harvest opportunity, but a proposal to the Board would be

needed to establish a hunt. If the status quo is retained, then hunting pressure on the MECH, which is still of a great conservation concern, would continue to be minimized.

OSM PRELIMINARY CONCLUSION

X Retain the Status Quo

_ Rescind the Closure

_ Modify the closure to . . .

_ Defer Decision on the Closure or Take No Action

Justification

The MECH population remains low despite a moratorium on hunting since 1993, and no harvestable surplus is available. The closure should be retained to protect the MECH and remains necessary to assure its continued viability.

Opportunity to harvest Nelchina caribou in this hunt area may be possible if reliable mixing ratios can be determined and authority is delegated to a Federal manager to allow for flexible and timely in-season hunt management. However, that option is beyond the scope of this closure review.

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WRITTEN PUBLIC COMMENTS

Wrangell-St. Elias National Park
Subsistence Resource Commission
P.O. Box 439
Mile 106.8 Richardson Hwy.
Copper Center, AK 99573

March 1, 2023

Anthony Christianson, Chair
Federal Subsistence Board
U.S. Fish and Wildlife Service
Office of Subsistence Management
1011 E. Tudor Road, MS-121
Anchorage, AK 99503

Subject: Comments on Wildlife Closure Reviews for Caribou in Unit 12

Dear Mr. Christianson:

The Wrangell-St. Elias National Park Subsistence Resource Commission (SRC) met in Copper Center, Alaska, on February 23, 2023. The commission is a federal advisory committee that represents subsistence users of federal lands within Wrangell-St. Elias National Park and Preserve. At this meeting, the SRC reviewed two wildlife closure reviews for caribou in Unit 12 and would like to provide the following comments.

WCR24-35 Portion of Unit 12 closed to caribou hunting by non-federally qualified subsistence users (Chisana caribou). The Wrangell-St. Elias National Park Subsistence Resource Commission unanimously supported maintaining the closure. With the low calf population, there is justification for only having the area open to federal users. The Wrangell-St. Elias superintendent has a delegation of authority to manage the federal hunt if needed. Authorizing state harvest would increase competition.

WCR24-42 Portion of Unit 12 closed to caribou hunting by all users (Mentasta caribou). The Wrangell-St. Elias National Park Subsistence Resource Commission unanimously supported maintaining the closure. There is a conservation concern for the Mentasta caribou herd due to the low population numbers.

Thank you for the opportunity to comment.

Sincerely,

Susan L. Entsminger
Chair

Chair: Susan L. Entsminger; Members: Mike Christenson, Mike Cronk, Don Horrell, Suzanne McCarthy, Kaleb Rowland, Daniel E. Stevens, and Gloria Stickwan

cc: Superintendent, Wrangell-St. Elias National Park and Preserve
Eastern Interior Alaska Subsistence Regional Advisory Council
Southcentral Alaska Subsistence Regional Advisory Council

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June 30, 2023

Federal Subsistence Board
Office of Subsistence Management
Attn: Theo Matuskowitz
1011 E. Tudor Rd, MS-121
Anchorage, AK 99503-6199

Submitted to: subsistence@fws.gov

Re: Written comments on WP24-09 and Federal Wildlife Closure Reviews WCR24-35 and WCR 24-42

Dear Chairman Anthony Christianson:

The Ahtna Intertribal Resource Commission (AITRC) serves the eight Federally recognized Tribal governments and the two Alaska Native Corporations within the Ahtna Territory, including portions of Game Management Units 11, 12, and 13.

WP24-09 Nelchina Caribou Herd Delegation of Authority Changes and Changes in Harvest Limit

AITRC supports Wildlife Proposal 24-09 submitted by the Bureau of Land Management's Glennallen Field Office. This proposal would (1) relocate the current delegated authority found in unit-specific caribou hunting regulations to the Delegation of Authority Letter, (2) expand the Scope of Glennallen Field Office Manager's Delegated Authority, and (3) revise the harvest limit from "2 caribou" to "up to 2 caribou," given the ongoing conservation concerns associated with the Nelchina Caribou Herd.

Relocating the delegation authority language from harvest regulations to the Delegation Letter seems to be a matter of housekeeping and consistency, which AITRC supports. We also support AITRC being specifically listed in the Delegation of Authority Letter to further advance the cooperative federal management partnership between AITRC and the US Department of the Interior in 2016.

AITRC agrees with the proponent of WP24-09 that the scope of the Federal In-Season Manager should be expanded to including closing, opening, and adjusting season dates, as well as setting harvest limits, including any sex restrictions or to set any needed permit condition. These are important management tools that the BLM Field Office Manager should have available to

respond to fluctuating Nelchina Caribou Herd population dynamics and any potential conservation crisis. Existing authorities found in the harvest regulations are inadequate to support responsible conservation management and to ensure the continuation of Federal subsistence uses when possible, during periods of conservation concern.

AITRC also supports, albeit reluctantly, the requested revision of the harvest limits for Nelchina caribou from 2 caribou to "up to 2 caribou" for times of conservation concern given the reconnection that the population status may not support a bag limit of two animals and that in order to continue Federal subsistence uses, it may be necessary to limit the harvest limit to one bull caribou until such time that the herd's population is rebuilt to be within management objective.

Chisana Caribou Herd Wildlife Closure Review WCR24-35

Federal public lands are closed to the harvest of Chisana caribou except by Federally qualified subsistence users. Presently, the hunting of Chisana caribou is limited to the Federally qualified rural residents of Unit 12, Chistochina, Dot Lake, Healy Lake, and Mentasta Lake.

AITRC supports the continuation of the closure of caribou hunting of the Chisana Caribou Herd to all but federally qualified subsistence users. Given the small size of the Chisana caribou population and the negative customary and traditional use determination established by the Alaska Board of Game, it would be detrimental to Federal subsistence uses to open up caribou hunting to sport and recreational hunters at this time.

Mentasta Caribou Herd Wildlife Closure Review WCR24-42

All hunting of the Mentasta Caribou Herd is prohibited on Federal public lands. However, in 2022, the Federal Subsistence Board approved WP22-35, as amended, which established a may be announced Federal subsistence hunt in Game Management Unit 11 for bull caribou when Nelchina caribou are present in sufficient abundance to warrant an opportunity. While the present population status of the Nelchina Caribou Herd may be insufficient to support a limited federal subsistence hunt within the range of the Mentasta Caribou Herd at this time, AITRC supports a revision of the current Wildlife Closure of caribou hunting in Unit 11 to allow for this newly established "May be announced" hunt.

Sincerely,

Karen Linnell
Executive Director AITRC

WP24-07 Executive Summary	
General Description	Proposal WP24-07 requests clarification of Federal trapping regulations that exempt Federally qualified subsistence users from Municipality of Anchorage trapping closures on Federal public lands in Units 7 and 14C. *Submitted by: Tom Lessard of Cooper Landing*
Proposed Regulation	*§100.26(n)(7)(iii)(**B**) & §100.26(n)(14)(iii)(**A**)* ***Federally qualified subsistence users trapping under these regulations are exempt from Municipality of Anchorage Ordinance AO 2019-050(S) while on Federal public lands which are open to trapping**.*
OSM Preliminary Conclusion	**Oppose** Proposal WP24-07.
Southeast Alaska Subsistence Regional Advisory Council Recommendation	
Southcentral Alaska Subsistence Regional Advisory Council Recommendation	
Kodiak/Aleutians Subsistence Regional Advisory Council Recommendation	
Bristol Bay Subsistence Regional Advisory Council Recommendation	
Yukon-Kuskokwim Delta Subsistence Regional Advisory Council Recommendation	

WP24-07 Executive Summary	
Western Interior Alaska Subsistence Regional Advisory Council Recommendation	
Seward Peninsula Subsistence Regional Advisory Council Recommendation	
Northwest Arctic Subsistence Regional Advisory Council Recommendation	
Eastern Interior Alaska Subsistence Regional Advisory Council Recommendation	
North Slope Subsistence Regional Advisory Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	**None.**

DRAFT STAFF ANALYSIS
WP24-07

ISSUES

Wildlife Proposal WP24-07, submitted by Tom Lessard of Cooper Landing, requests clarification of Federal trapping regulations that exempt Federally qualified subsistence users from Municipality of Anchorage trapping closures on Federal public lands in Units 7 and 14C.

DISCUSSION

The proponent states that Municipality of Anchorage Ordinance Number 2019-50(S) prohibits otherwise legal Federal subsistence trapping on Federal public lands within the Municipality of Anchorage in the Turnagain Arm and Portage Valley areas. The Anchorage Assembly created "Prohibited Trapping Zones" for safe trails within 50 yards of developed trails, excluding off-shoots; and within one-quarter mile of established trailheads, campgrounds, and permanent dwellings. The proponent states that the Municipal ordinance prohibits trapping, punishable by fines, on approximately 20 square miles within Portage Valley, which is mostly Federal public land.

Existing Federal Regulation

None

Proposed Federal Regulation

*§100.26(n)(7)(iii)(**B**) & §100.26(n)(14)(iii)(**A**)*

Federally qualified subsistence users trapping under these regulations are exempt from Municipality of Anchorage Ordinance AO 2019-050(S) while on Federal public lands which are open to trapping.

Existing State Regulation

5 AAC 92.510 Areas Closed to Trapping

(3) Unit 14(C) (Anchorage Area):

(A) the drainages into Eklutna River and Eklutna Lake, within Chugach State Park except Thunderbird Creek and those drainages flowing into the East Fork of the Eklutna River upstream from the bridge above the lake;

(B) the Eagle River Management Area;

(C) that portion of Chugach State Park outside of the Eagle River, Anchorage, and Eklutna management areas is open to trapping under Unit 14(C) seasons and bag limits,

except that trapping of wolf, wolverine, land otter, and beaver is not allowed; killer style steel traps with an inside jaw spread seven inches or greater are prohibited; a person using traps or snares in the area must register with the Department of Natural Resources Chugach State Park area office and provide a trapper identification; all traps and snares in the area must be marked with the selected identification; the use of traps or snares is prohibited within

(i) 50 yards of developed trails;

(ii) one-quarter mile of trailheads, campground, and permanent dwellings;

(iii) repealed 7/1/2009;

(D) all land and water within the Anchorage Management Area as described in 5 AAC 92.530(3);

(E) in the Anchorage Coastal Wildlife Refuge in Unit 14(C), described in AS 16.20.031: all land and water south and west of and adjacent to the toe of the bluff that extends from Point Woronzof southeasterly to Potter Creek;

(F) the Joint Base Elmendorf-Richardson (JBER) Management Area, except for beaver, muskrat, mink, weasel, marten, otter, fox, and coyote in areas designated by the commander;

Extent of Federal Public Lands/Waters

Unit 7 is comprised of 77% Federal public lands and consists of 52% U.S. Forest Service (USFS) managed lands, 23% National Park Service (NPS) managed lands, and 2% U.S. Fish and Wildlife Service (USFWS) managed lands.

Unit 14C is comprised of 16% Federal public lands and consists of 11% USFS managed lands and 5% Bureau of Land Management (BLM) managed lands.

Customary and Traditional Use Determinations

The Federal Subsistence Board (Board) has not made a customary and traditional use determination for furbearers in Units 7 and 14C. Therefore, all rural residents of Alaska may harvest furbearers in these units.

Regulatory History

In 2014, the Board rejected Proposal WP14-01, which requested Federal regulations requiring trapper identification tags on all traps and snares, the establishment of a maximum allowable time limit for checking traps, and establishment of a harvest/trapping report form to collect data on non-target species captured. The proposal analysis indicated statewide application would be unmanageable, would require substantial law enforcement and public education efforts, and could cause subsistence users to

avoid the regulation by trapping under State regulations. The proposal was unanimously opposed by all ten Federal Subsistence Regional Advisory Councils, Alaska Department of Fish and Game (ADF&G), and the public as reflected in written public comments.

In 2015, the Alaska Board of Game (BOG) considered Proposal 180, to prohibit trapping within 250 feet of most public roads and trails in the Cooper Landing Area. They opposed the proposal, stating trappers and local residents need to work together to find a solution or compromise upon which all users can agree. BOG members also noted concerns about the enforceability of the proposal and loss of trapping opportunity by requiring trappers to travel 250 feet off trail and back to set and check traps (ADF&G 2015).

In 2016, the BOG considered Proposal 80, to restrict trapping in and around cities with populations over 1,000 people. Specifically, trapping within one-quarter mile of publicly maintained roads, 200 feet of publicly maintained trails, and one mile of permanent dwellings, schools, businesses, and campgrounds would be prohibited. ADF&G stated that proposals restricting trapping should be addressed at regional rather than statewide BOG meetings, so affected local communities can comment. ADF&G also referred to State regulations that limit trapping in management areas. The BOG opposed the proposal due to opposition by 26 Fish and Game Advisory Committees and concern for unintended consequences. The BOG also commented that these types of restrictions could be better handled through city or borough ordinances (ADF&G 2016).

In 2019, the Anchorage assembly passed Municipal ordinance AL No. 2019-50(S), which made it illegal to trap within a prohibited trapping zone. This ordinance established prohibited trapping zones within the Municipality of Anchorage boundaries on public lands owned by the municipality and any land within 50 yards of developed trails and one-quarter mile of trailheads, campgrounds, and permanent dwellings. It also required anyone trapping within the municipal boundary to mark each trap with trapper identification number or contact information of trapper. The Anchorage assembly passed this ordinance for the safety of trail users and pets in Anchorage (MOA 2019).

In 2020, Proposal WP20-20, submitted by Robert Gieringer, requested that hunting and trapping in Unit 7 be prohibited within one mile of roads and trails and that traps be marked with brightly colored tape. This proposal was on the consensus agenda but was removed at the Board meeting by request from a member of the public. The Board rejected the proposal. The Board stated Federal regulations would be more restrictive than State regulations, violating the rural subsistence priority mandated by the Alaska National Interest Land Conservation Act (ANILCA). Furthermore, all users would still be able to hunt and trap without restrictions under State regulations, decreasing the proposal's effectiveness and increasing user confusion. The Board also stated marking traps with brightly colored tape could result in attracting more people to the trap and possibly pets (FSB 2020).

In March 2022, the BOG considered deferred Proposal 199 at their 2022 Statewide Regulations meeting. Proposal 199 requested 50-yard setbacks along certain multi-use trails and trailheads in Units 13, 14, and 16. This proposal was deferred from the January 2022 BOG meeting so a workshop could be held to reach a compromise on the proposal. The BOG attempted to modify the proposal several

times with different amendments, including language created from the workshop. All versions of this proposal were rejected.

In April 2022, the Board considered Proposal WP22-15, submitted by the Cooper Landing Community Safe Trails Committee, requesting setbacks of 1,000 feet on both sides of certain trails; 1,000-foot setbacks on certain roads; and trapping moratoriums in campgrounds plus 1,000-foot setbacks around certain campgrounds. The Southcentral Alaska Subsistence Regional Advisory Council, ADF&G, Interagency Staff Committee and Office of Subsistence Management were all in opposition to this proposal due to potential of lost subsistence opportunity and regulatory confusion. While this proposal received 25 written public comments in support of the action, the Board rejected this proposal on the consensus agenda.

In March 2023, at the Southcentral Region BOG meeting in Soldotna, the BOG considered numerous trap setback proposals. Proposals 145–153 included trap setbacks at various locations throughout Units 7 and 15. While most of these proposals did not pass, three were adopted by the BOG. Amended Proposal 145 made it illegal to hunt and trap within one-quarter mile of wildlife crossings along the Sterling Highway. Amended Proposals 146 and 149 established trap setbacks along certain trails within Kachemak Bay State Park and along the perimeter of campgrounds in Unit 7, respectively. Setback distance was set at 50 yards unless the trap was elevated at least 3 feet above the ground, under water, under ice, or enclosed.

Effects of the Proposal

If this proposal is adopted, clarification would be provided in codified Federal regulations that federally qualified subsistence users trapping under Federal regulations on Federal public lands in Units 7 and 14C are exempt from the trapping closures established by the Municipality of Anchorage Ordinance AO 2019-050(S). Functionally, this would have no effect on subsistence users or wildlife populations as State and municipal regulations do not apply to federally qualified subsistence users taking fish or wildlife on Federal public lands under Federal regulations. However, adoption of this proposal could reduce user confusion by explicitly clarifying this exemption.

OSM PRELIMINARY CONCLUSION

Oppose Proposal WP24-07.

Justification

OSM opposes this proposal because the ordinance passed by the Anchorage assembly does not apply to Federal public lands. Therefore, federally qualified subsistence users trapping under Federal regulations are currently exempt from this ordinance.

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WP24-09 Executive Summary	
General Description	Wildlife Proposal WP24-09 requests delegating authority to the BLM Glenallen Field Office manager to close, reopen and adjust season dates, set harvest limits including any needed sex restrictions, and set any needed permit conditions for caribou in Units 13A and 13B via Delegation of Authority Letter only and that the Ahtna Intertribal Resource Commission (AITRC) be consulted whenever any in-season management actions may occur. The BLM also requests that the harvest limit for caribou in subunits 13A and 13B be changed from "2 caribou" to "up to 2 caribou." *Submitted by the Bureau of Land Management.*
Proposed Regulation	**Unit 13—Caribou** *Units 13A and 13B—**up to** 2 caribou by Federal registration permit only (FC1302)~~). The sex of animals that may be taken will be announced by the Glennallen Field Office Manager of the Bureau of Land Management in consultation with the Alaska Department of Fish and Game area biologist and Chairs of the Eastern Interior Regional Advisory Council and the Southcentral Regional Advisory Council~~* — *Aug. 1–Sep. 30 Oct. 21–Mar. 31* *Unit 13, remainder—2 bulls by Federal registration permit only (FC1302)* — *Aug. 1–Sep. 30 Oct. 21–Mar. 31*
OSM Preliminary Conclusion	**Support** Proposal WP24-09.
Southcentral Alaska Subsistence Regional Advisory Council Recommendation	

WP24-09 Executive Summary	
Eastern Interior Alaska Subsistence Regional Advisory Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	**1 Support**

STAFF ANALYSIS
WP24-09

ISSUES

Wildlife Proposal WP24-09, submitted by the Bureau of Land Management (BLM) Glennallen Field Office, requests delegating authority to the BLM Glenallen Field Office manager to close, reopen and adjust season dates, set harvest limits including any needed sex restrictions, and set any needed permit conditions for caribou in Units 13A and 13B via Delegation of Authority Letter only and that the Ahtna Intertribal Resource Commission (AITRC) be consulted whenever any in-season management actions may occur (**Appendix 1**). The BLM also requests that the harvest limit for caribou in subunits 13A and 13B be changed from "2 caribou" to "up to 2 caribou."

DISCUSSION

The proponents state that expansion of the authority delegated to the Federal in-season manager will allow for better management of the Nelchina Caribou Herd (NCH) and more timely responses to changing hunt conditions. Removing the limited authority currently in unit-specific regulations will also simplify Federal regulations.

Establishing a variable harvest limit will allow the in-season manager to adjust harvest limits in response to fluctuations in the NCH population. Conservation concerns regarding the NCH have arisen lately, because of a severe winter and late spring in 2022. High adult mortality and low calf recruitment led to a summer population estimate of only 21,000 caribou, which is well below the State management objective of 35,000-40,000 caribou.

Existing Federal Regulation

Unit 13—Caribou

Units 13A and 13B—2 caribou by Federal registration permit only (FC1302). The sex of animals that may be taken will be announced by the Glennallen Field Office Manager of the Bureau of Land Management in consultation with the Alaska Department of Fish and Game area biologist and Chairs of the Eastern Interior Regional Advisory Council and the Southcentral Regional Advisory Council	*Aug. 1–Sep. 30* *Oct. 21–Mar. 31*
Unit 13, remainder—2 bulls by Federal registration permit only (FC1302)	*Aug. 1–Sep. 30* *Oct. 21–Mar. 31*

Proposed Federal Regulation

Unit 13—Caribou

*Units 13A and 13B—**up to** 2 caribou by Federal registration permit only (FC1302)~~). The sex of animals that may be taken will be announced by the Glennallen Field Office Manager of the Bureau of Land Management in consultation with the Alaska Department of Fish and Game area biologist and Chairs of the Eastern Interior Regional Advisory Council and the Southcentral Regional Advisory Council~~*	*Aug. 1–Sep. 30* *Oct. 21–Mar. 31*
Unit 13, remainder—2 bulls by Federal registration permit only (FC1302)	*Aug. 1–Sep. 30* *Oct. 21–Mar. 31*

Existing State Regulation

Unit 13—Caribou

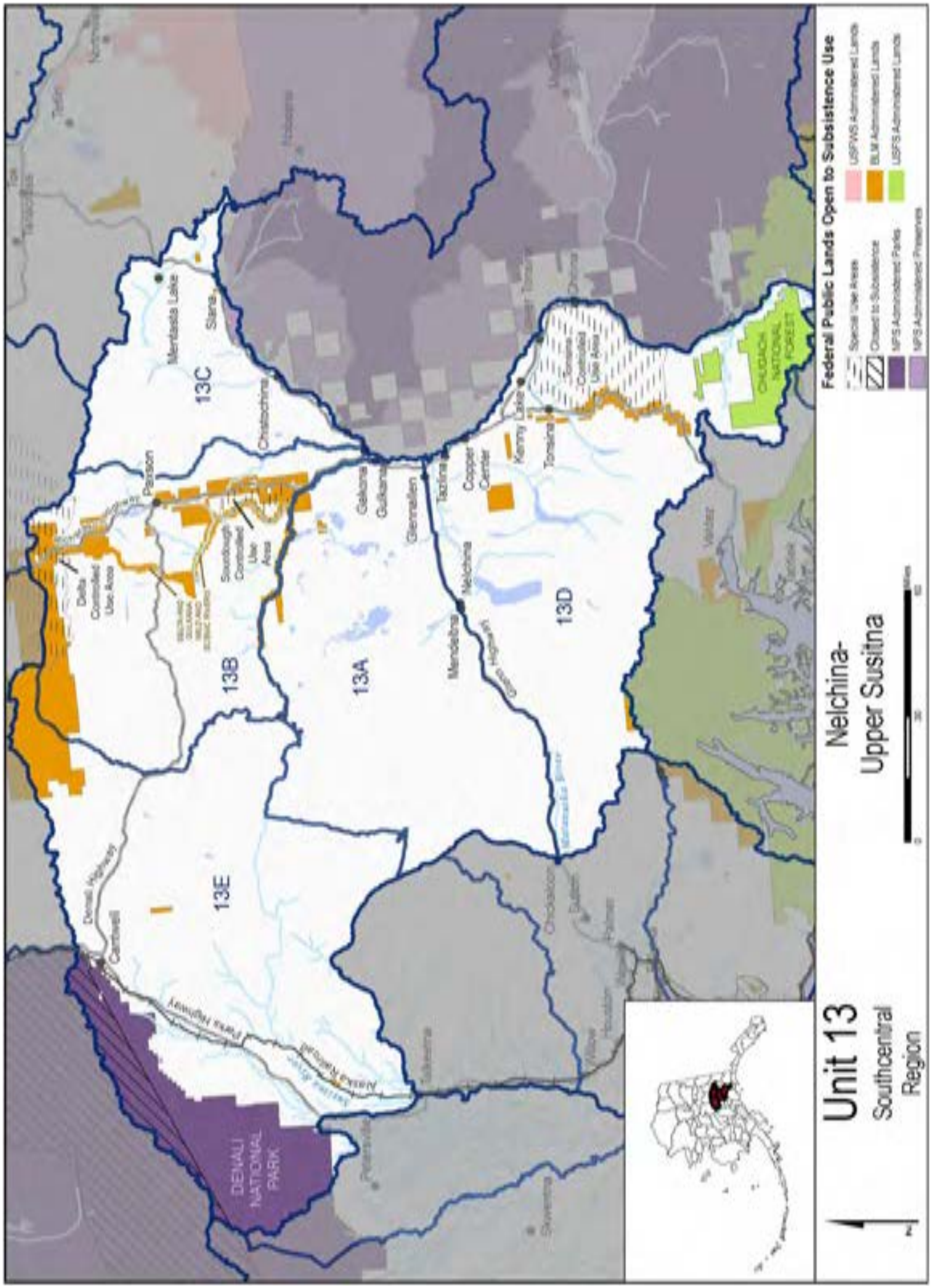
Residents – One caribou by permit	*YC495*	*Aug. 1–Aug. 5*
Or		
Residents – One caribou by permit per household, available only by application. See Subsistence Permit Hunt Supplement for details	*RC561*	*Aug. 10–Aug. 31* *Oct. 21–Mar. 31*
Or		

Residents – One caribou by permit per household, available only by application. See Subsistence Permit Hunt Supplement for details	*RC562*	*Sep. 1– Sep. 20* *Oct. 21–Mar. 31*
Or		
Residents – One caribou by permit per household, available only by application. See the Subsistence Permit Hunt Supplement for details	*CC001*	*Aug. 10– Sep. 20* *Oct. 21–Mar. 31*
Or		
Residents – One caribou by permit	*DC485*	*Aug. 20– Sep. 20* *Oct. 21–Mar. 31*
Nonresidents – One bull caribou by permit	*DC475*	*No open season*

Extent of Federal Public Lands/Waters

Unit 13 is comprised of approximately 13% Federal public lands and consists of 6% National Park Service (NPS) managed lands, 5% BLM managed lands, and 2% U.S. Forest Service (USFS) managed lands (**Map 1**). Unit 13A is comprised of approximately 1% Federal public lands and consists solely of BLM managed lands. Unit 13B is comprised of approximately 18% Federal public land and consists solely of BLM managed lands.

Federal public lands within Denali National Park are closed to all hunting and trapping as it existed prior to the Alaska National Interest Lands Conservation Act (ANILCA) (December 1980). Federal public lands within the ANILCA additions to Denali National Park are closed to hunting and trapping by non-federally qualified users. BLM manages additional lands within Unit 13 that are selected for conveyance by the State of Alaska, Native Corporations, or Alaska Tribes and are not currently available for Federal subsistence because of the land selection status. If these land selections are relinquished, they would become lands available for Federal subsistence.


Unit 13
Southcentral Region
Nelchina-Upper Susitna
Federal Public Lands Open to Subsistence Use
13A
13B
13C
13D
13E
DENALI NATIONAL PARK
CHUGACH NATIONAL FOREST

Map 1. Unit 13.

Customary and Traditional Use Determinations

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

Residents of Units 11, 12 (along the Nabesna Road and Tok Cutoff Road, mileposts 79-110), 13, 20D (excluding residents of Fort Greely), and Chickaloon have a customary and traditional use determination for caribou in Unit 13B.

Regulatory History

The NCH is an important resource for many rural and non-rural users. Its proximity to the Glenn and Richardson highways enhances accessibility of the NCH to Anchorage and Fairbanks residents (Tobey 2003). A State Tier II system for NCH harvest was established in 1990 for Unit 13. A State Tier I permit was added for the 1996/97 and 1997/98 seasons to allow any Alaskan resident to harvest cows or young bulls to reduce the herd to the management objective of 35,000–40,000 caribou (ADF&G 1997). In 1998, the Tier I hunt was closed, as the herd was brought within management objectives due to increased harvest and lower calf recruitment.

In 1998, the Federal Subsistence Board (Board) adopted Proposal P98-036 to extend the winter caribou season from Jan. 5–Mar. 31 to Oct. 21–Mar. 31 (OSM 1998). This gave federally qualified subsistence users the same opportunity to harvest an animal as those hunting under State regulations.

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

In 2002, the Board rejected Proposal WP02-17, which requested closure of Federal public lands in Units 13A and 13B to moose and caribou hunting by non-federally qualified users. The Board rejected this proposal consistent with the recommendations of the Southcentral Alaska Subsistence Regional Advisory Council (Southcentral Council), the Interagency Staff Committee, and the Alaska Department of Fish and Game (ADF&G). All opposed this closure because closing Federal public lands in Units 13A and 13B to non-federally qualified users would not result in a conservation benefit due to the limited amount of Federal public land in Unit 13. The Board further reasoned that additional opportunities existed for Federal subsistence users to hunt on Federal public lands after the State closed its season, and because of the more liberal Federal harvest limit and longer season (OSM 2002).

In 2003, the Board adopted Proposal WP03-14, which changed the harvest limit for Units 13A and 13B back to two caribou, although only bulls could be harvested from Aug. 10–Sep. 30. For the Oct. 21–Mar. 31 winter season, the BLM's Glennallen Field Office Manager was delegated authority to determine the sex of animals to be taken in consultation with ADF&G and the Chairs of the Eastern Interior Alaska Subsistence Regional Advisory Council (Eastern Interior Council) and Southcentral Council. This authority was delegated to provide management flexibility to the in-season manager to offer a limited cow harvest during the winter hunt when population metrics warranted it. Enabling the in-season manager to make this determination allowed for a Federal priority while safeguarding the

caribou population. For the remainder of Unit 13, the harvest limit remained two bulls for the Aug. 10–Sep. 30 and Oct. 21–Mar. 31 seasons (OSM 2003).

In 2005, the Board adopted modified Proposal WP05-08 via the consensus agenda. This proposal allowed the sex of caribou harvested to be determined for both the fall and winter seasons in Units 13A and 13B by the BLM Glennallen Field Office Manager in consultation with the ADF&G area biologist and Chairs of the Eastern Interior and Southcentral councils (OSM 2005). The adoption of this proposal allowed for the BLM to adaptively manage harvest of the NCH as population composition changed. When the population metrics supported cow harvest, the in-season manger could allow subsistence users to harvest cows, thereby enhancing a subsistence priority.

Emergency Order (EO) 02-01-07 closed the remainder of the 2006/07 State season for the NCH on February 4, 2007, due to high State hunter success in the State Tier II hunt. Likewise, EO 02-08-07 closed the 2007/08 Tier II hunt on September 20, 2007. The hunt was scheduled to re-open on October 21, 2007, but concerns about unreported harvest in the State and Federal hunts resulted in closure for the remainder of the season.

For the 2009/10 season, the State Tier II hunt was eliminated. Two hunts were added: a Tier I hunt and a Community Harvest hunt for residents of Gulkana, Cantwell, Chistochina, Gakona, Mentasta, Tazlina, Chitina, and Copper Center. The harvest limit for each was one caribou (sex to be announced annually) with season dates of Aug. 10–Sep. 20 and Oct. 21–Mar. 31 and a harvest quota of 300 caribou, respectively. A federally qualified subsistence user could opt into the State community harvest system or use a State registration permit to harvest one caribou and then get a Federal permit to harvest an additional caribou within Unit 13 since the Federal harvest limit was two caribou. However, State regulations stipulate that Tier I and community harvest system permit holders may not hunt moose or caribou under State or Federal regulations outside of Unit 13 and the Copper Basin Community Hunt area, respectively (ADF&G 2019a).

In July 2010, the Alaska Superior Court found that elimination of the Tier II hunt was arbitrary and unreasonable (ADF&G 2010a). In response, the Alaska Board of Game (BOG) held an emergency teleconference in July 2010 and opened a Tier II hunt from Oct. 21–Mar. 31, maintained the existing Tier I season, and awarded up to 500 additional Tier I permits (ADF&G 2010a). Subsequently, EO 04-1-10 closed the remainder of the winter NCH Tier II season due to harvest reports indicating that approximately 1,404 bulls and 547 cows were harvested, and unreported harvest was expected to raise the total harvest above the harvest objective (ADF&G 2010b; OSM 2012).

In 2012, the Board adopted Proposal WP12-25, which added an additional nine days to the beginning of the fall caribou season in all of Unit 13 to provide more opportunity to federally qualified subsistence users. The season was extended from Aug. 10–Sep. 30 to Aug. 1–Sep. 30 (OSM 2012).

In 2016, Federal public lands in the Paxson Closed Area were determined to be open (i.e., no longer State selected) to the taking of big game, which includes caribou, by federally qualified subsistence users hunting under Federal subsistence regulations. The Board rejected Proposal WP16-16, which

requested that Federal public lands within the Paxson Closed Area in Unit 13 be closed to federally qualified subsistence users (OSM 2016b).

Additionally in 2016, the Board adopted Proposal WP16-17, which rescinded the restriction prohibiting federally qualified subsistence users from hunting caribou within the Trans-Alaska Oil Pipeline right-of-way in Unit 13 (OSM 2016c).

In fall 2016, the Board approved Emergency Wildlife Special Action WSA16-05 to delegate authority to the BLM Glennallen Field Office Manager to open a ten-day caribou season between Oct. 1 and Oct. 20. WSA16-05 was approved to increase harvest of the NCH, which was above State management objectives, and to provide additional hunting opportunity for federally qualified subsistence users as fall harvest was low due to caribou being inaccessible during the regular hunting season because of delayed migration (OSM 2016a).

In 2018, Proposal WP18-19 was submitted by AITRC requesting they be allowed to distribute Federal registration permits to Ahtna tribal members for the Federal caribou season in Unit 13. In addition, the proponent requested that the Ahtna Advisory Committee (which was to be formed) be added to the list of agencies and organizations consulted by the BLM Glennallen Field Office Manager, when announcing the sex of caribou taken in Units 13A and 13B each year. The Board voted to defer WP18-19 pending development of a framework for a community harvest system (OSM 2018).

In 2018, ADF&G issued four EOs for the NCH in Unit 13. In response to high overwinter mortality, emigration to the Fortymile caribou herd (FCH), and lower than anticipated productivity, the NCH was reduced to approximately 35,700 caribou, which was near the lower end of the State's population management objective. EO 04-02-18 changed the State harvest limit from one caribou to one bull and the reporting requirement to three days. EO 04-04-18 closed the Tier 1 NCH hunt, RC561, on August 18, 2018, as reported harvest was approaching the harvest quota. EO 04-05-18 closed drawing hunt DC485 on August 26, 2018, to remain within the quota of 250 bulls set for that hunt. EO 04-07-18 closed the winter hunting seasons for all of these hunts.

In July 2019, the Board rejected Temporary Wildlife Special Action WSA19-03, which requested closure of Federal public lands in Unit 13 to caribou and moose hunting by non-federally qualified users for the 2019/20 season. The Board determined the requested closure was not warranted for conservation, continuation of subsistence uses, or safety reasons. The Board concluded that the closure was not necessary for the conservation of healthy caribou or moose populations in Unit 13, as these populations are routinely monitored, and annual biological data is used to inform management plans and to establish sustainable harvest guidelines. The closure was also not shown to be necessary to continue subsistence uses of those populations. Federally qualified subsistence users' annual harvest rates had remained consistent in comparison to the annual harvest rates by non-federally qualified users. Nevertheless, the Board recognized that local harvesters do experience an influx of non-local hunters, and many feel displaced by this activity and alter their subsistence activities as a result. In addition, the closure would not alleviate public safety concerns as non-federally qualified users would still be able to cross Federal public lands to access State and private lands.

In September 2019, ADF&G issued EO 04-09-19 to extend the closing date for all State caribou hunts in Unit 13 by ten days from September 20 to September 30. The EO was issued to reduce the size of the NCH population, which had grown to more than 53,000 animals, well above the upper end of the population objective for the herd.

In 2020, the Board adopted several proposals and special actions affecting caribou in Unit 13. First, in April the Board adopted deferred proposal WP18-19 with modification, establishing a community harvest system for moose and caribou in Unit 13. It also named eight individual communities within the Ahtna traditional use territory that are authorized to harvest caribou and moose in Unit 13 as part of the community harvest system, subject to a framework established by the Board under unit specific regulations.

In July 2020, the Board adopted two special actions with modification regarding caribou hunting in Unit 13, WSA20-01 and WSA20-03. WSA20-01 requested a continuous caribou season in Unit 13 from Aug. 1-Mar. 31 and that the harvest limit in Unit 13, remainder be changed from two bulls to two caribou for the 2020–2022 regulatory cycle. The Board approved the change in harvest limit to provide additional subsistence opportunity and because there were no conservation concerns. The Board did not approve the continuous season due to concern over harvesting bulls during rut when they may be unpalatable. This action was consistent with the Southcentral and Eastern Interior councils' recommendations.

WSA20-03 requested closure of Federal public lands in Unit 13 to the hunting of moose and caribou by non-federally qualified users for the 2020/21 season. The Board approved closure of Federal public lands in Units 13A and 13B only to moose and caribou hunting by non-federally qualified users for the 2020–2022 regulatory cycle. The Board supported the closure due to its necessity for reasons of public safety and continuation of subsistence uses. The Board limited the closure to Units 13A and 13B because this is the area where the most overcrowding, disruption of hunts, and serious safety concerns have occurred. The Board extended the special action to the 2021–2022 regulatory year as a regulatory proposal would not become effective until July 1, 2022, and to reduce the administrative burden associated with processing additional requests.

Also in July 2020, the Board adopted Wildlife Special Action WSA20-02 with modification regarding the AITRC administered community harvest system. AITRC submitted WSA20-02 to effectively and immediately implement the community harvest system that the Board had approved in April 2020 (via adoption of deferred WP18-19). In January 2021, the Board approved the community harvest system framework, which was required to implement the system, as part of its adoption of WSA21-07. This special action addressed a regulatory inconsistency that prevented the community harvest system from being effectively implemented. In April 2022, the Board adopted Wildlife Proposal WP22-36, which codified these temporary regulations in the CFR.

In 2022, ADF&G issued four emergency orders (EOs) regarding caribou in Unit 13. A steep population decline and low recruitment due to a severe winter resulted in a population estimate below management objectives and therefore, a low harvest quota. On July 14, ADF&G established the

resident caribou harvest limit in Unit 13 as one bull caribou and the harvestable surplus of 1,000 bulls as the quota with 615 bulls allocated to the State hunts (and the remaining 385 to the Federal hunts) to allow for growth of the herd via EO 04-02-22. In a corresponding press release, ADF&G outlined the distribution of the harvest quota across State hunts, including the youth hunt (70), non-resident hunt (0), resident drawing hunt (70), resident August registration hunt (140), resident September registration hunt (140), and community hunt (195).

BLM began printing and issuing Federal registration permits (FC1302) on July 7, 2022, which was 7 days prior to the state releasing their harvest quotas through EO 04-02-22. The ADF&G area biologist in Unit 13 contacted the BLM Field office in Glennallen about July 19th to share the data of the recent NCH survey, the actions ADF&G were planning to implement due to the population decline, and to request that BLM recognize the need to take action for the conservation of the NCH by changing the harvest limit from two caribou, either sex, to 2 bull caribou (Rinaldi 2023, pers. comm.). Since BLM had already started issuing permits, ADF&G sent a letter asking for the change in harvest limit to the BLM State Director, elevating their concern above the Field Office level (**Appendix 2**). The BLM considered these requests but decided not to modify the harvest limit and responded to ADF&G with FSB letter OSM 22111.RLS (**Appendix 3**). More specifically, BLM did not restrict harvest to bulls only because: 1) Unit 13, remainder is already restricted to bull harvest; 2) the NCH is not present in Units 13A and 13B to any great extent and even then is not typically present on the Federal lands therein until late in the fall season; 3) the NCH often migrates through Federal lands when the season is closed to Federal hunting; and 4) harvest of cows by federally qualified subsistence users on Federal land has historically been minimal because hunters have been very receptive to ADF&G's population concerns and the BLM's outreach efforts to encourage the harvest of bulls only.

On August 16, 2022, State registration hunt RC561 was closed by EO 04-03-22 after the RC561 harvest quota was exceeded when 161 bull caribou were harvested in 8 days. On September 12, State registration hunt RC562 was closed by EO 04-06-22 after the RC562 harvest quota was exceeded when 205 bull caribou were harvested in 13 days. In mid-October, all State winter hunts were closed by EO 04-08-22 before they opened because ADF&G determined no harvestable surplus was available and to promote NCH recovery. A total of 162 caribou, including 112 bulls and 50 cows, were harvested under Federal hunt FC1302.

Biological Background

The NCH calving grounds and summer range lie within Unit 13. The rut also generally occurs within Unit 13 from late September through mid-October. About 60-95% of the NCH overwinters in Unit 20E, although Nelchina caribou also overwinter in Unit 12 and across northern portions of Units 11 and 13 (Schwanke and Robbins 2013). Winter competition with the Fortymile herd in Unit 20E may be impacting the NCH and range conditions. While the location and timing of the NCH calving grounds remains static, use of other seasonal ranges varies with resource availability and snow cover (Schwanke and Robbins 2013).

State management goals and harvest objectives are based on the principle of sustained yield (Robbins 2014). ADF&G aims to maintain a fall population of 35,000–40,000 caribou, with minimum ratios of 40 bulls:100 cows and 40 calves:100 cows. They also want to provide for the annual harvest of 3,000–6,000 caribou.

The State manages the NCH for maximum sustained yield, principally by annual adjustments in harvest quotas. The population of the NCH has fluctuated over time, influenced primarily by harvest (Schwanke and Robbins 2013). Between 2003 and 2022 the NCH summer population estimate ranged from 21,000–53,500 caribou and averaged 39,361 caribou. However, the herd exceeded State population objectives from 2010–2017 and in 2019 (**Table 1**). Reduced predation resulting from intensive wolf management programs intended to benefit moose in Unit 13 and the FCH in Units 12 and 20 may have contributed to NCH population increases (Schwanke and Robbins 2013; ADF&G 2017a, 2019a).

However, in October 2018, the NCH was estimated to be only 33,229, which is below the minimum State population objective (Hatcher 2020a, pers. comm.). A combination of a liberal hunt, severe winter conditions in the eastern part of their range that resulted in high over-winter mortality, emigration of some animals to the Fortymile herd, and lower than anticipated productivity reduced the NCH from the previous year's fall estimate of approximately 41,400 (Rinaldi pers. comm. 2019). In the summer of 2019, the NCH minimum population increased to the highest estimate of 53,500 caribou (ADF&G 2019b). However, by October 2019, the population estimate had fallen to 46,528 caribou (BLM 2020) and has since declined to the summer 2022 estimate of 21,000 caribou and the fall 2022 estimate of 17,433 caribou, which is the lowest estimate since 2003 (ADF&G 2023a, 2023b). Factors contributing to this decline include deep snow across the range of the NCH during the winter of 2021–2022 leading to increased adult mortality. Spring thaw was also late that year delaying green-up, migration, and calving, which led to low calf recruitment. Preliminary indicators suggest difficult winter conditions for 2022–2023 lead to poor recruitment again. Smaller cohorts over the last two years will slow population growth and the recovery potential for the NCH (ADF&G 2023b).

Bull:cow and calf:cow ratios have similarly fluctuated over time. Between 2003 and 2021, the fall bull:cow ratio ranged from 24–64 bulls:100 cows and averaged 42 bulls:100 cows. Over the same time, the fall calf:cow ratio ranged from 19–55 calves:100 cows and averaged 39 calves:100 cows (**Table 1**).

The Mentasta Caribou Herd primarily ranges within Units 11, 12, southern 20E, and Yukon-territory, Canada (Hatcher 2020b). However, Mentasta caribou may occasionally travel into Unit 13, given its proximity to Units 11 and 12. The Mentasta caribou herd was estimated at 672 caribou in 2021 and has remained stable at relatively low levels for decades (Cutting 2023). Currently about 10 Mentasta caribou cows have active radio-collars. An additional 25 collars are planned for deployment in 2023, facilitating on going surveying and monitoring by agency staff. There has been no reported harvest from the Mentasta Caribou Herd since 1998, as both State and Federal seasons have been closed. In 2022, a Federal may be announced caribou season was established for Unit 11, which is intended to target the larger NCH but may result in some harvest of Mentasta caribou (OSM 2023).

Table 1. Population size and composition of the NCH (ADF&G 2008, 2010a, 2018, 2019a, 2023a, 2023b; Hatcher 2021, pers. comm.; Rinaldi 2019, pers. comm; Robbins 2015, 2016a, 2016b, 2017, pers. comm.; Schwanke 2011; Schwanke and Robbins 2013; Tobey and Kelleyhouse 2007).

