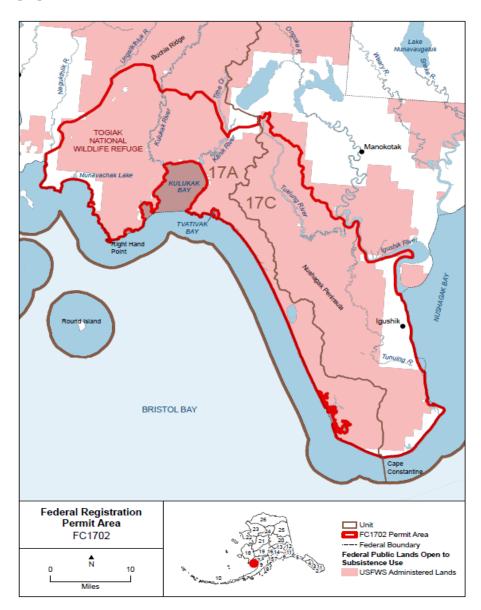
Draft Wildlife Closure Review WCR26-07

ISSUE: Wildlife Closure Review WCR26-07 reviews the Federal public lands closure in portions of Units 17A and 17C to the taking of caribou except by federally qualified subsistence users unless the Nushagak Peninsula caribou herd (NPCH) population estimate exceeds 900 caribou (**Map 1**). It is the Federal Subsistence Board's (Board) policy that Federal public lands should be reopened when closures are no longer necessary, and that closures will be reviewed at least once every four years. The purpose of this review is to determine if these closures are still warranted.



Map 1. Hunt area boundary for the Nushagak Peninsula Caribou Herd in Units 17A and 17C.

Closure Location and Species: Unit 17 (Nushagak Peninsula) – Caribou

Closure Dates: Year-round

Current Federal Regulations

Unit 17—Caribou

Units 17A and 17C, that portion of 17A east of the Ungalikthluk River and South of Buchia Ridge, and within the lower Kulukak River drainage south of Buchia Ridge and within the Kanik River drainage downstream of the Tithe Creek, that portion of 17C sout of the Igushik River and south of and including the Tuklung river drainage—up to 5 caribou by Federal registration permit (FC1702)

Aug. 1 − Mar. 31

Federal public lands are closed to the harvest of caribou except by Federally qualified subsistence users unless the population estimate exceeds 900 caribou.

Current State Regulations

Unit 17-Caribou

Unit 17A, all drainages that terminate east of Right Hand Point	Residents: Two caribou by permit available online at http://hunt.alaska.gov and in person in Anchorage, Bethel, Dillingham, Fairbanks, Homer, King Salmon, Palmer, Soldotna, and at local license vendors beginning July 11	RC501	May be announced
Unit 17C remainder	Residents: Two caribou by permit available online at http://hunt.alaska.gov and in person in Anchorage, Bethel, Dillingham, Fairbanks, Homer, King Salmon, Palmer, Soldotna, and at local	RC501	May be announced

license vendors beginning July 11

Regulatory Year Initiated: 1994; 2018 – closure revised to include population threshold and open hunt to all federally qualified subsistence users

Closure last reviewed: 2022 – WCR22-07

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...

Caribou were reintroduced to the Nushagak Peninsula in February 1988 after an absence of over 100 years. The reintroduction was a cooperative effort between the U.S. Fish and Wildlife Service (USFWS), Alaska Department of Fish and Game (ADF&G), and the villages of Togiak, Manokotak, Dillingham, and Choggiung Limited, with the goal of reestablishing a caribou population large enough to sustain a reasonable harvest, while still allowing the herd to grow.

In 1994, the Board adopted Proposal P94-42, which established subsistence hunt and closed Federal public lands to the harvest of caribou by all users, except by residents of Togiak, Dillingham, Twin Hills, Manokotak, Aleknagik, Clarks Point, and Ekuk. Community studies conducted in four of the seven villages slated to participate in the Nushagak caribou harvest indicated that caribou were an integral component of the seasonal round of wild resource harvest activities.

Council Recommendation for Original Closure

The Bristol Bay Subsistence Regional Advisory Council (Council) supported Proposal P94-42 and the establishment of the hunt as well as the closure to non-federally qualified users by stating that "[Togiak National Wildlife Refuge] will be able to monitor the hunt fairly closely with the Traditional Councils administering the permits; there's a real ownership with the people in this herd and in the management. The State will keep it closed on the State side so they can honor the original agreement" (FSB 1994).

