

WP16–21 Executive Summary

<p>General Description</p>	<p>Proposal WP16–21 requests a “To be announced” caribou season be established in Units 9C and 9E open to residents of Units 9C and 9E. <i>Submitted by Bristol Bay Subsistence Regional Advisory Council.</i></p>
<p>Proposed Regulation</p>	<p>Units 9—Caribou</p> <p><i>Unit 9C, that portion within the Alagnak River drainage—2 caribou; no more than 1 caribou may be a bull, and no more than 1 caribou may be taken Aug. 1–Jan. 31.</i></p> <p><i>Unit 9C remainder—1 bull by Federal registration permit or State Tier II permit.</i></p> <p><i>Federal public lands are closed to the taking of caribou except by residents of Units 9C and 9E, hunting under these regulations.</i></p> <p><i>Unit 9E—1 bull by Federal registration permit or State Tier II permit.</i></p> <p><i>Federal public lands are closed to the taking of caribou except by residents of Units 9C and 9E, hunting under these regulations.</i></p> <p><i>Federal permits may be issued in conjunction with the State Tier II hunt. Both Federal and State agencies will decide how many total permits to issue for both subunits to make sure that the actual harvest will not significantly exceed the harvestable surplus. Quotas and any needed closures will be announced by the Alaska Peninsula/Becharof National Wildlife Refuge Manager after consultation with ADF&G.</i></p>
<p>OSM Preliminary Conclusion</p>	<p>Support Proposal WP16-21 with modification to specify a “May be announced” season, remove regulatory language referencing quotas and permits, and delegate authority to the Alaska Peninsula/Becharof National Wildlife Refuge to open and close the season, determine quotas, issue permits, set permit conditions and establish harvest limits, by delegation of authority letter only, reduce the pool of eligible subsistence users in Unit 9C remainder to residents of only 9C and Egegik; and reduce the pool eligible users in Unit 9E to residents of only</p>

WP16–21 Executive Summary

	<p>Unit 9E. The modified regulation should read:</p> <p>Unit 9 - Caribou</p> <p><i>Unit 9C, that portion within the Alagnak River drainage—2 caribou; no more than 1 caribou may be a bull, and no more than 1 caribou may be taken Aug. 1–Jan. 31.</i> Aug. 1–Mar. 15</p> <p><i>Unit 9C remainder—1 bull by Federal registration permit or State permit.</i> No open season May be announced</p> <p><i>Federal public lands are closed to the taking of caribou except by residents of 9C and Egegik.</i></p> <p><i>Unit 9E—1 bull by Federal registration permit or State permit.</i> No open season May be announced</p> <p><i>Federal public lands are closed to the taking of caribou except by residents of Unit 9E.</i></p>
<p>OSM Conclusion</p>	<p>Support Proposal WP16-21 with modification to specify a “May be announced” season, remove regulatory language referencing quotas and permits, and delegate authority to the Alaska Peninsula/Becharof National Wildlife Refuge to open and close the season, determine quotas, issue permits, set permit conditions and establish harvest limits, by delegation of authority letter only, reduce the pool of eligible subsistence users in Unit 9C remainder to residents of only 9C and Egegik; and reduce the pool eligible users in Unit 9E to residents of only Unit 9E, Nelson Lagoon, and Sand Point. The modified regulation should read:</p> <p>Unit 9 - Caribou</p> <p><i>Unit 9C, that portion within the Alagnak River drainage—2 caribou; no more than 1 caribou may be a bull, and no more than 1 caribou may be taken Aug. 1–Jan. 31.</i> Aug. 1–Mar. 15</p> <p><i>Unit 9C remainder—1 bull by Federal registration permit or State permit.</i> No open season May be</p>

WP16–21 Executive Summary

	<p><i>Federal public lands are closed to the taking of caribou except by residents of 9C and Egegik. announced</i></p> <p><i>Unit 9E—1 bull by Federal registration permit or State permit. No open season May be announced</i></p> <p><i>Federal public lands are closed to the taking of caribou except by residents of Unit 9E, Nelson Lagoon, and Sand Point.</i></p>
<p>Kodiak/Aleutians Regional Advisory Council Recommendation</p>	<p>Support with modification.</p>
<p>Bristol Bay Regional Advisory Council Recommendation</p>	<p>Support with modification.</p>
<p>Interagency Staff Committee Comments</p>	<p>The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Council recommendation and Federal Subsistence Board action on the proposal.</p>
<p>ADF&G Comments</p>	
<p>Written Public Comments</p>	<p>None</p>