Year	Total bulls:100 cows[a]	Calves:100 cows[a]	Summer Herd Estimates[b]	Fall Herd Estimates[d]
2003	31	35	31,114	30,141
2004	31	45	38,961	36,677
2005	36	41	36,993	36,428
2006	23[c]	40[c]	-	-
2007	34	35	33,744	32,569
2008	39[c]	40[c]	-	33,288[c]
2009	42	29	33,146	33,837
2010	64	55	44,954	48,653
2011	58	45	40,915	41,394
2012	57	31	46,496	50,646
2013	30	19	40,121	37,257
2014	42	45	-	-
2015	36	45	48,700	46,816
2016	57	48	46,673	46,673
2017	35[c]	35[c]	-	41,411[c]
2018	40	20	35,703	33,229
2019	32	41	53,500	46,528
2020	28[c]	17[c]	-	35,000[c]
2021	38	45	38,400	35,500
2022	-	-	21,000[c]	17,433[c]
Average	42	39	39,361	39,739

[a] Fall composition counts

[b] Summer photocensus

[c] Modeled estimate

[d] Estimates are derived from summer minimum count data, combined with fall harvest and composition survey data.

Cultural Knowledge and Traditional Practices

Units 13A and 13B fall within the traditional territory of the Ahtna Athabascans (ADF&G 2017b, de Laguna and McClellan 1981, Simeone 2006). Archaeological evidence and historical accounts indicate that caribou has been a primary subsistence resource for the Ahtna, who have hunted caribou seasonally in the spring and fall for generations (ADF&G 2017b; de Laguna and McClellan 1981; Simeone 2006). De Laguna (1981) reported that within Ahtna territory, caribou and moose were caught either in drag-pole snares or in snares set 200-300 feet apart in long brush fences. Caribou were also hunted with the use of spears from skin boats, and later, guns were used for both caribou and moose

hunting (de Laguna 1981; Reckord 1983). The traditional practices of drying and freezing meat, as well as the proper and respectful treatment of harvested resources such as caribou, are described in several ethnographic accounts of the Ahtna and people of the upper Tanana (de Laguna and McClellan 1981; Haynes and Simeone 2007; Reckord 1983; Simeone 2006).

Caribou continue to be vital resources for residents of the Copper River and Tanana watersheds (Holen et al. 2015; Holen et al. 2012; Kukkonen and Zimpleman 2012; La Vine, et al. 2013; La Vine and Zimpleman 2014). ADF&G's Division of Subsistence conducts household subsistence harvest surveys periodically throughout rural Alaska. Though this survey data is only available for some communities in some years, it is an important source for documenting patterns of resource use. In the most recent comprehensive subsistence surveys conducted in the region by ADF&G between 2009 and 2013, large land mammal harvest accounted for 17% to 60% of communities' total subsistence harvests by weight (Holen et al. 2015; Holen et al. 2012; Kukkonen and Zimpleman 2012; La Vine, et al. 2013; La Vine and Zimpleman 2014). While bear, sheep, goat, and bison were also taken, most of the large land mammal harvest was composed of caribou and moose for all communities surveyed (Holen, et al. 2012; Kukkonen and Zimpelman 2012; La Vine, et al. 2013; La Vine and Zimpelman 2014). Surveys reported the per capita large land mammal harvest from communities in the Copper River Basin ranged from approximately 11 pound per person in Mendeltna to 121 pound per person in Mentasta Pass (La Vine et al. 2013). In some communities in the region, large land mammal harvests surpassed those of fish (Holen et al. 2015; Holen et al. 2012; Kukkonen and Zimpleman 2012; La Vine, et al. 2013; La Vine and Zimpleman 2014).

During each study year, communities within the Copper River Basin harvested or hunted for caribou in Units 13, as well as in nearby Units 11 and 12 (Holen et al. 2015; Kukkonen et al. 2012; La Vine et al. 2013; La Vine & Zimpleman 2014). Harvest and search areas specific to communities within Unit 13 illustrate a pattern of hunting along nearby road corridors and locations close to home (Holen et al. 2015; Kukkonen et al. 2012; La Vine et al. 2013; La Vine & Zimpleman 2014). Some communities described hunting primarily along road corridors, while others noted that their caribou harvest and search areas extended throughout the basin (Holen et al. 2015; Kukkonen et al. 2012; La Vine et al. 2013; La Vine & Zimpleman 2014). **Table 2** shows the caribou hunt permits received by residents of communities that have reported hunting in Units 13A and 13B under the FC1302 permit between 2017 and 2021. These residents and communities would be directly affected by this proposal. Significantly, even in communities that reported no harvest for their study year, caribou were still widely used, shared, and received (Holen et al. 2015). For example, while Tolsona reported no caribou harvest during the 2013 study year, 25% of Tolsona households still reported using caribou (Holen et al. 2015).

User conflict between local and non-local caribou hunters has long been an issue in Unit 13 (Holen et al 2012, SCRAC 2015). Recent subsistence research, technical papers, and public testimony at Board special action hearings, Regional Advisory Council meetings, and Board sessions have provided a record of public sentiment on increasing issues of hunting pressure and competition in the area (SCRAC 2015).

Household subsistence surveys conducted between 2009 and 2013 also documented local concerns about issues of user conflict regarding access to, and competition for, key subsistence resources (Holen et al. 2012, Holen et al. 2015). Many communities in the region had concerns about the amount of caribou and other large land mammal harvest taken by non-local hunters (Holen et al. 2012, Holen et al. 2015). Some residents argued that most of the meat harvested in Unit 13 is not eaten by residents of the region (Holen et al. 2012, Holen et al. 2015). Others added that non-local hunters were out-competing locals and driving game away (Holen et al. 2012). Many communities surveyed from 2009 to 2013 noted that better-equipped urban hunters, traffic pressure on the roads, and significant increases in the use of off-road vehicles were decreasing the success rates and efficiency of federally qualified subsistence users by interfering with access to favored hunting areas and driving game further from road corridors (Holen et al. 2012, Holen et al. 2015). A Paxson resident explained:

> ATV use is out of control in the Denali Highway area. There is just too much motorized access. Local subsistence hunters cannot compete with those people that come into this area with lots of equipment like motorhomes and 4-wheelers or 6-wheelers (Holen et al. 2012: 258).

Some local community members have also noted that changing climatic conditions are complicating more traditional large land mammal hunting practices in the area, as warmer weather is extending longer into the hunting season and altering the timing of yearly biological cycles and herd migrations (Holen et al. 2012; Holen et al. 2015; Kukkonen and Zimpelman 2012; La Vine et al. 2013; La Vine and Zimpelman 2014).

Table 2. Reported hunt data for selected communities with a customary and traditional use determination for caribou in Units 13A and/or 13B that have utilized the FC1302 permit in one of the two subunits between 2017 and 2021 (OSM 2023, ADLWD 2022). [a]

Community	Estimated Community Population	Number of FC1302 Permits Hunted in 13A or 13B
Delta Junction	983	1435
Copper Center	316	467
Glennallen	427	402
Tazlina	257	174
Gakona	181	148
Kenny Lake	294	101
Chickaloon	246	74
Glacier View	251	60
Chitina	97	29
Silver Springs	105	29
Tolsona	12	27
Sheep Mountain	--	22
Tangle Lakes	--	20
Nelchina	46	19
Slana	93	19
Copperville	--	18
Lake Louise	40	14
Tonsina	51	13
Cantwell	196	11
Paxson	26	11
Gulkana	89	10
Sourdough	--	10
Meiers Lake	--	8
McCarthy	114	6

[a] Communities or areas with fewer than 5 hunts reported during this time are not included. This is not an exhaustive list of communities or areas qualified to hunt under the FC1302 permit in 13A and 13B.

Harvest History

The NCH is a popular herd to hunt and experiences heavy harvest pressure due to its road accessibility and proximity to Fairbanks and Anchorage. Upper population limit of the herd may be controlled solely by human harvest, and harvest quotas are adjusted annually in order to achieve State management objectives and keep the herd from growing to unsustainable levels (Schwanke and Robbins 2013). In recent years, caribou have been largely unavailable on Federal public lands during the early Federal subsistence hunt (August– September) with their presence peaking during October when the season is closed for the rut (BLM 2020; OSM 2023).

Over 95% of the NCH harvest occurs in Unit 13. Between 2001 and 2022, harvest from the NCH under State regulations ranged from 753–5,785 caribou/year and averaged 2,334 caribou/year (Robbins 2017, pers. comm.). Over the same period, caribou harvest under Federal regulations in Unit 13 ranged from 142–610 caribou/year and has averaged 371 caribou/year (OSM 2019, 2023, **Table 3**). During this time, total NCH harvest from Unit 13 averaged 2,744 caribou/year. Federal harvest (FC1302) accounts for 17% of the total Unit 13 caribou harvest on average.

On August 3, 2018, the State issued EO 04-02-18, which reduced the quota to 1,400 bull caribou, noting that additional Federal harvest could be taken sustainably while allowing for modest growth and subsistence opportunity (ADF&G 2018). In 2018, caribou were largely unavailable during the early Federal subsistence hunt (FC1302) (Hankins 2019), a trend that continues through today with the migration of the NCH typically falling between Federal seasons (Ketron 2023, pers. comm.). Federal permits issued from 2019–2022 average 2,746, which is comparable to the overall average since 2001 of 2,762. Reported Federal harvest for 2022/23 of 142 caribou was lower than the 2001–2022 average of 371 (OSM 2023). The 2022 Federal subsistence harvest is lower than in recent years, this maybe because of lower abundance of caribou or because they migrated through Federal lands during October when the season is closed.

Between 2001 and 2022, the number of Federal subsistence hunters and harvest success rates for the FC1302 hunt have shown substantial annual variation, but only slightly increasing and decreasing trends, respectively (**Table 4**). Between 2003 and 2012, Federal subsistence hunter numbers and success rates averaged 1,353 hunters and 31%, respectively. Between 2013 and 2022, Federal subsistence hunter numbers and success rates averaged 1,219 hunters and 25%, respectively. Success rates for caribou harvest depend largely on caribou availability (a function of migration timing) rather than abundance, and availability likely explains some of the substantial annual variation. Of note, federally qualified subsistence users may also harvest under State regulations, and those harvests are not reflected in the data above or in **Table 4**. The data described above and in **Table 4** only considers harvests under Federal regulations (FC1302).

Table 3. NCH State harvest quota, State harvest, and Federal harvest (FC1302) in Unit 13 (Schwanke and Robbins 2013; Tobey and Schwanke 2009; Tobey and Kelleyhouse 2007; OSM 2019, 2023; Robbins 2015, 2017, pers. comm.; WinfoNet 2019; BLM 2020).

Regulatory Year	Harvest Quota	State Harvest	Federal Harvest (FC1302)	Total Unit 13 Harvest
2001		1,479	498	1,977
2002		1,315	337	1,652
2003		995	322	1,317
2004		1,226	335	1,561
2005		2,772	610	3,382
2006		3,043	570	3,613
2007		1,314	385	1,699
2008		1,315	273	1,588
2009		753	349	1,102
2010	2,300	1,899	451	2,350
2011	2,400	2,032	395	2,427
2012	5,500	3,718	537	4,255
2013	2,500	2,303	279	2,582
2014	3,000	2,712	237	2,949
2015	5,000	3,402	595	3,997
2016	N/A[a]	5,785	491	6,276
2017	6,000[b]	4,529	358	4,887
2018	1,400[c]	1,411	370	1,781
2019	3,450	2,735	102	2,837
2020	5,090[d]	3,770	306	4,076
2021	1,250[d]	1,505	220	1,725
2022	615[d]	519	162	681
Average		2,297	371	2,669

[a] Initial harvest quota of 4,000 was lifted and no adjusted quota was announced

[b] 3,000 bulls and 3,000 cows

[c] Harvest quota for the State season was reduced to 1,400 on August 3, 2018, by EO 04-02-18

[d] Fall quota; population status and quotas are reassessed after the fall hunt annually; fall quotas are for State harvest only and do not include total harvestable surplus.

Table 4. The number of permits issued, permits used, caribou harvested, and harvest success rates for the FC1302 Federal caribou hunt (OSM 2020).

Regulatory Year	Permits Issued	Hunted	Harvest	Success Rate (%)
2001	2,565	1,469	498	33.9
2002	2,507	1,379	337	24.4
2003	2,574	1,240	322	26.0
2004	2,555	1,337	335	25.1
2005	2,557	1,499	610	40.7
2006	2,631	1,317	570	43.3
2007	2,399	1,092	385	35.3
2008	2,532	1,229	273	22.2
2009	2,576	1,339	349	26.1
2010	2,852	1,535	451	29.4
2011	2,980	1,425	395	27.7
2012	2,953	1,518	537	35.4
2013	2,781	1,303	279	21.4
2014	2,943	1,395	237	17.0
2015	3,061	1,560	595	38.1
2016	3,154	1,533	491	32.1
2017	3,071	1,526	358	23.5
2018	3,082	1,433	370	25.8
2019	2,787	900	102	11.3
2020	2,916	1,195	306	25.6
2021	2,606	945	220	23.3
2022	2,676	396	142	35.9
Average	2,762	1,298	371	28.3

Alternative Considered

One alternative suggested by agency staff was to delegate authority for all of Unit 13 rather than just for 13A and 13B. Delegating the authority for in-season management of caribou in only a portion of Unit 13 has the potential to create confusion regarding seasons and harvest limits in Unit 13 remainder, especially given that a single caribou permit applies to all subunits of Unit 13. The harvest limit in 13A and 13B could potentially be reduced to one caribou, but with a two-bull caribou limit in the remainder of the unit; or the season extended or shortened in 13A and 13B, but not in the remainder of the unit. Reducing the harvest limit in Units 13A and 13B, while retaining the two bulls limit in Unit 13 remainder could send a message that there is not a conservation concern there and result in increased hunting pressure in 13C, 13D, and 13E. If this authority was delegated to the BLM for all of Unit 13 all seasons could be adjusted to account for shifting harvest patterns and strategies. This alternative was

not considered because the proponent did not specifically request this delegation. Harvest records do not indicate this need either. Since 2016, 72% of Federal caribou harvest has been from Units 13A and 13B. The NCH typically does not inhabit Unit 13D and the rest of Federal land within Unit 13 remainder is not as easily accessed as Units 13A and 13B.

Effects of the Proposal

If this proposal is adopted, the BLM Glenallen Field Office manager will be delegated authority to close and reopen seasons, adjust season dates, set harvest limits including any needed sex restrictions, and set any needed permit conditions for caribou in Units 13A and 13B via delegation of authority letter only (**Appendix 1**). The delegation would include the authority to close and reopen Federal public lands in subunits 13A and 13B to non-subsistence hunting but does not authorize changes to permit requirements or harvest and possession limits for State-managed hunts. Consultation with AITRC, in addition to the usual state and Federal agencies and Regional Advisory Councils, would be required before any in-season management actions occur. The caribou harvest limit in Units 13A and 13B would change from "2 caribou" to "up to 2 caribou."

Expanding the authority delegated to the in-season manager provides management flexibility to respond to changing herd population metrics and hunt conditions in a timely manner. Currently, in-season management actions such as closing seasons during times of conservation concern require submission of a special action request, a full analysis process and Board action, which can take months. Delegating authority will allow for quick, in-season management actions to protect the NCH population from possible overharvest or to allow additional subsistence harvest opportunity as conditions allow. Removing the Delegated Authority from unit-specific regulations will simplify Federal regulations, while a Delegation of Authority Letter provides more explicit and detailed explanations of the requirements and process needed to enact in-season management actions. The addition of AITRC to the consultation process ensures that an important group of subsistence users relying on the NCH are incorporated into the decision-making process.

Changing the harvest limit in Units 13A and 13B from "2 caribou" to "up to 2 caribou" will allow the in-season manager to respond to changing population metrics and better manage harvest to optimize herd conservation and Federal subsistence hunting opportunity. For example, during times of population decline and conservation concern, the ability to restrict the harvest limit to only one caribou or one bull could help protect the NCH from further declines, while still allowing some harvest opportunity for federally qualified subsistence users.

OSM PRELIMINARY CONCLUSION

Support Proposal WP24-09.

Justification

Approving WP24-09 will allow for quick in-season management decisions to be made for protection of the NCH when a conservation concern arises in Units 13A and 13B. Incorporation of AITRC into the consultation process with the BLM will allow an important group of federally qualified subsistence users who rely upon the NCH to be incorporated into management decisions regarding the NCH.

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WRITTEN PUBLIC COMMENTS

Ahtna Intertribal Resource Commission
PO Box 613 - Glennallen, Alaska 99588
Phone (907) 822-4466 Fax: (907) 822-4466
www.ahtnatribal.org
counsel@ahtnatribal.org

June 30, 2023

Federal Subsistence Board
Office of Subsistence Management
Attn: Theo Matuskowitz
1011 E. Tudor Rd, MS-121
Anchorage, AK 99503-6199

Submitted to: subsistence@fws.gov

Re: Written comments on WP24-09 and Federal Wildlife Closure Reviews WCR24-35 and WCR 24-42

Dear Chairman Anthony Christianson:

The Ahtna Intertribal Resource Commission (AITRC) serves the eight Federally recognized Tribal governments and the two Alaska Native Corporations within the Ahtna Territory, including portions of Game Management Units 11, 12, and 13.

WP24-09 Nelchina Caribou Herd Delegation of Authority Changes and Changes in Harvest Limit

AITRC supports Wildlife Proposal 24-09 submitted by the Bureau of Land Management's Glennallen Field Office. This proposal would (1) relocate the current delegated authority found in unit-specific caribou hunting regulations to the Delegation of Authority Letter, (2) expand the Scope of Glennallen Field Office Manager's Delegated Authority, and (3) revise the harvest limit from "2 caribou" to "up to 2 caribou," given the ongoing conservation concerns associated with the Nelchina Caribou Herd.

Relocating the delegation authority language from harvest regulations to the Delegation Letter seems to be a matter of housekeeping and consistency, which AITRC supports. We also support AITRC being specifically listed in the Delegation of Authority Letter to further advance the cooperative federal management partnership between AITRC and the US Department of the Interior in 2016.

AITRC agrees with the proponent of WP24-09 that the scope of the Federal In-Season Manager should be expanded to including closing, opening, and adjusting season dates, as well as setting harvest limits, including any sex restrictions or to set any needed permit condition. These are important management tools that the BLM Field Office Manager should have available to

respond to fluctuating Nelchina Caribou Herd population dynamics and any potential conservation crisis. Existing authorities found in the harvest regulations are inadequate to support responsible conservation management and to ensure the continuation of Federal subsistence uses when possible, during periods of conservation concern.

AITRC also supports, albeit reluctantly, the requested revision of the harvest limits for Nelchina caribou from 2 caribou to "up to 2 caribou" for times of conservation concern given the reconnection that the population status may not support a bag limit of two animals and that in order to continue Federal subsistence uses, it may be necessary to limit the harvest limit to one bull caribou until such time that the herd's population is rebuilt to be within management objective.

Chisana Caribou Herd Wildlife Closure Review WCR24-35

Federal public lands are closed to the harvest of Chisana caribou except by Federally qualified subsistence users. Presently, the hunting of Chisana caribou is limited to the Federally qualified rural residents of Unit 12, Chistochina, Dot Lake, Healy Lake, and Mentasta Lake.

AITRC supports the continuation of the closure of caribou hunting of the Chisana Caribou Herd to all but federally qualified subsistence users. Given the small size of the Chisana caribou population and the negative customary and traditional use determination established by the Alaska Board of Game, it would be detrimental to Federal subsistence uses to open up caribou hunting to sport and recreational hunters at this time.

Mentasta Caribou Herd Wildlife Closure Review WCR24-42

All hunting of the Mentasta Caribou Herd is prohibited on Federal public lands. However, in 2022, the Federal Subsistence Board approved WP22-35, as amended, which established a may be announced Federal subsistence hunt in Game Management Unit 11 for bull caribou when Nelchina caribou are present in sufficient abundance to warrant an opportunity. While the present population status of the Nelchina Caribou Herd may be insufficient to support a limited federal subsistence hunt within the range of the Mentasta Caribou Herd at this time, AITRC supports a revision of the current Wildlife Closure of caribou hunting in Unit 11 to allow for this newly established "May be announced" hunt.

Sincerely,

Karen Linnell
Executive Director AITRC

Appendix 1

Glennallen Field Office Manager
Bureau of Land Management
PO Box 147
Glennallen, Alaska 99588

Dear Field Office Manager:

This letter delegates specific regulatory authority from the Federal Subsistence Board (Board) to the manager of the Bureau of Land Management (BLM) Glennallen Field Office (GFO) to issue emergency or temporary special actions if necessary to ensure the conservation of a healthy wildlife population, to continue subsistence uses of wildlife, for reasons of public safety, or to assure the continued viability of a wildlife population. This delegation only applies to the Federal public lands subject to Alaska National Interest Lands Conservation Act (ANILCA) Title VIII jurisdiction within Units 13A and 13B 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 Ahtna Intertribal Resource Commission,** 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 Glennallen Field Office Manager is hereby delegated authority to issue emergency or temporary special actions affecting caribou on Federal lands as outlined under the **Scope of Delegation**. 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 close, reopen, and adjust season dates**

- **To set harvest limits, including sex restrictions**
- **To set any needed permit conditions**

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 Units 13A and 13B.

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

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

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

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

You will immediately notify the Board through the Assistant Regional Director for OSM, and coordinate with the Chair(s) or alternate of the affected Council(s), local ADF&G managers,

and other affected Federal conservation unit managers concerning emergency and temporary special actions being considered. You will ensure that you have communicated with OSM to ensure the special action is aligned with ANILCA Title VIII, Federal Subsistence regulations and policy, and that the perspectives of the Chair(s) or alternate of the affected Council(s), OSM, and affected State and Federal managers have been fully considered in the review of the proposed special action.

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

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

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

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

Sincerely,

Anthony Christianson
Chair

Enclosures

cc: Federal Subsistence Board
Office of Subsistence Management

Chair, Southcentral Interior Alaska Subsistence Regional Advisory Council
Chair, Eastern Interior Alaska Subsistence Regional Advisory Council
Executive Director, Ahtna Intertribal Resource Commission
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 STATE of ALASKA
GOVERNOR MICHAEL J. DUNLEAVY

Department of Fish and Game
OFFICE OF THE COMMISSIONER
Headquarters Office
1255 West 8th Street
P.O. Box 115526
Juneau, Alaska 99811-5526
Main: 907.465.6136
Fax: 907.465.2332

July 25, 2022

Steve Cohn, State Director
Bureau of Land Management – Alaska
222 W. 7th Ave., #13
Anchorage, AK 99513

Director Cohn:

I am writing to elevate the concerns the Alaska Department of Fish & Game (ADF&G) have regarding the management of the federal hunts of the Nelchina Caribou Herd (NCH) and the lack of a response from the Bureau of Land Management's (BLM) Glennallen Field Office.

As you may be aware ADF&G does not announce the harvest strategy for the NCH until area biologists are able to conduct the annual population survey in early July. Once we have that survey data, we conduct our analysis and then make an announcement for hunt quotas and bag limits. In recent years the size of the NCH has been above objectives, affording extra harvest opportunity to reduce the herd to within population objectives. This year, severe winter conditions and late spring thaw resulted in higher-than-normal adult mortality and low recruitment of calves into the population. Spring migration and calving occurred late, and a small portion of the herd did not return from the wintering grounds. Furthermore, production and survival of this spring's calf crop is low. These factors combine to reduce the NCH to an estimated 21,000 caribou. As a result, available harvest is lower than in recent years, as the goal is now focused on growing the herd. The fall quotas and expected harvest reflect the Alaska Board of Game's direction to distribute hunter opportunity and harvest for this important caribou herd.

Given these factors and the response we took to conserve the NCH (one bull bag limit) the area biologist reached out to your field office in Glennallen to share the data of the recent survey, the actions we are taking in light of the population decline and to request that BLM to recognize the need to take action for the conservation of the NCH and change the bag limit from two caribou, either sex, to 2 bull caribou. The response was surprising saying that they do not feel that federally qualified users (FQU) harvest enough of the caribou population to have a "significant

biological effect." The quota set for the 2022 fall season under State regulations is 615 bull caribou, many of which will be taken by FQUs. In addition to that harvest, it is anticipated based off of a 10-year average that they will also take up to 400 animals. This could represent up to 40% of the total harvest of just the fall hunt. This does not include the additional harvest that may be authorized under federal permits for the winter hunt. ADF&G anticipates that the harvest objectives will be met this fall and no winter hunt will be announced.

Regardless of your staff's response to our request, this should not have been the first time they spoke on the management strategy for the NCH. Under ANILCA Title 8 as well as your own federal regulations it requires the BLM Glennallen Field Office Manager to consult with the ADF&G area biologist on the announcement of the sex of animals that may be taken in the federal NCH hunt. I've reached out to the area biologist charged with the monitoring and management of the NCH and no such outreach and consultation occurred until she reached out to your staff. Given the popularity of this herd and how actively managed it is, it is imperative that a high level of communication occur.

The Department requests that BLM reconsider the Nelchina caribou federal hunting season bag limit and change it to two bull caribou in recognition of the need to protect females and grow the herd. I look forward to hearing from you on how we can reinvigorate the relationship between our two agencies on the management of this important caribou herd to all the people of Alaska.

Sincerely,

Ben Mulligan
Deputy Commissioner

CC: Anthony Christianson, Chair, Federal Subsistence Board
Brandon Brefczynski, Deputy Chief-of-Staff, Office of the Governor
Doug Vincent-Lang, Commissioner, ADF&G
Eddie Grasser, Director, Division of Wildlife Conservation, ADF&G
Ryan Scott, Assistant Director, Division of Wildlife Conservation, ADF&G
Gino DelFrate, Regional Supervisor, Division of Wildlife Conservation, ADF&G
Mark Burch, Special Projects Coordinator, Division of Wildlife Conservation, ADF&G

Appendix 3

Federal Subsistence Board

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

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

FOREST SERVICE

SEPT 30 2022

In Reply Refer To
OSM 22111.RLS

Benjamin Mulligan
Deputy Commissioner
Alaska Department of Fish and Game
333 Raspberry Road
Anchorage, AK 99518-1599

Dear Deputy Commissioner Mulligan:

This letter is written in response to your letter dated July 25th, 2022, regarding concerns expressed by the Alaska Department of Fish and Game (ADF&G) about management of the Nelchina Caribou Herd (NCH) by the Bureau of Land Management's (BLM) Glennallen Field Office.

The BLM Glennallen Field Office Manager has been delegated authority by the Federal Subsistence Board (Board) to determine the sex of animals to be taken for the Federal (FC1302) caribou hunt in Units 13A and 13B. In this role, the BLM Field Office Manager carefully considers requests by ADF&G and considers consultation with the Eastern Interior Alaska and Southcentral Alaska Subsistence Regional Advisory Council Chairs, federally recognized tribes, and with the ADF&G Area Biologist.

The Office of Subsistence Management has conferred with the BLM Field Office Manager and confirmed that she will continue to monitor Federal subsistence harvest and the NCH migration in consultation with the ADF&G Area Biologist and encourage the harvest of bull caribou. However, it is not the federal program's intention to mandate a bulls-only harvest through regulation at this time. The rationale for this approach is that Unit 13 remainder is already restricted to bull harvest; the NCH is not present in Units 13A and 13B to any great extent and typically are not present on the Federal lands therein until late in the fall season; and the NCH often migrates through Federal lands when the season is closed to Federal hunting. An additional consideration is that the harvest of cows by Federally qualified subsistence users on Federal land has been minimal because hunters have been very receptive to ADF&G's population concerns and the BLM's outreach efforts to encourage the harvest of bulls only. A review of the Federal subsistence harvest database on September 23, 2022, revealed that only six caribou have been harvested under the (FC1302) Federal registration permit to date, only one of which was a cow.

Federally qualified subsistence users also participate in the State hunt for the NCH and are subject to the quota set by the State for the 2022 hunt. The announced State quota of 1,000 bull caribou does include the expected harvest of approximately 400 caribou under Federal subsistence regulations from this quota. Given the limited amount of Federal public lands in Units 13A and 13B and the low level of cow harvest under Federal regulations for the fall hunt, the Board does not anticipate that future harvest during the fall subsistence hunt requires the BLM Field Office Manager to exercise her delegated authority to require the harvest of bulls only. However, she will consider changing the Federal hunt to bulls only for the winter hunt as the winter season opening date approaches and after further consultation with the ADF&G Area Biologist.

The BLM Field Office Manager and the Board appreciate and value our working relationships with ADF&G and we look forward to improving and expanding upon this relationship and outreach efforts regarding management of the NCH.

Sincerely,

Anthony Christianson
Chair

cc:
Doug Vincent-Lang, Commissioner, ADF&G
Federal Subsistence Board
Interagency Staff Committee
Office of Subsistence Management
Sue Detwiler, Assistant Regional Director, Office of Subsistence Management
Marnie Graham, BLM Glennallen Field Office Manager
Ken Lord, Assistant Regional Solicitor, Office of the Solicitor, Alaska Region

WP24-28/29 Executive Summary	
General Description	Proposal WP24-28 requests a reduction in the caribou harvest limit across the range of the Western Arctic caribou herd to four caribou per year, only one of which may be a cow. Submitted by: The Western Arctic Caribou Herd Working Group Proposal WP24-29 requests a reduction in the caribou harvest limit in Unit 23 to four caribou per year, only one of which may be a cow. Submitted by: The Northwest Arctic Subsistence Regional Advisory Council
Proposed Regulation	Units 21D, remainder; 24B, remainder; 24C; 24D; and all caribou hunt areas within Units 22, 23, and 26A: four caribou per year, only one of which may be a cow
OSM Preliminary Conclusion	**Support** Proposal WP24-29. **Support** Proposal WP24-28 **with modification** to exclude that portion of Unit 26A north and east of a line running from the east/north bank of Wainwright Inlet to the headwaters of the Ketik River, to the headwaters of the Awuna River to the Colville River at Umiat then east to the Dalton Highway at Sagwon. The modified regulation for Unit 26 should read: ***Unit 26—Caribou*** *Unit 26A* ***- north and east of a line running from the east/north bank of Wainwright Inlet to the headwaters of the Ketik River, to the headwaters of the Awuna River to the Colville River at Umiat then east to the Dalton Highway at Sagwon****- 5 caribou per day by State registration permit as follows: Calves may not be taken.* *Bulls may be harvested* — *July 1-Oct. 14.* *Dec. 6-June 30.* *Cows may be harvested; however, cows accompanied by* — *July 16-Mar.*

	calves may not be taken July 16-Oct. 15 — *15.* *Noatak National Preserve is closed to caribou hunting from Aug. 1-Sep. 30 for the 2022-24 regulatory cycle, except by federally qualified subsistence users hunting under these regulations.* *Unit 26A remainder -* ~~*5 caribou per day*~~ ***4 caribou per year, only 1 may be a cow*** *by State registration permit as follows: Calves may not be taken.* *Bulls may be harvested* — *July 1-Oct. 15.* *Dec. 6-June 30.* ~~*Up to 3 cows per day*~~ ***Only 1 cow*** *may be harvested; however, cows accompanied by calves may not be taken July 16-Oct. 15* — *July 16-Mar. 15.*
Eastern Interior Alaska Subsistence Regional Advisory Council	
Western Interior Alaska Subsistence Regional Advisory Council	
Seward Peninsula Subsistence Regional Advisory Council	
Northwest Arctic Subsistence Regional Advisory Council	
North Slope Subsistence Regional Advisory Council Recommendation	

WP24-28 - Units 21D, 22, 23, 24, and 26A; Reduce harvest limit to 4 caribou per year only one of which may be a cow

Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	**None**

DRAFT STAFF ANALYSIS
WP24-28/29

ISSUES

Wildlife Proposal WP24-28, submitted by the Western Arctic Caribou Herd Working Group, requests a reduction in the caribou harvest limit across the range of the Western Arctic caribou herd to four caribou per year, only one of which may be a cow. Specific areas include Units 21D, remainder; 24B, remainder; 24C; 24D; and all caribou hunt areas within Units 22, 23, and 26A.

Wildlife Proposal WP24-29, submitted by the Northwest Arctic Subsistence Regional Advisory Council (Northwest Arctic Council), requests a reduction in the caribou harvest limit in Unit 23 to four caribou per year, only one of which may be a cow.

DISCUSSION

WP24-28

The Western Arctic Caribou Herd Working Group (WACH Working Group) at its annual meeting in December 2022 assigned the management level "Preservative, Declining" to the herd based on the most recent census (within the range of 130,000-200,000) and adult cow survival rate of less than 80%. The WACH Working Group sees the need to address the current herd decline by limiting the harvest of both bulls and cows to allow the herd to begin a recovery. Data received by the WACH Working Group from an Alaska Department of Fish & Game (ADF&G) biologist illustrated that there has been continued decline in the Western Arctic Caribou Herd (WACH).

WP24-29

The WACH has continued to decline with the most recent estimate being 164,000 caribou. The Northwest Arctic Council is greatly concerned about the precipitous decline of the WACH and feels that action is needed to slow the decline and prevent the herd from reaching a point of no return. The Northwest Arctic Council feels that the harvest recommendations proposed by the WACH Working Group are a starting point for the conservation of the WACH while still allowing some harvest. The Northwest Arctic Council recognizes that federally qualified subsistence users are already facing food insecurities, but this large reduction of caribou harvest is a means to help protect the caribou herd over the long term, while still allowing some harvest.

Existing Federal Regulation

Unit 21D—Caribou

Unit 21D, remainder— 5 caribou per day, as follows: Calves may not

be taken.

Bulls may be harvested.	*July 1-Oct. 14.* *Feb. 1-June 30.*
Cows may be harvested.	*Sep. 1-Mar. 31.*

Unit 22—Caribou

Unit 22B that portion west of Golovnin Bay and west of a line along the west bank of the Fish and Niukluk Rivers to the mouth of the Libby River and excluding all portions of the Niukluk River drainage upstream from and including the Libby River drainage - 5 caribou per day by State registration permit. Calves may not be taken.	*Oct. 1-Apr. 30.* *May 1-Sep. 30, a season may be announced.*
Units 22A, that portion north of the Golsovia River drainage, 22B remainder, that portion of Unit 22D in the Kuzitrin River drainage (excluding the Pilgrim River drainage), and the Agiapuk River drainages, including the tributaries, and Unit 22E, that portion east of and including the Tin Creek drainage - 5 caribou per day by State registration permit. Calves may not be taken.	*July 1–June 30.*
Unit 22A, remainder - 5 caribou per day by State registration permit. Calves may not be taken	*July 1-June 30, season may be announced.*
Unit 22D, that portion in the Pilgrim River drainage - 5 caribou per day by State registration permit. Calves may not be taken	*Oct. 1-Apr. 30.* *May 1-Sep. 30, season may be announced*
Units 22C, 22D remainder, 22E remainder - 5 caribou per day by State registration permit. Calves may not be taken	*July 1-June 30, season may be announced*

Unit 23−Caribou

Unit 23—that portion which includes all drainages north and west of, and including, the Singoalik River drainage—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*

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 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.

Bureau of Land Management managed lands between the Noatak and Kobuk Rivers and Noatak National Preserve are closed to caribou hunting from Aug. 1-Sep. 30 for the 2022-24 regulatory cycle, except by federally qualified subsistence users hunting under these regulations.

Unit 24—Caribou

Unit 24B remainder - 5 caribou per day, as follows: Calves may not be taken.

Bulls may be harvested.	*July 1-Oct. 14.* *Feb. 1-June 30.*
Cows may be harvested.	*July 15-Apr. 30.*

Units 24C, 24D - 5 caribou per day, as follows: Calves may not be taken.

Bulls may be harvested.	*July 1-Oct. 14.* *Feb. 1-June 30.*

Unit 23−Caribou

Cows may be harvested	*Sep. 1-Mar. 31.*

Unit 26—Caribou

Unit 26A - that portion of the Colville River drainage upstream from the Anaktuvuk River, and drainages of the Chukchi Sea south and west of, and including the Utukok River drainage - 5 caribou per day by State registration permit as follows: Calves may not be taken

Bulls may be harvested	*July 1-Oct. 14.* *Dec. 6-June 30.*
Cows may be harvested; however, cows accompanied by calves may not be taken July 16-Oct. 15	*July 16-Mar. 15.*

Noatak National Preserve is closed to caribou hunting from Aug. 1-Sep. 30 for the 2022-24 regulatory cycle, except by federally qualified subsistence users hunting under these regulations.

Unit 26A remainder - 5 caribou per day by State registration permit as follows: Calves may not be taken

Bulls may be harvested	*July 1-Oct. 15.* *Dec. 6-June 30.*
Up to 3 cows per day may be harvested; however, cows accompanied by calves may not be taken July 16-Oct. 15	*July 16-Mar. 15.*

Proposed Federal Regulation

Unit 21D—Caribou

Unit 21D, remainder— ~~*5 caribou per day*~~ ***4 caribou per year, only 1 may be a cow****, as follows: Calves may not be taken.*

WP24-28 - Units 21D, 22, 23, 24, and 26A; Reduce harvest limit to 4 caribou per year only one of which may be a cow

Bulls may be harvested.	*July 1-Oct. 14.*
Cows may be harvested.	*Feb. 1-June 30.* *Sep. 1-Mar. 31.*

Unit 22—Caribou

Unit 22B that portion west of Golovnin Bay and west of a line along the west bank of the Fish and Niukluk Rivers to the mouth of the Libby River and excluding all portions of the Niukluk River drainage upstream from and including the Libby River drainage - ~~*5 caribou per day*~~ ***4 caribou per year, only 1 may be a cow*** *by State registration permit. Calves may not be taken.*	*Oct. 1-Apr. 30.* *May 1-Sep. 30, a season may be announced.*
Units 22A, that portion north of the Golsovia River drainage, 22B remainder, that portion of Unit 22D in the Kuzitrin River drainage (excluding the Pilgrim River drainage), and the Agiapuk River drainages, including the tributaries, and Unit 22E, that portion east of and including the Tin Creek drainage - ~~*5 caribou per day*~~ ***4 caribou per year, only 1 may be a cow*** *by State registration permit. Calves may not be taken.*	*July 1–June 30.*
Unit 22A, remainder - ~~*5 caribou per day*~~ ***4 caribou per year, only 1 may be a cow*** *by State registration permit. Calves may not be taken*	*July 1-June 30, season may be announced.*
Unit 22D, that portion in the Pilgrim River drainage - ~~*5 caribou per day*~~ ***4 caribou per year, only 1 may be a cow*** *by State registration permit. Calves may not be taken*	*Oct. 1-Apr. 30.* *May 1-Sep. 30, season may be announced*
Units 22C, 22D remainder, 22E remainder - ~~*5 caribou per day*~~ ***4 caribou per year, only 1 may be a cow*** *by State registration permit. Calves may not be taken*	*July 1-June 30, season may be announced*

Unit 23−Caribou

Unit 23—that portion which includes all drainages north and west of, and including, the Singoalik River drainage— ~~*5 caribou per day*~~ ***4 caribou per year, only 1 may be a cow*** *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*

Unit 23, remainder— ~~*5 caribou per day*~~ ***4 caribou per year, only 1 may be a cow*** *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 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.

Bureau of Land Management managed lands between the Noatak and Kobuk Rivers and Noatak National Preserve are closed to caribou hunting from Aug. 1-Sep. 30 for the 2022-24 regulatory cycle, except by federally qualified subsistence users hunting under these regulations.

Unit 24—Caribou

Unit 24B remainder - ~~*5 caribou per day*~~ ***4 caribou per year, only 1 may be a cow*** *as follows: Calves may not be taken.*

Bulls may be harvested.	*July 1-Oct. 14.* *Feb. 1-June 30.*
Cows may be harvested.	*July 15-Apr. 30.*

Units 24C, 24D - ~~*5 caribou per day*~~ ***4 caribou per year, only 1 may be a cow*** *as follows: Calves may not be taken.*

Bulls may be harvested.	*July 1-Oct. 14.* *Feb. 1-June 30.*
Cows may be harvested	*Sep. 1-Mar. 31.*

Unit 26—Caribou

*Unit 26A - that portion of the Colville River drainage upstream from the Anaktuvuk River, and drainages of the Chukchi Sea south and west of, and including the Utukok River drainage - ~~5 caribou per day~~ **4 caribou per year, only 1 may be a cow** by State registration permit as follows: Calves may not be taken.*

Bulls may be harvested	*July 1-Oct. 14.* *Dec. 6-June 30.*
Cows may be harvested; however, cows accompanied by calves may not be taken July 16-Oct. 15	*July 16-Mar. 15.*

Noatak National Preserve is closed to caribou hunting from Aug. 1-Sep. 30 for the 2022-24 regulatory cycle, except by federally qualified subsistence users hunting under these regulations.

*Unit 26A remainder - ~~5 caribou per day~~ **4 caribou per year, only 1 may be a cow** by State registration permit as follows: Calves may not be taken.*

Bulls may be harvested	*July 1-Oct. 15.* *Dec. 6-June 30.*
*~~Up to 3 cows per day~~ **Only 1 cow** may be harvested; however, cows accompanied by calves may not be taken July 16-Oct. 15*	*July 16-Mar. 15.*

Existing State Regulation

Unit 21D—Caribou

21D remainder	*Residents—5 caribou per day, however, calves may not be taken.*	*July 1-Oct. 14* *Feb. 1-June 30.*

	Bulls	*Sep. 1-Mar. 31.*
	Cows	*Aug. 1-Sep. 30*
	Nonresidents—1 bull; however, calves may not be taken	

Unit 22—Caribou

22A, north of the Golsovia River drainage	*Residents—Twenty caribou total, up to 5 per day by permit.*	
	Bulls RC800	*No closed season*
	Cows RC800	*July 1-Mar. 31.*
	Nonresidents—1 bull	*Aug. 1-Sep. 30*
22A, remainder	*Residents— Twenty caribou total, up to 5 per day by permit. Bulls may not be taken Oct. 15- Jan 31, and cows may not be taken Apr 1- Aug 31. RC800*	*May be announced*
	Nonresidents—1 bull	*May be announced*
22B, west of Golovnin Bay, west of the west banks of Fish and Niukluk rivers below the Libby River, (excluding the Libby River drainage and Niukluk River drainage above, the mouth of the Libby River)	*Residents— Twenty caribou total, up to 5 per day by permit.*	
	Bulls RC800	*Oct. 1-Apr. 30*
	Cows RC800	*Oct. 1-Mar 31.*
	Residents— Twenty caribou total, up to 5 per day by permit. Cows may not be taken Apr 1- Aug 31. RC800	*May be announced*
	Nonresidents—1 bull	*May be announced*
22B, remainder	*Residents— Twenty caribou total, up to 5 per day by permit.*	
	Bulls RC800	*No closed season*
	Cows RC800	*July 1-Mar. 31.*

	Nonresidents—1 bull	*Aug. 1-Sep. 30*
22C	*Residents— Twenty caribou total, up to 5 per day by permit. Bulls may not be taken Oct 15-Jan 31, and cows may not be taken Apr 1-Aug 31. RC800*	*May be announced*
	Nonresidents—1 bull	*May be announced*
22D, Pilgrim River drainage	*Residents— Twenty caribou total, up to 5 per day by permit.*	
	Bulls RC800	*Oct. 1-Apr. 30*
	Cows RC800	*Oct. 1-Mar. 31.*
	Residents— Twenty caribou total, up to 5 per day by permit. Cows may not be taken Apr 1-Aug 31. RC800	*May be announced*
	Nonresidents—1 bull; however, calves may not be taken	*May be announced*
22D, in the Kuzitrin River drainage (excluding the Pilgrim River drainage) and the Agiapuk River drainage	*Residents— Twenty caribou total, up to 5 per day by permit.*	
	Bulls RC800	*No closed season*
	Cows RC800	*July 1-Mar. 31.*
	Nonresidents—1 bull	*Aug. 1-Sep. 30*
22D, remainder	*Residents— Twenty caribou total, up to 5 per day by permit. Bulls may not be taken Oct 15- Jan 31, and cows may not be taken Apr 1 – Aug 31. RC800*	*May be announced.*
	Nonresidents—1 bull	*Aug. 1-Sep. 30*
22E, east of and including the	*Residents— Twenty caribou total, up to 5 per day by permit.*	
	Bulls RC800	*No closed season*

Sanaguich River drainage	*Cows RC800*	*July 1-Mar. 31.*
	Nonresidents—1 bull	*Aug. 1-Sep. 30*
22E, remainder	*Residents— Twenty caribou total, up to 5 per day by permit. Bulls may not be taken Oct 15- Jan 31, and cows may not be taken Apr 1 – Aug 31. RC800*	*May be announced*
	Nonresidents—1 bull	*May be announced*

Unit 23—Caribou

23, north of and including the Singoalik River drainage	*Residents—5 caribou per day by permit.*	
	Bulls RC907	*No closed season*
	Cows RC907	*Jul. 15-Apr. 30*
	Nonresidents—1 bull	*Aug. 1-Sep. 30*
23 remainder	*Residents—5 caribou per day by permit.*	
	Bulls RC907	*No closed season*
	Cows RC907	*Sep. 1-Mar. 31.*
	Nonresidents—1 bull	*Aug. 1-Sep. 30*

Unit 24—Caribou

24B remainder	*Residents—5 caribou per day, however, calves may not be taken.*	
	Bulls	*July 1-Oct 14* *Feb 1-June 30*
	Cows	*July 15-Apr. 30.*
	Nonresidents—1 bull, however, calves may not be taken	*Aug. 1-Sep. 30*

24C and 24D	*Residents—5 caribou per day, however, calves may not be taken.*	
	Bulls	*July 1-Oct 14* *Feb 1-June 30*
	Cows	*Sep. 1-Mar. 31.*
	Nonresidents—1 bull, however, calves may not be taken	*Aug. 1-Sep. 30*

Unit 26—Caribou

26A, the Colville River drainage upstream from the Anaktuvuk River, and drainages of the Chukchi Sea south and west of, and including the Utukok River drainage	*Residents—5 caribou per day by permit.*	
	Bulls RC907	*July 1-Oct. 14* *Feb. 1-June 30.*
	Cows RC907	*Jul. 15-Apr. 30*
	Nonresidents—1 bull	*July 15-Sep. 30*
26A remainder	*Residents—5 caribou per day by permit. RC907*	*July 1-July 15* *Mar 16-June 30.*
	5 caribou per day three of which may be cows by permit; cows with calves may not be taken. RC907	*July 16-Oct 15.*
	3 cows per day by permit. RC907	*Oct 16-Dec 31*
	5 caribou per day three of which may be cows by permit. RC907	*Jan 1-Mar 15*
	Nonresidents—1 bull; however, calves may not be taken	*July 15-Sep. 30*

Extent of Federal Public Lands

Federal public lands comprise approximately 55.7% of Unit 21D and consist of 29.3% U.S. Fish and Wildlife Service (USFWS) managed lands and 26.4% Bureau of Land Management (BLM) managed lands.