State Recommendation for Original Closure

The State supported Proposal P94-42 in 1994, stating that they had been part of the Nushagak Peninsula Caribou Management Planning Committee and agreed with its recommendation (FSB 1994).

Extent of Federal Public Lands

The FC1702 hunt area in Units 17A and 17C is comprised of 85% Federal public lands and consists entirely of USFWS managed lands that are part of Togiak National Wildlife Refuge (NWR).

Customary and Traditional Use Determination

Residents of Units 9B, 9C, 9E, 17, Lime Village, and Stony River have a customary and traditional use determination for caribou in the Nushagak Peninsula hunt area.

Regulatory History

Caribou were reintroduced to the Nushagak Peninsula in 1988, with the intention of providing a subsistence resource to area residents (USFWS et. al. 1994). In 1994, the Federal Subsistence Board (Board) adopted Proposal P94-42, which established a Jan. 1–Mar. 31 harvest season for the Nushagak Peninsula Caribou Herd (NPCH) in portions of Units 17A and 17C and instituted a closure to all users except residents of Togiak, Dillingham, Manokotak, Twin Hills, Aleknagik, Clarks Point, and Ekuk¹ (FSB 1994). The Board said that these seven villages located in the vicinity of the herd had participated in the reintroduction and planning for on-going management of the herd and that supporting the proposal was consistent with the Council's recommendation and the terms of the Nushagak Caribou Management Plan. The newly established season began on January 1, 1995, with a harvest limit of 1 caribou.

In 1995, the Board approved Temporary Special Action S95-06 and extended the season from Jan. 1–Mar. 31 to Dec. 1–Mar. 31 for the 1995/96 regulatory year. In 1996, the Board adopted Proposal P96-34, which codified the extended caribou season from Jan. 1–Mar. 31 to Dec. 1–Mar. 31 and established an Aug. 1–30 fall season (FSB 1996). In 1997, the Board adopted Proposal P97-47, which increased the harvest limit from 1 caribou to 2 caribou on the Nushagak Peninsula, as there was a harvestable surplus of caribou and the previous year's harvest had been well below the management objective (FSB 1997). In 1998, the Board approved Special Action S97-10, which extended the fall season from Aug. 1-30 to Aug. 1-Sep. 30. This extension became codified regulation when the Board adopted Proposal P99-39 in 1999 (FSB 1999).

In 2001, the Board adopted Proposal WP01-18, authorizing the use of a designated hunter permit (FSB 2001). In 2002, the Board approved Temporary Wildlife Special Action WSA02-13, which reduced the 2002/03 harvest limit from 2 caribou to 1 caribou for the NPCH hunt, and delegated authority to the Togiak NWR Manager to close the season when harvest objectives were met. This action was intended to prevent overharvest of the declining NPCH. In 2003, Board action on WP03-22 changed the codified harvest limit from two caribou to "up to 2 caribou" and delegated authority to the Togiak NWR Manager to set harvest objectives and limits, determine the number of permits to be issued, and to close the season. The new regulation also required that hunters report their harvest within 24 hours after returning from the field (FSB 2003). These changes provided management flexibility and reduced the need for special actions and follow-up proposals.

Emergency Wildlife Special Action WSA15-02, submitted by the Village of Manokotak in April 2015, requested that the caribou season be extended to May 31, due to poor winter travel conditions and subsequent low caribou harvest. The Board rejected WSA15-02 because immobilization drugs used

¹ Ekuk is comprised of seasonal residents whose permanent homes are in another community.

during a recent capture and collaring project could have posed a human health risk prior to May 10, and because any season extension beyond May 10 would have overlapped with the calving season (OSM 2016a).

The Nushagak Peninsula Caribou Planning Committee submitted four special action requests for the 2015/16 regulatory year. Temporary Wildlife Special Action WSA15-14 requested increasing the harvest limit to three caribou through March 31, 2016. Temporary Wildlife Special Action WSA15-15 requested opening Federal public lands to caribou harvest by all residents of Alaska through March 31, 2016. Emergency Wildlife Special Action WSA15-16 requested extending the winter season from Dec. 1–Mar. 31 to Dec. 1–Apr. 15. Temporary Wildlife Special Action WSA15-17 requested that subsistence harvest of Nushagak caribou be exempted from the prohibition on same-day airborne harvest Jan. 1– Apr. 15. These requests sought to increase harvest and slow population growth of the NPCH. All 4 special actions were approved by the Board, with a modification of WSA15-14 that retained the 3 caribou limit through April 15, 2015 (OSM 2016a).

In early 2016, ADF&G announced a State season by Emergency Order (EO 04-03-16), targeting caribou migrating off the Nushagak Peninsula in portions of Units 17A and 17C. This season opened on March 4, 2016. Approval of WSA15-15 provided an opportunity for ADF&G to expand the hunt to include Federal public lands on the Nushagak Peninsula. The State season was open through March 31, 2016, had a harvest limit of two caribou of either sex, and required the use of a State registration permit (RC501).

After the Federal and State seasons closed in spring 2016, the Manokotak Village Council submitted Emergency Wildlife Special Action Request WSA15-18, requesting that the Federal caribou season on the Nushagak Peninsula be extended through the end of May or until females begin calving. WSA15-18 was approved with modifications to: 1) reopen the season through May 10, a date that provided reasonable assurance that the season would not overlap with calving and 2) raise the harvest limit to three caribou, consistent with recent action on WSA15-14 and WSA15-16. As a result, the season was reopened May 3–10, 2016.

Several proposals related to Nushagak caribou were submitted for consideration for the 2016–2018 regulatory years. Proposals WP16-25/26, submitted by the Togiak Fish and Game Advisory Committee (AC) and the Nushagak AC, respectively, requested increasing the harvest limit from 2 caribou to 3 caribou and modifying the existing split season to a single Aug. 1–Mar. 31 season. Proposals WP16-31/32, also submitted by the Togiak AC and the Nushagak AC, requested that same day airborne harvest of Nushagak Peninsula caribou be allowed during the winter season, Jan. 1–Mar. 31. The Board adopted WP16-25 with modification, raising the harvest limit to "up to 5 caribou" and creating a single season, as proposed. It also adopted WP16-31. The Board took no action on WP16-26 and WP16-32, based on action taken on WP16-25 and WP16-31 (FSB 2016).

In spring 2016, Togiak NWR and ADF&G submitted Temporary Wildlife Special Action WSA16-02, which requested that the closure be lifted for the 2016/17 regulatory year, as long as the population did not fall below 900 animals, the upper population objective. Members of the public and Tribal

representatives acknowledged the need for population reduction but offered limited support due to concerns about maintaining subsistence priority, particularly during the winter season, concerns about the limitations imposed by current customary and traditional use determinations, and concerns that the 900 caribou threshold for opening Federal public lands might persist beyond regulatory year 2016/17 and become a permanent management parameter. The Board acknowledged these concerns and encouraged revision of the Nushagak Peninsula Caribou Management Plan to accommodate a wider range of situations, but approved WSA16-02 with modification to delegate authority to the manager of Togiak NWR to reinstate the closure if the population falls below 900 animals, given the biological need for population reduction.

In fall 2016, ADF&G announced a State season in portions of Units 17A and 17C by Emergency Order (EO 04-50-16). The season was limited to Alaska residents, required a registration permit (RC501), and had a harvest limit of two caribou. Although the season was open Aug. 1, 2016–Mar. 31, 2017, on State lands, harvest of caribou on Federal public lands on the Nushagak Peninsula was allowed only through September 30, 2016 under State regulations. This effectively limited opportunity for winter harvest within the core range of the herd to federally qualified subsistence users.

Review of the 1994 closure was addressed in Wildlife Closure Review WCR15-07, which the Council considered at its February 2017 meeting. The Council voted to rescind the closure, due to concerns about long-term sustainability of the herd (BBSRAC 2017) and consistent with the Board's Closure Policy, which specifies that closures "should be removed as soon as practicable when conditions that originally justified the closure have changed to such an extent that the closure is no longer necessary."

As a result, the Council submitted Proposal WP18-22, which requested eliminating the Federal caribou closure on the Nushagak Peninsula. In April 2018, the Board adopted Proposal WP18-22 with modification to close caribou hunting on the Nushagak Peninsula except by federally qualified subsistence users unless the population estimate exceeds 900 caribou. The Board stated this modification addressed the Council's concerns over both over-grazing and overharvest, as well as provides management flexibility and certainty, reducing the need for additional special action requests (FSB 2018).

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

In April 2022, the Board voted to maintain the status quo on wildlife closure review WCR22-07. Maintaining the closure to non-federally qualified users when the NPCH population estimate is below 900 caribou provides a subsistence priority, while opening the hunt to all users when the NPCH exceeds 900 caribou helps keep the herd within carrying capacity of its habitat and prevents unnecessary restrictions on non-subsistence users.