Federal public lands comprise approximately 43.5% of Unit 22 and consist of 28.1% BLM managed lands, 12.4% National Park Service (NPS) managed lands, and 3% USFWS managed lands.

Federal public lands comprise approximately 70.5% of Unit 23 and consist of 39.6% NPS managed lands, 21.8% BLM managed lands, and 9.1% USFWS managed lands.

Federal public lands comprise approximately 64.4% of Unit 24 and consist of 21.8% NPS managed lands, and 21.8% USFWS managed lands, and 20.8% BLM managed lands.

Federal public lands comprise approximately 67.5% of Unit 26 and consist of 45.2% BLM managed lands, 17.3% USFWS managed lands, and 5% NPS managed lands.

Federal public lands comprise approximately 72.7% of Unit 26A and consist of 66% BLM managed lands, 6.6% NPS managed lands, and 0.01% USFWS managed lands.

Customary and Traditional Use Determinations

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

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

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

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

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

Residents of Unit 26, Anaktuvuk Pass, and Point Hope have a customary and traditional use determination for caribou in Unit 26A.

Regulatory History

See **Appendix 1**

Current Events

2024-26 Federal Wildlife Proposals

The Northwest Arctic Council and North Slope Subsistence Regional Advisory Council (North Slope Council) submitted Proposals WP24-30 and WP24-31, respectively, to close caribou hunting to non-federally qualified users in Unit 23 from Aug. 1-Oct. 31.

WSA22-05/06

Temporary Wildlife Special Action WSA22-05, submitted by the Northwest Arctic Council, requested a reduction in the caribou harvest limit in Unit 23 to four caribou per year, only one of which may be a cow for the remainder of the 2022-24 regulatory cycle (see regulatory history, **Appendix 1**).

Temporary Wildlife Special Action WSA22-06, submitted by the Western Interior Subsistence Regional Advisory Council (Western Interior Council), requested a reduction in the caribou harvest limit across the range of the WACH to four caribou per year, only one of which may be a cow for the remainder of the 2022-24 regulatory cycle. Specific areas include Units 21D, remainder; 24A, remainder; 24B, remainder; 24C; 24D; and all caribou hunt areas within Units 22, 23, and 26A (see regulatory history, **Appendix 1**).

A public hearing was held for WSA22-05/06 on April 26, 2023, in Kotzebue, and for WSA22-06 only on May 2, 2023, via teleconference. In addition, consultations with tribes and Alaska Native Claims Settlement Act (ANCSA) corporations were held on May 15, 2023, via teleconference. Summaries of these hearings and consultations are presented here.

April 26, 2023 public hearing summary (WSA22-05 and WSA22-06)

OSM held a public hearing on WSA22-05 and WSA22-06 on April 26, 2023, in person in Kotzebue and via teleconference. Fourteen people testified. The majority of participants spoke in favor of the need for conservation of caribou but in opposition to the four caribou per year as proposed in the special action request. Speakers, almost unanimously, stressed that caribou is their dietary staple and an integral aspect of their cultural identity. They stated that the limit, as proposed, would disrupt a basic aspect of the subsistence economy, the ability to harvest for others who can't hunt for themselves. Climate change was acknowledged as a reason for changing caribou migration patterns. However, other phenomena were discussed. The effects of sport hunters and their use of airplanes is a major cause of concern because it is perceived as a disruption to caribou migration patterns. A couple of speakers said that migrations are interrupted when sport hunters don't follow local conservation practices such as letting the caribou leaders pass so the herd will follow. Speakers told of other local conservation practices and indigenous ways of showing respect, including letting caribou pass in the spring when they are skinny, not hunting cows in times of low numbers and using all parts of the caribou they harvest. One person noted that caribou population crashes are part of Indigenous Knowledge and these practices are enacted during these times.

One of the most pervasive themes was the short amount of time between the Northwest Arctic Council's request submission and public hearing, and the lack of village outreach. The lack of outreach is a major point of contention because, the participants said, those are the people who are the hunters and who make their living off of the land. Most speakers talked about the high cost of living in the region and that residents are not able to just stop hunting. Participants from the North Slope stated that this proposal is not relevant for them because they harvest from the Teshekpuk herd and not the WACH.

As noted, many participants spoke of the need to take conservation measures to preserve the WACH. The Kobuk Valley National Park Subsistence Resource Commission suggested changing the limit to five bulls per day and no cows so that harvesting for others can be sustained. One speaker, an elder, did not overtly support the proposal but candidly shared his thoughts as to how conservation of the herd should be

addressed. He stated that local hunting patterns have changed because of the presence of sport hunters who prefer to take bulls and disrupt migration routes. He said this led to the need for local hunters to shift to cow harvest. He expressed extreme concern that the use of semi-automatic weapons has taken the place of bolt action rifles among local hunters. He observed that some people shoot into the herd and may kill several caribou and that they don't harvest all of them. He acknowledged natural fluctuation in caribou herd numbers and said that local people are going to have to "tighten their belts." Like other speakers, he feels that the prohibition of fly-in hunting would allow for the restoration of caribou migration routes. He sincerely requested that all agencies come to the table to address local concerns and bring their data to find a viable solution to conserving the WACH.

May 2, 2023 public hearing summary (WSA22-06 only)

OSM held another public hearing on WSA22-06 on May 2, 2023, via teleconference. Forty-five people provided testimony. The vast majority of testifiers were from North Slope communities and strongly opposed the request. One person from Ambler supported the request, stressing the importance of protecting cows and the need for conservation now to ensure the herd's preservation into the future. Several commenters did not provide an explicit position.

The primary reason people opposed the request was because the proposed harvest limit reduction would not be enough to provide for people's subsistence uses, potentially resulting in starvation across North Slope communities. Many testifiers stated four caribou per year was not enough to feed their families or share with others in their community, including elders, widows, and people unable to hunt for themselves. One testifier commented that his family uses 30-50 caribou each year, while another stated four caribou would only last her family one month. People also emphasized that caribou are vital for their survival; they rely on caribou both nutritionally and culturally. For example, caribou sinew is used to construct whaling boats. Several testifiers stressed that subsistence users only take what they need and harvest sustainably; they should not be criminalized for feeding their families; sport hunters should be restricted first. Additionally, store-bought food is prohibitively expensive and not as healthy as caribou.

Another reason people opposed the request was because most caribou harvested in Unit 26A are from the Teshekpuk (TCH) or Central Arctic caribou (CACH) herds, not the WACH. As the TCH and CACH populations are not declining like the WACH, this harvest limit reduction would be an unnecessary restriction on subsistence uses. Many also commented that the timing of the public hearing was terrible because many of the region's caribou hunters were out whaling. Several others expressed a need for meaningful tribal consultation on the request.

Several testifiers agreed that some conservation measures were needed to address the decline of the WACH, but that the requested restrictions were too drastic, too soon, and did not allow sufficient time or opportunity for input by the subsistence users who would be most affected by these restrictions. Others expressed frustration at the Western Interior Council dictating what harvest regulations should be outside of their area in the North Slope region.

A representative from ADF&G commented that a similar proposal will be addressed by the Alaska Board of Game (BOG) in January 2024 and that outlying subunits occupied by other herds such as the TCH and CACH should be considered for removal from this request.

Following this public hearing, the Western Interior Council indicated via e-mails that they would like to withdraw this request. While Councils cannot formally withdraw special action requests outside of a public forum, the chair spoke to the Board about this issue when they meet to consider this request on June 8th.

May 15, 2023 Tribal and ANCSA consultation summary

Participants in the Tribal teleconference included representatives of the Inupiat Community of the Arctic Slope (ICAS), Naqsragmiut Tribal Council of Anaktuvuk Pass, and the Arctic Slope Community Foundation.

Participants said that four caribou per household for the year is not enough because hunters harvest for those who cannot hunt, not just their household. They stated that caribou is a staple food, but it is more than that, it is cultural identity and is healthier than store-bought food. Some participants discussed the conflict they face, in that they know WACH caribou needs to be conserved but they also need caribou in order to live. One person described Traditional/Indigenous Knowledge and on-going user conflict, "We know not to overharvest for 10,000 years and now it's all regulated for us. Just difficult to follow your regulations with over 1,000 super cub planes coming to harvest the same caribou."

Discussion of management topics included a request for the State to be at the table with villages and Federal managers to discuss and work out how to conserve the herd. Participants stated that they do not harvest the WACH and asked if enforcement would be herd-specific. OSM staff replied that law enforcement makes no distinction between herds; enforcement occurs according to harvest regulations in specific units and areas.

Participants asked about the timing of the special action and OSM staff replied that the Board is meeting to address it on June 8, 2023. Because this is a temporary special action, if the Board adopted the proposal, it would only last for one regulatory cycle and would end in June 2024. The conflict that hunters face was voiced again when a participant said that he knew he was going against himself but wondered if the closure should last for two cycles in order to save the herd because, he said, "…if we lose them, everything falls apart."

Participants in the Alaska Native Claims Settlement Act (ANCSA) teleconference included representatives of the Inupiat Community of the Arctic Slope (ICAS), Naqsragmiut Tribal Council of Anaktuvuk Pass, and NANA Regional Corporation.

The NANA Corporation representatives stated that NANA does not have an official position on the proposal but wanted to share concerns voiced by NANA shareholders. In general, shareholders have expressed deep and overwhelming worry and a heavy sense of concern. The main concern is that people do not know how they would feed their families and their communities if this special action is adopted. The fast speed of the process and the timing of the public hearings was cited as problematic because communities and families have not had time to discuss the situation among themselves. People expressed worry about shifting harvests away from caribou because other resources are also in decline. The use of the entire caribou for many purposes is also an issue; people will not just lose food, but the ability to make clothing, tools, and art from caribou.

Harvesting caribou for others is a central aspect of Inupiat culture and economy. The ability to harvest for others is a major concern. Participants requested clarification on the designated hunter permit. OSM staff replied that on Federal public lands, any federally qualified user can be a designated hunter for another federally qualified user. One participant asked how law enforcement would deal with several designated hunters in one boat with only their allowed limit of caribou on board. OSM staff replied that it would be permissible as permitted by State or Federal regulations. During the public hearings on April 26 and May 2, 2023, many participants expressed concerns about access to designated hunter permits. OSM staff has contacted U.S. Fish and Wildlife Service Refuge and National Park Service colleagues to identify exactly how to obtain designated hunter permits in hub communities and villages. Per their request, OSM staff has provided preliminary information to NANA representatives.

Participants asked how OSM came to the harvest limit proposed in WSA22-05/06. OSM staff replied that it was proposed by the Western Arctic Caribou Herd Working Group. The Chair of the Western Interior Council, Jack Reakoff, explained further that the Western Interior Council proposal was prompted by the drastic decline of the WACH and the immediate need to conserve caribou cows.

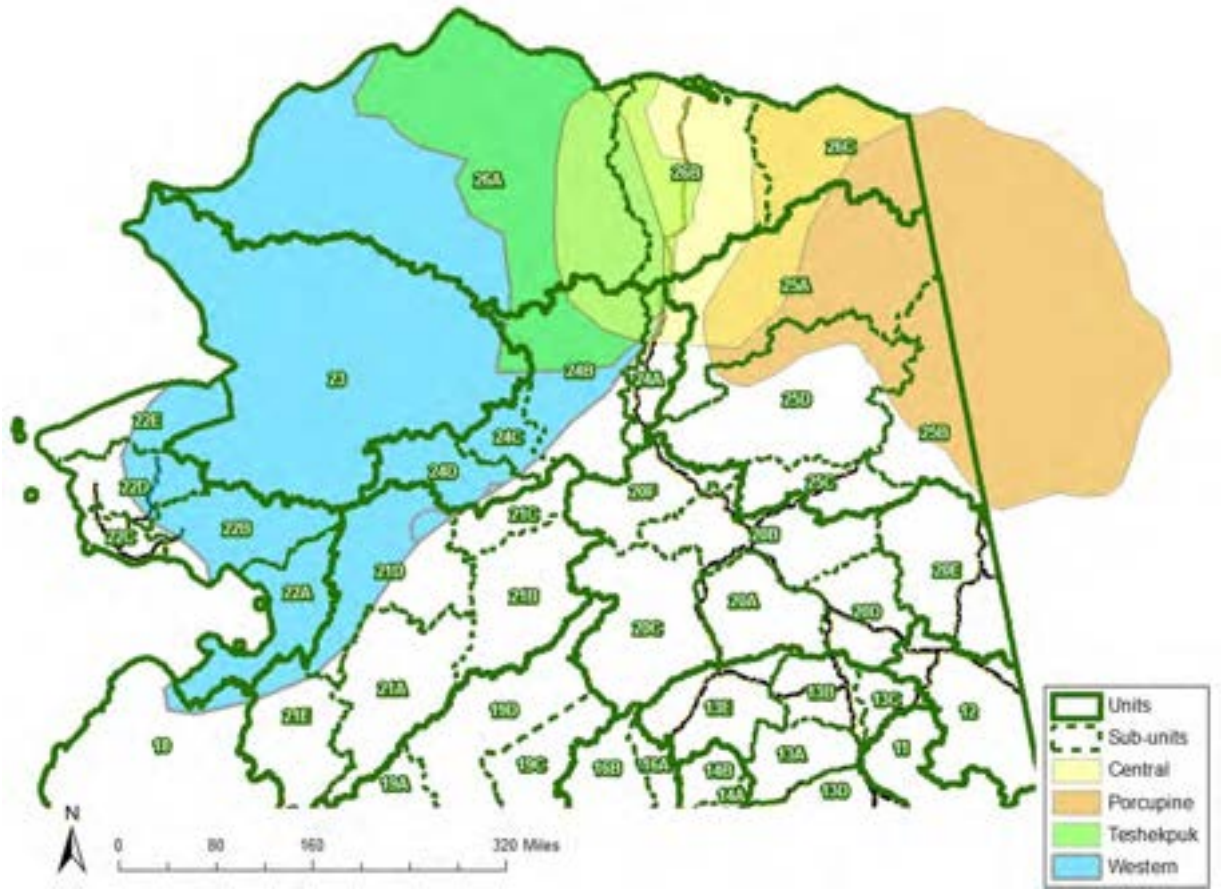
Biological Background

The TCH, WACH, and CACH have ranges that overlap in Units 23, 26A, 24A, and 24B (**Map 1**), and there can be considerable mixing of herds during the fall and winter (Prichard et al. 2020). As the current wildlife proposals focuses on conservation concerns for the WACH, this analysis will focus on the WACH. The TCH primarily occupies Unit 26A, and this analysis will briefly consider TCH biology and range. The CACH, which mostly occurs in Unit 26B, (Dau 2011, 2015; Lenart 2011; Parrett 2011, 2015c, 2015d), will not be considered further in this analysis.

Caribou abundance naturally fluctuates over decades (Gunn 2003; WACHWG 2011). Gunn (2003) reports the mean doubling rate for Alaskan caribou as 10 ± 2.3 years. Although the underlying mechanisms causing these fluctuations are uncertain, climatic oscillations (i.e., Arctic and Pacific Decadal Oscillations) may play an important role (Gunn 2003; Joly et al. 2011). Climatic oscillations can influence factors such as snow depth, icing, forage quality and growth, wildfire occurrence, insect levels, and predation, which all contribute to caribou population dynamics (Joly et al. 2011). Density-dependent reduction in forage availability, resulting in poorer body condition may exacerbate caribou population fluctuations (Gunn 2003).

Caribou calving generally occurs from late May to mid-June (Dau 2013; Cameron et al. 2018). Weaning generally occurs in late October and early November before the breeding season (Taillon et al. 2011). Calves may stay with their mothers through their first winter, which improves calves' access to food and body condition (Holand et al. 2012). Calves orphaned after weaning (October) have greater chances of survival than calves orphaned before weaning (Russell et al. 1991; Joly 2000; Holand et al. 2012, Rughetti and Festa-Bianchet 2014).

Caribou feed on a wide variety of plants including lichens, fungi, sedges, grasses, forbs, and twigs of woody plants. Arctic caribou depend primarily on lichens during the fall and winter, but during summer they feed on leaves, grasses, and sedges (Joly and Cameron 2018; Miller 2003).



***Map 1**. Herd overlap and ranges of the WACH, TCH, CACH, and PCH.*

Western Arctic Caribou Herd

The WACH has historically been the largest caribou herd in Alaska and has a home range of approximately 157,000 square miles in northwestern Alaska. In the spring, most mature cows move north to calving grounds in the Utukok Hills, while bulls and immature cows lag behind and move toward summer range in the Wulik Peaks and Lisburne Hills (**Map 2**; Dau 2011; WACHWG 2011, 2019). After calving, cows and calves move west toward the Lisburne Hills where they mix with the bulls and non-maternal cows. During the summer, the herd moves rapidly to the Brooks Range. Calving locations of individuals average 35 miles apart from one year to the next, and 90% of females calved within one week from the previous year (Joly et al. 2021). The WACH has used the same general calving grounds for more than 100 years (Cameron et al. 2020).

Except for summer periods, little individual site-specific fidelity is observed from year to year, especially during the winter (Joly et al. 2021). The winter range fluctuates year to year as the WACH demonstrate low fidelity to wintering grounds (Joly et al. 2021). Rut occurs during fall migration (Dau 2011, WACHWG 2011). The fall migration is more variable and shows less fidelity to specific migration routes than the spring migration, while caribou still showed a fidelity to certain regions within the herd's range (Joly et al. 2021).

In recent years, the timing of fall migration has been less predictable (Joly et al. 2021). Reasons for changes in migration phenology are unknown. However, Cameron et al. (2021) found that WACH migrated in response to snow events and cold temperatures but would pause migration when they encountered snow free areas or warmer temperatures. This corresponds with Traditional Ecological Knowledge, which has observed caribou migrating in response to weather (NWARAC 2021b). Caribou migrations are also closely related to the population size and density of the herd (Burch 1972, Joly et al. 2021b).

The proportion of caribou using certain migration paths also varies each year (**Figure 1**, Baltensperger and Joly 2019; Joly and Cameron 2020). Changes in migration paths are likely influenced by multiple factors including food availability, snow depth, rugged terrain, and dense vegetation (Nicholson et al. 2016; Fullman et al. 2017). If caribou travelled the same migration routes every year, their food resources would likely be depleted (NWARAC 2016a). Anthropogenic factors can also influence migration paths. Radio collared caribou data has shown that the Red Dog Mine Road, near Kivalina, has delayed the fall migration along the coast with some caribou turning around rather than crossing the road (Wilson et al. 2016, WACHWG 2021).

The WACH Working Group consists of a broad spectrum of stakeholders, including subsistence users, sport hunters, conservationists, hunting guides, reindeer herders and transporters. The Group is also technically supported by NPS, USFWS, BLM, and ADF&G personnel. The WACH Working Group developed a WACH Cooperative Management Plan in 2003 and revised it in 2011 and 2019 (WACHWG 2011, 2019). The WACH Management Plan identifies nine plan elements: cooperation, population management, habitat, regulations, reindeer, knowledge, education, human activities, and changing climate, as well as associated goals, strategies, and management actions. As part of the population management element, the WACH Working Group developed a guide to herd management determined by population size, population trend, and harvest rate. Population sizes guiding management level determinations were based on recent (since 1970) historical data for the WACH (WACHWG 2011, 2019). Revisions to recommended harvest levels under liberal and conservative management were made in 2015 (WACHWG 2015) and 2019 (WACHWG 2019a, **Table 1**).

The WACH population declined rapidly in the early 1970s, bottoming out at about 75,000 animals in 1976. Aerial photocensuses have been used since 1986 to estimate population size. The WACH population increased throughout the 1980s and 1990s, peaking at 490,000 animals in 2003 (**Figure 2**). From 2003-2016, the herd declined at an average annual rate of 7.1% from approximately 490,000 caribou to 200,928 caribou (Dau 2011, 2014; Caribou Trails 2014; Parrett 2016). In 2017, the herd increased to an estimated 259,000 caribou (Parrett 2017a). However, part of this increase may have been due to improved photographic technology as ADF&G switched from film to higher resolution digital cameras. The 2019 population estimate was 244,000 caribou (Hansen 2019a). No photocensus was completed in 2020, but ADF&G completed a census in 2021 (WACHWG 2020). The 2021 population estimate was 188,000 caribou with a 95% confidence interval of +/- 11,855 and a minimum count of 180,374. This is approximately a 24% decline from the 2019 population estimate (WACHWG 2021). The 2022 population estimate was 164,000 caribou with a 95% confidence interval of +/- 7,271 and a minimum count of 161,034, representing an additional 12% decline (**Figure 2**, WACHWG 2022).

Between 1982 and 2011, the WACH population was within the liberal management level prescribed by the WACH Working Group (**Figure 2, Table 1**). In 2013, the herd population estimate fell below the population threshold for liberal management of a decreasing population (265,000), slipping into the conservative management level. In 2020, as no photocensus was completed, the WACH Working Group voted to maintain the herd's status at the conservative declining level (WACH Working Group 2020). The 2021 population estimate fell below the population threshold for conservative management of a decreasing population (200,000). The WACH Working Group voted to place the herd in the preservative declining level in 2021 and 2022 (WACHWG 2021, 2022).

Between 1970 and 2021, the bull:cow ratio exceeded Critical Management level of 30 bulls:100 cows identified in the 2019 WACH Management Plan (**Figure 3**). (Note: Previous management plans identified 40 bulls:100 cows as the critical management level). However, the average annual number of bulls:100 cows was greater during the period of population growth (54:100 between 1976–2001) than during the recent period of decline (44:100 between 2004-2016). However, in 2017 the bull:100 cow ratio was the highest since 1998 at 54 bulls:100 cows. In 2021, that ratio fell slightly to 47 bulls:100 cows (**Figure 3,** WACHWG 2021). Additionally, Dau (2015) states that while trends in bull:cow ratios are accurate, actual values should be interpreted with caution due to sexual segregation during sampling and the inability to sample the entire population, which likely account for more annual variability than actual changes in composition.

Although factors contributing to the 2003-present decline are not known with certainty, increased adult cow mortality, and decreased calf recruitment and survival played a role (Dau 2011, WACHWG 2022). Since the mid-1980s, adult mortality has slowly increased while recruitment has slowly decreased (**Figure 4**, Dau 2013). Prichard (2009) developed a population model specifically for the WACH using various demographic parameters and found adult cow survival to have the largest impact on population size, followed by calf survival and then parturition rates.

Calf production has likely had little influence on the population trajectory (Dau 2013, 2015). Between 1990 and 2003, the June calf:cow ratio averaged 66 calves:100 cows/year. Between 2004 and 2017, the June calf:cow ratio averaged 72 calves:100 cows/year. In June 2018, 86 calves:100 cows were observed, which approximates the highest parturition level ever recorded for the herd (86 calves:100 cows in 1992) (Dau 2016a, WACH Working Group 2021). The 5-year period from 2015-2019 had the highest (83%) parturition rate of any period since monitoring began. Since 2018, the parturition rates have decreased. In 2022, the calf:cow ratio was 64 calves:100 cows. The long-term average (1992-2022) is 70 calves:100 cows/year (**Figure 5**, WACHWG 2022, NWARAC 2023).

Decreased calf survival through summer and fall and recruitment into the herd may have contributed to the recent population decline (Dau 2013, 2015). Fall calf:cow ratios indicate calf survival over summer. Between 1976 and 2017, the fall calf:cow ratio ranged from 35 to 59 calves:100 cows/year, averaging 47 calves:100 cows/year (**Figure 5**).

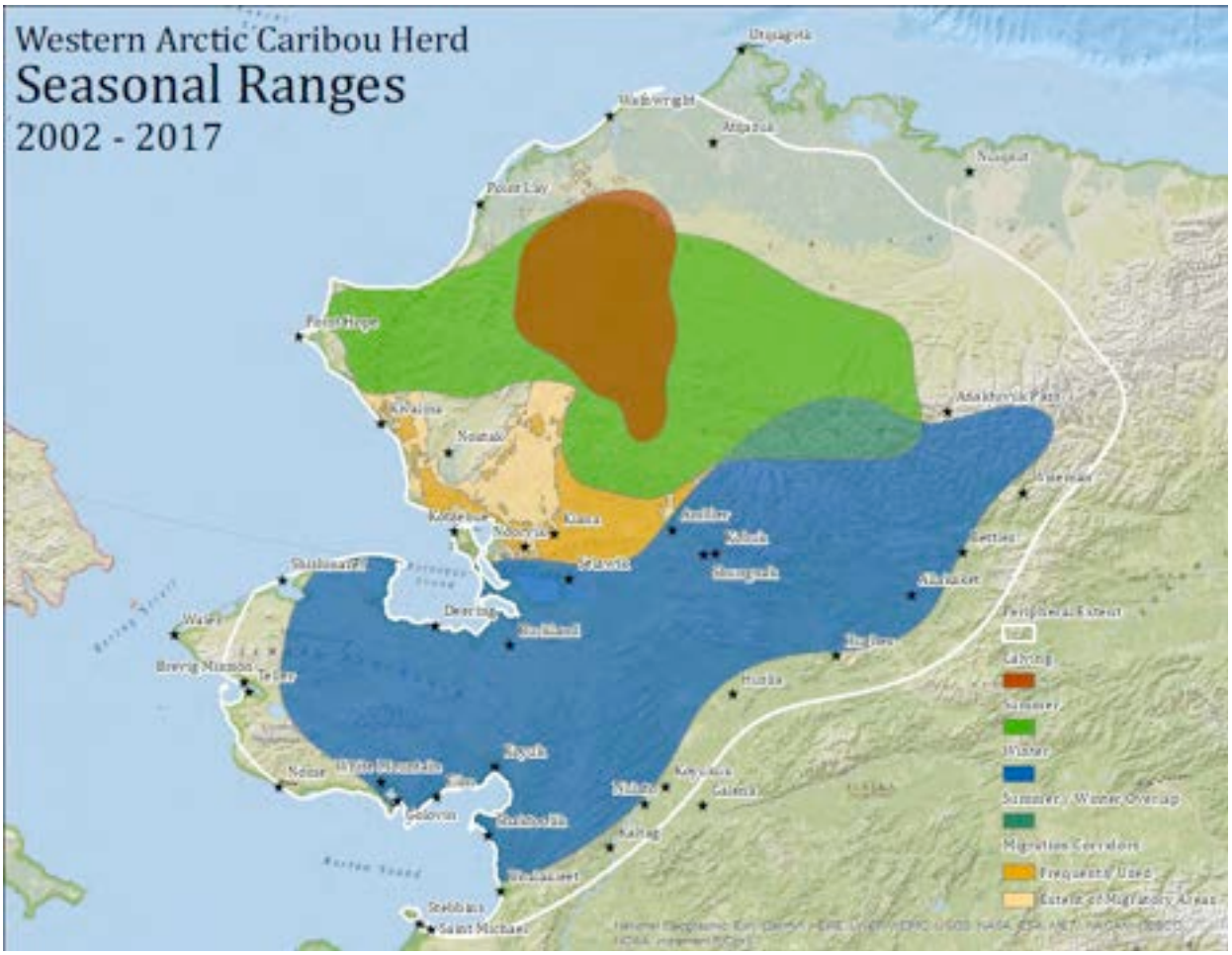
Similarly, the ratio of short yearlings (SY, 10-11 months old caribou) to adults provides a measure of overwintering calf survival and recruitment. Between 1998 and 2022, SY:adult ratios ranged from 9-26

and averaged 17 SY:100 adults/year (**Figure 5**). SY:100 adult ratios were high from 2016-2018, ranging from 21-23 SY:100 adults (Dau 2016b, NWARAC 2019a, NWARAC 2023). The 2022 SY:100 adult ratio was on par with the long-term average at 17 SY:100 adults (WACHWG 2022). Over the past seven years the short yearling ratio has been at or above the long-term average. Thus, recruitment does not appear to be a major driver of herd decline.

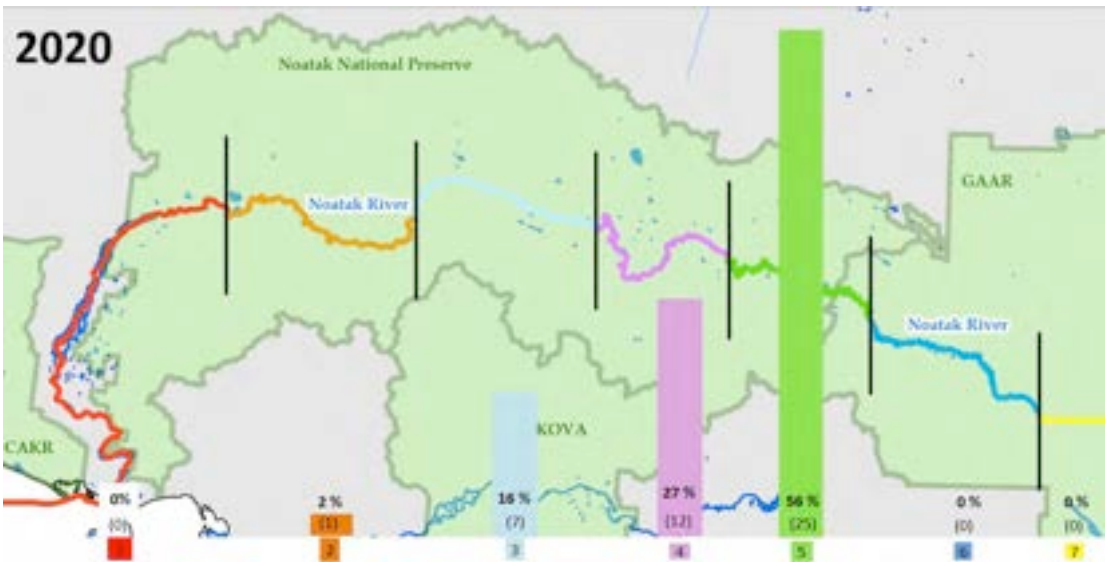
Cow mortality affects the trajectory of the herd (Dau 2011, 2013, Prichard 2009, NWARAC 2019a). The long-term mortality rate of radio-collared adult cows averaged 19% from 1987-2020 (WACHWG 2022). The annual mortality rate increased from an average of 15% between 1987 and 2003 to 23% from 2004-2014 (**Figure 4,** Dau 2011, 2013, 2014, 2015). Mortality rates declined in 2015 and 2016, but then increased sharply in 2017. However, the increased mortality rate in 2017 may have been due to a low and aging sample size as few caribou were collared in the previous two years (Prichard et al. 2012, NWARAC 2019a) and/or difficult weather conditions (Gurarie et al. 2020). Prior to 2019, ADF&G and NPS deployed collars on caribou at Onion Portage via boat in September. Only seven collars total were deployed in both 2017 and 2018 due to fewer caribou migrating through Onion Portage at predictable times. ADF&G and NPS begun deploying collars using net gun techniques via helicopter in April 2019 (Joly and Cameron 2021). Since 2018, estimated mortality rates have remained above the long-term average, ranging from 23-36%. Estimated mortality includes all causes of death including hunting (Dau 2011). Dau (2015) states that cow mortality estimates are conservative due to exclusion of unhealthy (i.e. diseased) and yearling cows from collaring. These mortality estimates are influenced by the age at which individuals were collared (which is unknown), sample size and how long the collars have been on individuals (Dau 2015, Prichard et al. 2012).

Cow mortality is low over winter and then increases in the spring/early summer, likely due to the convergence of declining body condition, demands of migration, and lactation prior to the availability of higher quality forage. Conversely, bull mortality spikes during the fall, both naturally from the demands of rut and from targeted human harvest (Dau 2013, 2014). Additionally, Prichard (2009) and Dau (2015) suggest that harvest levels and rates of cows can greatly impact population trajectory.

Increased predation, hunting pressure, deteriorating range condition (including habitat loss and fragmentation), climate change, fall and winter icing events, and disease may be contributing factors to the population decline (Joly et al. 2011; Dau 2014, 2015). Joly et al. (2007) documented a decline in lichen cover in portions of the wintering areas of the WACH, which continued through at least 2015 (BLM, unpublished data).



Map 2. Western Arctic Caribou Herd seasonal range map, 2002-2017 (image from WACHWG 2019a).



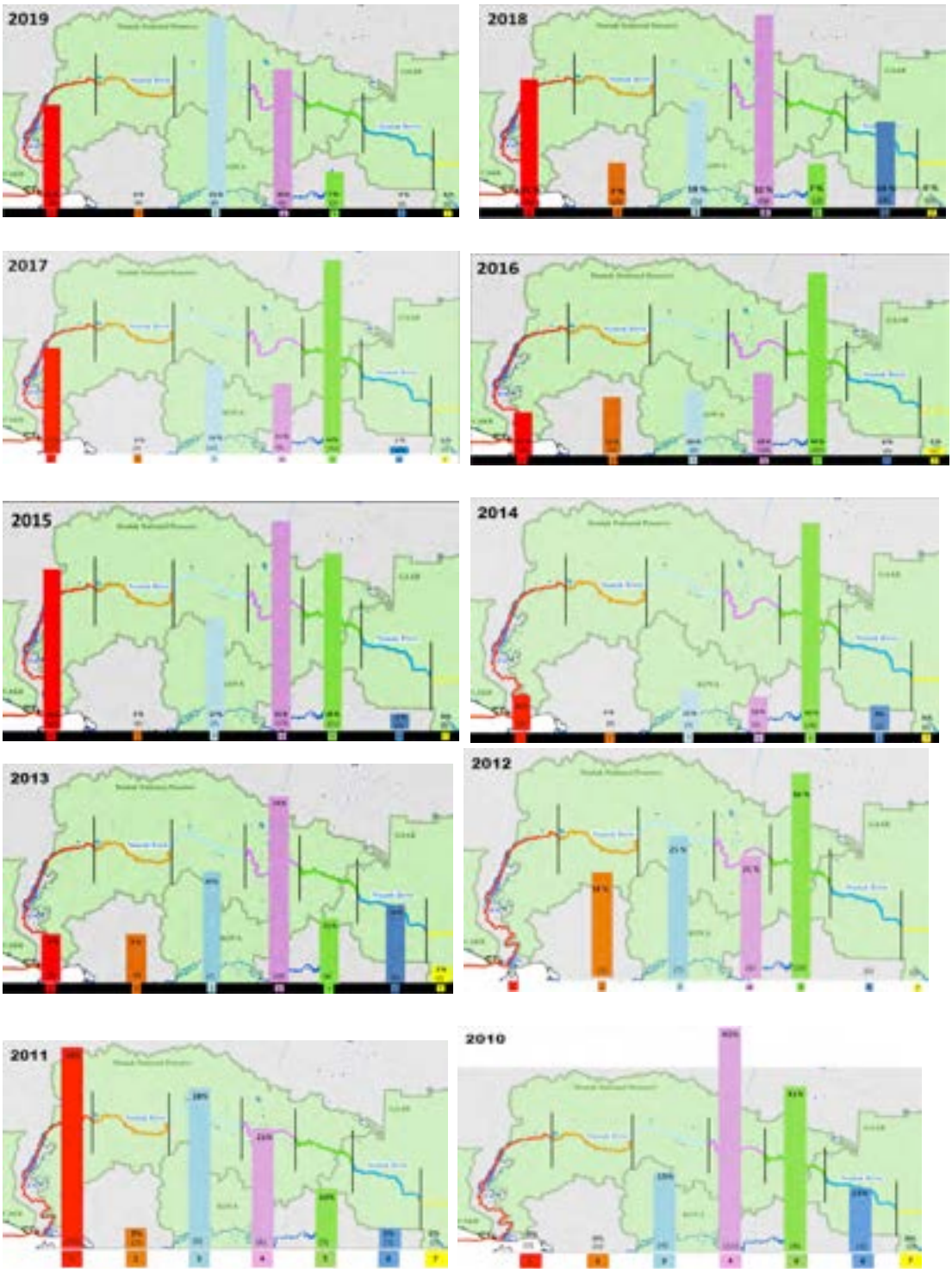


Figure 1. 2010-2020 distribution of caribou crossing the Noatak River during fall. Histograms depict where collared female caribou crossed the Noatak River, generally from north to south, on their fall migration. Relative percentages (top number) and the absolute number (middle number) of caribou are provided. The river is divided into seven (lowest number) color-coded segments which are displayed in the background. The middle five segments are 100 river kilometers long, while the westernmost segment (red) is 200 km (before extending into the Chukchi Sea) and the easternmost (yellow) runs as far east as WACH caribou are known to migrate (Joly and Cameron 2021).

Table 1. WACH management levels using herd size, population trend, and harvest rate (**WACHWG 2019b**).

Management and Harvest Level	***Population Trend***			***Harvest Recommendations May Include:***
	Declining *Adult Cow Survival <80% Calf Recruitment <15:100*	***Stable*** *Adult Cow Survival 80%-88% Calf Recruitment 15-22:100*	***Increasing*** *Adult Cow Survival >88% Calf Recruitment >22:100*	
Liberal	*Pop: 265,000+* *Harvest: 14,000+*	*Pop: 230,000+* *Harvest: 14,000+*	*Pop: 200,000+* *Harvest: 14,000+*	• *Reduce harvest of bulls by nonresidents to maintain at least 30 bulls:100 cows* • *No restriction of bull harvest by resident hunters unless bull:cow ratios fall below 30 bulls:100 cows*
Conservative	*Pop: 200,000-265,000* *Harvest: 10,000-14,000*	*Pop: 170,000-230,000* *Harvest: 10,000-14,000*	*Pop: 150,000-200,000* *Harvest: 10,000-14,000*	• *Encourage voluntary reduction in calf harvest, especially when the population is declining* • *No cow harvest by nonresidents* • *Restriction of bull harvest by nonresidents* • *Limit the subsistence harvest of bulls only when necessary to maintain a minimum 30:100 bull:cow ratio*
Preservative	*Pop: 130,000-200,000* *Harvest: 6,000-10,000*	*Pop: 115,000-170,000* *Harvest: 6,000-10,000*	*Pop: 100,000-150,000* *Harvest: 6,000-10,000*	• *No harvest of calves* • *Limit harvest of cows by resident hunters through permit hunts and/or village quotas* • *Limit the subsistence harvest of bulls to maintain at least 30 bulls:100 cows* • *Harvest restricted to residents only, according to state and federal law. Closure of some federal public lands to non-qualified users may be necessary*
Critical	*Pop: <130,000* *Harvest: <6,000*	*Pop: <115,000* *Harvest: <6,000*	*Pop: <100,000* *Harvest: <6,000*	• *No harvest of calves* • *Highly restrict the harvest of cows through permit hunts and/or village quotas* • *Limit the subsistence harvest of bulls to maintain at least 30 bulls:100 cows* • *Harvest restricted to residents only, according to state and federal law. Closure of some federal public lands to non-qualified users may be necessary*

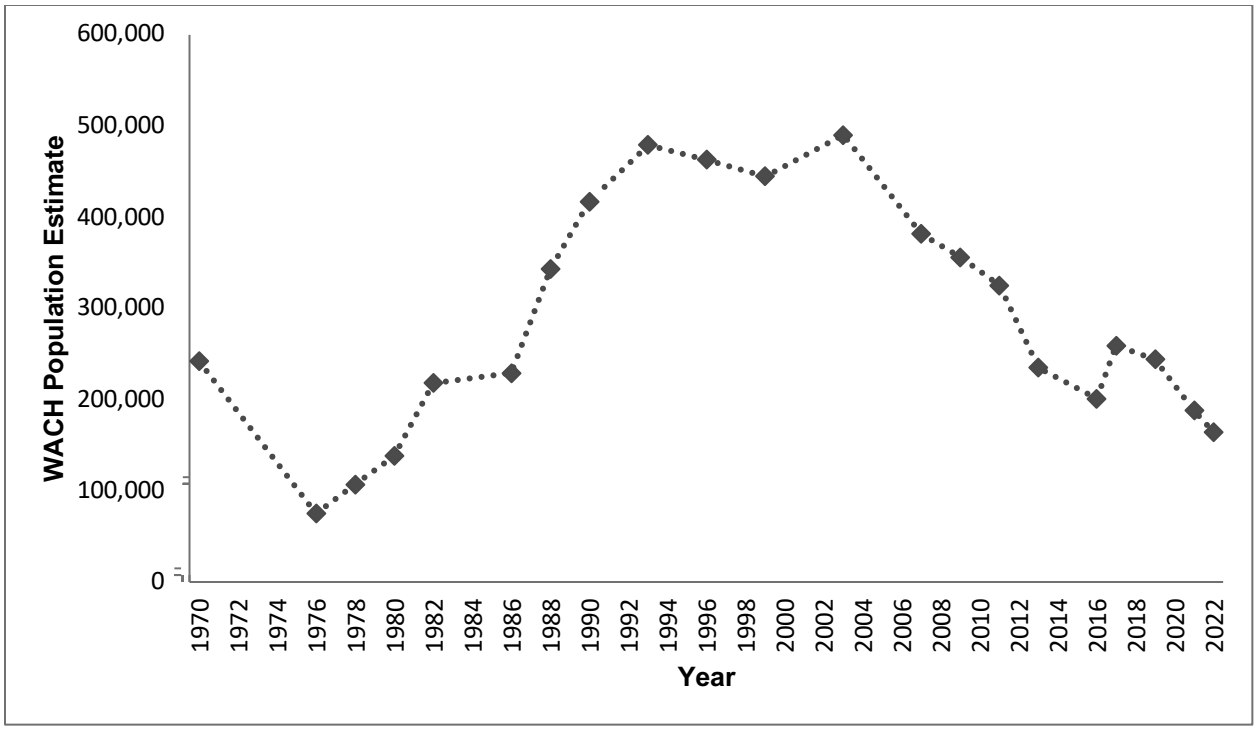


Figure 2. The WACH population estimates from 1970–2022. Population estimates from 1986–2022 are based on aerial photographs of groups of caribou that contained radio-collared animals (Dau 2011, 2013, 2014; Parrett 2016, 2017a; Hansen 2019a; WACHWG 2021, 2022).