In April 2024, the Board adopted proposal WP24-18 with modification. WP24-18 requested expanding the FC1702 hunt area because the Nushagak herd has expanded its range, and frequently occupied areas outside of the existing hunt area, curtailing harvest and subsistence opportunity. The Board modified the proposal to further expand the hunt area based on public and Tribal testimony during its meeting to, "Units 17A and 17C, that portion of 17A east of the Ungalikthluk River and South of Buchia Ridge, and within the lower Kulukak River drainage south of Buchia Ridge and within the Kanik River drainage downstream of the Tithe Creek, that portion of 17C south of the Igushik River and south of and including the Tuklung river drainage" (Map 1). The Board also recommended changes to the delegation of authority letter (DAL) (Appendix 1) to allow the in-season manager the ability to set harvest areas. This provides the in-season manager the ability to open portions of the hunt area and close other portions, especially if the Mulchatna caribou herd is within the FC1702 hunt boundary.

Also in April 2024, the Board approved a request to DAL to the in-season manager of the FC1702 hunt to determine the number of permits available by community to match the existing process of permit distribution.

Biological Background

The NPCH was established in 1988 when 146 caribou were reintroduced to the Nushagak Peninsula where caribou had been an important subsistence resource for area residents (NPCH Management Plan 1994). The herd is cooperatively managed by the Nushagak Peninsula Caribou Planning Committee (Committee), which consists of Federal, State, tribal, and local representatives. In 2020, the Committee revised the NPCH population objective from 400—900 caribou, with 750 caribou being the optimum objective stated below due to concerns about overgrazing (Aderman 2020b, pers. comm.).

Management objectives for the NPCH agreed upon by the Committee include (Aderman 2020a):

- Population: 200-600 caribou, optimum 400 caribou
- Bull:cow ratio: 35-45 bulls:100 cows (if ratio is < 25 bulls:100 cows, manage for viability; if ratio is > 55 bulls:100 cows, manage for increased bull harvest).
- Harvest objective: 10-30 caribou

Within the first 10 years following reintroduction, the NPCH grew from 146 animals in 1988 to over 1,200 caribou by 1997. Subsequently, calf recruitment and adult female survival decreased, and the population fell below 500 caribou by 2006. By 2015, the population had increased to an estimated size of over 1,400 caribou and remained above population objectives through 2019. However, the population declined to a minimum count of 209 caribou in 2020, which is the lowest count since 1989, the year following reintroduction (Aderman 2020a, pers. comm.). Since 2020, the population increased to a minimum count of 573 caribou in 2024 (Aderman 2023, pers. comm.) (**Table 1**).

The causes of the decline between 1999 and 2007 are not clearly understood and are almost certainly multi-factored (Aderman and Lowe 2012). The most likely explanation for the decline is that the exceptionally high growth through 1998 produced large annual cohorts of females that survived until a relative old age, at which time they declined in productivity. This high proportion of unproductive

females, combined with high harvest years in 2001 and 2002, changed the population trajectory from an increasing trend to a decreasing trend, which persisted until the replacement of old, unproductive females with younger, more productive females. Changing nutritional conditions (both short-term, such as those associated with drought or winter icing, as well as longer-term changes, such as lower overall carrying capacity due to continuous grazing on the Nushagak Peninsula since 1988) underlaid and exacerbated this decline. Predation on the population has not been shown to be a significant factor. A study of wolf predation from 2007 to 2011 found that wolf predation was not a primary driver of Nushagak Peninsula caribou population dynamics (Walsh and Woolington 2008). Brown bears are common on the Nushagak Peninsula and likely have learned to exploit the caribou population, but their impact on the NPCH is not known (Aderman and Lowe 2012).

Between 2007 and 2015, the population increased due to improved fall calf recruitment and adult female survival (Aderman 2015). Between 2015 and 2020, the population decreased due to increased caribou harvest (Aderman 2017, pers. comm.; 2020b). Specifically, the substantial population decline in 2020 is attributed to hunting related mortality (reported and unreported harvest, wounding loss) as 863 caribou were reported harvested between 2015/16 and 2020/21, with over 300 caribou harvested in some years (**Tables 1, 4**). This changed in 2020/21 and continued through 2023/2024, when there was a total reported harvest of only nine caribou. This drastic decrease in harvest is a primary factor in the population increase during these four years (Alderman 2023 pers. Comm.) (**Tables 1, 4**). Predation by bears and wolves accounted for an unknown amount of mortality (NPCPC 2020).

Since reintroduction in 1988, bull:cow ratios have ranged from 12-71 bulls:100 cows, averaging 43 bulls:100 cows. The 2023 surveys estimated 33 bulls:100 cows, which is within management objectives. Over the same time period, calf:cow ratios have ranged from 10—72 calves:100 cows, averaging 45 calves:100 cows. 2023 surveys estimated 63 calves:100 cows (**Table 1**) (Aderman 2020b, pers. comm.; Aderman 2023 pers. comm).

The Committee is concerned over the potential for the NPCH to overgraze its habitat. Between 2002 and 2017, lichen cover on the Nushagak Peninsula declined from 48% to 30% (NPCPC 2020). Assuming the current rate of change continues, lichen cover is projected to be zero by 2026 (Aderman 2020a). The Nushagak Peninsula caribou have started moving to the northwest, off the peninsula, prompting the recent expansion in hunt area (WP24-18). However, it is unknown whether the emigration will be temporary, seasonal, or long term (NPCPC 2020). Current management efforts are aimed at preventing overgrazing, while recovering the population and providing for subsistence harvest opportunity.

Table 1. Sex and age composition, minimum counts and population estimates for the NPCH, 1988-2024 (Aderman 2015, Aderman 2020b pers. comm., 2023 pers. comm., 2024 pers. comm.).

Year	Bulls: 100 Cows	Calves: 100 Cows	Minimum Count ¹	Population Estimate ²	
1988	12	10	146		
1989			202		
1990			268		
1991			383		
1992	60	72	561		
1993			734		
1994	71	65	1,007		
1995			1,156		
1996			1,112		
1997	64	62	1,255		
1998	57	63	1,237		
1999	48	53	972		
2000	52	38	1,024		
2001	46	35	930		
2002	43	36	678		
2003	47	44	757		
2004	43	34	588		
2005	38	32	594		
2006	31	36	477		
2007	49	40	462		
2008	44	60	579	683	± 108
2009	37	35	679	861	± 160
2010	42	45	706	758	± 83
2011	29	39	859	847	± 64
2012	52	50	902	925	± 63
2013	32	40	926	1,033	± 135
2014	44	53	1,014	1,056	± 103
2015	65	46	1,313	1,424	± 172

Year	Bulls: 100 Cows	Calves: 100 Cows	Minimum Count ¹	Population Estimate		Estimate ²
2016	51	40	1,230	1,294	±	68
2017	30	42	786	968	±	218
2018	25	34	709	787	±	114
2019	33	26	710	822	±	164
2020	33	49	209	226	±	47
2021	39	48	258	287	±	48
2022	41	63	359	442	±	118
2023	33	63	470	511	±	86
20243	-	-	573	589	±	58

¹Reported minimum counts were obtained pre-calving (January – March) in 1988 – 1994,

Cultural Knowledge and Traditional Practices

Community Background

Thirty-one communities are included in the customary and traditional use determination for caribou in the hunt area and are federally qualified subsistence users. Six communities are the primary harvesters of Nushagak caribou and are the focus of this section: Aleknagik, Clarks Point, Dillingham, Manokotak, Togiak, and Twin Hills. These are Yup'ik communities with newer arrivals from other areas. Dillingham is the hub of transportation, health care, trade, and services in the Bristol Bay area, with a population estimated at 2,249 based on the 2020 U.S. Census. The population of the six communities was estimated to be almost 4,000 people in 2020 (**Table 2**). The population steadily increased from 1960 to 2000 when it peaked and has remained stable. The 1960 U.S. Census is considered the first reliable census estimate because most people had settled into permanent communities from a more nomadic way of life to be near schools, employment opportunities, and for other reasons. Instead, residents visit seasonal camps or hunt, trap, and fish during day or overnight trips from their residences. Large harvests of salmon are integral to the subsistence economy as are harvests of moose and caribou (VanStone 1984, Van Lanen et al. 2018, ADCCED 2024).

Commercial salmon canneries were first built in the region along Nushagak Bay in the 1880s, and a cannery was built in the Togiak area in the 1950s. These canneries attracted people from their seasonal camps along the Togiak and Nushagak rivers and others coalesced around Clarks Point, Manokotak, and Aleknagik; however, the migration to permanent settlements occurred over several generations.

The commercial salmon fishing industry has been the mainstay of the local cash economy since the 1950s in addition to sport fishing and hunting industries and providers of services that support these

^{1997, 2000} and post-calving (June – July) in all other years.