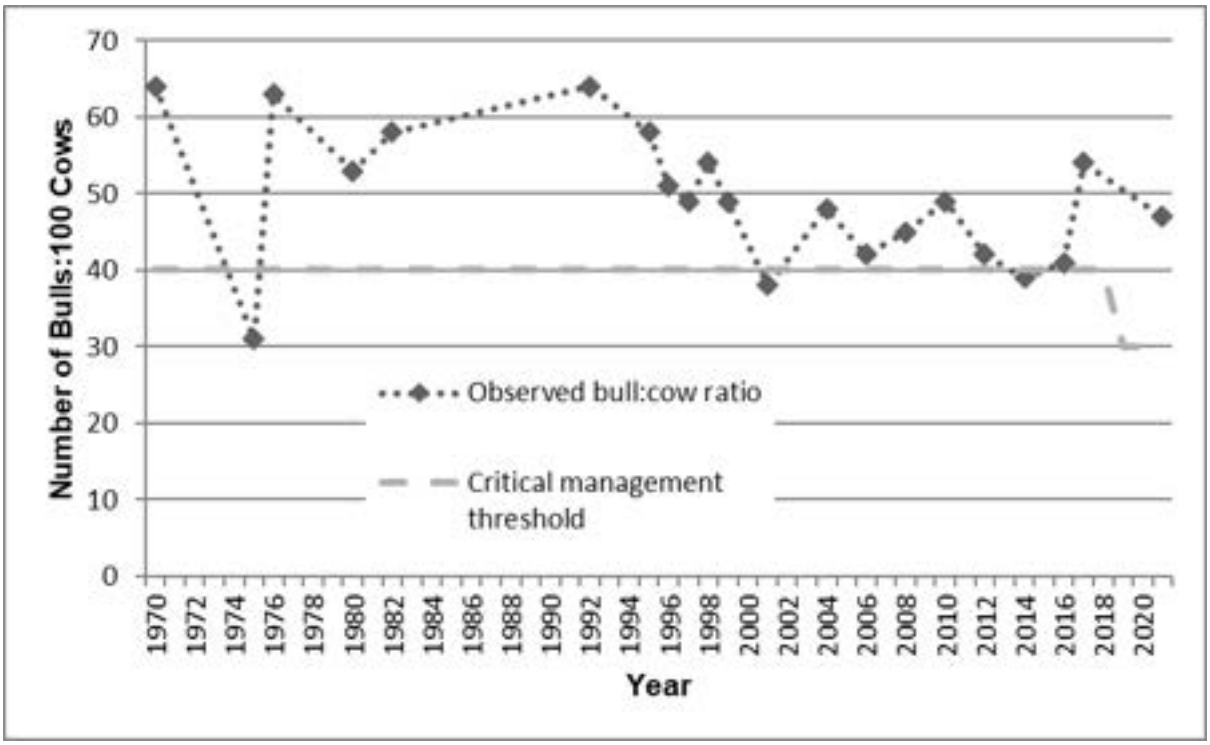


Figure 3. Bull:cow ratios for the WACH (Dau 2015; ADF&G 2017c; Parrett 2017a; WACHWG 2021).

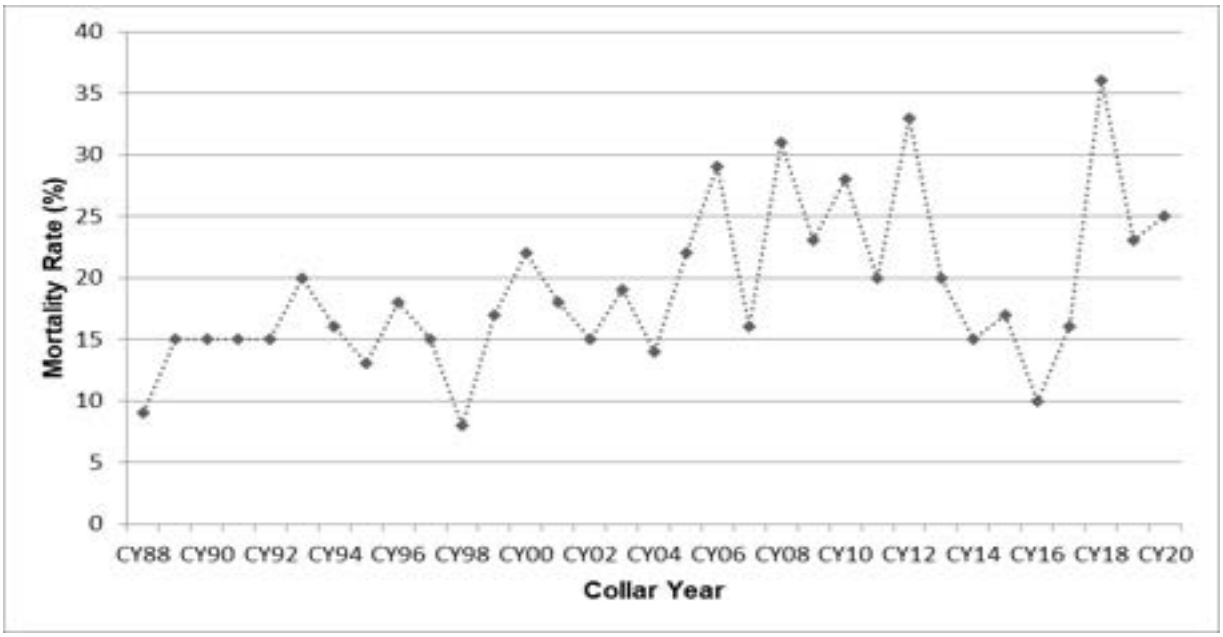


Figure 4. Mortality rate of radio-collared cow caribou in the WACH (Dau 2013, 2015, 2016b; NWARAC 2019a; WACHWG 2020, 2021). Collar Year = 1 Oct-Sep 30. Note: Prior to 2019, collars were deployed via boat in Onion Portage from September to October. Starting in 2019 collars were deployed via net gun techniques in spring (Joly and Cameron 2021).

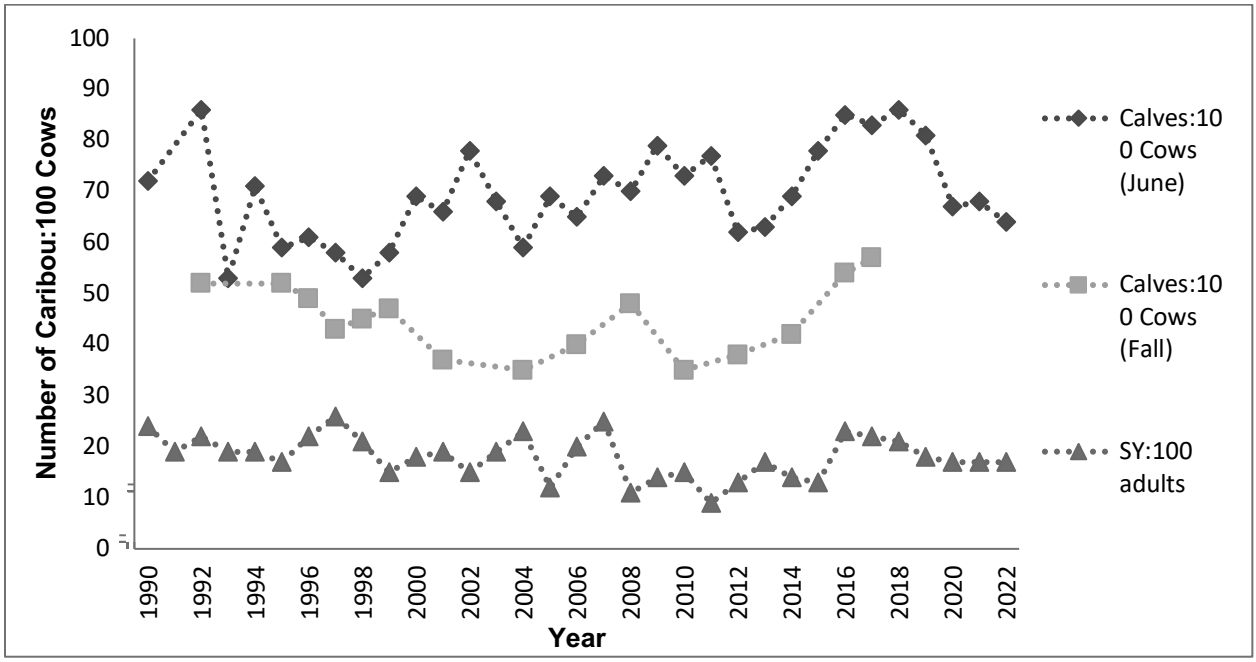


Figure 5. Calf:cow and short yearling (SY):adult ratios for the WACH (Dau 2013, 2015, 2016a; ADF&G 2017c; Parrett 2017a; NWARAC 2019a, 2023; WACHWG 2021, 2022). Short yearlings are 10-11 months old caribou.

Teshekpuk Caribou Herd

The TCH calving and summering areas overlap with the eastern portion of the National Petroleum Reserve–Alaska (NPR–A). Most of the TCH moves toward Teshekpuk Lake in May to calve in early June. The primary calving grounds of the TCH (approximately 1.8 million acres) occur to the east, southeast and northeast of Teshekpuk Lake (**Figure 6**, Person et al. 2007; Wilson et al. 2012). From late June through July cows and bulls move to seek relief from insects (**Figure 6**, Carroll 2007; Parrett 2007). Fall and winter movements are more variable, although most of the TCH winters on the coastal plain (Carroll 2007). The TCH winters in four relatively distinct areas: the coastal plain between Atqasuk and Wainwright; the coastal plain west of Nuiqsut; the central Brooks Range; and the shared winter ranges with the WACH in the Noatak, Kobuk, and Selawik drainages (**Figure 6**, Parrett 2021).

State management objectives for the TCH include (Parrett 2021):

- Maintain a population of at least 15,000 caribou, recognizing that caribou numbers naturally fluctuate.
- Provide a harvest of at least 900 caribou in a sustainable manner.
- Maintain a population with a range of 25–35 bulls:100 cows, depending upon population level.
- Obtain harvest estimates with sufficient data such that a 15% change in annual harvest is detectable.
- Develop regulations that have broad support among users and cooperating agencies.
- Clarify the relationships between both abundance and vital rates with harvest, habitat, body condition, predation, seasonal mixture with adjacent herds, and immigration between adjacent herds.
- Monitor herd characteristics and population parameters.
- Provide high-quality data on distribution, habitat preferences, and movement patterns to facilitate effective planning and mitigation of oil development and associated infrastructure.

Since 1984, the minimum population of the TCH has been estimated from aerial photocensuses and radio-telemetry data. The TCH population increased from an estimated 18,292 caribou (minimum estimate 11,822) in 1984 to 68,932 caribou (minimum estimate 64,106) in 2008. From 2008 to 2014, the population declined by almost half to 39,000 caribou (Parrett 2015a). Interpretation of population estimates is difficult due to movements and range overlap among caribou herds, which results in both temporary and permanent immigration and emigration (Person et al. 2007). For example, the minimum count in 2013 contained an unknown number of CACH caribou (Parrett 2015a). Following the 2013 census, ADF&G made the decision to manage the TCH based on the minimum count because the bulk of the animals that were estimated rather than counted were with the WACH at the time of the photocensus (Parrett 2015b, pers. comm.). In 2017, the minimum count was 56,255 with a population estimate of 55,614 (SE = 2,909). During 2012–2017, the management objective of maintaining a population of at least 15,000 caribou was met (Parrett 2021). The total minimum count for the 2022 photocensus was 51,225 caribou and the abundance estimate was 61,593 animals (95% CI: 52,188-70,998) (Daggett 2023, pers. comm.).

In 2013 and 2016, the number of bulls:100 cows was 39 bulls:100 cows and 28 bulls:100 cows, respectively (Parrett 2011, 2013, 2015a; Parrett 2017a, pers. comm.). Comparison of bull:cow and calf:cow ratios from 1991-2000 and later years is not possible due to changes in methodology. The calf:cow ratio increased from 18 calves:100 cows between 2009-2013 to 48 calves:100 cows in 2016 (Parrett 2013, 2015a; Parrett 2017a, pers. comm.). In addition, the number of SY:adults declined from an average of 20 SY:100 adults between 1999 and 2008 to an average of 14 SY:100 adults from 2009-2014 (Parrett 2013) and increased in 2016 to 29 SY:100 adults (Parrett 2017a, pers. comm.). From 2018-2021, the SY:adults returned to an average of 14 SY:100 adults. The most recent survey in 2023 decreased to 6.8 SY:100 adults (Daggett 2023, pers. comm.).

The annual mortality of adult radio collared females from the TCH has remained close to the long term (1991-2012) average of 14.5% (range 8–25%) (Parrett 2011, 2015a; Caribou Trails 2014). As the TCH declined, calf weights declined, indicating that poor nutrition may have had a significant effect on this herd (Carroll 2015, pers. comm.; Parrett 2015b, pers. comm.). In 2016 increased calf weights, high adult female survival (92%), high yearling recruitment (29 yearlings:100 adults), high calf production (81%), and a high calf:cow ratio (48 calves:100 cows) suggest that the population may be stable or declining at a slower rate (Parrett 2017a, pers. comm.; Klimstra 2017). In contrast, the body condition of individuals from the WACH, which declined dramatically over the same time period, had remained relatively good, indicating that caribou were still finding enough food within their range (Caribou Trails 2014; Dau 2014). Parturition rates from 2018-2022 peaked at 85% in 2020 and have since declined to 45% in 2022 (Daggett 2023, pers. comm.).

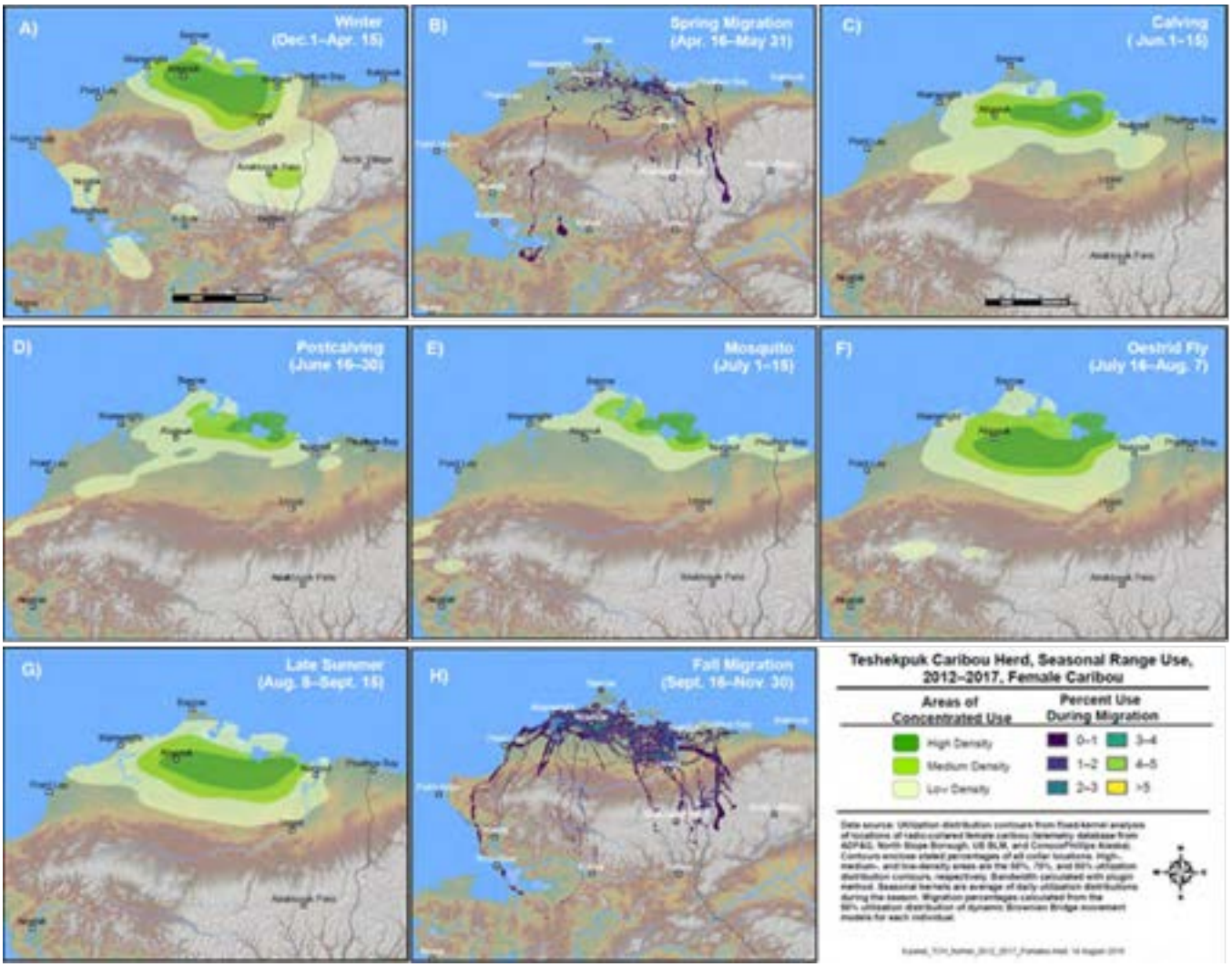
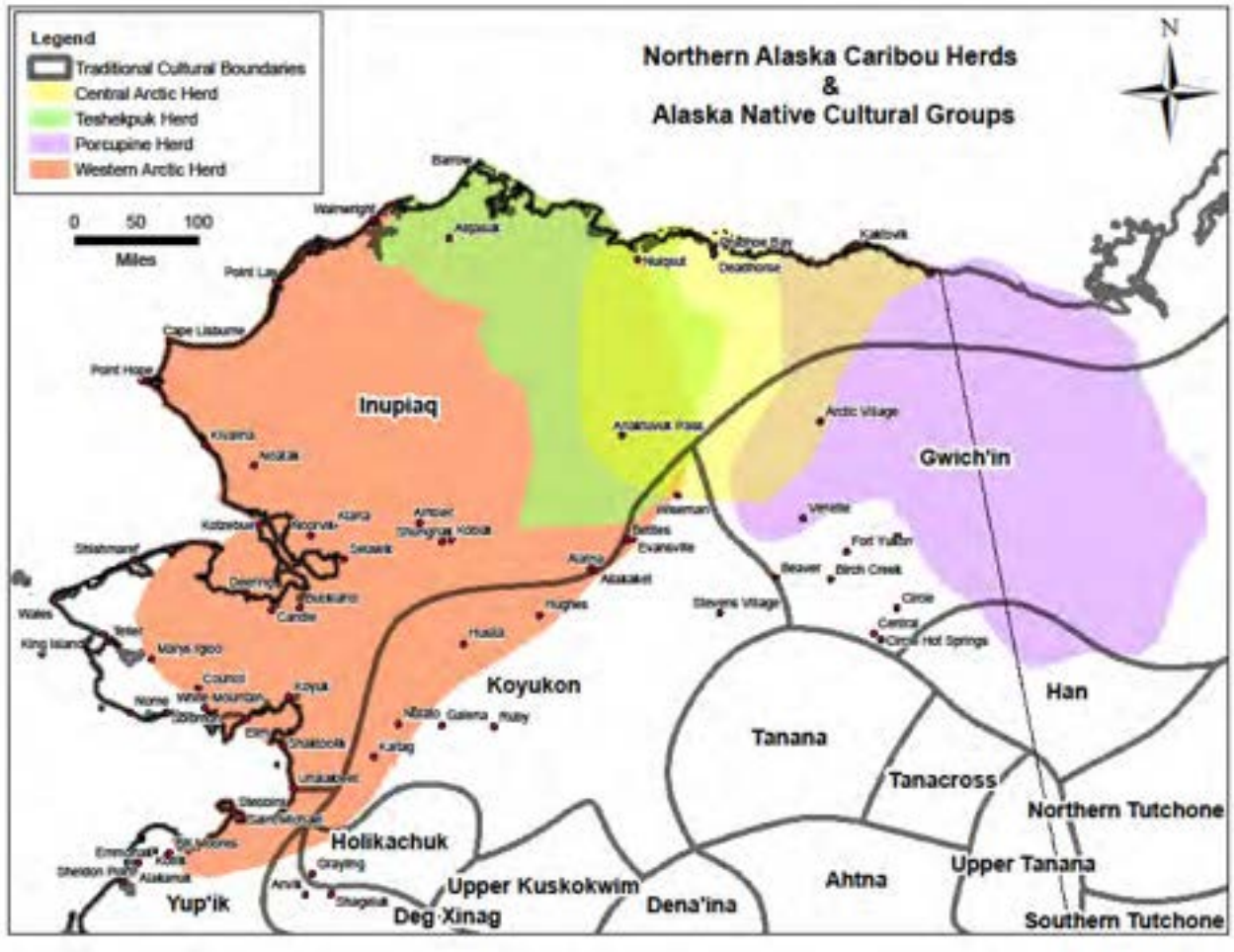


Figure 6. Seasonal ranges, 2012–2017, for satellite collared female caribou of the TCH Alaska (Parrett 2021). Note: Utqiaġvik was known as Barrow until 2016**.**

Cultural Knowledge and Traditional Practices

The potential effects of this proposal span the traditional territory the Iñupiat of the North Slope, Northwest Arctic and the Seward Peninsula, Yup'ik communities in the southern portion of the Seward Peninsula and northern portion of the Yukon region, and the Koyukon Athabascans of the Western Interior (**Map 3**). However, caribou are encountered less frequently by communities on the edges of the WACH's range, particularly during times of population decline (Burch 2012).

Because the communities that would be most directly affected by this proposal are located in traditional Iñupiaq territory, this section focuses on their cultural uses of caribou. 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 approximately 11,000 years ago occur in the Kivalina River drainage (Buvit et al. 2019).



Map 3. Map depicting the overlap of northern Alaska caribou herds and traditional territories of Alaska Native cultural groups.

Iñupiat values are based on the perspective that the human-animal relationship is reciprocal. Maintaining the reciprocal relationship requires respectful human behavior toward animals that is guided by a system

of rules. Three of the primary rules are 1) that humans must harvest animals who give themselves, 2) they must not waste any part of animals they harvest, and 3), in times of low animal populations, people must intentionally limit their harvest (Burch 1984, 1994, 1995; ADF&G 1992).

Failure to follow these rules or treating animals with disrespect will prevent animals from returning. Northwest Arctic Council members have testified about the decline in local availability of caribou, which has meant that many people have gone without caribou in recent years (NWARAC 2023). This proposal reflects the practice of intentional harvest limitation in order to maintain respectful and reciprocal relations between humans and caribou. At the Northwest Arctic Council meeting in October 2022, one Council member explained:

> Caribou is, I know they're going down. My son got caribou. I have caribou. So, he gave away to elders. And I always tell him don't get any more, I'll stop him when we have enough caribou because a family, my size, there's six of us in the family, and four caribou is enough for the whole year, and I always tell my son that's enough. When you get four caribou, that's good. The caribou herd is going down, we're not going to hunt this spring. And young men now, now days, if you teach them right, they'll listen, and I'm glad my son is doing that. Because I know the caribou is going down and we have to respect that (NWARAC 2022: 20).

Human population of the region

Decision-making on WACH harvest limits may incorporate demographic data for communities within the core range of the WACH. **Tables 2** highlights total population and the number of households for those regions with the highest documented harvest of caribou within the range of the WACH (U.S. Census 2020). **Table 3** shows the number of households harvesting caribou in the most recent ADF&G, Division of Subsistence surveys (CSIS 2023).

Table 2. Population and number of households in the Northwest Arctic Borough, North Slope Borough (excluding Kaktovik), and Nome Census Area (U.S. Census 2020). Kaktovik is excluded from the North Slope data because it is in Unit 26C, beyond the range of the WACH. Note that the Unit 24 community of Anaktuvuk Pass is within the North Slope Borough.

Census Area	Total Population	Number of Households
Northwest Arctic Borough	7,793	1,756
North Slope Borough, excluding Kaktovik	10,748	2,042
Nome Census Area	10,046	2,714
Total	**28,587**	**6,512**

Table 3. The number of households (in areas with a customary and traditional use determination for caribou within the units included in this proposal) harvesting caribou in in the most recent survey years, calculated based on ADF&G, Division of Subsistence data (CSIS 2023). Villages were not all surveyed in the same year. Note that totals for Unit 22 do not include Nome, for which no caribou subsistence survey data are available. Caribou survey data for Nunam Iqua and Kotlik date to 1980 and were deemed too old for inclusion. Some communities in Unit 26A

harvest primarily from the Teshekpuk Herd. These numbers do not reflect recent lack of availability of caribou for many communities, and therefore may over-estimate the number of households currently harvesting caribou.

Unit	Estimated Number of Households Harvesting Caribou in Most Recent Subsistence Survey Years
Unit 18 communities with C&T	12
Tanana (20E) and Stevens Village (25D)	4
Unit 21 (excluding communities in 21A; no C&T)	3
Unit 22 (excluding Nome; no data)	289
Unit 23	784
Unit 24 (excluding Anaktuvuk Pass)	38
Unit 26A and Anaktuvuk Pass	795
Total	**1,925**

Many gaps in the data remain, including the number of individuals (rather than households) harvesting caribou during past survey years and the number of potential caribou permit holders per household or in total. Of note, Wolfe et al. (2010) demonstrated that households producing more food in rural subsistence communities in Alaska were characterized by their inclusion of "multiple working-age males." Estimates of the number of potential permit holders may take into consideration the number of men of working age as one factor, as hunting has traditionally been dominated by men in Iñupiaq regions, although there are important exceptions to this pattern, as not all men of working age participate in the subsistence economy, and some women are active hunters (Satterthwaite-Phillips et al. 2016).

Unequal distribution of harvest effort

This proposal seeks a reduced harvest limit for the WACH, and past subsistence harvest estimates can inform consideration of reduced limits. ADF&G, Division of Subsistence has conducted periodic subsistence surveys for communities within the range of the WACH between 1982 and 2018. These data have limitations, such as the fact that communities are often surveyed only once every ten years, not each survey year is representative of typical subsistence use, and even in representative years, harvest numbers are estimates only. Nonetheless, subsistence surveys do provide valuable information on historical baseline harvest levels.

While wildlife regulations allot harvest limits on an individual basis, not all members of a community harvest and distribute wild foods at equal levels. Generally, many more people use caribou than harvest caribou because of the Iñupiaq cultural value of harvesting and sharing subsistence foods to provide for those who do not have a hunter in the household. As first posited by Wolfe (1987) and supported by decades of ADF&G, Division of Subsistence research, it is common for 30% of the households in rural Alaskan communities to harvest 70% of a community's total annual harvest measured in edible pounds of food (Magdanz et al. 2005: 41, Wolfe et al. 2010).

At their March 7-8, 2023 meeting, the Northwest Arctic Council discussed what they called "super hunters," hunters that provide for a large number of families, and who would need designated hunter permits under a reduced harvest limit scenario:

> We kind of named them as super hunters because a lot of families will -- five families will pull together gas and grub and whatever necessary for three boats to go out and hunt for six or seven families; that's why we call them super hunters, because they're providing for a lot of people that can't, you know, can't afford the gas, can't afford the boats, or don't have a boat, or an elder, that's one of the reasons why we kind of labeled them as super hunters but we need to ensure that they have this paperwork provided to them if they are going to do that" (NWARAC 2023:110).

Tables 4-7 compare the estimated number of caribou harvested in each community distributed over all households with harvest only per households that actually harvested caribou. Note that while harvest limits are individual, rather than household based, ADF&G, Division of Subsistence data on the percentage of a community harvesting caribou is only available on a household basis. The average number of potential permit-holders per household is unknown.

Table 4. For communities in Unit 23, this table shows the estimated number of caribou harvested (1) per household, and (2) per household successfully harvesting caribou for all surveys conducted periodically between 1986 and 2018. Calculated based on data from ADF&G, Division of Subsistence Community Subsistence Information System (CSIS 2023) and ADF&G, Division of Subsistence Technical Papers (Mikow et al. 2014., Mikow and Kostick 2016). Survey years with key data missing were excluded.

Community	Estimated Number of Caribou per Household	Estimated Number of Caribou per Households that Successfully Harvested Caribou
Ambler	5.3	10.5
Buckland	7.4	11.2
Deering	5.6	11.0
Kiana	4.2	6.8
Kivalina	2.9	5.5
Kobuk	4.8	7.2
Kotzebue	2.1	5.7
Noatak	3.8	6.7
Noorvik	4.0	6.8
Point Hope	1.1	3.6
Selawik	5.9	10.0
Shungnak	7.6	12.2
Average	**4.6**	**8.1**

Table 5. For communities in Unit 26A and Anaktuvuk Pass, this table shows the estimated number of caribou harvested (1) per household, and (2) per household successfully harvesting caribou for all surveys conducted periodically between 1985 and 2014. Calculated based on data from ADF&G, Division of Subsistence Community Subsistence Information System (CSIS 2023). Survey years with key data missing were excluded.

Community	Estimated Number of Caribou per Household	Number of Caribou per Households that Successfully Harvested Caribou
Anaktuvuk Pass	7.6	16.0
Atqasuk	3.7	5.8
Nuiqsut	4.7	7.3
Point Lay	4.7	7.2
Utqiaġvik	2.1	6.6
Wainwright	6.2	10.1
Average	**4.8**	**8.8**

Although Anaktuvuk Pass is located on the edge of Unit 24, it is included in the table for Unit 26A communities because of cultural continuity with the North Slope Region. However, as an inland community, Anaktuvuk Pass relies more heavily on caribou than coastal North Slope communities that have access to marine mammals (Brown et al. 2016). Despite important differences between communities, taken as a whole, residents of Unit 23 and residents of Unit 26A and Anaktuvuk Pass together have similar levels of average estimated per household harvest (4.6 and 4.8 caribou, respectively) and similar average estimated harvest per households that successfully hunted caribou (8.1 and 8.8 caribou, respectively) (**Tables 4** and **5**).

In terms of harvest per household successfully harvesting caribou, the highest average in Unit 23 was 12.2 caribou per household in Shungnak (**Table 4**), and the highest average in Unit 26 and Anaktuvuk Pass was 16 caribou, in Anaktuvuk Pass (**Table 5**). The estimated number of households harvesting caribou in the most recent survey years was 784 in Unit 23 and 795 in Unit 26A and Anaktuvuk Pass, for a total of 1,579 households (**Table 3**, CSIS 2023).

Note the significant difference between the two measures of caribou harvest (distributed across all households vs. only those households harvesting caribou) for both Units 23 and 26A. In considering how such numbers compare to the proposed reduction to four caribou per year per permit holder, it is worth noting that some "super households" (Wolfe 1987) that harvest for the wider community are likely to have multiple hunters, each of whom could hold a permit.

Table 6. For communities in Unit 22, this table shows the estimated number of caribou harvested (1) per household, and (2) per household successfully harvesting caribou for all surveys conducted periodically between 1989 and 2018. Calculated based on data from ADF&G, Division of Subsistence Community Subsistence Information System (CSIS 2023). Survey years with key data missing were excluded. Note that this table does not include survey data for Nome, which are not available.

Community	Estimated Number of Caribou per Household	Estimated Number of Caribou per Households that Successfully Harvested Caribou
Brevig Mission	0.8	5.1
Elim	2.0	4.0
Golovin	<0.1	1.0

Community	Estimated Number of Caribou per Household	Estimated Number of Caribou per Households that Successfully Harvested Caribou
Koyuk	3.6	6.1
Saint Michael	0.3	3.5
Shaktoolik	2.7	5.2
Shishmaref	3.0	6.7
Stebbins	0.1	6.3
Teller	0.2	2.9
Unalakleet	2.3	6.3
Wales	<0.1	3.4
White Mountain	1.2	4.5
Average	**1.2**	**4.6**

In Unit 22 communities (excluding Nome, for which no data are available), the average estimated per household harvest was 1.2 caribou, while the estimated harvest per harvesting household was 4.6 caribou, with a high of 6.7 caribou in Shishmaref (**Table 6**). The estimated number of households harvesting caribou in the most recent survey years was 289 for Unit 22 (**Table 3**, CSIS 2023).

Table 7. For communities in Unit 24, this table shows the estimated number of caribou harvested (1) per household, and (2) per household successfully harvesting caribou for all surveys conducted periodically between 1982 and 2011. Calculated based on data from ADF&G, Division of Subsistence Community Subsistence Information System (CSIS 2023). Survey years with key data missing were excluded.

Community	Estimated Number of Caribou per Household	Estimated Number of Caribou per Households that Successfully Harvested Caribou
Alatna	1.6	4.1
Bettles	1.2	4.1
Bettles/Evansville	0.2	2.3
Evansville	0.2	1.6
Coldfoot	0.4	1.6
Hughes	0.4	5.3
Huslia	1.4	4.3
Wiseman	0.8	1.3
Average	**0.8**	**3.1**

The availability of the WACH within the traditional territories of the interior Athabascans is more variable; harvest of caribou in these communities depends on the proximity of migrations to each village (Brown et al. 2004). In Unit 24 communities (excluding Anaktuvuk Pass), the average harvest per household was 0.8 caribou, and the average harvest per harvesting household was 3.1 caribou (**Table 7**).

No table is included for Unit 21D, remainder communities, where caribou harvest has only been documented for Galena in surveys conducted in the last 15 years. In that community, households harvesting caribou took an average of 2.5 caribou per household (CSIS 2023). Nor is a table included for Unit 18 communities, or Stevens Village and Tanana, which also have a customary and traditional use determination in portions of the WACH range. These communities historically have very low harvest levels (CSIS 2023). However, lower caribou harvest, reflecting intermittent and marginal availability, does not mean that caribou are not important to these communities.

When considering the per household caribou harvest levels shown in **Tables 4-7**, it is not surprising that the most vocal participants in the recent public hearings and tribal consultations are from the high-harvesting regions: residents of northwest Alaska in Unit 23, residents of the North Slope in Unit 26A and Anaktuvuk Pass.

Caribou harvest is affected by multiple factors: harvest limits, availability of animals, shifting migration routes, the need to share with nearby communities, human population size, community location, and the availability of other resources. The numbers in the tables cited in this section are approximations and do not tell the entire story of caribou harvest or need in these communities.

Multiple considerations and pressures determine how many caribou are harvested when a successful hunt is made. For example, in Unit 23, residents of some communities have had to "greatly increase their expenditure of money and effort to maintain…harvest levels" (Dau 2015:14-30). This is due in part to having to travel farther, more frequently, and for longer durations to find caribou (Halas 2015; Gonzalez et al. 2018), which is made even more expensive by rising fuel prices. A reduced harvest limit may make such large investments untenable for some hunters, who would otherwise have provided for the wider community. Although designated hunter permits could ameliorate this outcome, these permits currently present bureaucratic and logistical challenges to rural residents.

Harvest data from comprehensive subsistence household surveys are not sufficiently up to date to provide accurate information on the full impact that the WACH's decline and altered migration pattern may already be having on caribou availability and harvest levels. These surveys are not collected every year in every community. 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).

Cow harvest

In addition to harvest numbers, constraints on whether cows or bulls are harvested must also be taken into consideration. In the fall and prior to freeze-up, bulls have traditionally been preferred because they are fatter than cows (Georgette and Loon 1993; NWARAC 2023). 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; NWARAC 2023).

In some—but not all—survey years, ADF&G, Division of Subsistence data in the CSIS contains a breakdown of caribou harvest by male, female, or sex unknown. In Unit 23, in surveys conducted periodically between 1964 and 2018 for which this information exists, an average of 60% of the harvest was male and 30% was female, with 10% being unknown (**Appendix 2**). In Unit 26A and Anaktuvuk

Pass, in surveys conducted periodically between 1985 and 2014 for which information is available, an average of 70% of caribou harvested were male, 25% were female, and 5% were of unknown sex (**Appendix 2**). However, there was wide variability between years and communities in the breakdown of the harvest by sex.

Factors contributing towards increased harvest pressure on cows

Harvest of caribou by federally qualified subsistence users may be shifting towards cows due to the delayed migration of caribou into Unit 23 community hunting areas, as recently noted by a Northwest Arctic Council member (NWARAC 2023). However, current harvest report data on cow vs. bull harvest by federally qualified subsistence users are not available. With the delayed migration, caribou have been arriving in some Unit 23 communities after the rutting season has begun, at which point bulls are considered inedible. The local preference is to avoid hunting bulls for many months after the rut. The Western Arctic Caribou Herd Working Group has identified limiting cow harvest as the highest priority for WACH conservation (WACH Working Group 2022). The proposed harvest limit includes a significant limitation on cow harvest; an alternative incremental approach would begin with only limiting cow harvest, an option described in the "Alternatives Considered" section of this analysis.

Council rationale for proposing a reduced harvest limit

The Northwest Arctic Council has identified multiple factors that may be negatively affecting the WACH population and local people's ability to harvest caribou. Climate change, delayed caribou migration, development, increased predation by bears and wolves and/or a combination of these factors has led to difficulty for caribou-dependent communities in Unit 23 and (Dau 2015, Braem et al. 2015, NWARAC 2020, 2021). Reducing their harvest is one of the few actions Unit 23 communities can take to attempt to slow the WACH population decline. The requests to intentionally reduce caribou harvest reflect Iñupiaq values and the hope of intentionally limiting harvest to contribute to the recovery of the caribou population upon which communities depend.

During discussion of this proposal and an identical Special Action Request at their March 7-8, 2023 meeting, members of the Northwest Arctic Council discussed their rationale for supporting the reduced harvest limit. Council members emphasized the importance of acting pre-emptively and acknowledged that local residents would have to make sacrifices for the preservation of the herd, including taking fewer cows:

> We don't want to hit rock bottom with the caribou herd. If we lose that, if we go beyond what we have now we don't even know if we can get our caribou back (NWARAC 2023: 59).
>
> We have to do something to try to preserve this herd even if it means a lot less than what we were getting before. [A] limit to hunting of the cows is the only way because they're the ones who…can bring this herd back. It's one of the things that we have to sacrifice (NWARAC 2023: 54).

One Council member from Kotzebue discussed the need for action parallel to the regulatory process to educate the young people in Northwest Arctic communities about the importance of saving the caribou population. Another Council member from Kotzebue emphasized that restricting harvest by federally

qualified subsistence users would demonstrate local will to self-limit harvest in order to protect the WACH (NWARAC 2023).

The two public hearings and the tribal consultations on WSA22-05/06 showed the conflict faced by participants (see summaries in "Current Events"). The affected communities who rely on the Western Arctic Caribou Herd are aware that conservations measures are needed. However, they are concerned about drastic harvest limit reductions and have asked for a decision-making process that is community-based and allows adequate time for input and consultation with federally qualified subsistence users. At the Federal Subsistence Board meeting on WSA22-05/06, the Chair of the Northwest Arctic Council acknowledged that local reaction to the proposed harvest limit had been strongly negative but emphasized that some conservation action would ultimately need to be taken by federally qualified subsistence users (NWARAC 2023).

Harvest History

Western Arctic Caribou Herd harvest

The WACH Working Group provides recommendations on herd management, including harvest levels. Currently, the WACH is within the "preservative declining" level, which prescribes a harvest of 6,000-10,000 caribou (**Table 1**). Previous versions of the WACH management plan recommended a harvest rate of 6% of the estimated population when the herd was declining (WACHWG 2011, Parrett 2017b, pers. comm.). The current recommended harvest rate at the preservative declining level is 5% at 200,000 and 4.6% at 130,000. As the 2022 population estimate was 164,000 caribou, the harvestable surplus is currently 7,872 caribou (4.8% of 164,000) (NWARAC 2023; WACHWG 2022). The State manages the WACH on a sustained yield basis (i.e. managing current harvests to ensure future harvests). Of particular concern is the overharvest of cows, which may have occurred since 2010/11 (Dau 2015). Dau (2015:14-29) states, "even modest increases in the cow harvest above sustainable levels could have a significant effect on the population trajectory of the WACH."

Caribou harvest by local hunters is estimated from community harvest surveys (**Appendix 2**), if available, and from models developed by A. Craig with ADF&G's Division of Wildlife Conservation Region V. These models incorporate factors such as community size, availability of caribou, and per capita harvests for each community, which are based on mean values from multiple community harvest surveys (Dau 2015). In 2015, Craig's models replaced models developed by Sutherland (2005), resulting in changes to local caribou harvest estimates from past years. While Craig's models accurately reflect harvest trends, they do not accurately reflect actual harvest numbers (Dau 2015). This analysis only considers the updated harvest estimates using Craig's new model as cited in Dau (2015). Caribou harvest by nonlocal residents and nonresidents are based on harvest reports from harvest tickets and registration permits (Dau 2015). Hunters considered local by ADF&G are functionally identical to federally qualified subsistence users (e.g. residents of St. Lawrence Island are technically federally qualified subsistence users, but do not frequently harvest Western Arctic caribou).

From 1999–2018, the rangewide average estimated total harvest from the WACH was 14,103 caribou/year, ranging from 11,729-16,219 caribou/year (Hansen 2020 and 2021a, pers. comm.), but has

generally been estimated at 12,000 +/- 1,750 caribou per year since 1996 (WACHWG 2021, WACHWG 2019b). Additionally, harvest estimates do not include wounding loss, which may be hundreds of caribou (Dau 2015). Year-specific harvest estimates have not been generated since 2018, in part because they are not very accurate (Hansen 2021a, pers. comm., WACHWG 2021). While all of these harvest estimates are above the preservative harvest level specified in the WACH Management Plan and indicate unsustainable harvest levels, actual harvest is unknown and could be much lower due to caribou being unavailable for harvest near local communities.

Local hunters account for approximately 95% of the total WACH harvest and residents of Unit 23 account for approximately 58% of the total harvest on average (ADF&G 2017c). Comparison of caribou harvest by community from household survey data (**Appendix 2**) with **Figure 1** demonstrates that local community harvests parallel WACH availability rather than population trends. For example, Ambler only harvested 325 caribou when the WACH population peaked in 2003 but harvested 685 caribou in 2012 when most of the WACH migrated through eastern Unit 23. Similarly, Noatak only harvested 66 caribou in 2010 when no GPS-collared caribou migrated through western Unit 23. Harvest increased substantially (360 caribou) the following year when 37% of the GPS-collared caribou (and thus, a greater proportion of the WACH) migrated through western Unit 23 (**Appendix 2**).

Between 1998 and 2020, annual reported caribou harvest in Unit 23 ranged from 168-814 caribou (Hansen 2021a, pers. comm.). Over the same time period, reported harvest by non-federally qualified users ranged from 131-657 caribou. The lowest reported harvest occurred in 2016 when all Federal public lands in Unit 23 were closed to non-federally qualified users, but before harvest reporting was required for federally qualified subsistence users. Regardless, local compliance with reporting mandates is considered low but increasing. In 2017 and 2018, registration permits became required under State and Federal regulations, respectively, which is reflected in the greater number of reported caribou harvest by federally qualified subsistence users. However, compliance with reporting caribou harvest still remains too low to accurately estimate total caribou harvest. On average, 76% of WACH caribou harvested by nonlocals are harvested in Unit 23 (Dau 2015). Between 2016, when Federal lands closures began, and 2020, reported caribou harvest by non-local hunters in Unit 23 averaged 254 caribou (WinfoNet 2018, 2019, Hansen 2021a pers. comm.).