²Population estimates are based on Rivest et al. (1998) caribou abundance estimator.

³Not all 2024 data received.

industries. All levels of government also have a significant presence and provide employment in the communities.

Nushagak Caribou Management Planning Committee

The Nushagak Caribou Management Planning Committee is an example of a successful cooperative management, co-stewardship organization. It was formed at the impetus of staff at the Togiak National Wildlife Refuge in the early 1990s.

The Planning Committee is comprised of representatives from the Bristol Bay Native Association, Choggiung Limited, Nushagak Fish and Game Advisory Committee, Alaska Department of Fish and Game, Togiak Refuge, and the Traditional Councils of Manokotak, Togiak, Twin Hills, Dillingham, Aleknagik and Clark's Point (Aderman 2015).

The Planning Committee determines by consensus the number of Federal registration permits to make available to the villages. Tribal Councils administer the permits in their respective villages. Hunters are asked to report on the outcome of their hunt, regardless of whether they hunted. Harvest is determined by reports on returned permits and telephone inquiries are made to non-responders (Aderman 2015).

Before 2018, the area was open to the harvest of caribou by residents of only the six communities. In 2018, harvest opened to all residents of the Bristol Bay Area. Permits may be distributed to other villages if requested.

Nushagak Peninsula Caribou Hunting

In the Bristol Bay Area, hunters generally search for caribou in a wide area surrounding each community but are highly dependent on where caribou herds migrate and are available for harvest. The six communities in closest proximity to the Nushagak Peninsula caribou herd, Aleknagik, Clarks Point, Dillingham, Manokotak, Togiak, and Twin Hills, hunt for caribou throughout the Togiak, Nushagak, Igushik, and Wood River drainages. Historically, harvest levels have fluctuated based on the availability of caribou (**Table 3**, Wolfe et al. 1983, Fall et al. 1986, Wolfe et al 1986, Schichnes and Chythlook 1988, Seitz 1996, Coiley-Kenner et al. 2003, Holen et al. 2005, Fall et al. 2012, Holen et al. 2012, Evans et al 2013, Van Lanen et al. 2018, and Jones et al. 2024). The Nushagak Peninsula caribou herd is particularly important to hunters when the Mulchatna herd does not migrate in proximity to the six communities or is closed to harvesting.

Additionally, weather is a factor in when and where hunters seek caribou, and hunters report that over the past 20 years the weather is warmer. Local hunters have described, "In addition to trends towards warmer temperatures during late-fall and early-spring, study respondents reported large-scale changes in snow and ice cover throughout the duration of winter and that the normal freezing of waterbodies such as lakes and rivers, has now also become unreliable" (Van Lanen et al. 2018: 140; FSB 2024: 418–419).

Weather plays a factor in where hunters can access caribou. For example, hunters may not cross the Wood River or Nushagak River when ice conditions are unsafe. This prevents hunters from Manokotak, Aleknagik, and Dillingham from hunting Mulchatna caribou along the Nushagak River

and its tributaries. Ice cover is not reliable from year to year on the Osviak, Matogak, Quigmy, Togiak, and Negukthilik rivers and tributaries, discouraging Togiak and Twin Hills residents from hunting in these areas (Van Lanen et al. 2018).

During these years when Mulchatna caribou are difficult to access, hunters may focus their efforts on Nushagak Peninsula caribou if opportunity is provided. Late freeze up, early break up, and inadequate snow cover can make hunting Nushagak Peninsula caribou difficult from a snowmachine, the main means of winter travel. During these years, Nushagak Peninsula caribou may be accessible only by airplane. Caribou harvests have increased and declined in tandem with the availability of adequate snow cover as well as the caribou population and the length of the hunting season (Aderman 2015, Van Lanen et al. 2018).

Table 2. Community populations based on the 2020 US Census (ADCCED 2024).

Community	1960	1970	1980	1990	2000	2010	2020
Aleknagik	231	128	154	185	221	219	211
Clark's Point	138	95	79	60	75	62	67
Dillingham	424	914	1,563	2,017	2,466	2,329	2,249
Manokotak	149	214	294	385	399	442	488
Togiak	220	383	470	613	809	817	817
Twin Hills	0	67	70	66	69	74	103
Total	1,162	1,801	2,630	3,326	4,039	3,943	3,935

Table 3. The estimated harvest of caribou for one year study periods based on household harvest surveys (CI 95%, lower harvest estimate is the lower bound of the estimate or the reported harvest, whichever is larger; source: ADF&G 2024).

Community	Study year	Number of households interviewed	Percentage of households using caribou	Estimated harvest	Lower estimate	Upper estimate	Per person harvest (in pounds of edible weight)
Aleknagik	1989	38	84%	57	52	63	60
	2001	36	89%	48	37	59	46
	2008	32	13%	0	0	0	0
Clarks Point	1989	17	77%	18	18	18	48
	2001	21	86%	28	28	28	71
	2008	11	36%	2	1	5	7
Dillingham	1984	153	70%	379	258	500	28
	2001	110	14%	344	242	446	21
	2010	200	36%	63	63	63	4
	2021	155	12%	0	0	0	0
Manokotak	1985	54	89%	44	38	50	22
	1999	81	88%	130	117	143	49
	2001	60	88%	68	57	80	28
	2008	61	49%	20	19	22	8
Togiak	1999	100	71%	178	136	219	37
	2001	75	49%	106	77	134	23
	2008	80	83%	136	105	168	26
Twin Hills	1999	12	92%	25	17	33	54
	2001	23	100%	8	7	10	16

Harvest History

In 2011, the Nushagak Peninsula Caribou Management Plan's harvest strategy was revised to make it more responsive to a dynamic caribou population. The strategy established an annual harvest goal based on population size and trend, allowing harvest when the population exceeds 200 caribou and is stable or increasing. It calls for a liberal harvest when the population is 800 caribou or greater, and recommends harvesting all animals over a minimum count of 750 caribou (Aderman 2015). In 2022, the Committee set a harvest objective of 48 caribou for the 2022/23 season (Aderman 2020a, 2020b, pers. comm.).

Hunting effort is influenced by travel conditions, availability of and opportunity to harvest other resources, including Mulchatna caribou and moose, as well as economic factors (Aderman and Lowe 2012). Historically, most of the reported harvest has occurred in February and March (**Table 4**), due to improved hunter access to the herd via snowmachine (Aderman and Lowe 2012). Between 1994/95 and 2023/24, 18% and 68% of the NPCH harvest occurred in February and March, respectively. Total reported harvest has sometimes been lower than expected, given the NPCH size (Alderman 2023, pers. comm). Winter harvest was low for several years due to poor travel conditions, resulting from low snowfall and warm temperatures. This low winter harvest has continued in recent years, as the NPCH has been spending the winter outside the hunt area. Proposal WP24-18, which expanded the NPCH hunt area was submitted and adopted in response to this.

Between 1994/95 and 2023/24, reported Nushagak caribou harvest ranged from 0-378 caribou per year (**Table 4**). The highest harvests occurred in 2016/17 and 2019/20 (Aderman 2020b, pers. comm.). These years of high harvest likely contributed to the population decline between RY2017/18 – 2020/21.

Local subsistence hunters from Aleknagik, Dillingham, Manokotak, Togiak, Twin Hills and Clarks Point account for the vast majority of caribou harvested under Federal and State regulations, and most Nushagak caribou are harvested under Federal regulations. Between 2015/16 and 2019/20, nine percent of the total reported harvest occurred under State regulations (Aderman 2020a). The State hunt RC501 has not occurred since 2019/20 due to conservation concerns.

Table 4. Reported harvest of the NPCH, by month, for regulatory years 1994/1995 – 2023/2024 (Aderman 2015; OSM 2015; Aderman 2017, pers. comm., 2020b pers. comm., 2023 pers. comm., 2024 pers. comm.; ADF&G 2017).

a NS = No season

^b Includes 10 caribou harvested under State regulation

^c Includes 28 caribou harvested under State regulation

^d Includes 5 caribou harvested under State regulation

e Includes 2 caribou harvested under State regulation

f Includes 12 caribou harvested under State regulation and 7 harvested illegally

Alternative(s) Considered

One alternative considered is to revise the population threshold for closure to non-federally qualified users from 900 caribou to 600 caribou to reflect the change in management objectives. When the threshold was established in regulations in 2018, the upper population objective was 900 caribou. Population management objectives were reduced in 2020 to 200-600 caribou, suggesting 600 caribou as the appropriate threshold for rescinding the closure to non-federally qualified users.

Effects

The existing closure strikes an effective management compromise, particularly due to the annual variability in the NPCH population and harvest. If the closure were lifted, federally qualified subsistence users would lose their subsistence priority and would be less able to meet their subsistence needs because of competition with and harvest by non-federally qualified users. If the closure was made more stringent, the NPCH would be more likely to exceed carrying capacity by overgrazing its habitat.