From 1999-2013, 72% of nonlocal hunters on average accessed the WACH by plane. Most nonlocal harvest (85-90%) occurs between August 25 and October 7. Most local subsistence hunters harvest WACH caribou whenever they are available using boats, 4-wheelers, and snowmachines (Dau 2015, Fix and Ackerman 2015). In Unit 23, caribou have historically been available during fall migration, but this has no longer been the case in recent years; caribou migration has occurred later in fall, resulting in subsistence harvest also occurring later, which in turn contributes to food insecurity.

The caribou harvest in Unit 21D averages 0-10 caribou/year (Dau 2009, 2013, 2016, pers. comm.).

<u>Unit 26A and Teshekpuk Caribou Herd harvest</u>

Reliance on caribou from a particular herd within Unit 26A varies by community. Residents of Atqasuk, Barrow, Nuiqsut, and Wainwright harvest caribou primarily from the TCH while residents from Anaktuvuk Pass, Point Lay, and Point Hope harvest caribou primarily from the WACH (Dau 2011, Parrett 2011, 2013). Weather, distance of caribou from the community, terrain, and high fuel costs are some of the factors that can affect the availability and accessibility of caribou. Residents of Nuiqsut, which is on the northeast corner of Unit 26A, harvest approximately 11% of their caribou from the CACH (**Table 7,** Parrett 2013).

Range overlap between the three caribou herds, frequent changes in the wintering distribution of the TCH and WACH, and annual variation in the community harvest survey effort and location make it difficult to determine the proportion of the TCH, WACH, and CACH in the harvest. Knowledge of caribou distribution at the time of the reported harvest is sometimes used to estimate the proportion of the harvest from each herd. A general overview of the relative utilization based on estimated harvest of each caribou herd by community for regulatory year 2010/11, is presented in **Table 8** (Parrett 2011, Dau 2011, and. Lenart 2011). The percentage of caribou harvested from different herds by community has varied ≤ 2% for all communities between 2008/09, 2009/10, and 2010/11.

Harvest from the TCH is difficult to estimate because of very poor reporting, variation in community survey effort and location, widely varying wintering distribution of the TCH, and mixing of caribou herds. Most of the harvest occurs from July-October by local hunters in Unit 26A. Very low levels of TCH harvest occur in Units 23, 24, and 26B. Non-locals and non-residents account for less than 3% of the TCH harvest (Parrett 2013). Parrett (2013) estimated 3,387 TCH caribou were harvested in Unit 26A by local communities in each of 2010/11 and 2011/12 regulatory years and that previously reported harvest estimates (Parrett 2009) were biased high due to oversampling (**Table 8**). This estimated harvest is well above State objectives.

Table 8. Estimated caribou harvest of the Teshekpuk, Western Arctic and Central Arctic caribou herds during the 2010/2011 regulatory years in Unit 26A by federally qualified users (Parrett 2013, Dau 2013). Note: Due to the mixing or the herds, annual variation in the community harvest surveys and missing data, the percentages for each community do not add up to 100%.

Community	Human population[a]	Per capita caribou harvest[bc]	Approximate total community harvest	Estimated annual TCH harvest (%)	Estimated annual WACH harvest (%)	Estimated annual CACH harvest (%)
Anaktuvuk Pass	331	1.8	582	174 (30)	431 (80)	
Atqasuk	234	0.9	215	210 (98)	6 (2)	
Barrow	4,290	0.5	2,145	2,123 (97)	62 (3)	
Nuiqsut	411	1.1	468	403 (86)	3 (1)	36 (11)
Point Lay	191	1.3	247	49 (20)	120 (40)	
Point Hope	704		894	0	894 (100)	
Wainwright	559	1.3	710	426 (60)	48 (15)	
Total Harvest				3,387	1564	36

[a] Population estimates averaged from the 2010 U.S. Census and 2012 Alaska Department of Commerce, Division of Community and Regional Affairs data

[b] Citations associated with per-capita caribou harvest assessment by community can be found in Table 5 (Parrett 2011).

[c] Sutherland (2005)

Alternatives Considered

Modify to adjust harvest limits to reflect different harvest levels across the WACH range

Reducing the harvest to four caribou per year per permit holder throughout the range of the herd would impact some communities much more profoundly than others. For example, the Unit 24B community of Anaktuvuk Pass, where the estimated average number of caribou harvested yearly by successfully harvesting households is 16 (**Table 5**) (and where true "super households" may take and share more caribou per year), would face greater impacts than communities in Unit 22, where the baseline average estimated number of caribou taken by households that successfully harvest is 4.6, according to subsistence surveys (**Table 6**).

One alternative considered would reduce harvest limits by a consistent percentage (e.g. approximately 25%) of baseline harvest levels, as documented in past subsistence surveys for each community. Under this scenario, the harvest limit in Unit 22 could be set at three caribou per year, while the harvest limit in Unit 24B, remainder could be set at twelve caribou per year.

This alternative was rejected because it is likely untenable. Communities' search and use areas are not neatly confined to single management units, and disparate harvest limits may motivate hunters to travel to adjacent units, altering patterns of use. Furthermore, subsistence survey data on caribou harvest are estimates only, and caution should be used when employing this information to adjust harvest limits on a fine scale.

If levels of past harvest, as documented in subsistence surveys, were to be used to reduce harvest levels by a consistent percentage for each community, this would be best carried out via community hunt systems or quotas and would entail additional analysis that is well beyond the scope of this proposal. Such an approach would entail working closely with communities to distribute and track permits. After the WACH declined to an estimated low of 75,000 in 1976, ADF&G set the harvest limit at one bull per year by registration permit and distributed a limited quota of permits among communities, an approach that was then incrementally liberalized in subsequent years (Davis et al. 1985).

Modify to limit cow harvest only

Another alternative considered would maintain the current harvest limits, with the stipulation that only one of the caribou harvested per year per permit holder could be a cow. This alternative would allow "super households" more flexibility to provide for multiple people over the proposed reduction while still conserving cows, although overall harvest of the WACH may not be reduced. This would represent an incremental approach to conservation, with limits to bull harvest being an option for future implementation. However, the degree of WACH decline may warrant limits on harvest of both cows and bulls at this time.

Modify to reduce the harvest limit, but at a level higher than proposed

Yet another alternative considered would modify this proposal to reduce the current harvest limits, but at a more liberal level than the proposed limit of four caribou per year per permit holder. One option would be to set the individual hunter harvest limit at eight caribou per year, only one of which may be a cow. This alternative would allow some flexibility to super households while conserving cows. For example, a harvest limit of eight caribou per year per permit holder would be largely consistent with the average baseline harvest by households that successfully harvested caribou in communities within Units 23 and 26A and Anaktuvuk Pass combined, as documented in past subsistence surveys (see "Cultural Knowledge and Traditional Practices" section of this analysis). Households that harvest at high levels for the wider community and only have one permitted hunter, including households in Anaktuvuk Pass, would still face harvest reductions (although a designated hunter permit would offer a path for additional harvest). Households with two permit holders could harvest up to 16 caribou per year. This incremental approach would allow communities to adjust to reduced harvest limits in a more gradual manner. However, the degree of WACH decline may warrant greater reduction in harvest limits at this time.

Modify to exclude Units 21D, remainder and 24B, C, and D

As written, the proposal would include Units 21D, remainder, 24B, remainder, 24C, and 24D. As shown in the Cultural Knowledge and Traditional Practices section of this analysis, average baseline harvest by the communities located in these units occurs at levels below the recommended limit of four caribou per year, with the important exception of the Unit 24B community of Anaktuvuk Pass, which relies heavily on caribou. However, baseline harvest levels and search and use areas for all communities with customary and traditional use determinations for these units would need to be taken into account when considering excluding these units from reduced harvest limits (see the "Customary and Traditional Use Determinations" section of this analysis). Additionally, this alternative was rejected because although harvest levels are lower on the edges of the WACH range overall, caribou migration patterns fluctuate and during years when caribou are available, harvest may be higher.

Modify to exclude Unit 26A remainder

Another alternative to consider would be to exclude all of Unit 26A remainder from the hunt areas affected by the proposed harvest limit reductions. Adoption of WP24-28, as written, may cause unnecessary hardship and restrictions for subsistence users in the northeastern portions of Unit 26A that are primarily occupied by Teshekpuk (not Western Arctic) caribou. This alternative could reduce hardships and unnecessary restrictions for subsistence users in the portions of Unit 26A where caribou harvest is primarily from the TCH but it would not reduce WACH harvest in those areas.

Modify to exclude a portion of 26A remainder

Another similar alternative recommended by Selawik NWR and the Western Arctic National Parklands, would be to modify hunt area descriptors and to exclude that portion of Unit 26A north and east of a line running from the east/north bank of Wainwright Inlet to the headwaters of the Ketik River, to the headwaters of the Awuna River to the Colville River at Umiat then east to the Dalton Highway at Sagwon (**Map 4**). This alternative could reduce hardships and unnecessary restrictions for subsistence

users in the portions of Unit 26A where caribou harvest is primarily from the TCH, as well as help conserve the WACH.

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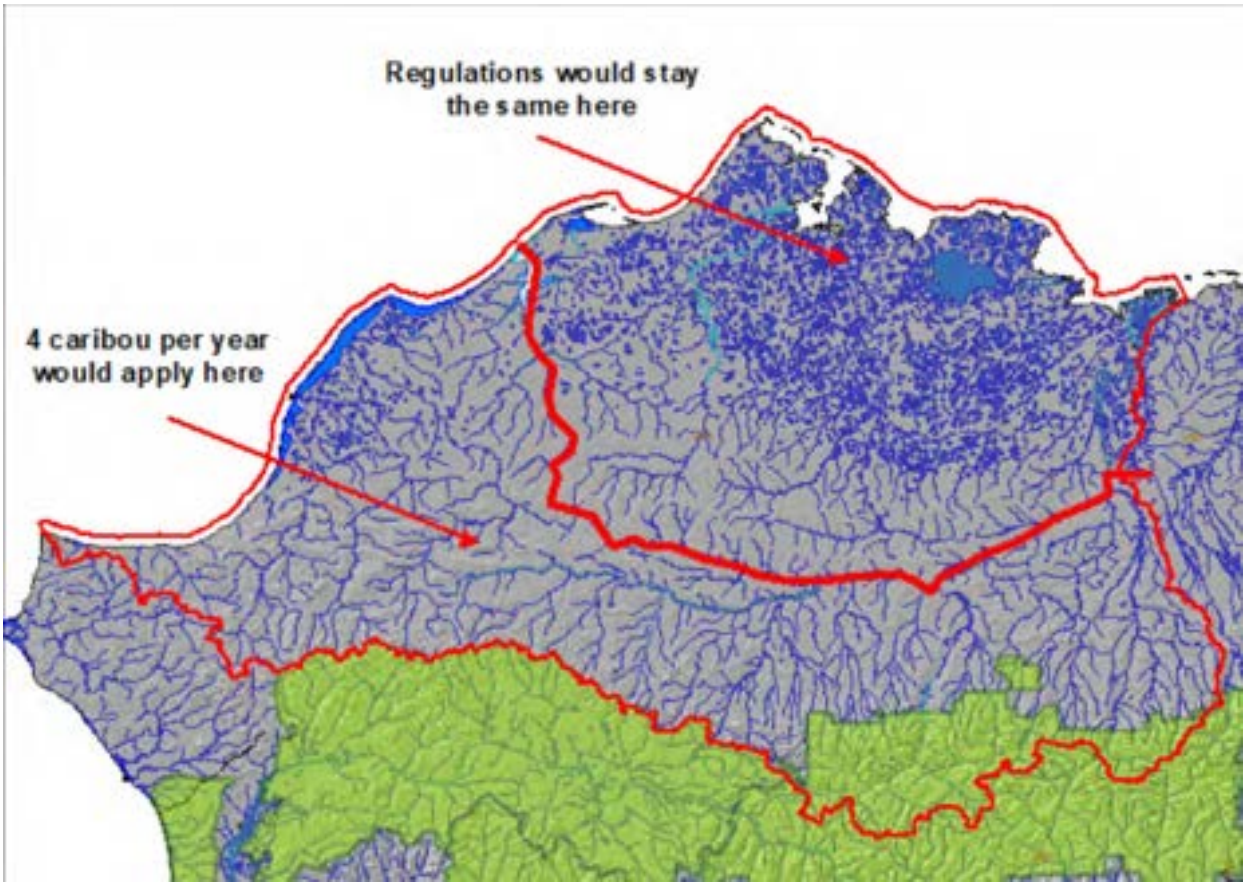

Map 4. Map of the portion of 26A remainder excluded for alternative recommended by Selawik NWR and the Western Arctic National Parklands.

Effects of the Proposal

If WP24-29 is adopted, the Federal caribou harvest limit in Unit 23 would be reduced from five caribou per day to four caribou per year, only one of which may be a cow. If WP24-28 is adopted, the same harvest limit reduction would occur across the entire range of the WACH, including Units 22, 23, 26A, and portions of Units 21D and 24. The decreased harvest limits and more restrictive cow harvest would reduce subsistence hunting opportunity and harvest under Federal regulations, but could help conserve the WACH and aid in its recovery, which, in turn, could provide more subsistence hunting opportunity in the future. Additionally, intentional harvest reduction to conserve the resource aligns with local cultural practices and values.

However, if the BOG does not adopt similar regulations, all Alaska residents could still harvest 5 caribou/day under State regulations on most Federal public lands, which could greatly limit the impacts of adopting these requests on both the WACH and subsistence users. Federal regulations would also become more restrictive than State regulations. However, as only Federal regulations apply on National Park lands and National Monuments, harvest would likely decrease within Gates of the Arctic NP, Kobuk Valley NP, and Cape Krusenstern NM. Further, if adopted, the proposed closure of federal public lands in Unit 23 to caribou hunting by non-federally qualified users from Aug. 1-Oct. 31 (WP2430/31; see "Current Events") would mean that State regulations would no longer apply on federal public lands in Unit 23 during this time, strengthening the effects of these proposed harvest limits within Unit 23.

In recent years, no collared WACH caribou have migrated into Units 22 or 21D, remainder. Therefore, any regulation changes in these units are unlikely to affect WACH harvest. However, caribou movements and distributions are highly variable, and it is possible portions of the WACH will go there in the future (Joly et al. 2021). A resident caribou herd may be present in Unit 22 (SPRAC 2021, 2022), and harvest limit reductions under Federal regulations would curtail harvest from these caribou (although users would still be able to harvest 5 caribou/day under State regulations) which would be an added benefit of the proposal as the small size (~5000, SPRAC 2021, 2022, NPS unpublished data) of this caribou group cannot support a 5 caribou/day bag limit. Additionally, the TCH and CACH occupies Unit 26A remainder and Unit 24B remainder. These herds have not experienced substantial population declines like the WACH. Therefore, reducing the harvest limits in Unit 26A remainder and Unit 24B remainder may not substantially affect WACH harvest or conservation and could unnecessarily restrict subsistence harvest from the TCH and CACH, although again, users would still be able to harvest 5 caribou/day under State regulations.

The reduced Federal harvest limits could also impact sharing networks, which are an important cultural component for subsistence users in these areas and contribute to food security. While four caribou per year may be enough for individuals and some families (NWARAC 2022), many families and elders depend on the "super households" (Wolfe 1987) to provide caribou meat. However, the use of designated hunter permits could dampen these effects and are intended to accommodate the cultural practice of harvesting for others. Designated hunter permits allow federally qualified subsistence users to hunt for others and allow designated hunters to possess two harvest limits at one time. However, it may take time for hunters to embrace the use of these permits.

OSM PRELIMINARY CONCLUSION

Support Proposal WP24-29.

Support Proposal WP24-28 **with modification** to exclude that portion of Unit 26A north and east of a line running from the east/north bank of Wainwright Inlet to the headwaters of the Ketik River, to the headwaters of the Awuna River to the Colville River at Umiat then east to the Dalton Highway at Sagwon.

The modified regulation should read:

Proposed Federal Regulation

Unit 21D—Caribou

*Unit 21D, remainder— ~~5 caribou per day~~ **4 caribou per year, only 1 may be a cow**, as follows: Calves may not be taken.*	
Bulls may be harvested.	*July 1-Oct. 14.* *Feb. 1-June 30.*
Cows may be harvested.	*Sep. 1-Mar. 31.*

Unit 22—Caribou

*Unit 22B that portion west of Golovnin Bay and west of a line along the west bank of the Fish and Niukluk Rivers to the mouth of the Libby River and excluding all portions of the Niukluk River drainage upstream from and including the Libby River drainage - ~~5 caribou per day~~ **4 caribou per year, only 1 may be a cow** by State registration permit. Calves may not be taken.*	*Oct. 1-Apr. 30.* *May 1-Sep. 30, a season may be announced.*
*Units 22A, that portion north of the Golsovia River drainage, 22B remainder, that portion of Unit 22D in the Kuzitrin River drainage (excluding the Pilgrim River drainage), and the Agiapuk River drainages, including the tributaries, and Unit 22E, that portion east of and including the Tin Creek drainage - ~~5 caribou per day~~ **4 caribou per year, only 1 may be a cow** by State registration permit. Calves may not be taken.*	*July 1–June 30.*
*Unit 22A, remainder - ~~5 caribou per day~~ **4 caribou per year, only 1 may be a cow** by State registration permit. Calves may not be taken*	*July 1-June 30, season may be announced.*
*Unit 22D, that portion in the Pilgrim River drainage - ~~5 caribou per day~~ **4 caribou per year, only 1 may be a cow** by State registration permit. Calves may not be taken*	*Oct. 1-Apr. 30.* *May 1-Sep. 30, season may be announced*

Units 22C, 22D remainder, 22E remainder - ~~5 caribou per day~~ ***4 caribou per year, only 1 may be a cow*** *by State registration permit. Calves may not be taken*	*July 1-June 30, season may be announced*

Unit 23−Caribou

Unit 23—that portion which includes all drainages north and west of, and including, the Singoalik River drainage— ~~5 caribou per day~~ ***4 caribou per year, only 1 may be a cow*** *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*

Unit 23, remainder— ~~5 caribou per day~~ ***4 caribou per year, only 1 may be a cow*** *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 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.

Bureau of Land Management managed lands between the Noatak and Kobuk Rivers and Noatak National Preserve are closed to caribou hunting from Aug. 1-Sep. 30 for the 2022-24 regulatory cycle, except by federally qualified subsistence users hunting under these regulations.

Unit 24—Caribou

Unit 24B remainder - ~~5 caribou per day~~ ***4 caribou per year, only 1 may be a cow*** *as follows: Calves may not be taken.*

Unit 23−Caribou

Bulls may be harvested.	*July 1-Oct. 14.* *Feb. 1-June 30.*
Cows may be harvested.	*July 15-Apr. 30.*

*Units 24C, 24D - ~~5 caribou per day~~ **4 caribou per year, only 1 may be a cow** as follows: Calves may not be taken.*

Bulls may be harvested.	*July 1-Oct. 14.* *Feb. 1-June 30.*
Cows may be harvested	*Sep. 1-Mar. 31.*

Unit 26—Caribou

*Unit 26A - **north and east of a line running from the east/north bank of Wainwright Inlet to the headwaters of the Ketik River, to the headwaters of the Awuna River to the Colville River at Umiat then east to the Dalton Highway at Sagwon**- 5 caribou per day by State registration permit as follows: Calves may not be taken.*

Bulls may be harvested	*July 1-Oct. 14.* *Dec. 6-June 30.*
Cows may be harvested; however, cows accompanied by calves may not be taken July 16-Oct. 15	*July 16-Mar. 15.*

Noatak National Preserve is closed to caribou hunting from Aug. 1-Sep. 30 for the 2022-24 regulatory cycle, except by federally qualified subsistence users hunting under these regulations.

*Unit 26A remainder - ~~5 caribou per day~~ **4 caribou per year, only 1 may be a cow** by State registration permit as follows: Calves may not be taken.*	
Bulls may be harvested	*July 1-Oct. 15.* *Dec. 6-June 30.*
*~~Up to 3 cows per day~~ **Only 1 cow** may be harvested; however, cows accompanied by calves may not be taken July 16-Oct. 15*	*July 16-Mar. 15.*

Justification

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, especially the taking of cows, 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.

Excluding the areas that primarily depend on other herds and caribou populations would help reduce the impact on sharing networks, which are an important cultural component for subsistence users in these areas and contribute to food security. The exclusion of that portion of Unit 26A north and east of a line running from the east/north bank of Wainwright Inlet to the headwaters of the Ketik River, to the headwaters of the Awuna River to the Colville River at Umiat then east to the Dalton Highway at Sagwon, would reduce the impact on the harvest on the TCH and CACH in 24B, remainder and a portion of Unit 26A. These herds are above State population objectives and are currently not of conservation concern.

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Appendix 1

Regulatory History

In 2013, an aerial photo census indicated significant declines in the TCH (Caribou Trails 2014), WACH (Dau 2011), and possibly the Central Arctic Caribou Herd (CACH) populations. In response, the Alaska Board of Game (BOG) adopted modified Proposal 202 (RC76) in March 2015 to reduce harvest opportunities for both residents and nonresidents within the range of the WACH and the TCH. These regulation changes – which included lowering bag limits, changing harvest seasons, modifying the hunt area descriptors, and restricting bull and cow harvest and prohibiting calf harvest – were adopted to slow or reverse the population decline. These regulatory changes took effect on July 1, 2015.

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

Temporary Special Action WSA15-05 requested that bull caribou harvest limit in Unit 26A be reduced from 10 caribou per day to 5 caribou per day, the cow harvest limit be reduced to 3 per day, the harvest seasons for bulls and cows be reduced, and the take of calves and cows with calves be prohibited. Compared to the new State caribou regulations, it requested 3 additional weeks to the bull harvest season (Dec. 6- Dec. 31). Temporary Special Action WSA15-06 requested designation of a new hunt area for caribou in Unit 26B where the harvest limit would be reduced from 10 caribou per day to 5 caribou per day, the harvest season would be shortened, and the take of calves would be prohibited.

The Federal Subsistence Board (Board) approved Temporary Special Actions WSA15-03/04/05/06 with modification to simplify and clarify the regulatory language; maintain the current hunt areas in Units 23 and 24; decrease the harvest limit from 15 to 5 caribou per day and shorten the cow and bull seasons throughout Unit 23; prohibit the harvest of cows with calves throughout the affected units; and reduce the harvest limit in Unit 26B remainder from 10 to 5 caribou per day and shorten the season. These special actions took effect on July 1, 2015.

In 2015, the Northwest Arctic Council submitted a temporary special action request (WSA16-01) to close caribou hunting on Federal public lands in Unit 23 to non-federally qualified users for the 2016/17 regulatory year. The Northwest Arctic Council stated that their request was necessary for conservation purposes but also needed because nonlocal hunting activities were negatively affecting subsistence harvests. In April 2016, the Board approved WSA16-01, basing its decision on the strong support of the Northwest Arctic and North Slope Councils, public testimony in favor of the request, as well as concerns over conservation and continuation of subsistence uses.

In 2016, six proposals (WP16-37, WP16-48, WP16-49/52, WP16-61, and WP16-63) concerning WACH caribou regulations were submitted to the Board. The Board adopted WP16-48 with modification to allow

the positioning of a caribou, wolf, or wolverine for harvest in Unit 23 on BLM lands only. Proposal WP16-37 requested that Federal caribou regulations mirror the new State regulations across the ranges of the WACH and TCH (Units 21D, 22, 23, 24, 26A, and 26B). The Board adopted Proposal WP16-37 with modification to reduce the harvest limit to five caribou per day, restrict bull harvest during rut and cow harvest around calving, prohibit the harvest of calves and the harvest of cows with calves before weaning (mid-October), and to create a new hunt area in the northwest corner of Unit 23. The Board took no action on the remaining proposals (WP16-49/52, and WP16-61, and WP16-63) due to action taken on WP16-37.

In 2016, the BOG adopted Proposal 140 as amended to make the following changes to Unit 22 caribou regulations: establish a registration permit hunt (RC800), set an annual harvest limit of 20 caribou total, and lengthen cow and bull seasons in several hunt areas.

These State and Federal regulatory changes were the first time that harvest restrictions had been implemented for the WACH and TCH in over 30 years and were the result of extensive discussion and compromise among a variety of stakeholders. The requested restrictions were also supported by management recommendations outlined in the Western Arctic Herd Management Plan (WACH Working Group 2011).

In June 2016, the State submitted a special action request (WSA16-03) to reopen caribou hunting on Federal public lands in Unit 23 to non-federally qualified users, providing new biological information (e.g. calf recruitment, weight, body condition) on the WACH. The State specified that there was no biological reason for the closure and that it could increase user conflicts. In January 2017, the Board rejected WSA16-03 due to the position of all four affected Councils (Northwest Arctic, North Slope, Seward Peninsula, and Western Interior) as well as public testimony and Tribal consultation comments opposing the request. Additionally, the Board found the new information provided by the State to be insufficient to rescind the closure.

In January 2017, the BOG adopted Proposal 2, requiring registration permits for residents hunting caribou within the range of the Western Arctic and Teshekpuk herds in Units 21, 23, 24, and 26 (a similar proposal was passed for Unit 22 in 2016). ADF&G submitted the proposal in order to better monitor harvest and improve management flexibility. The BOG also rejected Proposal 3 (deferred Proposal 85 from 2016), which would have removed the caribou harvest ticket and report exception for residents living north of the Yukon River in Units 23 and 26A). Also in January 2017, the BOG rejected Proposal 45, which proposed requiring big game hunting camps to be spaced at least three miles apart along the Noatak, Agashashok, Eli, and Squirrel Rivers. The proposal failed as it would be difficult to enforce.

In March 2017, the Northwest Arctic and North Slope Councils submitted temporary special action requests (WSA17-03 and -04, respectively) to close caribou hunting on Federal public lands in Unit 23 and in Units 26A and 26B, respectively, to non-federally qualified users for the 2017/18 regulatory year. Both Councils stated that the intent of the proposed closures was to ensure subsistence use in the 2017/18 regulatory year, to protect declining caribou populations, and to reduce user conflicts. The Board voted to approve WSA17-03 with modification to close all 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, to caribou hunting except by federally qualified subsistence users for the 2017/18 regulatory year. The Board considered the

modification a reasonable compromise for all users, and that closure of the specified area was warranted in order to continue subsistence use. The Board rejected WSA17-04 due to recent changes to State regulations that should reduce caribou harvest.

In April 2018, the Board adopted Proposals WP18-46 with modification and WP18-48 (effective July 1, 2018). Proposal WP18-46 requested closing caribou hunting on Federal public lands in Unit 23 to non-federally qualified users (similar to WSA16-01 and WSA17-03). The Board adopted WP18-46 with the same modification as WSA17-03 (see above) as the Northwest Arctic, Western Interior, and Seward Peninsula Councils as well as the village of Noatak supported this modification and viewed the targeted closure as effectively addressing user conflicts and the continuation of subsistence uses. The Board also adopted WP18-48 to require State registration permits for caribou hunting in Units 22, 23, and 26A to improve harvest reporting and herd management, and to align with State regulations.

Also in 2018, the Board considered proposal WP18-57, which requested that caribou hunting on Federal public lands in Units 26A and 26B be closed to non-federally qualified users. This proposal was submitted by the North Slope Council to ensure continuation of subsistence, protect the caribou herds, and reduce user conflicts. The Board rejected WP18-57, choosing to allow time to evaluate the effects of recently implemented harvest restrictions. In addition, the Board expressed concern that closing Federal lands would shift users to State lands, increasing conflict.

In January 2020, the BOG adopted Proposal 20 to open a year-round resident season for caribou bull harvest in Unit 23 under State regulations. The BOG also adopted Proposal 24 as amended to remove the restriction on caribou calf harvest in Units 22, 23, and 26A. Proposal 28, which would have eliminated the caribou registration permit in Units 23 and 26A for North Slope resident hunters, was not adopted by the BOG, due to an ongoing need for harvest data.

In April 2020, the Board adopted Proposal WP20-46 to open a year-round bull season and permit calf harvest for caribou in Unit 23. Creating a year-round season for bulls was intended to allow for harvest of bulls when caribou migration had been delayed, alleviating harvest pressure on cows. The prohibition on calf harvest was lifted in order to permit taking of calves that had been orphaned or injured.

In 2021, the Northwest Arctic Council submitted Temporary Wildlife Special Action WSA21-01, which requested closing Federal public lands in Units 23 and 26A to caribou and moose hunting by non-federally qualified users from Aug. 1 - Sep. 30, 2021. The Council expressed concern about the late migration of caribou into and through Unit 23 and stated that the lack of fall harvest has resulted in empty freezers and stressed communities. The Council hoped a closure would reduce the impacts from transporters and non-local hunters on migrating caribou. In June 2021, the Board deferred action on this request and asked that Office of Subsistence Management (OSM) staff seek additional input on concerns related to caribou from the WACH Working Group, Federal land-managing agencies, local Fish and Game Advisory Committees, the ADF&G, Federal Subsistence Regional Advisory Councils, commercial guides and transporters, and subsistence users in the area.

In March 2022, the Board approved WSA21-01a (for caribou; WSA21-01b applied to moose) with modification to close Noatak National Preserve (including the Nigu River portion of the Preserve in Unit 26A) and BLM managed lands between the Noatak and Kobuk rivers in Unit 23 to caribou hunting by

non-federally qualified users from August 1 through September 30 during the 2022-2023 and 2023-2024 regulatory years. The Board stated this modification was a reasonable compromise that provides for the continuation of subsistence uses and the conservation of the Western Arctic Caribou Herd, while precluding unnecessary restrictions on non-federally qualified users. The partial closure targets the areas of highest user conflicts and minimizes potential disruptions to caribou migration. The Board also expressed concern over the 24% WACH population decline over the past two years, which prompted the WACH Working Group to change the herd's management level to preservative declining.

In April 2022, the Board rejected Proposal WP22-47, which requested that caribou calf harvest be permitted in Unit 22 because four members of the Board felt this would supply new opportunity for federally qualified subsistence users and would align Federal and State regulations. The remaining four Board members opposed the proposal and felt with the herd in decline that it would be unwise to allow the harvest of caribou calves.

In June 2023, the Board voted to reject Wildlife Special Action requests WSA22-05 and WSA22-06. The Board stated that an immediate reduction to four caribou per year would be detrimental to subsistence needs. The Board acknowledged the need to focus on caribou conservation and that reductions in harvest limits may be needed in the future. Additionally, the Board suggested a more robust discussion of potential alternatives to the harvest reductions is essential. The Board stated that the Federal regulatory proposal process is the more appropriate avenue to allow an analysis to be written and reviewed by the public, all of the affected Councils, and our Federal and State agency partners in the range of the Western Arctic Caribou Herd, resulting in formal recommendations.

Controlled Use Areas

Noatak Controlled Use Area

In 1988, the Traditional Council of Noatak submitted a proposal to the BOG to create the Noatak Controlled Use Area (CUA) in order to restrict the use of aircraft in any manner for big game hunting from August 15-September 20 due to user conflicts (Fall 1990). The proposed Controlled Use Area extended five miles on either side of the Noatak River, from the mouth of the Eli River upstream to the mouth of the Nimiuktuk River, including the north side of Kivivik Creek (ADF&G 1988). The BOG adopted the proposal with modification to close a much smaller area extending from the Kugururok River to Sapun Creek from August 20-September 20.

The Controlled Use Area was expanded in 1994 and modified in 2017 (Betchkal 2015; Halas 2015; ADF&G 2017a). From 1994-2016, the Noatak Controlled Use Area consisted of a 10-mile-wide corridor (5 miles either side) along the Noatak River from its mouth to Sapun Creek with approximately 80 miles of the Controlled Use Area within Noatak National Preserve (NP) (**Map 5**, Betchkal 2015). The closure dates from 1994-2009 were August 25-September 15. In 2009 (effective 2010), the BOG adopted Proposal 22 to expand the closure dates to August 15-September 30 in response to the timing of caribou migration becoming less predictable (ADF&G 2009). During the 2016/17 BOG regulatory cycle, the Noatak/Kivalina & Kotzebue AC proposed (Proposal 44) extending the upriver boundary of the Noatak Controlled Use Area to the Cutler River, citing increased user conflicts as their rationale (ADF&G 2017b). In January 2017, the BOG approved amended Proposal 44 to shift the boundaries of the Noatak

Controlled Use Area to start at the mouth of the Agashashok River and end at the mouth of the Nimiuktuk River with approximately 105 miles within Noatak NP (**Map 5**, ADF&G 2017a).

In 1990, the Noatak Controlled Use Area was adopted under Federal regulations. In 1995, the Board adopted Proposal P95-50 to expand the time-period and area of the Controlled Use Area to August 25-September 15 and the mouth of the Noatak River upstream to the mouth of Sapun Creek, respectively, which aligned with State regulations as they existed at that time.

In 2008, Proposals WP08-50 and 51 requested modifications to the Noatak Controlled Use Area dates. These proposals were submitted in response to caribou migration occurring later in the season, to improve caribou harvest for subsistence users, and to decrease conflicts between local and nonlocal hunters. The Board deferred these proposals to the next regulatory cycle. In 2010, Proposals WP10-82, 83, and 85 requested similar date changes. The Board adopted WP10-85 to expand the time period during which aircraft are restricted in the Noatak Controlled Use Area to August 15-September 30, which aligned with the current State regulations.

Selawik National Wildlife Refuge: Area Not Authorized for Commercial Transporters and Guides

In 2011, Selawik National Wildlife Refuge (NWR) designated refuge lands in the northwest portion of the refuge as closed to big game hunting by commercial guides and transporters through their comprehensive conservation plan (USFWS 2011, 2014). These refuge lands are intermingled with private lands near the villages of Noorvik and Selawik (**Map 3**). The purpose of this closure was to minimize trespass on private lands and to reduce user conflicts (USFWS 2011).

At the winter 2021 meeting of the Northwest Arctic Council, a representative of Selawik National Refuge reported that only two hunters were brought into the refuge by air taxis and transporters in 2020. Because caribou are no longer abundant in Selawik National Wildlife Refuge in September, and because the non-resident moose season is already closed in Unit 23, the refuge no longer receives many fly-in hunters (NWARAC 2021a).

Noatak National Preserve Delayed Entry Controlled Use Area

In 2012, the NPS established a Special Commercial Use Area or “delayed entry zone” in the western portion of the Noatak NP (Halas 2015, Fix and Ackerman 2015). Within this zone, transporters can only transport nonlocal caribou hunters after a pre-determined date unless otherwise specified by the Western Arctic Parklands (WEAR) Superintendent in consultation with commercial operators, other agencies and local villages (Halas 2015). In 2020, the delayed entry end date was changed from September 15 to September 22 (NPS 2020) in response to requests from the Cape Krusenstern National Monument and Kobuk Valley National Park SRCs and the Native Village of Noatak (Atkinson 2021, pers. comm.). The purpose of this zone is to allow a sufficient number of caribou to cross the Noatak River and establish migration routes, to limit interactions between local and nonlocal hunters, and to allow local hunters the first opportunity to harvest caribou in that area (**Map 5**, USFWS 2014; Halas 2015).

Aircraft in National Parks and Monuments

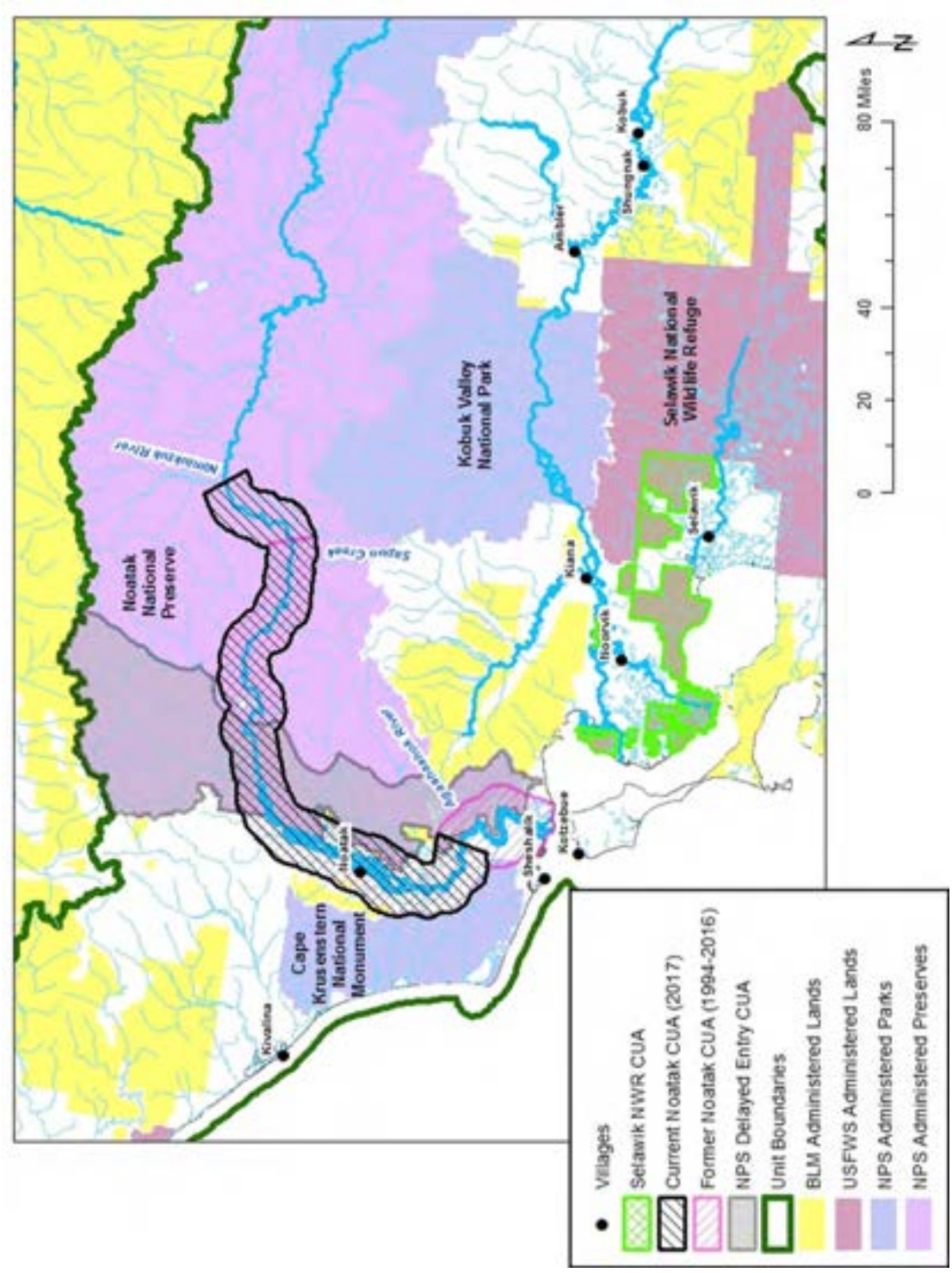
National parks and monuments in Unit 23 include Cape Krusenstern National Monument, Kobuk Valley National Park, and Gates of the Arctic National Park. The use of aircraft for access to or from lands and waters within a national park or monument for purposes of taking fish or wildlife within the national park or monument is prohibited, except in the case of exempted communities and individuals for the purpose of subsistence access. However, aircraft are allowed to access lands and waters in national parks and monuments for the purposes of engaging in any activity allowed by law other than the taking of fish and wildlife.

Anaktuvuk Pass Controlled Use Area

That portion of Unit 26A bounded by a line beginning at 153° 30′ W. long. on the game management boundary between Units 24 and 26A, north along 153° 30′ W. long. to 69° N. lat., east along 69° N. lat. to 152° 10′ W. long., south along 152° 10′ W. long. to 68° 30′ N. lat., east along 68° 30′ N. lat. to 150° 40′ W. long., south along 150° 40′ W. long. to the game management boundary between Units 24 and 26A, and westerly along the game management unit boundary to the point of origin at 153° 30′ W. long. From Aug 15 - Oct 15, the area is closed to the use of aircraft for caribou hunting, including transportation of caribou hunters, their hunting gear, and/or parts of caribou. However, this does not apply to transportation of caribou hunters, their gear, or caribou parts by aircraft between publicly owned airports in the controlled use area

Dalton Highway Corridor Management Area (DHCMA)

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. Any hunter traveling on the Dalton Highway must stop at any check station operated by the department within the DHCMA.



Map 5. Federal and State controlled use areas in Unit 23.

Appendix 2

For survey years in which the sex of harvested caribou was documented, this table shows the percentage of male, female, and sex unknown caribou harvested in Unit 23 (CSIS 2023).

Community	Year	Estimated total number of caribou harvested	% Male	% Female	% Unknown
Ambler	2009	455	76%	24%	0%
	2012	685	69%	28%	2%
Buckland	2009	535	39%	35%	26%
	2016	693	56%	38%	6%
	2018	949	31%	48%	22%
Deering	2007	182	27%	31%	42%
	2013	404	19%	44%	38%
	2017	342	51%	44%	5%
Kiana	1999	487	84%	10%	6%
	2009	414	87%	5%	8%
Kivalina	2007	268	57%	37%	5%
	1964	256	50%	29%	21%
	1965	1010	28%	30%	42%
	1982	346	41%	47%	12%
	1983	564	29%	55%	15%
Kobuk	2004	134	76%	24%	0%
	2009	210	78%	17%	5%
	2012	119	73%	19%	8%
Kotzebue	2012	1804	61%	20%	20%
	2013	1680	76%	20%	4%
	2014	1286	75%	17%	8%
Noatak	1999	683	66%	30%	4%
	2002	410	88%	12%	0%
	2007	442	73%	23%	4%
	2016	337	64%	34%	2%
Noorvik	2002	987	71%	23%	6%
	2008	767	73%	15%	12%
	2012	851	64%	24%	12%
	2017	250	41%	56%	3%
Point Hope	2014	185	62%	24%	14%
Selawik	1999	1289	62%	37%	1%
	2006	933	73%	26%	1%
	2011	683	60%	39%	1%
Shungnak	1998	561	50%	49%	1%

Community	Year	Estimated total number of caribou harvested	% Male	% Female	% Unknown
	2008	407	43%	50%	7%
	2012	395	71%	27%	2%
Average		611	**60%**	**30%**	**10%**

For survey years in which the sex of harvested caribou was documented, this table shows the percentage of male, female, and sex unknown caribou harvested in Unit 26A and Anaktuvuk Pass (CSIS 2023). No data on the sex of harvested caribou is available for Wainwright.

Community	Year	Estimated total number of caribou harvested	% Male	% Female	% Unknown
Anaktuvuk Pass	2014	770	51%	39%	10%
	2011	616	57%	43%	0%
	2006	695	68%	32%	0%
	1993	574	55%	45%	0%
	1991	545	77%	23%	0%
	1990	591	55%	43%	2%
Atqasuk	2006	170	96%	4%	0%
	2005	202	84%	15%	1%
	2004	313	79%	17%	4%
	2003	189	79%	17%	4%
Kaktovik	1994	79	77%	23%	0%
	1992	159	69%	29%	3%
	1991	181	73%	24%	2%
	1990	114	52%	37%	11%
	1987	186	64%	33%	3%
	1986	178	59%	35%	6%
	1985	235	53%	33%	14%
Nuiqsut	2014	774	73%	21%	6%
	2006	363	93%	5%	3%
	2005	436	96%	4%	0%
	2004	429	83%	11%	6%
	2003	293	87%	7%	5%
	1994	258	73%	13%	14%
	1993	672	71%	22%	7%
Point Lay	2012	356	57%	42%	1%
Utqiaġvik	2014	4323	46%	29%	25%

Community	Year	Estimated total number of caribou harvested	% Male	% Female	% Unknown
Average		527	**70%**	**25%**	**5%**

WP24-01 Executive Summary	
General Description	Proposal WP24-01 is a request to allow the sale of brown bear hides. *Submitted by: Kaleb Rowland*
Proposed Regulation	**§___.25 Subsistence taking of fish, wildlife, and shellfish: general regulations** *(j) Utilization of fish, wildlife, or shellfish* *. . .* *(13) You may sell the raw/untanned and tanned hide or cape from a legally harvested **brown bear**, caribou, deer, elk, goat, moose, musk ox, and sheep.*
OSM Preliminary Conclusion	**Support** Proposal WP24-01 **with modification** to allow the sale of brown bear hides with claws attached in areas where the Federal harvest limit is two bears every regulatory year and after first obtaining a permit available at the time of sealing from an ADF&G sealing officer. The modified regulation should read: **§___.25 Subsistence taking of fish, wildlife, and shellfish: general regulations** *(j) Utilization of fish, wildlife, or shellfish* *. . .* *(13) You may sell the raw/untanned and tanned hide or cape from a legally harvested caribou, deer, elk, goat, moose, musk ox, sheep, **and brown bear with claws attached harvested in an area with a two brown bear limit per regulatory year in Federal regulations only after first obtaining a permit at the time of sealing from the Alaska Department of Fish and Game.***
Southeast Alaska Subsistence Regional Advisory Council Recommendation	
Southcentral Alaska Subsistence Regional Advisory Council Recommendation	

WP24-01 Executive Summary	
Kodiak/Aleutians Subsistence Regional Advisory Council Recommendation	
Bristol Bay Subsistence Regional Advisory Council Recommendation	
Yukon-Kuskokwim Delta Subsistence Regional Advisory Council Recommendation	
Western Interior Alaska Subsistence Regional Advisory Council Recommendation	
Seward Peninsula Subsistence Regional Advisory Council Recommendation	
Northwest Arctic Subsistence Regional Advisory Council Recommendation	
Eastern Interior Alaska Subsistence Regional Advisory Council Recommendation	
North Slope Subsistence Regional Advisory Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	

WP24-01 Executive Summary	
Written Public Comments	**None**

DRAFT STAFF ANALYSIS
WP24-01

ISSUE

Proposal WP24-01, submitted by Kaleb Rowland of McCarthy, Alaska, is a request to allow the sale of brown bear hides.

DISCUSSION

The proponent states federally qualified subsistence users in many areas of Alaska must salvage the hides of brown bears, however, the hides must not be sold. The proponent continues that the hides of many other legally harvested big game species may be sold, and brown bears should be added to this regulation.

Existing Federal Regulation

§___.25 Subsistence taking of fish, wildlife, and shellfish: general regulations[1]

(j) Utilization of fish, wildlife, or shellfish

. . .

(13) You may sell the raw/untanned and tanned hide or cape from a legally harvested caribou, deer, elk, goat, moose, musk ox, and sheep.

Proposed Federal Regulation

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

(j) Utilization of fish, wildlife, or shellfish

. . .

(13) You may sell the raw/untanned and tanned hide or cape from a legally harvested ***brown bear****, caribou, deer, elk, goat, moose, musk ox, and sheep.*

Existing State Regulation

5 AAC 92.200—Purchase and sale of game

[1] Sections of the regulatory booklet produced for the public that describe legal utilization of brown bears are incorrect. The Code of Federal Regulations regarding the utilization of brown bears are correctly reflected in the **Appendix**.

. . .

(b) Except as provided in 5 AAC 92.031, a person may not purchase, sell, advertise, or otherwise offer for sale:

(1) any part of a brown bear, except an article of handicraft made from the fur of a brown bear, and except skulls and hides with claws attached of brown bears harvested in areas where the bag limit is two bears per regulatory year by permit issued under 5 AAC 92.031;*

***Note**: The harvest limit for a resident hunting in Units 16B, 17, 19A, 19D, 20E, 21, 22A, 22B, 22D, 22E, 23, 24B, 25D, and 26A is two brown bears per regulatory year. A person may not take more than one brown bear, statewide, in any regulatory year, except that in these units, a person may take two brown bears per regulatory year (*5 AAC 92.132 Bag limit for brown bears*).

5 AAC 92.031 - Permit for selling skins, skulls, and trophies

. . .

(g) A person may sell, advertise, or otherwise offer for sale a skull or hide with claws attached of a brown bear harvested in an area where the bag limit is two brown bears per regulatory year only after first obtaining a permit from the department. Any advertisement must include the permit number assigned by the department, and the department will permanently mark all hides and skulls intended for sale. All bears sold under this permit must be reported to the department within the time frame specified on the permit.*

***Note**: A “Permit to Sell a Brown/Grizzly Bear Hide and/or Skull" is available at the time of sealing from the sealing officer.

Extent of Federal Public Lands

Federal public lands comprise approximately 54% of Alaska and consist of 20% U.S. Fish and Wildlife Service managed lands, 15% Bureau of Land Management managed lands, 14% National Park Service managed lands, and 6% U.S. Forest Service managed lands.

Customary and Traditional Use Determinations

This is a statewide proposal. For more information refer to the customary and traditional use determinations at *§___.24 Customary and traditional use determinations*.

Background

Convention on International Trade in Endangered Species of Wild Fauna and Flora

All Alaskan brown/grizzly bears are classified as the same species, *Ursus arctos*, but are referred to differently depending on where they are found and their diet. In general, the common name "brown bear" refers to those Ursus arctos found in the coastal regions, and the common name "grizzly bear" refers to those found in the interior. The brown bear conservation environment in the lower 48 is related but very different than in Alaska, which is the only remaining state with an abundant brown bear population. Brown bears once ranged from northern Alaska and western Canada south to Mexico, and from the west coast east across the great plains of the United States. Over the last 200 years, the number and range of brown bears south of Canada has declined by more than 95% largely as a result of excessive human caused mortality and habitat loss (ADF&G 2000). In 1990, fewer than 1,000 brown bears remained in the states south of the Canadian border (Schoen 1990). Today, Alaska is home to more than 98% of the brown bear population in the United States and 70% of the brown bears in North America (ADF&G 2000). With the demise of brown bears in other areas, Alaska has become a premier locale for trophy bear hunting.

In 1975 the North American brown bear was listed by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) as an Appendix II species, which means it may become threatened by extinction if trade is not strictly regulated and monitored. This listing is designed to protect threatened populations elsewhere in North America, outside of Alaska. Commercial trade, in Appendix II species is allowed only if the state of export issues permits reporting that the trade will not be detrimental to the survival of the species in the wild. The transport of brown bear parts between states or countries is subject to both State and Federal consideration and permitting (USFWS 2023).

Licensed hunting of brown bears occurs in four provinces and territories in Canada (Yukon, Northwest Territories, Nunavut, and British Columbia). In Canada, almost all trade in brown bear parts, including gall bladders and paws, is prohibited (some exceptions apply to Aboriginal groups for personal or ceremonial use). Some manufactured, non-food items, such as tanned hides, may be sold, but such trade in brown bear parts is low. In Canada, brown bears are mainly traded as hunting trophies (skins, rugs, or taxidermy mounts). A provincial or territorial permit is needed to legally possess, sell, and export brown bear parts, including those killed by accident or for defense of life and property. A CITES export permit is required for international export (Government of Canada 2012, 2014).

Sale of Hides

People have sold and exported brown bear pelts from Alaska for centuries. During the Russian Period in Alaska, the Russian American Company exported large numbers of brown bear skins to St. Petersburg and Asia (Bockstoce 2009).

Conservation efforts, led by Eastern conservationists, began with the passage of the Game Law of 1908 that implemented hunting seasons and a licensing system for brown bear parts that were being shipped out of Alaska, and limited exports to three brown bear hides annually per person and a $5 dollar fee on

each hide. The primary deterrent to the sale and export of brown bear hides was the export limit and fee (Holzworth 1930).

In 1925 a new game law was passed that eliminated market hunting of big game, including brown bears, and established the Alaska Game Commission, the predecessor to the Alaska Department of Fish and Game (ADF&G), that was responsible for imposing and revising seasons and harvest limits in Alaska. However, lack of enforcement and increases in sport and trophy hunting, especially for big coastal bears, continued to threaten brown bear populations in some areas of Alaska. Alaska Natives were exempted under the new law and were still permitted to hunt game at any time of year for food and to sell game hides within the state unless otherwise restricted (Dufresne 1965).

Beginning in 1961 after Alaska statehood, the purchase, sale, or barter of brown bears or brown bear parts was prohibited by the State of Alaska (State of Alaska 1961). Salvage and sealing requirements, introduced in 1961, mandated that a hunter retrieve the hide with claws attached and skull so that scientific information regarding the sex, age, and hide quality of harvested bears could be obtained by biologists. Beginning in 1968, the harvest limit in all units open to brown bear hunting was one bear every four regulatory years. Beginning in 1977, all hunters were required to purchase a tag before hunting a brown bear. However, in rural western Alaska, participation by subsistence users was very limited, and few subsistence harvests were reported through this system (Thornton 1992).

The issue of claw retention was examined extensively by the Brown Bear Claw Handicraft Working Group. The group was formed by the Federal Subsistence Board in 2009 to discuss a range of issues relating to brown bear claws including their use in handicrafts, the feasibility of tracking, and potential changes to regulations. Of particular concern to this group was preventing the illegal harvest and sale of brown bear parts that can garner significant monetary value in worldwide markets, and which may incentivize illegal harvest of brown bear populations elsewhere in North America where conservation concerns are prevalent. Brown bear claws, paws, and gall bladders are the primary illegal items sought for these markets (OSM 2010).

Sealing requirements help to track the sale of wildlife parts, to validate that an animal was legally harvested, and to provide documentation to allow individuals traveling to another country to obtain a CITES permit for the item to be legally transported across international borders (OSM 2010). For example, during Alaska Board of Game deliberations on Proposal 57 (sale of brown bear hides with claws attached and/or skulls, see Regulatory History, below) in March 2016, Alaska Wildlife Troopers testified that law enforcement tracks internet activity for hides and attempts to verify permit and sealing records when bear products are encountered. Very few brown bear hides had been encountered. At the time of the testimony, all bear hides sold by Alaska residents were appropriately harvested under a predation control permit. These permits are for the purpose of predation control to recover depleted prey populations such as moose and caribou (ADF&G 2023a).

Western/Northwestern Alaska Brown Bear Management Areas

In 1992, the Alaska Board of Game adopted the Western Alaska and Northwestern Alaska brown bear management areas and more liberal subsistence harvesting regulations. Brown bear subsistence harvest

seasons in most of these areas were lengthened to September 1–May 31, and harvest limits were increased to one brown bear every regulatory year. Under subsistence regulations, Alaska residents did not have to seal brown bears unless the hide or skull was being removed from the area or presented for commercial tanning. For brown bears, sealing means taking the skull and hide (with claws and evidence of sex attached) of the bear you killed to an officially designated "sealing officer." The skull must be skinned from the hide (*5 AAC 92.165 - Sealing of bear skins and skulls*). Hides and skulls are permanently marked by ADF&G (*5 AAC 92.990 – Definitions*).

An Alaska resident hunting in these management areas was required to have a State subsistence registration permit and to salvage the meat, but the hide and skull need not be salvaged. Over time the Alaska Board of Game has further modified these regulations. Currently, State subsistence registration hunts in which the hide and skull need not be sealed, unless removed from the area or presented for commercial tanning, occur in Unit 9B, all drainages in Unit 9E that drain into the Pacific Ocean between Cape Kumliun and the border of Unit 9D and Unit 9E, Unit 17, Unit 18, that portion of Units 19A and 19B downstream of and including the Aniak River drainage, Unit 21D, Unit 22, Unit 23, Unit 24, and Unit 26A (*5 AAC 92.165 Sealing of bear skins and skulls*).

Regulatory History

Customary Trade

In 1992, the Federal Subsistence Board adopted final Federal subsistence regulations in which it defined customary trade to be the following: "*Customary trade means cash sale of fish and wildlife resources regulated herein, not otherwise prohibited by Federal law or regulation, to support personal and family needs; and does not include trade which constitutes a significant commercial enterprise*" (*§___.4 Definitions*). The Board said it would continue to refine the definition of customary trade (57 Fed. Reg. 104, 22941 [May 29, 1992]). Customary trade is part of the definition of subsistence uses in Federal regulations. [2]

The Federal Subsistence Board's customary-trade focus has been refining regulations to address two issues on a region-by-region basis. One is the sale of salmon and the second is the sale of handicrafts that incorporate brown bear claws. The Board appointed working groups to propose regulations with input from Regional Advisory Councils. In 2003, the Board adopted regulations defining a significant commercial enterprise of salmon in some regions of the state and requiring a permit and reporting of customary trades of salmon in other regions of the state (*§___.27(b)(11)(i)* and *(ii)*; *§___.27(b)(12)*) and allowing the sale of handicrafts that incorporate brown bear claws in 2012 (*§___.25(j)(7)(ii)*). To allow the sale of handicrafts incorporating brown claws, a modification to the sealing certificate, which is managed by the State of Alaska, was required to include a place on the certificate indicating that the

[2] *Subsistence means the customary and traditional uses by rural Alaska residents of wild, renewable resources for direct personal or family consumption as food, shelter, fuel, clothing, tools, or transportation; for the making and selling of handicraft articles out of nonedible byproducts of fish and wildlife resources taken for personal or family consumption; for barter, or sharing for personal or family consumption; and for* ***customary trade*** *(§___.4 Definitions)*

bear was harvested by a Federally qualified subsistence user (*§___.25(j) Utilization of fish, wildlife, or shellfish*, see regulations in the **Appendix**) (68 Fed. Reg. 81, 22309, [April 28, 2003]; 77 Fed. Reg. 114, 35498 [June 13, 2012]).

Sale of Brown Bear Hides

In 2002, Proposal WP02-01, submitted by a resident of Fort Yukon, requested the Federal Subsistence Board to classify black bears and brown bears as furbearers, which opened up the possibility that bear hides may be sold (*If you are a Federally qualified subsistence user, you may sell the raw fur or tanned pelt with or without claws attached from legally harvested furbearers (___25(j)(8)*).

Regional Advisory Councils differed in their recommendations. The Southeast Alaska Council was the only one that supported legalizing the sale of brown bear and black bear hides. The Southeast Alaska Council justification read,

> The Council was in favor of full use of subsistence resources and did not believe that allowing sale of bear parts would increase bear harvests, promote illegal trade, or cause conservations concerns. The Council noted that hunting regulations for bear limit the number of bears that can be taken and that sale of parts of legally taken bears would provide only a minor financial return to the harvester. There were no conservation concerns for the brown bear population under existing management; the southeast population is healthy, and fewer bears are taken than the harvest guideline would allow. This change in classification would not affect other users and could be positive for subsistence users (OSM 2002: 23).

One Council supported the sale of black bear pelts only, and five other Councils supported allowing the sale of only handcrafts that incorporate black bear fur (thereby aligning Federal and State regulations). One Council said the sale of bear parts could threaten bear populations and was not a customary and traditional use in the region. A Western Interior Alaska Council member abstained from voting on the proposal because of a cultural taboo that women do not talk about bears. Two Councils said that such decisions should be made on a region-by-region basis and not statewide (OSM 2002). The Board adopted a motion to only allow the sale of handicrafts incorporating black bear fur: *If you are a Federally qualified subsistence user, you may sell handicraft articles made from the skin, hide, pelt, or fur, including claws, of a black bear (§___.25(j)(6)*) (67 Fed. Reg. 125, 43711 [June 28, 2002]).

In 2006, the Alaska Board of Game adopted regulations to allow the sale of raw brown bear hides, with claws attached, harvested in specific predator control management areas under a State permit: "*After the skin and skull is sealed as required under 5 AAC 92.165(a), a person may sell the untanned skin, with claws attached, and skull of a brown bear taken in an active brown bear predator control area listed in 5 AAC 92.125 only under a permit issued by the department"* (*5 AAC 92.031(d)*). The purpose of predation control is to recover depleted prey populations such as moose and caribou (ADF&G 2006a, 2006b:5, 2023a).

In 2016, the Alaska Board of Game adopted Proposal 57 to allow the sale of brown bear hides and/or skulls by Alaska residents in units where the harvest limit is two bears annually: *A person may sell, advertise, or otherwise offer for sale a skull or hide with claws attached of a brown bear harvested in an area where the bag limit is two brown bears per regulatory year. . . .* (*5 AAC 92.031(g)*). Currently, these units with two-bear harvest limits in State regulations are 16B, 17, 19A, 19D, 20E, 21, 22A, 22B, 22D, 22E, 23, 24B, 25D, and 26A (*5 AAC 92.132 Bag limit for brown bears*) (ADF&G 2016a, 2016b:32, 2016c:5).

In 2018, the Federal Subsistence Board rejected the recommendations of affected Councils on Proposal WP18-44 to allow the sale of brown bear hides with claws attached and/or skulls in Unit 23. The Board said black markets for illegally acquired brown bear parts are known to encourage poaching and increasing market availability for brown bear parts may intensify illegal harvest. The Board also noted there is insufficient evidence that residents of Unit 23 have an established pattern of customary trade involving brown bear hides and skulls, and few residents of Unit 23 harvest brown bears under the Federal subsistence regulation due to meat salvage and sealing requirements. The lack of a component to the proposal that would require a permit for sale in line with State regulations was also a factor in the Board's justification for rejecting the proposal (OSM 2018).

Current General Regulations

Federal subsistence regulations prohibit the sale of wildlife or their parts unless specifically allowed under Federal subsistence regulations: "*You may not exchange in customary trade or sell fish or wildlife or their parts, taken pursuant to the regulations in this part, unless provided for in this part*" (*§___.7(b) Restriction on use*).

One specific authorization in Federal subsistence regulations for the sale of the non-edible byproducts of brown bears harvested for subsistence is for handicrafts: "*If you are a Federally qualified subsistence user, you may sell handicraft articles made from the skin, hide, pelt, or fur, including claws, of a brown bear taken from Units 1–5, 9A–C, 9E, 12, 17, 20, 22, 23, 24B (only that portion within Gates of the Arctic National Park), 25, or 26"* (*§___.23(j) Utilization of fish, wildlife, or shellfish*).

Federal subsistence regulations define a brown bear hide as having claws attached: *. . . skin, hide, or pelt of a bear shall mean the entire external covering with claws attached"* (*§___.23(a) Definitions*).

Additionally, customary trade shall not constitute a significant commercial enterprise: *Customary trade means exchange for cash of fish and wildlife resources regulated in this part, not otherwise prohibited by Federal law or regulation, to support personal and family needs; and does not include trade which constitutes a significant commercial enterprise* (§___*.4 Definitions*). Sales that rise to the level of a significant commercial enterprise are not defined on a statewide basis and instead may be defined on a region-by-region basis by placing monetary caps on sales and/or requiring permits for and reporting of customary trades (see examples of these regulations in the **Appendix** at *§___.27 Subsistence taking of fish*).

Biological Background

Brown bears on Kodiak Island are the only distinct subspecies (*Ursus arctos middendorffi)* because they are genetically and physically isolated from other Ursus arctos. However, all "grizzly bears" and "brown bears" are considered "brown bears" for purposes of harvest in Alaska.

Alaska has an estimated 30,000 brown bears statewide (ADF&G 2023b). Brown bears range throughout most of Alaska, except the islands of the Aleutian Chain west of Unimak and in Southeast Alaska south of Frederick Sound (**Figure 1**). High densities of brown bears occur on Kodiak Island, the Alaska Peninsula, and the Admiralty, Baranof, and Chichagof Islands of Southeast Alaska. The density of brown bears in Alaska varies considerably with habitat and ranges anywhere from 2.6 bears/ 1,000 km^2 on the North Slope (Lenart 2021) to 275 bears/1,000 km^2 in Southeast Alaska (Bethune 2021), although these estimates are extrapolated from an estimate derived from a reanalysis of 20-year-old data. Except for breeding pairs and females with offspring, brown bears are typically solitary creatures and avoid the company of other bears.

Figure 1. Map showing the range of brown bears in Alaska (ADF&G 2023c).

Brown bear populations are extremely sensitive to disruption. This is because brown bears exhibit the lowest reproduction rate of any North American mammal. In some areas with low population densities, such as in northern Alaska, brown bear populations are often managed conservatively for several reasons: large home ranges are required to meet resource needs (McLoughlin et al. 2002); female brown bears generally do not successfully reproduce until they are more than five years old and have low reproductive rates, small litters, and long intervals between litters. Sows exhibit high fidelity to home ranges with little emigration or immigration, and monitoring methods are imprecise and expensive (USFWS 1982, Reynolds 1989, Miller et al. 2011)

Brown bears are difficult to survey precisely due to their solitary nature and their sensitivity to disturbance, as is evident from the lack of current population data. Statewide, population estimates are sometimes based on surveys conducted in the 1990s or early 2000s and extrapolated to arrive at a current estimate. In Unit 4 in Southeast Alaska, there has not been a population estimate for brown bears for almost two decades (Bethune 2021). Historically, ADF&G estimated densities of between 227 and 275 bears/1000 km^2, with population estimated for Unit 4 of 4,303 bears. In Unit 13, there is currently no population monitoring (Hatcher 2023). The last population estimate was in 1998 and it estimated 1,260 bears in the unit, with a density of 21.3 bears/1,000 km^2. In Units 25 and 26 current population estimates are based on models using population data from 1999. These calculations give an estimated density of 2.6 bears/1,000 km^2, with a non-statistically derived estimate of 333 bears for Unit 26B (Lenart 2021).

Most population data collected is from sealing records of harvested brown bears. In some areas, brown bears harvested under Federal or State subsistence regulations are not required to be sealed except under certain conditions. Where sealing is not required, a Federal or a State hunting permit is required that sometimes allows for the collection of similar data to sealing records The data collected from each is used to assess trends in harvest and to inform in-season management actions (Bethune 2021).

Harvest History

Harvests levels of brown bears have generally increased over the last 40 years with harvest peaking in the early 2010s followed by a downward trend to the current year (ADF&G 2022).

Concerning the sale of the hides with claws attached of legally harvested brown bears in State regulations since 2016, ADF&G has not detected increased harvest. Although brown bear harvest increased slightly (then decreased right back to “normal” levels) when brown bears were first allowed to be taken over bait, hunting seasons were also being lengthened that might have contributed to this slight increase in harvest around the same time. Staff have been instructed to issue sale permits to anyone that harvests a brown bear in a two-bear harvest limit area that might possibly be interested in selling it down the road (Bogle 2023, pers. comm.; Weber 2023, pers. comm.). As of August 2022, ADF&G had distributed 38 sale permits for hunts across 10 subunits and has received seven sale notifications from permit holders (Paragi 2023, pers. comm.).

In addition to a State tag or permit, a Federal subsistence permit has been available in some areas of Alaska to harvest brown bears since 1995. In the 20 years from 2002 to 2021, 158 subsistence hunters

have reported harvesting a total of 40 brown bears by Federal permit cumulatively from Units 5, 8, 9, and in the Southcentral Alaska Region (OSM 2023). Subsistence hunters use these Federal permits because it allows them to hunt in areas where there is competition in the State system to obtain permits (for example draw hunts in Units 8), where there formerly was competition in the State system to obtain permits (for example in Unit 15), the hunt area is on National Park or Monument lands (such as in Unit 9), which are closed to the harvest of brown bears except by subsistence users, or in areas with more liberal Federal harvest limits (in Unit 5 for example).

Cultural Knowledge and Traditional Practices

Alaska Natives have harvested bears and competed with them for subsistence resources for at least 14,000 years (Birkedal 2001). Brown bears have traditionally been a very important part of the Alaska Native cultures. Because of their powerful senses and ability to hear through the ground, brown bears are usually referred to indirectly" and respectfully so that they will continue to give themselves to hunters. For this reason, the Yup'ik call them *carayak* (terrible fearsome thing), *ungungssiq* (land animal, quadruped), *naparngali* (one who stands upright) or *kavirluq* (red thing, as opposed to *tan'gerliq*, black bear)" (Fienup-Riordan 2007:164). Athabaskans call the brown bear *ghonoy*, *ghonoy tlaaga* or *dlil ta bahoolaanee*. Tlingits call it *yats'inEt* or *ya'Et'gu tutw'adi'at*. The Iñupiat call it *aklaq*.

Brown bears have been hunted for their meat and hides, and other parts of the bear have been used for traditional medicine or fashioned into such things as tools, amulets, ceremonial regalia, and art (Thornton 1992, Nelson 1983, Fall and Hutchinson-Scarborough1996, Loon and Georgette 1989, Behnke 1981, ADF&G 1990). Nelson (1983) reports that the brown bear takes an apex of power among Koyukon Athabascan spirits of the natural world, perhaps below only the wolverine. People's behavior toward the brown bear is subject to a number of culturally based requirements. Nelson (1983) reports that disregard or violation of these cultural requirements is sharply punished. Traditionally, when Koyukon men hunted brown bears, they followed prescribed rituals. For example, a man is not to openly discuss the brown bear hunt before or after it occurs, and care must be taken to prevent the hide from coming in contact with women. The Koyukon Athabascans have a taboo against women eating brown bear meat or young men eating meat from a brown bear's head (Nelson 1983). Dena'ina Athabascans in the Lake Clark and Katmai areas competed directly with brown bears for subsistence resources; it is thought that the Dena'ina likely displaced brown bear from the very best salmon fishing sites on certain rivers (Birkedal 2001). The Dena'ina reserved some secondary stream drainages for the exclusive use of bears and for bear hunting. It is reported that Alutiiq residents of the Alaska Peninsula believed that bears are human ancestors that must be shown respect (Sherwonit 1998). In the Chignik Bay, Chignik Lagoon, Chignik Lake, Ivanof Bay and Perryville area, brown bear hunting is governed by a system of traditional Alutiiq beliefs that emphasize respectful treatment of the bear and protection of the hunters (Fall and Hutchinson-Scarborough 1996). According to these traditions, the skull and hide of the bear are left at the kill site; the skull is placed facing in a southern or southeastern direction. Traditional Southeast Alaska, brown bear hunting by Alaska Natives was surrounded by numerous behavioral prescriptions that were considered vital to the success of the hunt. Brown bears are an important symbol of Tlingit social and ceremonial life, and there is emphasis on the close relationship

between humans and bears (Thornton 1992). Bear hides were used for ceremonial robes, clothing, rugs and bedding. Thornton (1992) reported that the Tlingit traditionally preferred brown bear hides for children's bedding, as the hides provided not only warmth, but also were thought to prevent illnesses. Loon and Georgette (1989) and Georgette (2001) described the widespread respect of the Iñupiat for bears and the belief that the bears must be treated appropriately. An Iñupiat man is not to openly discuss the bear hunt before or after it occurs. Traditionally, the bear's head is given to the eldest member of the community or hung on a tree or pole in camp. The Iñupiat give the bear hide to an elder or use it for bedding and clothing. It has been customary practice of some Yup'ik villagers to use bear hides for mattresses, trimming on clothing and skin for boats and to bury the bear's skull facing east at the kill site. Brown bear harvesting is a specialized pursuit that is concentrated in certain villages and certain families (Coffing 1991).

Effects of the Proposal

If Proposal WP23-01 is adopted, the sale of the hide of a brown bear legally harvested from Federal public lands under Federal regulations will be legal as long as the edible meat is salvaged for human consumption, claws are attached to the hide, and the hide is sealed by a representative of ADF&G.

However, this outcome might conflict with CITES and State regulations implementing CITES. CITES provides for the commercial trade of hides of legally harvested brown bears only if the state of export issues permits reporting that the trade will not be detrimental to the survival of the species in the wild. The State of Alaska currently issues these permits but only for the sale of the hides of brown bears legally harvested in areas with a two-brown bear harvest limit (in Units 16B, 17, 19A, 19D, 20E, 21, 22A, 22B, 22D, 22E, 23, 24B, 25D, and 26A).

It is already legal under State regulations to sell the hide of brown bears legally harvested in areas of Alaska where the harvest limit is two brown bears per year except for lands designated as National Park or Monument, which are only open to hunting under Federal subsistence regulations. Effects on nonsubsistence users are not anticipated. Effects on the resource, specifically whether, or how much, the harvest of brown bears will increase is anticipated to be minimal.

If Proposal WP23-01 is not adopted, the sale of brown bear hides will not be legal under Federal regulations but will remain legal in areas of Alaska under State regulations where the harvest limit is two brown bears per year including on most Federal public lands, except for lands designated as National Park or Monument. No effects on nonsubsistence users or the resource are anticipated.

OSM PRELIMINARY CONCLUSION

Support Proposal WP24-01 **with modification** to allow the sale of brown bear hides with claws attached in areas where the Federal harvest limit is two bears every regulatory year and after first obtaining a permit available at the time of sealing from an ADF&G sealing officer.

The modified regulation should read:

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

(j) Utilization of fish, wildlife, or shellfish

. . .

(13) You may sell the raw/untanned and tanned hide or cape from a legally harvested caribou, deer, elk, goat, moose, musk ox, sheep, ***and brown bear with claws attached harvested in an area with a two brown bear limit per regulatory year* in Federal regulations only after first obtaining a permit* at the time of sealing from the Alaska Department of Fish and Game.***

***Note**: Harvest limits of two brown bears per regulatory year in 2022/24 Federal regulations include all or portions of Units 22B, 22D, 23, 24B, 25D, and 26A. A "Permit to Sell a Brown/Grizzly Bear Hide and/or Skull" is available at the time of sealing from the sealing officer.

Justification

Conservation is a concern regarding brown bear populations in Alaska for several reasons including their low productivity rates, their solitary nature, difficulty obtaining population estimates, and high sport use in some areas. The OSM modification to the proposal puts limits on sales of brown bear hides. The sale of brown bear hides could only occur for brown bears shown to be legally harvested from Federal public lands under Federal regulations, and only in areas where there is a two brown bear harvest limit in Federal regulations. Currently, such areas are all or portions of Units 22B, 22D, 23, 24B, 25D, and 26A. Further, the edible meat must be salvaged (*§___.25(j)(2)(ii)*), the hide must have the claws attached (*§___.25(a)*), and the hide must be sealed by ADF&G before it can be removed from the area (*§___.26(j)*).

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) provides for the commercial trade of hides of legally harvested brown bears only if the state of export issues permits reporting that the trade will not be detrimental to the survival of the species in the wild. Therefore, a permit from ADF&G is required. The Alaska Department of Fish and Game issues this type of permit before selling the hide of a brown bear legally harvested under State regulations but only in areas with a two brown bear harvest limit (in Units 16B, 17, 19A, 19D, 20E, 21, 22A, 22B, 22D, 22E, 23, 24B, 25D, and 26A). Allowing the sale of the hide of a brown bear harvested from other areas would require negotiation with the State over the use of its permitting system.

These requirements would limit from where and how many hides would be sold by federally qualified subsistence users. Limiting legal sales to only brown bears taken from areas with two-bear harvest limits would be a protection from over harvest. Other tools exist for the Board to use if harvests were to rise above sustainable yields in an area. These tools include reducing seasons and harvest limits, placing monetary caps on sales on a region-by-region bases, and requiring permits for and reporting of customary trades.

This is a statewide proposal that will be reviewed by all 10 Regional Advisory Councils. Each Council can inform the Board whether the regulation is culturally appropriate for their region.

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Appendix

Relevant Federal Regulations

§___.4 Definitions

The following definitions apply to all regulations contained in this part:

. . .

Customary trade *means exchange for cash of fish and wildlife resources regulated in this part, not otherwise prohibited by Federal law or regulation, to support personal and family needs; and does not include trade which constitutes a significant commercial enterprise.*

. . .

Subsistence *means the customary and traditional uses by rural Alaska residents of wild, renewable resources for direct personal or family consumption as food, shelter, fuel, clothing, tools, or transportation; for the making and selling of handicraft articles out of nonedible byproducts of fish and wildlife resources taken for personal or family consumption; for barter, or sharing for personal or family consumption; and for customary trade.*

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

(a) Definitions

. . .

Bear *means black bear, or brown or grizzly bear*

. . .

Big game *means black bear, brown bear, bison, caribou, Sitka black-tailed deer, elk, mountain goat, moose, musk ox, Dall sheep, wolf, and wolverine.*

. . .

Edible meat *means . . For black bear, brown and grizzly bear, "edible meat" means the meat of the front quarter and hindquarters and meat along the backbone (backstrap).*

. . .

Handicraft *means a finished product made by a rural Alaskan resident from the nonedible byproducts of fish or wildlife and is composed wholly or in some significant respect of natural materials. The shape and appearance of the natural material must be substantially changed by the skillful use of hands, such as sewing, weaving, drilling, lacing, beading, carving, etching, scrimshawing, painting, or other means, and incorporated into a work of art, regalia, clothing, or other creative expression, and can be either traditional or contemporary in design. The handicraft must have substantially greater monetary and aesthetic value than the unaltered natural material alone.*

. . .

Sealing *means placing a mark or tag on a portion of a harvested animal by an authorized representative of the ADF&G; sealing includes collecting and recording information about the conditions under which the animal was harvested, and measurements of the specimen submitted for sealing, or surrendering a specific portion of the animal for biological information.*

. . .

Skin, hide, pelt, or fur *means any tanned or untanned external covering of an animal's body. However, for bear, the skin, hide, pelt, or fur means the external covering with claws attached.*

. . .

Trophy means *a mount of a big game animal, including the skin of the head (cape) or the entire skin, in a lifelike representation of the animal, including a lifelike representation made from any part of a big game animal; "trophy" also includes a "European mount" in which the horns or antlers and the skull or a portion of the skull are mounted for display*

. . .

(j) Utilization of fish, wildlife, or shellfish.

. . .

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

. . .

(ii) The hide and edible meat of a brown bear, except that the hide of brown bears taken in Units 5, 9B, 17, 18, portions of 19A and 19B, 21D, 22, 23, 24, and 26A need not be salvaged;

. . .

(7) If you are a Federally qualified subsistence user, you may sell handicraft articles made from the skin, hide, pelt, or fur, including claws, of a brown bear taken from Units 1–5, 9A–C, 9E, 12, 17, 20, 22, 23, 24B (only that portion within Gates of the Arctic National Park), 25, or 26.

(i) In Units 1, 2, 3, 4, and 5, you may sell handicraft articles made from the skin, hide, pelt, fur, claws, bones, teeth, sinew, or skulls of a brown bear taken from Units 1, 4, or 5.

(ii) Prior to selling a handicraft incorporating a brown bear claw(s), the hide or claw(s) not attached to a hide must be sealed by an authorized Alaska Department of Fish and Game representative. Old claws may be sealed if an affidavit is signed indicating that the claws came from a brown bear harvested on Federal public lands by a Federally qualified user. A copy of the Alaska Department of Fish and Game sealing certificate must accompany the handicraft when sold.

. . .

(13) You may sell the raw/untanned and tanned hide or cape from a legally harvested caribou, deer, elk, goat, moose, musk ox, and sheep.

§___.27 Subsistence taking of fish.

. . .

(b) Methods, means, and general restrictions.

. . .

(11) Transactions between rural residents. Rural residents may exchange in customary trade subsistence-harvested fish, their parts, or their eggs, legally taken under the regulations in this part, for cash from other rural residents. The Board may recognize regional differences and regulates customary trade differently for separate regions of the State.

(i) Bristol Bay Fishery Management Area—The total cash value per household of salmon taken within Federal jurisdiction in the Bristol Bay Fishery Management Area and exchanged in customary trade to rural residents may not exceed $500.00 annually.

(ii) Upper Copper River District—The total number of salmon per household taken within the Upper Copper River District and exchanged in customary trade to rural residents may not exceed 50 percent of the annual harvest of salmon by the household. No more than 50 percent of the annual household limit may be sold under paragraphs (b)(11) and (12) of this section when taken together. These customary trade sales must be immediately recorded on a customary trade recordkeeping form. The recording requirement and the responsibility to ensure the household limit is not exceeded rests with the seller.

(iii) Customary trade of Yukon River Chinook salmon may only occur between Federally qualified rural residents with a current customary and traditional use determination for Yukon River Chinook salmon.

(12) Transactions between a rural resident and others. In customary trade, a rural resident may exchange fish, their parts, or their eggs, legally taken under the regulations in this part, for cash from individuals other than rural residents if the individual who purchases the fish, their parts, or their eggs uses them for personal or family consumption. If you are not a rural resident, you may not sell fish, their parts, or their eggs taken under the regulations in this part. The Board may recognize regional differences and regulates customary trade differently for separate regions of the State.

(i) Bristol Bay Fishery Management Area—The total cash value per household of salmon taken within Federal jurisdiction in the Bristol Bay Fishery Management Area and exchanged in customary trade between rural residents and individuals other than rural residents may not exceed $400.00 annually. These customary trade sales must be

immediately recorded on a customary trade recordkeeping form. The recording requirement and the responsibility to ensure the household limit is not exceeded rest with the seller.

(ii) Upper Copper River District—The total cash value of salmon per household taken within the Upper Copper River District and exchanged in customary trade between rural residents and individuals other than rural residents may not exceed $500.00 annually. No more than 50 percent of the annual household limit may be sold under paragraphs (b)(11) and (12) of this section when taken together. These customary trade sales must be immediately recorded on a customary trade recordkeeping form. The recording requirement and the responsibility to ensure the household limit is not exceeded rest with the seller.

(iii) Customary trade of Yukon River Chinook salmon may only occur between Federally qualified rural residents with a current customary and traditional use determination for Yukon River Chinook salmon.

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ANNUAL REPORTS

Background

ANILCA established the Annual Reports as the way to bring regional subsistence uses and needs to the Secretaries' attention. The Secretaries delegated this responsibility to the Board. Section 805(c) deference includes matters brought forward in the Annual Report.

The Annual Report provides the Councils an opportunity to address the directors of each of the four Department of Interior agencies and the Department of Agriculture Forest Service in their capacity as members of the Federal Subsistence Board. The Board is required to discuss and reply to each issue in every Annual Report and to take action when within the Board's authority. In many cases, if the issue is outside of the Board's authority, the Board will provide information to the Council on how to contact personnel at the correct agency. As agency directors, the Board members have authority to implement most of the actions which would effect the changes recommended by the Councils, even those not covered in Section 805(c). The Councils are strongly encouraged to take advantage of this opportunity.

Report Content

Both Title VIII Section 805 and 50 CFR §100.11 (Subpart B of the regulations) describe what may be contained in an Annual Report from the councils to the Board. This description includes issues that are not generally addressed by the normal regulatory process:

- an identification of current and anticipated subsistence uses of fish and wildlife populations within the region;
- an evaluation of current and anticipated subsistence needs for fish and wildlife populations from the public lands within the region;
- a recommended strategy for the management of fish and wildlife populations within the region to accommodate such subsistence uses and needs related to the public lands; and
- recommendations concerning policies, standards, guidelines, and regulations to implement the strategy.

Please avoid filler or fluff language that does not specifically raise an issue of concern or information to the Board.

Report Clarity

In order for the Board to adequately respond to each Council's annual report, it is important for the annual report itself to state issues clearly.

- If addressing an existing Board policy, Councils should please state whether there is something unclear about the policy, if there is uncertainty about the reason for the policy, or if the Council needs information on how the policy is applied.
- Council members should discuss in detail at Council meetings the issues for the annual report and assist the Council Coordinator in understanding and stating the issues

clearly.Council Coordinators and OSM staff should assist the Council members during the meeting in ensuring that the issue is stated clearly.

Thus, if the Councils can be clear about their issues of concern and ensure that the Council Coordinator is relaying them sufficiently, then the Board and OSM staff will endeavor to provide as concise and responsive of a reply as is possible.

Report Format

While no particular format is necessary for the Annual Reports, the report must clearly state the following for each item the Council wants the Board to address:

1. Numbering of the issues,
2. A description of each issue,
3. Whether the Council seeks Board action on the matter and, if so, what action the Council recommends, and
4. As much evidence or explanation as necessary to support the Council's request or statements relating to the item of interest.

FISHERIES RESOURCE MONITORING PROGRAM

INTRODUCTION

The Fisheries Resource Monitoring Program (Monitoring Program) is a collaborative, interagency, interdisciplinary approach to enhance fisheries research and data in Alaska and effectively communicate information needed for subsistence fisheries management on Federal public lands and waters. In 1999, the Federal government assumed responsibility for management of subsistence fisheries on Federal public lands and waters in Alaska. Section 812 of the Alaska National Interest Lands Conservation Act (ANILCA) directs the Departments of the Interior and Agriculture to research fish and wildlife subsistence uses on Federal public lands and waters and to seek data from, consult with, and incorporate knowledge of rural residents engaged in subsistence. The Secretaries of the Interior and Agriculture are committed to increasing the quantity and quality of information available to manage subsistence fisheries; meaningful involvement by federally-recognized tribes and Alaska Native and rural organizations; and, collaboration among Federal, State, Alaska Native, and rural organizations.

Every two years, the Office of Subsistence Management announces a notice of funding opportunity for investigation plans addressing subsistence fisheries on Federal public lands. The Monitoring Program is administered through regions to align with stock, harvest, and community issues common to a geographic area. There are six distinct Monitoring Program regions (**Figure 1**) as well as a multi-region category for projects that encompass more than one region.

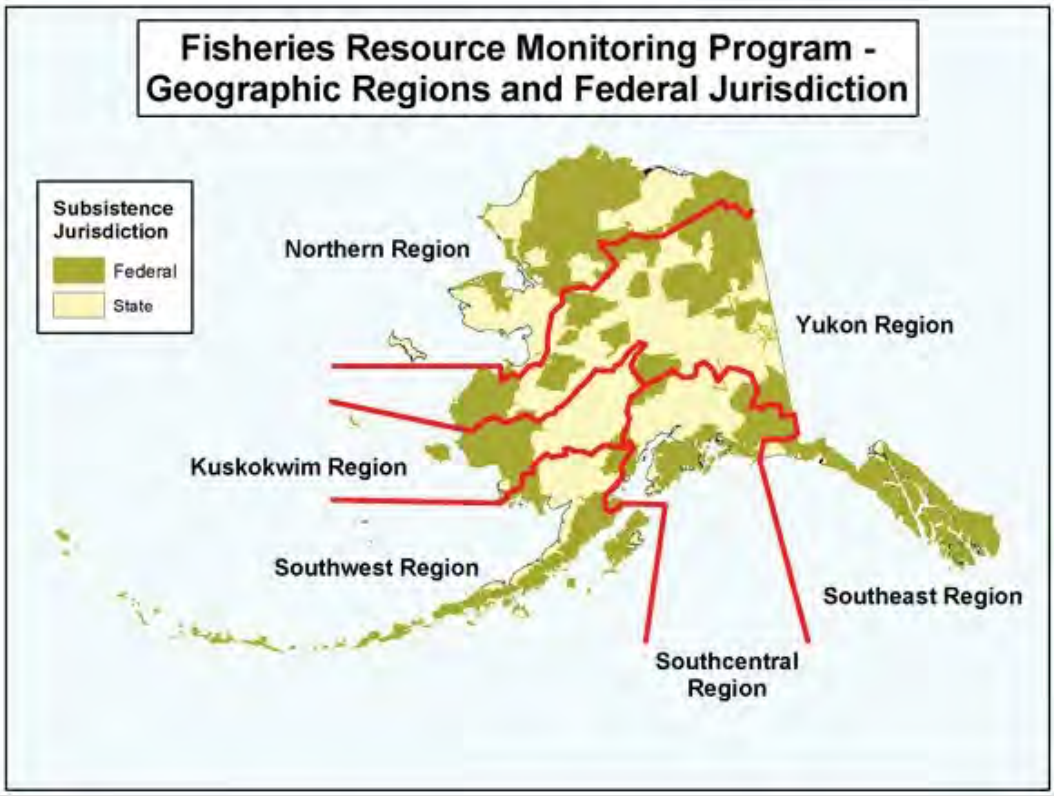


Figure 1. Geographic regions of the Fisheries Resource Monitoring Program in Alaska.

During each two-year funding cycle, the Monitoring Program funds ongoing projects from the previous cycle (projects may be 1–4 years in duration) as well as new projects. Funding allocation guidelines are established by geographic region (**Table 1**). The regional guidelines were developed using six criteria that included level of risk to species, level of threat to conservation units, amount of subsistence needs not being met, amount of information available to support subsistence management, importance of a species to subsistence harvest, and level of user concerns regarding subsistence harvest. Funding allocation guidelines provide an initial target for planning; however, they are not final and are adjusted annually as needed.