OSM PRELIMINARY CONCLUSION

	Retain the Status Quo
	Rescind the Closure
\boxtimes	Modify the Closure to reduce the population threshold to 600 caribou
	Defer Decision on the Closure or Take No Action

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

The draft regulation reads:

Unit 17—Caribou

Units 17A and 17C, that portion of 17A east of the Ungalikthluk River and South of Buchia Ridge, and within the lower Kulukak River drainage south of Buchia Ridge and within the Kanik River drainage downstream of the Tithe Creek, that portion of 17C sout of the Igushik River and south of and including the Tuklung river drainage—up to 5 caribou by Federal registration permit (FC1702)

Aug. 1 − Mar. 31

Federal public lands are closed to the harvest of caribou except by Federally qualified subsistence users unless the population estimate exceeds 900 600 caribou.

Justification

The current closure balances concerns of overharvest with those of overgrazing. Closing the hunt to non-federally qualified users when the NPCH population estimate is below the upper population objective provides a subsistence priority, while opening the hunt to all users when the NPCH exceeds the upper population objective helps keep the herd within carrying capacity of its habitat and prevents unnecessary restrictions on non-subsistence users.

However, given the reduction in population objectives in 2020 due to concerns about overgrazing, 600 caribou is now the appropriate threshold for closing to non-federally qualified users. As 600 is the upper bound of the population objective, reducing the population below this amount may be a biological necessity as population estimates exceeding 600 caribou may result in overgrazing and conservation concerns.

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APPENDIX 1



Federal Subsistence Board

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



FISH and WILDLIFE SERVICE BUREAU of LAND MANAGEMENT NATIONAL PARK SERVICE BUREAU of INDIAN AFFAIRS June 20 2024

FOREST SERVICE

In Reply Refer To: OSM.B24042

Togiak National Wildlife Refuge Manager U.S. Fish and Wildlife Service P.O. Box 270 MS 569 Dillingham, Alaska 99576

Dear Refuge Manager:

This letter delegates specific regulatory authority from the Federal Subsistence Board (Board) to the manager of the Togiak National Wildlife Refuge (Refuge) to issue emergency or temporary special actions if necessary to ensure the conservation of a healthy wildlife population, to continue subsistence uses of wildlife, for reasons of public safety, or to assure the continued viability of a wildlife population. This delegation only applies to the Federal public lands subject to Alaska National Interest Lands Conservation Act (ANILCA) Title VIII jurisdiction within Units 17A and 17C, that portion of 17A east of the Ungalikthluk River and South of Buchia Ridge, and within the lower Kulukak River drainage south of Buchia Ridge and within the Kanik River drainage downstream of the Tithe Creek, that portion of 17C south of the Igushik River and south of and including the Tuklung River drainage for the management of caribou on these lands.

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

DELEGATION OF AUTHORITY

1. Delegation: The Togiak NWR 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. <u>Authority:</u> 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:
 - Determine the harvest quota.
 - Set the harvest limit.
 - Close the season.
 - Set harvest areas.
 - Determine the number of permits to be issued, and the number of permits available by community.

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

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

The Federal public lands subject to this delegated authority are those within Unit 17A and 17C, that portion of 17A east of the Ungalikthluk River and South of Buchia Ridge, and within the lower Kulukak River drainage south of Buchia Ridge and within the Kanik River drainage downstream of the Tithe Creek, that portion of 17C south of the Igushik River and south of and including the Tuklung River drainage.

- **4.** <u>Effective Period:</u> This delegation of authority is effective from the date of this letter and continues until superseded or rescinded.
- **5.** <u>Guidelines for Delegation:</u> You will become familiar with the management history of the wildlife species relevant to this delegation in the region, with current State and Federal regulations and management plans, and be up-to-date on population and harvest status information. You will provide subsistence users in the region a local point of contact about Federal subsistence issues and regulations and facilitate a local liaison with State managers and other user groups.

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

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

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

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

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

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

Sincerely,

Anthony Christianson

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Chair

cc: Federal Subsistence Board

Office of Subsistence Management

Chair, Bristol Bay Subsistence Regional Advisory Council

Chair, Western Interior Alaska Subsistence Regional Advisory Council

Benjamin Mulligan, Deputy Commissioner, Alaska Department of Fish and Game

Mark Burch, Assistant Director of Wildlife Conservation, Alaska Department of Fish and Game

Interagency Staff Committee

Administrative Record