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

Region	U.S. Department of the Interior Funds	U.S. Department of Agriculture Funds
Northern Alaska	17%	0%
Yukon Drainage	29%	0%
Kuskokwim Drainage	29%	0%
Southwest Alaska	15%	0%
Southcentral Alaska	5%	33%
Southeast Alaska	0%	67%
Multi-Regional	5%	0%

The Monitoring Program was first implemented in 2000 with an initial allocation of $5 million. Since 2000, a total of $139.9 million has been allocated for the Monitoring Program to fund a total of 524 projects (**Figure 2** and **Figure 3**).

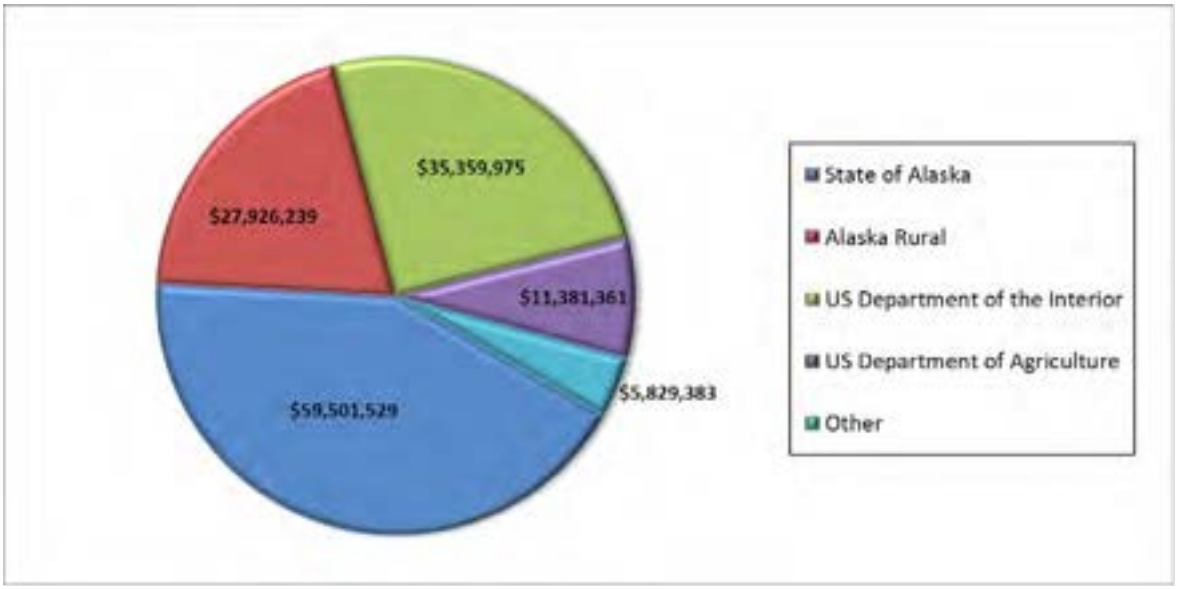


Figure 2. Monitoring Program fund distribution since 2000, identified by primary recipient organization type.

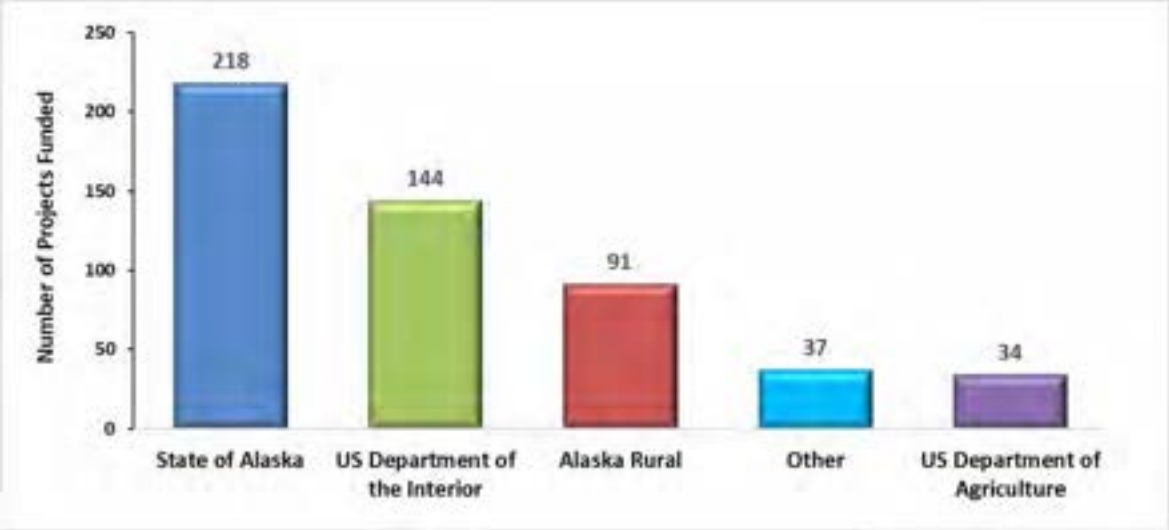


Figure 3. Number of Monitoring Program projects funded since 2000, listed by primary recipient organization type.

The three broad categories of information solicited by the Monitoring Program are (1) harvest monitoring, (2) traditional ecological knowledge, and (3) stock status and trends. Projects that combine these approaches are encouraged.

Harvest monitoring studies provide information on numbers and species of fish harvested, locations of harvests, and gear types used. Methods used to gather information on subsistence harvest patterns may include harvest calendars, mail-in questionnaires, household interviews, subsistence permit reports, and telephone interviews.

Traditional ecological knowledge studies are investigations of local knowledge directed at collecting and analyzing information on a variety of topics such as the sociocultural aspects of subsistence, fish ecology, species identification, local names, life history, taxonomy, seasonal movements, harvests, spawning and rearing areas, population trends, environmental observations, and traditional management systems. Methods used to document traditional ecological knowledge include ethnographic fieldwork, key respondent interviews with local experts, place name mapping, and open-ended surveys.

Stock status and trends studies provide information on abundance and run timing, age-sex-length composition, migration and geographic distribution, survival of juveniles or adults, stock production, genetic stock identification, and mixed stock analyses. Methods used to gather information on stock status and trends include aerial and ground surveys, test fishing, towers, weirs, sonar, video, genetics, mark-recapture, and telemetry.

PROJECT EVALUATION PROCESS

The Monitoring Program prioritizes high quality projects that address critical subsistence and conservation concerns. Projects are selected for funding through an evaluation and review process that is designed to advance projects that are strategically important for the Federal Subsistence Management Program, technically sound, administratively competent, promote partnerships and capacity building, and

are cost effective. Proposed projects are first evaluated by a panel called the Technical Review Committee. The Technical Review Committee's function is to provide evaluation, technical oversight, and strategic direction to the Monitoring Program. This committee is a standing interagency committee of senior technical experts that reviews, evaluates, and makes recommendations about proposed projects that are consistent with the mission of the Monitoring Program. Recommendations from the Technical Review Committee provide the basis for further comments from Subsistence Regional Advisory Councils, the public, the Interagency Staff Committee, and the Federal Subsistence Board, with final approval of the Monitoring Plan by the Assistant Regional Director of the Office of Subsistence Management.

To be considered for funding under the Monitoring Program, a proposed project must have a nexus to Federal subsistence fishery management. Proposed projects must have a direct association to a Federal subsistence fishery, and the subsistence fishery or fish stocks in question must occur in or pass-through waters within or adjacent to Federal public lands in Alaska (National Wildlife Refuges, National Forests, National Parks and Preserves, National Conservation Areas, National Wild and Scenic River Systems, National Petroleum Reserves, and National Recreation Areas). A complete project package must be submitted on time and must address the following five specific criteria.

1. ***Strategic Priorities***—Studies should be responsive to information needs identified in the 2024 Priority Information Needs available at the Monitoring Program webpage at https://www.doi.gov/subsistence/frmp/funding. All projects must have a direct linkage to Federal public lands and/or waters to be eligible for funding under the Monitoring Program. Projects should address the following topics to demonstrate links to strategic priorities:

    - Federal jurisdiction—The extent of Federal public waters in or nearby the project area
    - Direct subsistence fisheries management implications
    - Conservation mandate—Threat or risk to conservation of species and populations that support subsistence fisheries
    - Potential impacts on the subsistence priority—Risk that subsistence harvest users' goals will not be met
    - Data gaps—Amount of information available to support subsistence management and how a project answers specific questions related to these gaps
    - Role of the resource—Contribution of a species to a subsistence harvest (number of villages affected, pounds of fish harvested, miles of river) and qualitative significance (cultural value, unique seasonal role)
    - Local concern—Level of user concerns over subsistence harvests (upstream vs. downstream allocation, effects of recreational use, changes in fish abundance and population characteristics)

    To assist in evaluation of submittals for projects previously funded under the Monitoring Program, investigators must summarize project findings in their investigation plans. This

summary should clearly and concisely document project performance, key findings, and uses of collected information for Federal subsistence management. It should also justify the continuation of the project, placing the proposed work in context with the ongoing work being accomplished.

2. ***Technical-Scientific Merit***—Technical quality of the study design must meet accepted standards for information collection, compilation, analysis, and reporting. To demonstrate technical and scientific merit, applicants should describe how projects will:

    - Advance science
    - Answer immediate subsistence management or conservation concerns
    - Have rigorous sampling and/or research designs
    - Have specific, measurable, realistic, clearly stated, and achievable (attainable within the proposed project period) objectives
    - Incorporate traditional knowledge and methods

    Data collection, compilation, analysis, and reporting procedures should be clearly stated. Analytical procedures should be understandable to the non-scientific community.

3. ***Investigator Ability and Resources***—Investigators must show they are capable of successfully completing the proposed project by providing information on the ability (training, education, experience, and letters of support) and resources (technical and administrative) they possess to conduct the work. Investigators that have received funding in the past, via the Monitoring Program or other sources, are evaluated and scored on their past performance, including fulfillment of meeting deliverable and financial accountability deadlines. A record of failure to submit reports or delinquent submittal of reports will be considered when rating investigator ability and resources.

4. ***Partnership and Capacity Building***—Investigators must demonstrate that capacity building has already reached the communication or partnership development stage during proposal development and, ideally, include a strategy to develop capacity building to higher levels, recognizing, however, that in some situations higher level involvement may not be desired or feasible by local organizations.

    Investigators are requested to include a strategy for integrating local capacity development in their study plans or research designs. Investigators should inform communities and regional organizations in the area where work is to be conducted about their project plans. They should also consult and communicate with local communities to ensure that local knowledge is used and concerns are addressed. Investigators and their organizations should demonstrate their ability to maintain effective local relationships and commitment to capacity building. This includes a plan to facilitate and develop partnerships so that investigators, communities, and regional organizations can pursue and achieve the most meaningful level of involvement. Proposals

demonstrating multiple, highly collaborative efforts with rural community members or Alaska Native Organizations are encouraged.

Successful capacity building requires developing trust and dialogue among investigators, local communities, and regional organizations. Investigators need to be flexible in modifying their work plan in response to local knowledge, issues, and concerns, and must also understand that capacity building is a reciprocal process in which all participants share and gain valuable knowledge. The reciprocal nature of the capacity building component(s) should be clearly demonstrated in proposals. Investigators are encouraged to develop the highest level of community and regional collaboration that is practical including joining as co-investigators.

Capacity can be built by increasing the technical capabilities of rural communities and Alaska Native organizations. This can be accomplished via several methods, including increased technical experience for individuals and the acquisition of necessary gear and equipment. Increased technical experience would include all areas of project management including logistics, financial accountability, implementation, and administration. Other examples may include internships or providing opportunities within the project for outreach, modeling, sampling design, or project specific training. Another would be the acquisition of equipment that could be transferred to rural communities and tribal organizations upon the conclusion of the project.

A "meaningful partner" is a partner that is actively engaged in one or more aspects of project design, logistics, implementation, and reporting requirements. Someone who simply agrees with the concept or provides a cursory look at the proposal is not a meaningful partner.

5. ***Cost/Benefit—***This criterion evaluates the reasonableness (what a prudent person would pay) of the funding requested to provide benefits to the Federal Subsistence Management Program. Benefits could be tangible or intangible. Examples of tangible outcomes include data sets that directly inform management decisions or fill knowledge gaps and opportunities for youth or local resident involvement in monitoring, research, and/or resource management efforts. Examples of possible intangible goals and objectives include enhanced relationships and communications between managers and communities, partnerships and collaborations on critical resource issues, and potential for increased capacity within both communities and agencies.

   Applicants should be aware that the Government shall perform a "best value analysis" and the selection for award shall be made to the applicant whose proposal is most advantageous to the Government. The Office of Subsistence Management strives to maximize program efficiency by encouraging cost sharing, partnerships, and collaboration.

POLICY AND FUNDING GUIDELINES

Several policies have been developed to aid in implementing funding. These policies include:

- Projects of up to four years in duration may be considered

- Proposals requesting Monitoring Program funding that exceeds $235,000 in any one year are not eligible for funding
- Studies must not duplicate existing projects
- Long term projects will be considered on a case-by-case basis

Activities that are not eligible for funding include:

- Habitat protection, mitigation, restoration, and enhancement
- Hatchery propagation, restoration, enhancement, and supplementation
- Contaminant assessment, evaluation, and monitoring
- Projects where the primary or only objective is outreach and education (for example, science camps, technician training, and intern programs), rather than information collection

The rationale behind these policy and funding guidelines is to ensure that existing responsibilities and efforts by government agencies are not duplicated under the Monitoring Program. Land management or regulatory agencies already have direct responsibility, as well as specific programs, to address these activities. However, the Monitoring Program may fund research to determine how these activities affect Federal subsistence fisheries or fishery resources.

The Monitoring Program may fund assessments of key Federal subsistence fishery stocks in decline or that may decline due to climatological, environmental, habitat displacement, or other drivers; however, applicants must show how this knowledge would contribute to Federal subsistence fisheries management. Similarly, the Monitoring Program may legitimately fund projects that assess whether migratory barriers (e.g., falls, beaver dams) significantly affect spawning success or distribution; however, it would be inappropriate to fund projects to build fish passes, remove beaver dams, or otherwise alter or enhance habitat.

2024 NOTICE OF FUNDING OPPORTUNITY

The 2024 Notice of Funding Opportunity focused on priority information needs developed by the Subsistence Regional Advisory Councils with input from subject matter specialists. Investigation plans were due in February 2023. Submitted plans were reviewed and evaluated by the Office of Subsistence Management and U.S. Forest Service staff, and then scored by the Technical Review Committee. Each investigation plan was scored on the following five criteria: strategic priority, technical and scientific merit, investigator ability and resources, partnership and capacity building, and cost/benefit.

2024 FISHERIES RESOURCE MONITORING PLAN

A Fisheries Resource Monitoring Plan is developed during each Monitoring Program cycle that provides an overview of the process, the submitted materials, and the final list of funded projects. The 2024

Fisheries Resource Monitoring Plan will include regional overviews and comments from Regional Advisory Councils and the Interagency Staff Committee. Regional Overviews for each of the seven Monitoring Program regions contain area specific background information as well as the 2024 Technical Review Committee justifications and project executive summaries specific to those regions. The Regional Overviews are distributed for comment through Subsistence Regional Advisory Council meetings, beginning in September 2023. Regional Advisory Council comments are recorded and included in the draft 2024 Fisheries Resource Monitoring Plan that will be forwarded to the Interagency Staff Committee for their comments and finally to the Federal Subsistence Board.

The draft 2024 Fisheries Resource Monitoring plan will be presented to the Federal Subsistence Board at their January/February 2024 public meeting. The Board will review the draft plan and will forward their comments and recommendations to the Assistant Regional Director of the Office of Subsistence Management. Final project selection and funding approval lie with the Assistant Regional Director of the Office of Subsistence Management. For this funding cycle, a total of 26 investigation plans were received and 25 were considered eligible for funding. Investigators are expected to be notified in writing of the status of their proposals by late spring or early summer 2024.

FISHERIES RESOURCE MONITORING PROGRAM
YUKON REGION OVERVIEW

Since the inception of the Fisheries Resource Monitoring Program (Monitoring Program) in 2000, a total of 131 projects have been funded in the Yukon Region at a cost of $26.5 million (**Figure 1**). The U.S. Department of the Interior agencies have had the most projects funded in the region, followed by the State of Alaska, other organizations, and Alaska rural organizations (**Figure 2**). See **Appendix 1** for more information on Yukon Region projects completed since 2000 and a list of all organizations that have received funding through the Monitoring Program.

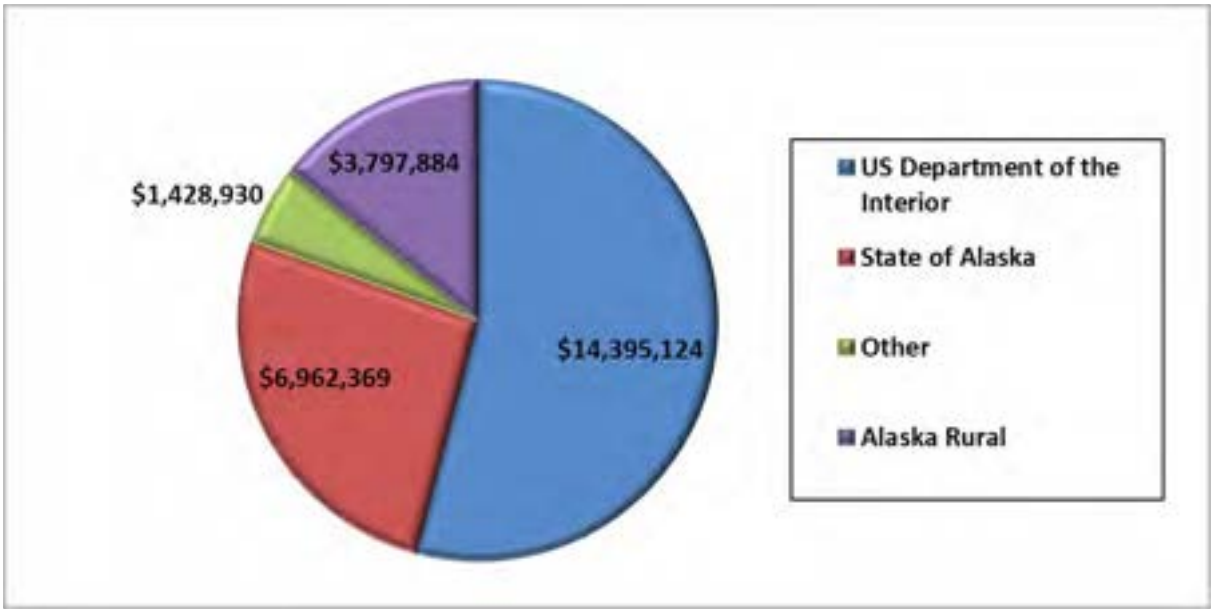


Figure 1. Monitoring Program fund distribution since 2000 in the Yukon Region.

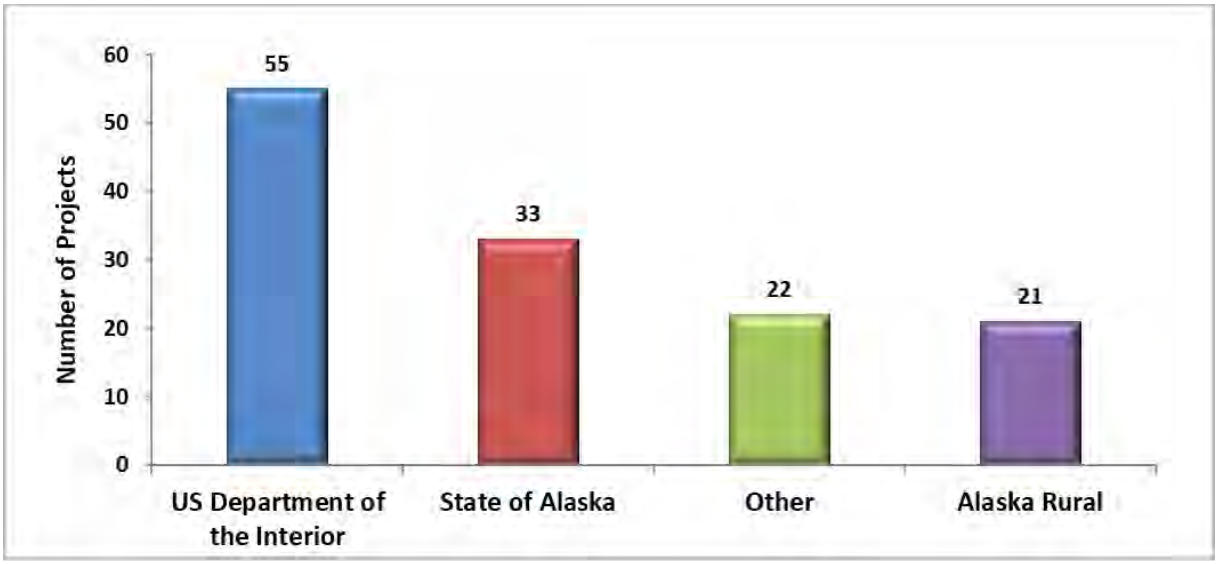


Figure 2. Number of Monitoring Program projects funded since 2000 in the Yukon Region.

PRIORITY INFORMATION NEEDS

The 2024 Notice of Funding Opportunity for the Yukon Region contained the following 17 priority information needs developed by the Yukon-Kuskokwim Delta, Western Interior, and Eastern Interior Regional Advisory Councils:

- Impacts of climate change to harvest and use of fish; and impacts of climate change on fish, for example, impacts to fish migration, spawning, and life cycle.
- Knowledge of population, reproduction, and health of spawning habitat for Bering Cisco and Humpback Whitefish.
- Reliable estimates of Chinook, summer Chum, fall Chum, and Coho salmon escapements and/or harvests, particularly sub-stocks in District 5 that are large contributors to the total run, for example in the Chandalar, Sheenjek, and Porcupine rivers.
- Distribution, abundance, condition, and survival of juvenile and out-migrating salmon in the Yukon River drainage.
- Estimates of "quality of escapement" measures for Chinook Salmon, for example, potential egg deposition, age, sex, and size composition of spawners, percentage of females, percentage of jacks, and spawning habitat utilization, with an emphasis on Canadian-origin stocks.
- Reliable in-season estimates of salmon harvests in the lower, middle, and upper Yukon River subsistence fisheries.
- Reliable estimates of age-sex-length and genetic composition of salmon harvested in the subsistence fishery, with emphasis on Chinook and fall Chum salmon.
- In-season estimates of genetic stock composition of Chinook, summer Chum, and fall Chum salmon runs and harvests.
- Reliable methods of forecasting Chinook, summer Chum, fall Chum, and Coho salmon run abundance.
- Assessment of incidental mortality with gillnets, dip nets, and seines, with particular consideration for delayed mortality from entanglement, drop-outs, and live release of Chinook Salmon (for example, loss of Chinook Salmon from 6-inch mesh nets during Chum Salmon fisheries and the live release of Chinook Salmon from dip nets and seines).
- Traditional ecological knowledge of fishes.

- Advance genetic baselines for Chinook, summer Chum, fall Chum, and Coho salmon by screening additional populations and novel genetic markers to improve the accuracy, precision, and scale of stock composition estimates to inform stock assessment for Yukon River fisheries.

- Life-history patterns of resident species such as Sheefish, Northern Pike, and Arctic Grayling in relation to geographic distribution and seasonal migration.

- Funding to facilitate interagency and stakeholder forums for gathering and sharing input on fishery management issues.

- Community-based monitoring of fish presence and/or environmental variables in tributaries to better understand fish distribution.

- Seasonal salmon life-stage usage of tidal tributaries draining the Yukon Coastal District through an interdisciplinary approach documenting traditional ecological knowledge and biological surveys in order to update the Anadromous Waters Catalog and improve management's understanding of salmon in these streams.

- Meta-analysis of existing information and research examining the relative importance of freshwater (e.g., predation, stranding, heat stress) and marine (e.g., environmental conditions, bycatch, interception, competition) factors in causing declines of Yukon River Chinook and Chum salmon to present at relevant Regional Advisory Council meetings.

2024 MONITORING PLAN DEVELOPMENT FOR THE YUKON REGION

For the 2024 Monitoring Plan, seven proposals were submitted for the Yukon Region (**Table 1**).

Table 1. Projects submitted for the Yukon Region, 2024 Monitoring Plan, including project duration in years and total funds requested.

Project Number	Title	Project Duration (Years)	Total Project Request
24-201	Application of Mixed-Stock Analysis for Yukon River Chum Salmon	4	$511,468
24-202	Gisasa River Chinook and Summer Chum Salmon Abundance and Run Timing Assessment, Koyukuk National Wildlife Refuge, Alaska	2	$416,584
24-204	Henshaw Creek Chinook and Summer Chum Salmon Abundance and Run Timing Assessment, Kanuti National Wildlife Refuge, Alaska	4	$877,444
24-250	Traditional Ecological Knowledge and Life Histories of Salmon in Tributaries of the Yukon Coastal District	2	$318,472
24-251	Content Analysis of Yukon Area Salmon Stakeholder Meetings	2	$108,229
24-252	In-season Yukon River Subsistence Salmon Survey Program	4	$338,439
24-256	Yukon River In-Season Salmon Teleconferences	4	$95,960

Project Number	Title	Project Duration (Years)	Total Project Request
Total			**$2,666,596**

EXECUTIVE SUMMARIES AND TECHNICAL REVIEW COMMITTEE JUSTIFICATIONS

The following executive summaries were written by the principal investigators and submitted to the Office of Subsistence Management as part of a proposal package. It may not reflect the opinions of the Office of Subsistence Management or the Technical Review Committee. The executive summaries may have been altered for length.

Technical Review Committee justifications are a general description of the committee's assessment of proposals when examining them for strategic priority, technical and scientific merit, investigator ability and resources, partnership and capacity building, and cost/benefit. More in-depth reviews are provided to investigators following project selection.

Investigator Submitted Executive Summary:

Project Number:	24-201
Title:	Application of mixed-stock analysis for Yukon River chum salmon
Geographic Region:	Yukon
Data Types:	Stock Status and Trends
Principal Investigator:	Blair Flannery, Conservation Genetics Laboratory, U.S. Fish and Wildlife Service
Co-investigator:	John Wenburg, Conservation Genetics Laboratory, U.S. Fish and Wildlife Service
Project Request:	**2024:** $127,867 **2025:** $127,867 **2026:** $127,867 **2027:** $127,867
Total Request:	$511,468

Issue: This project relates to the following priority information need identified in the 2020 Office of Subsistence Management (OSM) Request for Proposals:

- *In-season estimates of genetic stock composition of summer chum and fall chum salmon runs and harvests*.

This proposal is a continuation of Fisheries Resource Monitoring Program (FRMP) projects 04-228, 06-205, 10-205, 14-207, and 20-201, which have provided in-season stock composition estimates of chum salmon to fishery managers within 24 to 48 hours of receiving samples from the Pilot Station sonar test fishery. The disparate strength of individual stocks within and among years makes it clear that in-season stock return data assists management to meet escapement. It provides a real-time tool that allows for informed decisions on regulating fisheries to meet escapement and harvest allocations.

Objective: The goal is to provide fishery managers with data that will assist them in meeting escapement, passage, and harvest allocations to ensure that the fishery is managed in a sustainable and equitable manner. The following objective will be executed to achieve this goal.

1) Estimate the stock compositions of summer and fall chum salmon sampled from the Pilot Station test fishery each year (June 1 – September 7).

Methods: Genetic samples will be collected from every chum salmon caught in the Pilot Station sonar test fishery from June 1 – September 7, and sent to the CGL every week and at the conclusion of each run pulse. Samples will be stratified by time period or run pulse and a subsample of size 288, selected so that daily sample size is proportional to the daily sonar passage estimate within a stratum, will be genotyped for each stratum of the run. Stock composition will be estimated using Bayesian mixture modeling and reported to fishery managers as soon as practicable. Stock abundance estimates will be derived by combining the sonar passage estimates with the stock composition estimates.

Partnerships/Collaboration: We have worked with ADFG biologists to coordinate sample collection. We have contracted with the Association of Village Council Presidents (AVCP) to hire a local to collect the genetic samples. We completed the baseline in partnership with the DFOC. We have consulted, with ADFG, USFWS, and DFOC managers.

Technical Review Committee Justification: The investigation plan requests four years of funding to continue estimating in-season stock composition of Yukon River summer and fall Chum salmon. The Federal nexus is clear, and this project addresses a 2024 Priority Information Need for the Yukon Region. The data collected by this study will be provided to managers in near real-time and used to inform in-season management decisions. The project objective is clear, measurable, and achievable, and the study design is technically sound. The investigators have the experience necessary to complete this project. A limited partnership with the Alaska Department of Fish and Game is described, but very little detail about consultations with communities or other agencies is provided. The project does not build any meaningful capacity but does propose to hire a local to collect genetics samples. Project costs are reasonable for the proposed work. No letters of support were received.

Investigator Submitted Executive Summary:

Project Number:	24-202						
Title:	Gisasa River Chinook and Summer Chum Salmon Abundance and Run Timing Assessment, Koyukuk National Wildlife Refuge, Alaska						
Geographic Region:	Yukon						
Data Types:	Stock Status and Trends						
Principal Investigator:	Nicole Farnham, Tanana Chiefs Conference						
Co-investigator:	Brian McKenna, Tanana Chiefs Conference						
Project Request:	**2024:**	$212,282	**2025:**	$204,302	**2026:**	$0	**2027:** $0
Total Request:	$416,584						

Issue: Salmon from the Gisasa River contribute to subsistence fisheries in the lower Koyukuk River and in the Yukon River below the Koyukuk River. The Koyukuk River, which flows through the Koyukuk

National Wildlife Refuge (KNWR), is one of the largest tributaries to the middle-lower Yukon River and has substantial runs of Chinook and summer Chum salmon. Adult Chinook and summer Chum salmon returning to the Gisasa River directly contribute to the subsistence harvest of communities throughout the lower and middle Yukon River basin. The successful delivery and assessment of management actions, conservation, and utilization of these salmon stocks is difficult due to the complexity of the multiple salmon runs, the mixed stock fishery, and the limited number of escapement studies like the Gisasa River weir.

This fishery is exploited by over 40 households throughout the Koyukuk River drainage with set gillnets being the primary fishing technique. These fish also contribute to the hundreds of households that fish the Yukon River below the Koyukuk River, where the harvest of salmon for subsistence is of tremendous importance to area residents. These fisheries occur within the boundaries of the Koyukuk National Wildlife Refuge and other Federal Conservation System Units in the lower Yukon River. In 2015, there were at least 44 households from the communities of Huslia, Hughes, Allakaket, Alatna, and Bettles that reported harvests within the Koyukuk drainage. Recent average annual harvest (2015 – 2020) by villages within the Koyukuk drainage were reported as 383 Chinook salmon, and 8,049 summer Chum salmon.

Since 1997, Chinook and summer Chum salmon runs in the Yukon River Basin have demonstrated an overall decline in productivity. These declines have led to harvest restrictions, fishery closures, and spawning escapements below management goals. In 2000, the Alaska Board of Fisheries classified Yukon River Chinook salmon as a stock of yield concern in response to low returns. Federal fisheries resource disasters occurred in 2008-2012 characterized by low returns of Chinook salmon into the Yukon River. In 2014, Alaska Native communities and subsistence fishers throughout the Yukon River drainage passed a moratorium on the subsistence harvest of Chinook salmon in an attempt to conserve and protect their salmon resources. However, low returns of salmon have continued. In 2020 and 2021, federal fisheries resource disasters were declared for Yukon River salmon fisheries due to continued low returns of Chinook and summer Chum salmon.

Throughout these low return years, in-season management efforts to protect salmon have been enacted by fishery managers in an attempt to meet biological escapement goals and to comply with international treaty obligations including border passage goals. These management actions have included intensified gear restrictions on subsistence fishers, and most recently complete closures to the subsistence fisheries in the Yukon River drainage. Traditional summers in Athabascan villages have historically been structured around Fish Camp. Recent closures to subsistence fisheries have left fish camps empty throughout much of the region, eroding a tradition where multiple generations of families camp together to harvest, cut, and dry salmon. These management actions have resulted in hardships for local Alaska Natives who rely heavily upon salmon as a subsistence food resource as well as a means to continue to practice their ancestral, cultural, and traditional way of life. With the subsistence fishery closures in 2021 and 2022, tribal communities who rely upon salmon resources for sustenance and wellness have endured extreme hardships (Associated Press 2021, ADF&G 2022b).

Because of the current state of the Yukon River salmon fisheries, and the complexity of mixed stock fisheries for both Chinook and summer chum salmon, responsible management of these resources is

paramount. In order to develop proper management strategies, managers need high quality data describing Chinook and summer chum salmon escapements, as well as population specific information such as age, sex, and length (ASL) data, all of which this project will supply Without accurate escapement estimates from multiple Yukon River tributaries, managers are unable to determine stock specific spawner-recruit relationships (Labelle 1994), and will lack data to evaluate how these systems respond to management actions. Furthermore, quality escapement data from tributaries throughout the Yukon River drainage can help fishery managers to better understand population specific contributions to the overall salmon runs in the Yukon River.

Objectives:

1) Enumerate daily passage of all fish species passing through the weir;

2) Estimate seasonal escapement of adult Chinook and summer Chum salmon using the Sethi and Bradley (2016) modeling techniques as necessary, and to describe their run timing;

3) Estimate age, sex and length (ASL) composition of the adult Chinook and summer Chum salmon escapements, for which the 95% confidence intervals of age-sex proportions are no larger than ± 0.1;

4) Consult with the Koyukuk and Louden Tribal Councils, and provide outreach and communication for the villages of Koyukuk and Galena.

Methods: A resistance board weir will be installed and operated on the Gisasa River from mid-June through early August each year. A live trap, installed near the thalweg and equipped with a video counting chute, will allow for age, sex, and length (ASL) sampling of adult salmon. All fish passing through the weir and live trap will be identified to the species taxonomic classification level, enumerated, and released alive. Salmon escapements and ASL data will be provided to managers and other interested parties daily. Scale samples from Chinook and summer Chum salmon will be sent to the Alaska Department of Fish and Game (ADF&G) for postseason age analyses.

Partnerships/Capacity Building: The partnerships TCC has developed with the USFWS, KNWR, ADF&G and the Koyukuk and Louden Tribal Councils present a great opportunity to build capacity within the TCC region, especially with the local communities. This project enables TCC to provide information to fishery managers, local users, rural people, and the Regional Advisory Councils (RAC). The relationships TCC already has with federal and state resource management agencies will continue to be strengthened through the continuation of this project and will be an important asset to the fishery program at TCC. This project will provide an opportunity for local communities to engage with the research and management of their salmon resources. TCC plans to hire weir staff from within these communities, which will provide much needed employment opportunities, and further develop the skills of tribal members in fisheries management and assessment projects as well as increase fishery resource stakeholder engagement and expertise.

TCC has a longstanding partnership with the Alaska Native Science and Engineering Program (ANSEP), which supports a youth internship program aimed at growing stakeholder expertise in sustainable fishery management. TCC and ANSEP have enjoyed a mutually rewarding relationship in previous years, as TCC has hosted nine ANSEP student interns between 2016 and 2022. The goals of the internship program are to build educational capacity and expertise in fisheries science and management, expose interns to a variety of active fisheries research monitoring projects, and to educate interns in the federal subsistence management system. ANSEP interns will be able to visit the Gisasa River Weir project to learn about federal subsistence management and types of salmon monitoring projects such as a weir. This partnership has allowed youth starting their academic and career journeys to gain valuable field experience and exposure to research and management of Yukon River fisheries.

Technical Review Committee Justification: The investigation plan requests two years of funding to continue operating the Gisasa River weir. The principal goal of this project is to provide an accurate and reliable long-term data set for Chinook and summer Chum salmon escapements, run timing, and age-sex-length data. The Federal nexus is clear, and the project addresses or contributes information to multiple 2024 Priority Information Needs for the Yukon Region. The Gisasa River weir is the only lower Koyukuk River drainage escapement project. It provides data used to produce annual escapement estimates, assess the success of in-season management actions, and develop run reconstructions for the Yukon River basin. The project objectives are clear, measurable, and achievable, and the study design is technically sound. The investigators have the experience necessary to complete this project. This project exemplifies how capacity can be built through the Monitoring Program with the Tanana Chiefs Conference taking over project operations from the U.S. Fish and Wildlife Service. Additional capacity will be built by hosting Alaska Native Science and Engineering Program students and hiring local technicians to operate the weir. Project costs are higher than other regional weirs but seem reasonable for the proposed work. Letters of support were received from the U.S. Fish and Wildlife Service's Northern Alaska Fish and Wildlife Field Office, Koyukuk/Nowitna/Innoko National Wildlife Refuge Complex, Alaska Department of Fish and Game, Louden Tribal Council, and Ruby Tribal Council. Letters of support were not received from the Koyukuk or Nulato Tribal councils.

Investigator Submitted Executive Summary:

Project Number:	24-204			
Title:	Henshaw Creek Chinook and Summer Chum Salmon Abundance and Run Timing Assessment, Kanuti National Wildlife Refuge, Alaska			
Geographic Region:	Yukon			
Data Types:	Stock Status and Trends			
Principal Investigator:	Brian McKenna, Tanana Chiefs Conference			
Co-investigator:	Nicole Farnham, Tanana Chiefs Conference			
Project Request:	**2024:** $219,361	**2025:** $219,361	**2026:** $219,361	**2027:** $219,361
Total Request:	$877,444			

Issue: Chinook and summer Chum salmon from Henshaw Creek contribute to the mixed-stock fisheries in the Yukon and Koyukuk rivers, including subsistence harvest for villages within the Kanuti National Wildlife Refuge (KNWR). Since 1997, Chinook and summer Chum salmon runs in the Yukon River

Basin have demonstrated an overall decline in productivity. These declines have led to harvest restrictions, fishery closures, and spawning escapements below management goals. In 2000, the Alaska Board of Fisheries classified Yukon River Chinook salmon as a stock of yield concern in response to low returns. A commercial fishery failure under the Magnuson-Stevens Fishery Conservation and Management Act (MSA) of 1976 was declared for Yukon River Chinook salmon in 2008 and 2009 due to a fisheries resource disaster characterized by low returns of Chinook salmon into the Yukon River. A second MSA fisheries resource disaster was declared for years 2010, 2011, and 2012 as low returns of Chinook salmon persisted. In 2014, Alaska Native communities and subsistence fishers throughout the Yukon River drainage passed a moratorium on the subsistence harvest of Chinook salmon in an attempt to conserve and protect their salmon resources. However, low returns of salmon have continued. Additionally, environmental factors such as increased water temperatures have exacerbated poor escapements in recent years. It is believed that en-route mortalities for summer chum salmon in 2019 were likely attributable to above average water temperatures. In 2020 and 2021, federal fisheries resource disasters were declared for Yukon River salmon fisheries due to continued low returns of Chinook and summer Chum salmon.

Throughout these low return years, in-season management efforts to protect salmon have been enacted by fishery managers in an attempt to meet biological escapement goals and to comply with international treaty obligations including border passage goals. These management actions have included intensified gear restrictions on subsistence fishers, and most recently complete closures to the subsistence fisheries in the Yukon River drainage. These management actions have resulted in hardships for Alaska Natives who rely heavily upon salmon as a subsistence food resource as well as a means to continue to practice their ancestral, cultural, and traditional way of life. The subsistence fishery was completely closed to all salmon fishing in 2021 and 2022, causing extreme hardships for communities who rely upon salmon resources for sustenance and wellness.

Because of the current state of the Yukon River salmon fisheries, and the complexity of mixed stock fisheries for both Chinook and summer Chum salmon, responsible management of these resources is paramount. In order to develop proper management strategies, managers need high quality data describing Chinook and summer Chum salmon escapements, as well as population specific information such as age, sex, and length (ASL) data, all of which this project will supply. Without accurate escapement estimates from multiple Yukon River tributaries, managers are unable to determine stock specific spawner-recruit relationships, and will lack data to evaluate how these systems respond to management actions. Furthermore, quality escapement data from tributaries throughout the Yukon River drainage can help fishery managers to better understand population specific contributions to the overall salmon runs in the Yukon River.

Objectives:

1) Enumerate daily passage of all fish species passing through the weir;

2) Estimate seasonal escapement of adult Chinook and summer Chum salmon using the Sethi and Bradley (2016) modeling techniques as necessary, and to describe their run timing;

3) Estimate age, sex and length (ASL) composition of the adult Chinook and summer Chum salmon escapements, for which the 95% confidence intervals of age-sex proportions are no larger than ± 0.1;

4) Consult with the Allakaket and Alatna Tribal Councils, and provide outreach and communication for the villages of Allakaket and Alatna;

5) Serve as an outreach platform for TCC and Kanuti National Wildlife Refuge staff to conduct a one-week culture and science camp for local youth.

Methods: A resistance board weir will be installed and operated on Henshaw Creek from mid-June through early August each year. A live trap, installed near the thalweg, will allow for age, sex, and length (ASL) sampling of adult salmon. All fish passing through the weir and live trap will be identified to the species taxonomic classification level, enumerated, and released alive. Salmon escapements and ASL data will be provided to managers and other interested parties daily. Scale samples from Chinook and summer Chum salmon will be sent to the Alaska Department of Fish and Game (ADF&G) for post-season age analyses.

Partnerships/Capacity Building: The partnerships TCC has developed with the USFWS, KNWR, ADF&G and the Allakaket and Alatna Tribal Councils present a great opportunity to build capacity within the TCC region and the local communities of the Upper Koyukuk River. This project enables TCC to provide information to fishery managers, local users, rural people, and the Regional Advisory Councils (RAC). The relationships TCC already has with federal and state resource management agencies will continue to be strengthened through the continuation of this project and are an important asset to the fishery program at TCC. This project has and will continue to provide an opportunity for the local communities of the Upper Koyukuk River to engage with the research and management of their salmon resources. TCC plans to continue to hire weir staff from these communities, which will provide much needed employment opportunities, and further develop the skills and investment of tribal members in fisheries management and assessment projects. Additionally, the annual culture and science camp will engage local youth with the issues facing fishery resource managers and provide Elders a chance to interact with the students and teach them traditional knowledge and skills. The involvement of youth in this project will help encourage them to consider fisheries management and conservation as a career, and pursue advanced education in fisheries science and management, ultimately building trust and increasing stakeholder resources and expertise to advocate for sustainable management of their regional fisheries.

This project has also allowed TCC to build and strengthen its partnership with the Alaska Native Science and Engineering Program (ANSEP). Through this project, TCC has been able to host nine ANSEP student interns between 2016 and 2022. TCC and ANSEP have developed a memorandum of understanding to continue this relationship for years 2024 – 2027. TCC will host one ANSEP student inter in each year. ANSEP interns will be able to visit the Henshaw Creek Weir project to learn about federal subsistence management and types of salmon monitoring projects such as a weir. This partnership has allowed youth starting their academic and career journey to gain valuable field experience and exposure to research and management of Yukon River fisheries.

Technical Review Committee Justification: The investigation plan requests four years of funding to continue operating the Henshaw Creek weir. The principal goal of this project is to provide long-term Chinook and summer Chum salmon escapement, run timing, and age, sex, and length data. The Federal nexus is clear, and the project addresses or contributes information to multiple 2024 Priority Information Needs for the Yukon Region. The Henshaw Creek weir is the only upper Koyukuk River drainage escapement project and provides valuable stock-specific population demographic information used to manage stocks throughout the drainage. The project objectives are clear, measurable, and achievable, and the study design is technically sound. The investigators have the experience necessary to complete this project. Capacity will be built by hiring local technicians to operate the weir, hosting Alaska Native Science and Engineering Program students, and conducting a culture and science camp that teaches local youth western science and traditional knowledge. Project costs are higher than other regional weirs but reasonable for the proposed work. Letters of support were received from the U.S. Fish and Wildlife Service's Northern Alaska Fish and Wildlife Field Office, Kanuti National Wildlife Refuge, Alaska Department of Fish and Game, Evansville Tribal Council, Alatna Tribal Council, and Allakaket Village Council.

Investigator Submitted Executive Summary:

Project Number:	24-250			
Title:	Traditional Ecological Knowledge and Life Histories of Salmon in Tributaries of the Yukon Coastal District			
Geographic Region:	Yukon			
Data Types:	Stock Status and Trends, Harvest Monitoring, and Traditional Ecological Knowledge			
Principal Investigator:	Dr. Jesse Coleman, Division of Subsistence, Alaska Department of Fish and Game			
Co-investigator:	Nate Cathcart, Division of Sport Fish, Alaska Department of Fish and Game			
Project Request:	**2024:** $235,193	**2025:** $83,279	**2026:** $0	**2027:** $0
Total Request:	$318,472			

Issue: Sustainable management of salmon fisheries requires accurate data about stock status and harvest. For several coastal systems located in the Yukon Delta National Wildlife Refuge, this information does not exist or is imprecise, outdated, or unsubstantiated. Managing these systems in season to conserve Chinook and chum salmon while providing opportunity for more abundant salmon species and nonsalmon fish species is not possible without accurate, up-to-date information about salmon life histories, run timing, and stock-of-origin. To address these information gaps, this study will combine biological observations with Traditional Ecological Knowledge and stream-specific harvest information for the Kun and Kashunuk rivers in the Coastal District of the Yukon Management Area.

Objectives:

1) Document traditional ecological knowledge held by Scammon Bay and Chevak residents about
    a. the life histories of salmon in the Kun and Kashunuk rivers, respectively; and
    b. the historical and contemporary uses of these river systems for subsistence fishing.

2) Document subsistence fish harvests and the locations of harvest in the Kun and Kashunuk rivers during the 2024 fishing season to build an understanding of patterns of harvest specific to these rivers, distinct from the total harvest within the Coastal District of the Yukon River.

3) Describe salmon life history patterns and stock-of-origin information for salmon species in the Kun and Kashunuk rivers. Specifically,

    a. identify salmon and life stages present, along with associated species, with a focus on identifying adult spawning salmon and distributions throughout both rivers of adult spawning and juvenile rearing;

    b. document run timing;

    c. through genetic sampling, determine if stocks identify with Yukon River or other major stocks;

    d. submit detailed nominations to the ADF&G Anadromous Waters Catalog for waterbodies supporting anadromous species, including seasonal efforts that document the fish assemblages present, including life stages of certain species;

    e. share results publicly by the update of the online ADF&G Alaska Freshwater Fish Inventory mapper.

Methods: ADF&G researchers will work with the tribal councils in Chevak and Scammon Bay to identify local research assistants (LRAs) to help with ethnographic interviews and household surveys. Semi-structured interviews will be conducted with long-time residents in Chevak and Scammon Bay who have a history of fishing in the Kashunuk and Kun rivers, respectively. In 2024, researchers will administer a short salmon harvest survey to households who fished for subsistence in the Kun or Kashunuk rivers. The survey will document what species were harvested, the amounts, timing of harvest, gear types used, and location of harvest. These data will be the first attempt to quantify subsistence harvest information specific to these rivers. During interviews and surveys, maps of the Kun and Kashunuk rivers and nearby surrounding areas will be used as a visual reference. Fishing sites, observations of salmon and nonsalmon species, and other relevant information related to the topics of interest will be noted on the maps. Map data will later be digitized and formatted using ESRI ArcMap GIS software.

For biological data collection, ADF&G staff will also utilize the expertise of a LRA and local boat driver in each community. Staff and LRAs will reach sampling sites by boat and helicopter, conducting biological sampling throughout each drainage. Primary fish capture methods proposed to be used throughout the duration of field work include actively sampling with electrofishing in upper segments of the rivers and more passive sampling using gillnets in downstream reaches of each river. In each river, two 100′ gillnets with 5.5″ (for chum and pink salmon) and 7″ (Chinook and chum) stretched mesh will be fished perpendicular to streambanks and set overnight and checked each day throughout the duration of the project. Researchers will also seek to rent fishing nets from local fishers to increase the mesh selectivity. Fishers in this area tend to use 6″ or 7.5″ stretched mesh to catch salmon. Opportunistic sampling methods include minnow trapping, aerial observations, and angling. Minnow traps will be set

opportunistically by boat or raft-electrofishing crews in habitats able to support juvenile salmon. Trapped juveniles will be visually identified, measured to fork length (mm), and will provide verification of rearing habitat. Aerial surveys will be performed opportunistically during helicopter travel to, from, and at raft-electrofishing sites with any observations georeferenced on a handheld GPS. If salmon are observed to be abundant, angling will be used as an alternative method of capture to reduce salmon mortality during sampling. Direct and indirect genetic sampling will be performed and then analyzed by the ADF&G genetics laboratory and Jonah Ventures Lab in Boulder, CO. Captured fishes from any method will be identified, measured to fork length, photographed when necessary (such as to document identity for verification of species), and recorded. Sex will be recorded for adult salmon. Any remarkable or informative notes (e.g., sex, spawning condition, disease) for other species will be noted. In addition, in each river, researchers will collect three water samples from six locations in each river for environmental DNA (eDNA) analysis, which will provide evidence of potential presence or absence of various salmon species to be detected. All captured adult salmon will be tissue sampled via clipping the axillary process, which will be saved for genetic analysis, and which will help determine if they are a unique stock from other Yukon River salmon. For observations of anadromous fishes, staff will generate nominations to the AWC.

Partnerships/Capacity Building: One of the objectives of this project is to facilitate information sharing between local residents and fisheries management agencies. Residents will have the opportunity to share their knowledge of salmon in their local rivers with researchers, and in return, project staff will share with the community what they learn through biological sampling. This two-way information exchange will help build a relationship between the community and managers to strengthen additional partnerships in the future.

Additionally, project staff will work with the tribal councils to hire LRAs, to select key respondents, and to facilitate community meetings. The LRAs will be trained in anthropological and biological sampling methods. This increases coordination between agencies, tribal entities, and community members: working together in data collection increases communication and leads to better understanding of local issues and local understanding of science and management issues.

Technical Review Committee Justification: Investigators responded to two priority information needs identified in the 2024 Notice of Funding Opportunity and the Federal nexus is clear: the project area is within the Yukon Delta National Wildlife Refuge. Objectives are clearly stated. Collaboration with and input from each community in the development of the semi-structured interview protocol would improve reliability of responses. Including explicit methodology regarding biological sampling in order to capture salmon run timing in the Kun and Kashunuk watersheds would strengthen the proposed research. Investigators are qualified to do the work, and the budget and timeline are reasonable for the work being proposed. By gaining a better understanding of salmon stocks in coastal systems, Federal and State managers may be able to offer targeted fishing opportunities for more abundant fish species that help remove pressure from mainstem, Canadian-origin Chinook Salmon stocks and Chum Salmon.

Investigator Submitted Executive Summary:

Project Number:	24-251			
Title:	Content Analysis of Yukon Area Salmon Stakeholder Meetings			
Geographic Region:	Yukon			
Data Types:	Traditional Ecological Knowledge			
Principal Investigator:	Jesse Coleman, Subsistence Section, Alaska Department of Fish and Game			
Co-investigator:	None			
Project Request:	**2024:** $79,383	**2025:** $28,846	**2026:** $0	**2027:** $0
Total Request:	$108,229			

Issue: Public input on proposals and fishery management issues are essential to the federal regulatory process underlying the activities of the Federal Subsistence Management Program. Title VII, Section 805(c) of the Alaska National Interest Lands Conservation Act obligates the Federal Subsistence Board (FSB) to consider recommendations made by the ten Subsistence Regional Advisory Councils (RACs), which are made up of members of the public. The Office of Subsistence Management is responsible for providing information to the FSB about stakeholder input, which, due to volume, is often a cumbersome task. The analysis and delivery of this information could be improved by building a public repository of thematically coded transcript data in a standardized data storage format. This pilot project will develop a systematic review and analysis of stakeholder input to and recommendations made by the RACs during the period 2022–2023, as well as other relevant Yukon Area stakeholder forums where meeting data are available.

Objectives:

1. Describe emergent themes related to salmon expressed by members of the public during Yukon Area stakeholder meetings held from 2022–2023;

2. Estimate the amount of time and personnel needed for analysis of historical stakeholder data (pre-2022) based on time needed to analyze 2022–2023 meeting data;

3. Communicate summary results to stakeholders, the Federal Subsistence Board, RACs, and other agency staff and decision makers through presentations and a technical report.

Methods:

This project will serve as a pilot study to 1) produce a repository of data for the years 2022–2023, and 2) determine the scope of work for future iterations of analysis focusing on pre-2022 data. For this project, researchers will include existing stakeholder meeting transcripts or summaries that can readily be sourced from online archives or through requests to agency/organization staff. These include FSB, RAC, and Alaska Department of Fish & Game Advisory Committee (AC) meetings, and Yukon River Drainage Fisheries Association (YRDFA) inseason teleconferences. Data from winter RAC meetings in early 2024 will be included in the analysis. Because stakeholder meetings are public, Institutional Research Board approval is not required for this study. However, every effort will be made to protect the privacy of individuals who have given testimony.

The primary method used in this project is content analysis. Researchers will use a keyword-in-context search to identify text segments (sentences or paragraphs) and will assign codes from an *a priori* code list (i.e., deductive coding) based on the usage of the keyword in context. Then, researchers will conduct a second pass of the entire text and code deductively (i.e., identify topics not included in *a priori* code list). Keyword and code lists will be developed as a team, and researchers will review the keyword and code lists with Office of Subsistence Management staff to ensure that the analysis will yield coded data that are useful to agency staff. During analysis, researchers will conduct intercoder agreement checks at regular intervals (e.g., after every 10 transcripts in a document group). Researchers will qualitatively describe code-to-code relationships and emergent themes using the analytical memoing process. The analytical memos will form the basis of the results chapter of the technical report.

Partnerships/Capacity Building: Since this project will not collect new data, our engagement with communities or tribes is expected to be minimal and incidental. However, researchers anticipate that we will be able to share our results with stakeholders, including tribal members, through presentations at meetings of the FSB, RACs, ACs, and YRDFA.

Technical Review Committee Justification: This is an innovative project to conduct content analysis of meeting-based stakeholder input about Yukon River salmon fisheries from transcripts and summaries of Federal, State, and Yukon River Drainage Fisheries Association meetings from a highly qualified and capable investigator. Content analysis has rarely been used to communicate stakeholder input to Federal Fisheries management in Alaska and will provide insights to improve and enhance Federal Subsistence Management. The inclusion of details on addressing dataset differences, researcher roles, interaction between agencies, stakeholder review of project results, and partnerships or capacity building would strengthen this proposal.

Investigator Submitted Executive Summary:

Project Number:	24-252			
Title:	In-season Yukon River Subsistence Salmon Survey Program			
Geographic Region:	Yukon			
Data Types:	Harvest Monitoring and Traditional Ecological Knowledge			
Principal Investigator:	Catherine Moncrieff, Yukon River Drainage Fisheries Association			
Co-investigator:	Gabe Canfield, Yukon River Drainage Fisheries Association			
Project Request:	**2024:** $87,887	**2025:** $85,203	**2026:** $81,932	**2027:** $83,416
Total Request:	$338,439			

Issue: This project addresses the need for inclusive in-season management for Chinook salmon fisheries on the Yukon River and the need for updated surveying methods amidst the ongoing Chinook and chum salmon population collapse on the Yukon River, where in-season monitoring and surveying for both harvest data and traditional ecological knowledge is essential. Salmon are a critical resource for subsistence and commercial users in this region, which includes 14 Federal conservation units, and fisheries managers must have a means to gather input, assess harvests, and share information with stakeholders throughout the fishing season. This project also addresses the need expressed by community

members of expanding traditional ecological indicators and knowledge into management and reporting during salmon harvest closures. Fishers report traditional ecological knowledge, fishery success, observations, and concerns to a locally hired surveyor weekly, during the Chinook salmon run in their community. This information is shared anonymously by village with state and federal managers in preparation for the weekly in-season management teleconference.

Objectives:

1. Hire 10 local surveyors in 10 Yukon River drainage villages to work in-season to conduct interviews on an annual basis;

2. Build capacity of local surveyors in 10 Yukon River villages to participate in in-season fisheries management;

3. Conduct annual reviews pre-season and post-season to evaluate survey program and design for next season to maximize effectiveness of program.

Methods: Methods for this project include communication, outreach, survey technology, data analysis, and annual evaluations. Participating communities are selected based on suggestions, needs, and goals of the managers as well as the interest of the communities. The interview methodology follows the National Academy of Science's *Principles for Conduct of Research in the Arctic* and will include informed consent for participants, to be conducted prior to the first interview. Privacy and confidentiality will be protected in the reporting. The in-season subsistence salmon survey methodology focuses on interviewing fishers weekly to collect qualitative information to provide managers with a real time assessment of the run and ecological indicators. In addition to collecting information from fishers, surveyors disseminate relevant information to fishers. For the data analysis, at the end of the season the PI will review all the survey forms and the compiled MS Excel spreadsheet and produce summary narrative reports.

Partnerships/Capacity Building: This project will build the capability and expertise of rural, locally hired surveyors by providing an opportunity to learn about Yukon River fisheries management, participate in local reporting and build their skills through focused annual trainings on communication with local fishers, river-wide fishers, and managers. Surveyors also attend the annual pre-season fisheries preparation meeting, increasing their fisheries knowledge and enhancing their ability to participate in the management of Federal subsistence fisheries. Surveyors will have an opportunity to interact with the Indigenous Sentinels Network at the pre-season fisheries preparation meeting. Partnerships will continue with the state and federal managers, village Tribal Councils, and individuals working as a part of the project.

Technical Review Committee Justification: This proposal requests to continue and improve the existing In-season Yukon River Subsistence Salmon Survey Program. The program hires local surveyors from ten Yukon River drainage communities to collect in-season salmon harvest information and fishery observations. Because of retention of past surveyors, only two new hires will be hired in 2024. The observations that surveyors gather are shared with communities and managers in real time. This information has been critical to managing the Yukon River salmon fishery and in providing information

needed to make management and fishing decisions. The proposal directly addresses several priority information needs in the region. It develops essential partnerships between communities and managers to strengthen the capacity of each in making decisions in support of both conservation and the continuation of subsistence uses. The program builds capacity through training local hires on both biological and anthropological research methods. The principal investigator has a proven record of completing Monitoring Program projects and in delivering high quality research products. The costs associated with this program appear reasonable, especially given the scope of data and anticipated impact on this fisheries' management and local participation in the fisheries.

Investigator Submitted Executive Summary:

Project Number:	24-256			
Title:	In-Season Salmon Management Teleconferences			
Geographic Region:	Yukon			
Data Types:	Harvest Monitoring and Traditional Ecological Knowledge			
Principal Investigator:	Serena Fitka, Yukon River Drainage Fisheries Association			
Co-investigator:	(TBD) Program Coordinator, Yukon River Drainage Fisheries Association			
Project Request:	**2024:** $23,990	**2025:** $23,990	**2026:** $23,990	**2027:** $23,990
Total Request:	$95,960			

Issue: The Yukon River is the longest river in Alaska starting from the western coast of the Bering Sea, traveling north through interior Alaska and into the Canadian headwaters. There are approximately 45 Tribal Councils in Alaska and 10 First Nations in Canada that harvest salmon along the Yukon River for food, culture and income. This project brings together these remote and rural villages that share the salmon resource. They share information with each other and also share first hand knowledge about what is happening on the fishing grounds with the Alaska Department of Fish and Game (ADF&G) and the U.S. Fish and Wildlife Service (USFWS) that manage the fisheries. This project hosts teleconferences in a cost-effective method of bringing people together on a regular and consistent basis to speak together weekly. The project is long-standing for 19 years and has become a fixture of in-season salmon management along the Yukon River. Changes are taking place along the Yukon River due to environmental conditions and management actions related to low Chinook and chum salmon runs. This project is needed to continue to gather information related to these changes during the fishing season. To specifically address the multi-regional priority needs, this project will focus on learning about changes taking place in the subsistence fishery resources and uses during the summer and fall fishing seasons. Fishermen will be asked all along the river to discuss the species they are targeting, their fishing locations, the fish quality, their harvest methods and means and methods of preservation. There is value in incorporating this local knowledge in fisheries management decision-making. Managers hear first hand about conditions on the river and learn about how communities are doing in their fishing efforts or they learn how prepared or unprepared communities are for the new and adaptive management strategies being utilized. This information assists fisheries managers in their daily management of the salmon resource, especially during years of conservative Chinook, and more recently, chum salmon management.

Objectives:

1. Host in-season salmon management teleconferences during the salmon fishing season;

2. Attend federal regional advisory council meetings to report on the teleconferences.

Methods: As this project has a long history of operation, YRDFA will design this project based on past performance and annual evaluations of the program. The agenda will be revised to accommodate the multi-regional priority needs in the subsistence reporting to gather information on will focus on learning about changes taking place in the subsistence fishery resources and uses during the summer and fall fishing seasons. Fishermen will be asked all along the river to discuss the species they are targeting, their fishing locations, the fish quality, their harvest methods and means and methods of preservation. Each spring, YRDFA will meet with ADF&G, USFWS, and other organizations to review the past year's performance and plan for the upcoming year by reviewing the agenda, the facilitation process and the summaries. The calls take place every Tuesday at 1 p.m. Alaska time and 2 p.m. Yukon time from the first week in June to the last week in August. Weekly summaries will be written by the Friday of each week a call takes place to send out to the public via e-mail and by posting on the YRDFA website.

YRDFA staff will report to a regional group of fishermen along the Yukon River on the information learned by attending federal regional advisory council meetings related to the multi-regional priority needs such as the species they are targeting, their fishing locations, the fish quality, their harvest methods and means and methods of preservation as well as any other changes that fishermen have seen take place due to impacts from changing environmental conditions and also management actions.

Partnerships/Capacity Building: This has been a long-standing project that promotes stakeholder coordination between YRDFA, fisheries management agencies and also with local people from the Yukon River villages.

This project builds capacity by inviting people from Yukon River communities to call in on a weekly basis to share information about the salmon fisheries and to learn from fisheries managers about their test fishery information and management assessments. By exchanging this information the different parties involved in this project strengthen their ability to work together for their mutual benefit of sustaining salmon populations and also for sustaining the fishing culture and livelihoods that exist on the Yukon River. The calls provide people through their participation with the skills and tools they need to define the problems and address issues they are having. By learning about the weekly test fishery information, local people hear first hand how management assesses the salmon returns to the river and the managers hear from local people their assessment of how the run seems and how they are addressing the current issue of low Chinook salmon runs.

Technical Review Committee Justification: Specific inclusion of the 2024 priority information needs addressed would strengthen this proposal. This project hosts weekly teleconferences, bringing people together from remote and rural villages that share salmon resources. The project has operated for 19 years and has become a fixture of in-season salmon management along the Yukon River. The project plan is appropriate and continues to increase capacity by providing rural subsistence users a forum to voice their concerns and observations and to participate in the management of the Yukon River subsistence fisheries, primarily Chinook and Chum salmon. It builds the capacity of managers to understand and respond to

local concerns. The budget and project duration are reasonable for the proposed work and to accomplish project objectives. The principal investigator is highly qualified and fully capable of addressing and achieving the objectives and reporting results in a timely manner.

APPENDIX 1
PROJECTS FUNDED IN THE YUKON REGION SINCE 2000

Project Number	Project Title	Investigators
	Salmon Projects	
00-003	Effects of *Ichthyophonus* on Chinook Salmon	UW
00-005	Tanana Upper Kantishna River Fish Wheel	NPS
00-018	Pilot Station Sonar Upgrade	ADF&G
00-022	Hooper Bay Test Fishing	ADF&G, NVHB
00-024	Pilot Station Sonar Technician Support	AVCP
00-025	Henshaw Creek Salmon Weir	USFWS
00-026	Circle and Eagle Salmon and Other Fish TEK	NVE
01-014	Yukon River Salmon Management Teleconferences	YRDFA
01-015	Yukon River Salmon TEK	YRDFA
01-018	Pilot Station Sonar Technician Support	AVCP
01-026	East Fork Andreafski River Salmon Weir	BSFA
01-029	Nulato River Salmon Weir	BSFA
01-032	Rampart Rapids Tagging Study	USFWS
01-038	Kateel River Salmon Weir	USFWS
01-048	Innoko River Drainage Weir Survey	USFWS
01-050	Kaltag Chinook Salmon Age-Sex-Length Sampling	COK
01-058	East Fork Andreafsky Weir Panel Replacement	USFWS
01-122	Lower Yukon River Salmon Drift Test Fishing	ADF&G, EMV
01-141	Holitna River Chinook, Chum and Coho Telemetry	ADF&G
01-177	Rampart Rapids Extension	USFWS
01-197	Rampart Rapids Summer CPUE Video	SZ
01-199	Tanana Fisheries Conservation Outreach	TTC
01-200	Effects of Ichthyophonus on Chinook Salmon	USGS
01-211	Upper Yukon, Porcupine, & Black River Salmon TEK	CATG
02-009	Pilot Station Sonar Technician Support	AVCP
02-011	Rampart Rapids Fall Chum Handling/mortality	USFWS
02-097	Kuskokwim & Yukon Rivers Sex-ratios of Juvenile & Adult Chinook	USFWS
02-121	Yukon River Chinook Salmon Genetics	USFWS, ADF&G, DFO
02-122	Yukon River Chinook & Chum Salmon In-season Subsistence	USFWS
03-009	Tozitna River Salmon Weir	BLM
03-013	Gisasa River Salmon Weir	USFWS
03-015	Phenotypic Characterization of Chinook Salmon Subsistence Harvests	YRDFA, USFWS
03-034	East Fork Andreafsky River Salmon Weir	USFWS
03-038	Yukon River Sub-district 5-A Test Fishwheel	BF
04-206	Tozitna River Salmon Weir	BLM

Project Number	Project Title	Investigators
04-208	East Fork Andreafsky River Salmon Weir	USFWS
04-209	Gisasa River Salmon Weir	USFWS
04-211	Henshaw Creek Salmon Weir	USFWS
04-217	Rampart Rapids Fall Chum Salmon Abundance	USFWS
04-228	Yukon River Chum Salmon Genetic Stock Identification	USFWS
04-229	Lower Yukon River Salmon Drift Test Fishing	ADF&G
04-231	Yukon River Chinook Salmon Telemetry	ADF&G
04-234	Kaltag Chinook Salmon Age-Sex-Length Sampling	COK
04-251	Fort Yukon Traditional Ecological Knowledge Camp	TCC, CATG, ADF&G
04-255	Yukon River Salmon Fishery Traditional Ecological Knowledge	NPS
04-256	Tanana Conservation Outreach	TTC, USFWS
04-263	Yukon River Salmon Management Teleconferences	YRDFA
04-265	Yukon River TEK of Customary Trade of Subsistence Fish	YRDFA
04-268	Hooper Bay Subsistence Monitoring	ADF&G, HBTC
05-203	Yukon River Coho Salmon Genetics	USFWS
05-208	Anvik River Salmon Sonar Enumeration	ADF&G
05-210	Tanana River Fall Chum Salmon Abundance	ADF&G
05-211	Henshaw Creek Salmon Weir	TCC, USFWS
05-254	Yukon River Salmon Inseason Subsistence Harvest Monitoring	USFWS
06-205	Yukon River Chum Salmon Mixed Stock Analysis	USFWS
07-202	East Fork Andreafsky River Salmon Weir	USFWS
07-204	Lower Yukon River Salmon Drift Test Fishing	ADF&G
07-207	Gisasa River Salmon Weir	USFWS
07-208	Tozitna River Salmon Weir	BLM
07-209	Yukon River Salmon Management Teleconferences	YRDFA
07-210	Validation of DNA Gender Test Chinook Salmon	USFWS
07-211	Kaltag Chinook Salmon Age-Sex-Length Sampling	COK
07-253	Yukon River Salmon Harvest Patterns	RWA, AC
08-200	Kaltag Chinook Salmon Age-Sex-Length Sampling	COK
08-201	Henshaw Creek Salmon Weir	TCC
08-202	Anvik River Chum Salmon Sonar Enumeration	ADF&G
08-253	Yukon River Teleconferences and Inseason Management	YRDFA
10-200	Yukon River Chinook Salmon Run Reconstruction	BUE
10-205	Yukon River Chum Salmon Mixed-stock Analysis	USFWS
10-206	Nulato River Salmon Assessment	TCC
10-207	Gisasa River Chinook and Summer Chum Salmon Assessment	USFWS
12-202	Henshaw Creek Abundance and run timing of adult salmon	TCC
12-204	Anvik River Sonar Project	ADF&G
12-205	Kaltag Chinook Salmon Sampling Project	KAL

Project Number	Project Title	Investigators
12-251	In-season Salmon Teleconferences and Interviews	YRDFA
14-201	Gisasa R Salmon Video	USFWS
14-202	E Fork Andreafsky Salmon	USFWS
14-203	Gisasa R Salmon	USFWS
14-206	Yukon R Coho Salmon	USFWS
14-207	Yukon R Chum Salmon	USFWS
14-208	Koyukuk R Chum Salmon	USFWS
14-209	Henshaw Crk Salmon	TCC
16-204	Henshaw Creek Abundance and run timing of adult salmon.	TCC
16-251	Seasonal habitats, migratory timing and spawning populations of mainstem Yukon River Burbot	ADF&G
16-255	Yukon River In-Season Community Surveyor Program	YRDFA, USFWS
16-256	In Season Salmon Management Teleconferences	YRDFA
18-201	East Fork Andreafsky River Chinook and summer Chum Salmon abundance and run timing, Yukon Deltan National Wildlife Refuge	
18-202	Gisasa River Chinook and summer Chum Salmon abundance and run timing assessment, Koyukuk National Wildlife Refuge, Alaska	USFWS
18-250	Documentation of salmon spawning and rearing in the Upper Tanana River Drainage	ADF&G
18-251	Traditional knowledge of anadromous fish in the Yukon Flats with a focus on the Draanjik Basin	TCC
18-252	Subsistence salmon networks in Yukon River communities	ADF&G
20-200	Yukon River Coho Salmon Radio Telemetry	ADF&G, USFWS
20-201	Application of mixed-stock analysis for Yukon River chum salmon	USFWS
20-204	Abundance and Run Timing of Adult Salmon in Henshaw Creek, Kanuti National Wildlife Refuge, Alaska	TCC
20-251	In-season Yukon River Subsistence Salmon Survey Program	YRDFA, USFWS
20-252	Customary Trade in the Lower and Middle Yukon River	ADF&G
20-256	Yukon River In-Season Salmon Management Teleconferences	YRDFA
22-201	East Fork Andreafsky River Chinook and summer Chum salmon abundance and run timing	USFWS
22-202	Gisasa River Chinook and summer Chum Salmon abundance and run timing assessment	USFWS, TCC
22-204	Western Alaska Coho Salmon Genetic Baseline Development	ADF&G
22-251	Presence and Use of Salmon in the Pastolik and Pastoliak Rivers	ADF&G
	Nonsalmon Fish Projects	
00-004	Humpback Whitefish/Beaver Interactions	USFWS, CATG
00-006	Traditional Ecological Knowledge Beaver/Whitefish Interactions	ADF&G, CATG
00-021	Dall River Northern Pike	ADF&G, SV
00-023	Upper Tanana River Humpback Whitefish	USFWS
01-003	Old John Lake TEK of Subsistence Harvests and Fish	ADF&G, AV, USFWS

Project Number	Project Title	Investigators
01-011	Arctic Village Freshwater Fish Subsistence Survey	ADF&G, AV, USFWS
01-100	Koyukuk Non-salmon Fish TEK and Subsistence Uses	ADF&G, TCC
01-140	Yukon Flats Northern Pike	ADF&G, SV
01-238	GASH Working Group	USFWS
02-006	Arctic Village Freshwater Fish Subsistence	ADF&G, NVV
02-037	Lower Yukon River Non-salmon Harvest Monitoring	ADF&G, TCC
02-084	Old John Lake Oral History and TEK of Subsistence	USFWS, AV, ADF&G
04-253	Upper Tanana Subsistence Fisheries Traditional Ecological Knowledge	USFWS, UAF, ADF&G
04-269	Kanuti NWR Whitefish TEK and Radio Telemetry	USFWS, RN
06-252	Yukon Flats Non-salmon Traditional Ecological Knowledge	ADF&G, BLM, USFWS, CATG
06-253	Middle Yukon River Non-salmon TEK and Harvest	ADF&G, LTC
07-206	Innoko River Inconnu Radio Telemetry	USFWS, ADF&G
08-206	Yukon and Kuskokwim Coregonid Strategic Plan	USFWS, ADF&G
08-250	Use of Subsistence Fish to Feed Sled Dogs	RN, AC
10-209	Yukon Delta Bering Cisco Mixed-stock Analysis	USFWS
10-250	Yukon Climate Change Impacts on Subsistence Fisheries	RN
12-200	Alatna River Inconnu Population Structure	USFWS
12-207	Yukon Bering Cisco Spawning Origins Telemetry	USFWS
14-252	Lower Yukon Whitefish	ADF&G
14-253	Upper Yukon Customary Trade	YRDFA
16-203	Bering Cisco Spawning Abundance in the Upper Yukon Flats, 2016–2017	ADF&G, USFWS
16-205	Burbot Population Assessments in lakes of the Upper Tanana and Upper Yukon River Drainages	NPS
20-202	Evaluating dart and telemetry tags in an effort to track run timing and migration patterns of Yukon River Arctic lamprey	USFWS, UAF, ADF&G
22-252	Combining Traditional Ecological Knowledge & Biological Sampling to Enhance Understanding of Humpback Whitefish and other Non-salmon Fishes in the Upper Koyukuk Region	ADF&G, TCC, USFWS

Abbreviations: AC = Alaskan Connections, ADF&G = Alaska Department of Fish and Game, AVCP = Association of Village Council Presidents, AV = Arctic Village, BF = Bill Fliris, BUE = Bue Consulting, BLM = Bureau of Land Management, BSFA = Bering Sea Fisherman's Association, CATG = Council of Athabascan Tribal Governments, COK = City of Kaltag, DFO = Department of Fisheries and Oceans, EMV = Emmonak Village Council, KAL = City of Kaltag, NPS = National Park Service, LTC = Louden Tribal Council, NVE = Native Village of Eagle, NVHB = Native Village of Hooper Bay, NVV = Native Village of Venetie, RN = Research North, RW = Robert Wolfe and Associations, SVNRC = Stevens Village, SZ=Stan Zuray, TCC = Tanana Chiefs Conference, TTC = Tanana Tribal Council, UAF = University of Alaska Fairbanks, USFWS = U.S. Fish and Wildlife Service, USGS = U.S. Geological Survey, UW = University of Washington, and YRDFA = Yukon River Drainage Fisheries Association.

Winter 2024 Regional Advisory Council Meeting Calendar

Last updated 5/2/2023

Due to travel budget limitations placed by Department of the Interior on the U.S. Fish and Wildlife Service and the Office of Subsistence Management, the dates and locations of these meetings will be subject to change.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					Mar. 1	*Mar. 2*
Mar. 3	*Mar. 4 Window Opens*	*Mar. 5*	*Mar. 6*	*Mar. 7*	*Mar. 8*	*Mar. 9*
		All Regions Meeting (Anchorage)				
Mar. 10	*Mar. 11*	*Mar. 12*	*Mar. 13*	*Mar. 14*	*Mar. 15*	*Mar. 16*
Mar. 17	*Mar. 18*	*Mar. 19*	*Mar. 20*	*Mar. 21*	*Mar. 22*	*Mar. 23*
Mar. 24	*Mar. 25*	*Mar. 26*	*Mar. 27*	*Mar. 28*	*Mar. 29 Window Closes*	*Mar. 30*

Fall 2024 Regional Advisory Council Meeting Calendar

Last updated 3/3/2023

Due to travel budget limitations placed by Department of the Interior on the U.S. Fish and Wildlife Service and the Office of Subsistence Management, the dates and locations of these meetings will be subject to change.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Aug. 18	*Aug. 19* ***Window Opens***	*Aug. 20*	*Aug. 21*	*Aug. 22*	*Aug. 23*	*Aug. 24*
	NSRAC (Utqiagvik)					
Aug. 25	*Aug. 26*	*Aug. 27*	*Aug. 28*	*Aug. 29*	*Aug. 30*	*Aug. 31*
Sep. 1	*Sep. 2* ***Labor Day Holiday***	*Sep. 3*	*Sep. 4*	*Sep. 5*	*Sep. 6*	*Sep. 7*
			KARAC (Unalaska)			
Sep. 8	*Sep. 9*	*Sep. 10*	*Sep. 11*	*Sep. 12*	*Sep. 13*	*Sep. 14*
Sep. 15	*Sep. 16*	*Sep. 17*	*Sep. 18*	*Sep. 19*	*Sep. 20*	*Sep. 21*
Sep. 22	*Sep. 23*	*Sep. 24*	*Sep. 25*	*Sep. 26*	*Sep. 27*	*Sep. 28*
Sep. 29	*Sep. 30*	*Oct. 1*	*Oct. 2*	*Oct. 3*	*Oct. 4*	*Oct. 5*
			WIRAC (Aniak)			
Oct. 6	*Oct. 7*	*Oct. 8*	*Oct. 9*	*Oct. 10*	*Oct. 11*	*Oct. 12*
		EIRAC (Tanana)		**SCRAC** (Anchorage)		
Oct. 13	*Oct. 14* ***Columbus Day Holiday***	*Oct. 15*	*Oct. 16*	*Oct. 17*	*Oct. 18*	*Oct. 19*
		YKDRAC (Bethel)				
Oct. 20	*Oct. 21*	*Oct. 22*	*Oct. 23*	*Oct. 24*	*Oct. 25*	*Oct. 26*
				SPRAC (Nome)		
		SEARAC (Ketchikan)				
Oct. 27	*Oct. 28*	*Oct. 29*	*Oct. 30*	*Oct. 31*	*Nov. 1* ***Window Closes***	*Nov. 2*
		BBRAC (Dillingham)				
	NWARAC (Kotzebue)					

Department of the Interior
U. S. Fish and Wildlife Service

Eastern Interior Alaska Subsistence Regional Advisory Council

Charter

1. **Committee's Official Designation.** The Council's official designation is the Eastern Interior Alaska Subsistence Regional Advisory Council (Council).

2. **Authority.** The Council is renewed by virtue of the authority set out in the Alaska National Interest Lands Conservation Act (ANILCA) (16 U.S.C. 3115 (1988)) Title VIII, and under the authority of the Secretary of the Interior, in furtherance of 16 U.S.C. 410hh-2. The Council is regulated by the Federal Advisory Committee Act (FACA), as amended, (5 U.S.C., Appendix 2).

3. **Objectives and Scope of Activities**. The objective of the Council is to provide a forum for the residents of the Region with personal knowledge of local conditions and resource requirements to have a meaningful role in the subsistence management of fish and wildlife on Federal lands and waters in the Region.

4. **Description of Duties.** Council duties and responsibilities, where applicable, are as follows:

a. Recommend the initiation, review, and evaluate of proposals for regulations, policies, management plans, and other matters relating to subsistence uses of fish and wildlife on public lands within the region.

b. Provide a forum for the expression of opinions and recommendations by persons interested in any matter related to the subsistence uses of fish and wildlife on public lands within the Region.

c. Encourage local and regional participation in the decision-making process affecting the taking of fish and wildlife on the public lands within the region for subsistence uses.

d. Prepare an annual report to the Secretary containing the following:

(1) An identification of current and anticipated subsistence uses of fish and wildlife populations within the Region;

(2) An evaluation of current and anticipated subsistence needs for fish and wildlife populations within the Region;

(3) A recommended strategy for the management of fish and wildlife

populations within the Region to accommodate such subsistence uses and needs; and

(4) Recommendations concerning policies, standards, guidelines, and regulations to implement the strategy.

e. Appoint one member to the Wrangell-St. Elias National Park Subsistence Resource Commission and one member to the Denali National Park Subsistence Resource Commission in accordance with section 808 of the ANILCA.

f. Make recommendations on determinations of customary and traditional use of subsistence resources.

g. Make recommendations on determinations of rural status.

h. Provide recommendations on the establishment and membership of Federal local advisory committees.

5. Agency or Official to Whom the Council Reports. The Council reports to the Federal Subsistence Board Chair, who is appointed by the Secretary of the Interior with the concurrence of the Secretary of Agriculture.

6. Support. The U.S. Fish and Wildlife Service will provide administrative support for the activities of the Council through the Office of Subsistence Management.

7. Estimated Annual Operating Costs and Staff Years. The annual operating costs associated with supporting the Council's functions are estimated to be $175,000, including all direct and indirect expenses and 1.15 Federal staff years.

8. Designated Federal Officer. The DFO is the Subsistence Council Coordinator for the Region or such other Federal employee as may be designated by the Assistant Regional Director – Subsistence, Region 11, U.S. Fish and Wildlife Service. The DFO is a full-time Federal employee appointed in accordance with Agency procedures. The DFO will:

(a) Approve or call all Council and subcommittee meetings;

(b) Prepare and approve all meeting agendas;

(c) Attend all committee and subcommittee meetings;

(d) Adjourn any meeting when the DFO determines adjournment to be in the public interest; and

(e) Chair meetings when directed to do so by the official to whom the advisory committee reports.

9. Estimated Number and Frequency of Meetings. The Council will meet 1-2 times per year, and at such times as designated by the Federal Subsistence Board Chair or the DFO.

10. Duration. Continuing.

11. Termination. The Council will be inactive 2 years from the date the charter is filed, unless prior to that date, the charter is renewed in accordance with provisions of section 14 of the FACA. The Council will not meet or take any action without a valid current charter.

12. Membership and Designation. The Council's membership is composed of representative members as follows:

Ten members who are knowledgeable and experienced in matters relating to subsistence uses of fish and wildlife and who are residents of the region represented by the Council.

To ensure that each Council represents a diversity of interests, the Federal Subsistence Board in their nomination recommendations to the Secretary will strive to ensure that seven of the members (70 percent) represent subsistence interests within the region and three of the members (30 percent) represent commercial and sport interests within the region. The portion of membership representing commercial and sport interests must include, where possible, at least one representative from the sport community and one representative from the commercial community.

The Secretary of the Interior will appoint members based on the recommendations from the Federal Subsistence Board and with the concurrence of the Secretary of Agriculture.

Members will be appointed for 3-year terms. Members serve at the discretion of the Secretary.

If appointments for a given year have not yet been announced, a member may continue to serve on the Council following the expiration of his or her term until such appointments have been made. Unless reappointed, the member's service ends on the date of announcement even if that member's specific seat remains unfilled.

Alternate members may be appointed to the Council to fill vacancies if they occur out of cycle. An alternate member must be approved and appointed by the Secretary before attending the meeting as a representative. The term for an appointed alternate member will be the same as the term of the member whose vacancy is being filled.

Council members will elect a Chair, Vice-Chair, and Secretary for a 1-year term.

Members of the Council will serve without compensation. However, while away from their homes or regular places of business, Council and subcommittee members engaged in Council, or subcommittee business, approved by the DFO, may be allowed travel expenses, including per diem in lieu of subsistence, in the same manner as persons employed intermittently in Government service under Section 5703 of title 5 of the United States Code.

13. Ethics Responsibilities of Members. No Council or subcommittee member will participate in any Council or subcommittee deliberations or votes relating to a specific party matter before the Department or its bureaus and offices including a lease, license, permit, contract, grant, claim, agreement, or litigation in which the member or the entity the member represents has a direct financial interest.

14. Subcommittees. Subject to the DFO's approval, subcommittees may be formed for the purpose of compiling information or conducting research. However, such subcommittees must act only under the direction of the DFO and must report their recommendations to the full Council for consideration. Subcommittees must not provide advice or work products directly to the Agency. Subcommittees will meet as necessary to accomplish their assignments, subject to the approval of the DFO and the availability of resources.

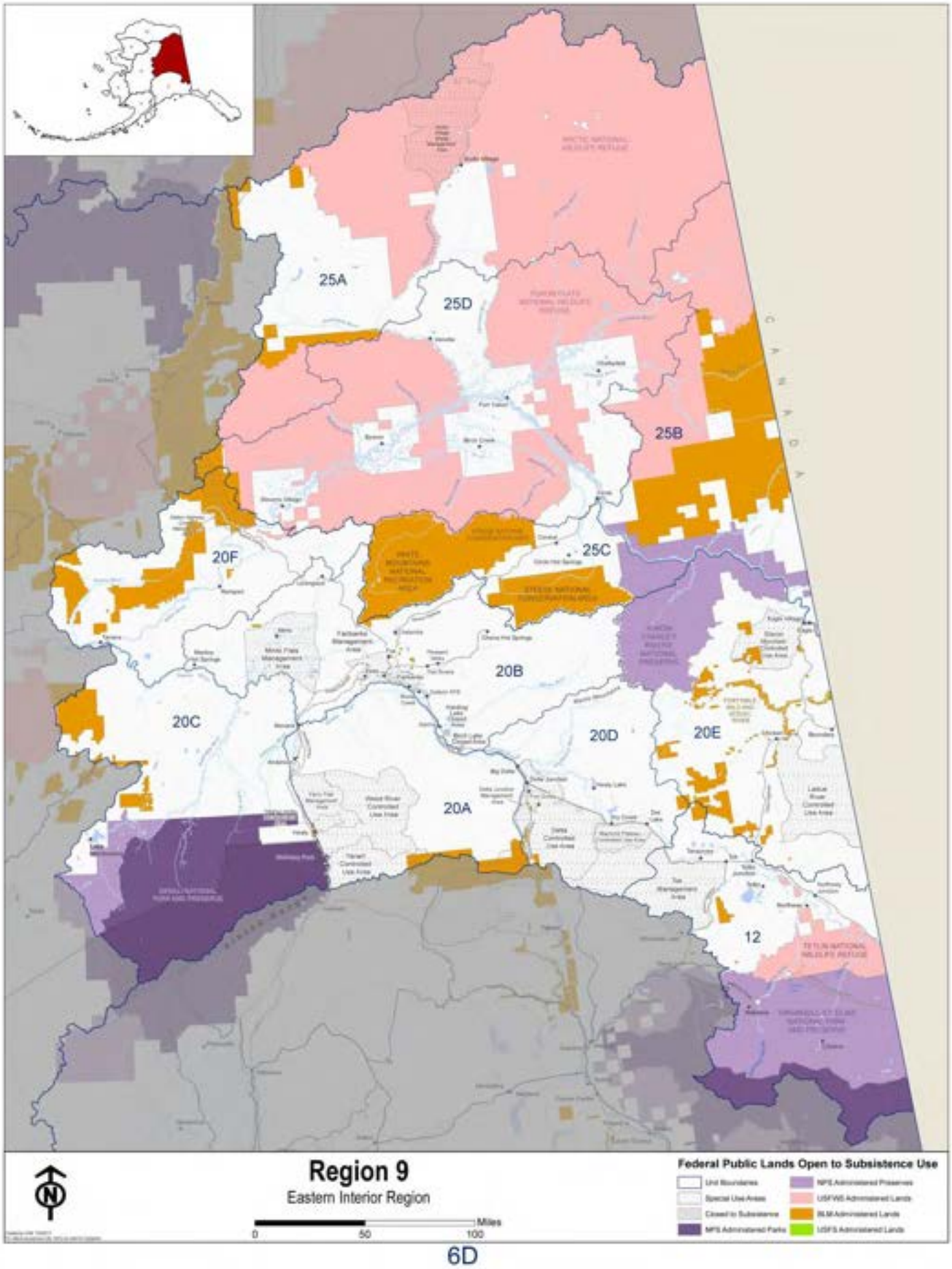
15. Recordkeeping. The Records of the Council, and formally and informally established subcommittees or other subgroups of the Council, must be handled in accordance with General Records Schedule 6.2, and other approved Agency records disposition schedules. These records must be available for public inspection and copying, subject to the Freedom of Information Act (5 U.S.C. 552).

/signature on the filed original/
Secretary of the Interior

Dec. 10, 2021
Date Signed

Dec. 13, 2021
Date Filed

Region 9 - Eastern Interior Alaska Region Map



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