STAFF ANALYSIS

WP16-21

ISSUES

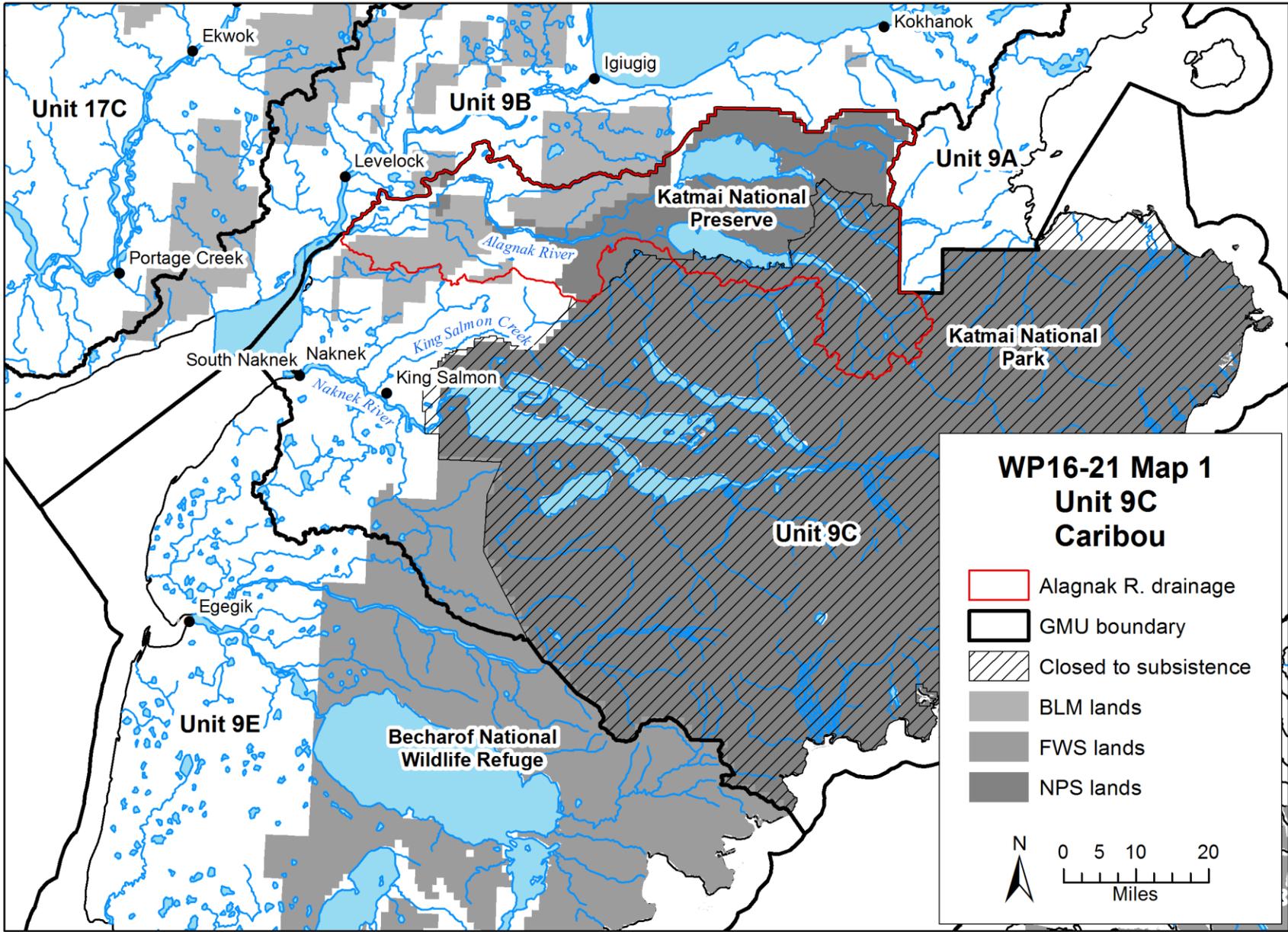
WP16-21, submitted by the Bristol Bay Subsistence Regional Advisory Council (Council), requests that the caribou season in Units 9C remainder and 9E be modified from having no open season to a “To be announced” season open to residents of Units 9C and 9E only.

DISCUSSION

The proponent notes that the Northern Alaska Peninsula Caribou Herd population status has been slowly improving since 2008 and that in the October 2014 survey, the bull:cow ratio exceeded that required to grow the Herd. The caribou season has been closed since the 2005/2006 season. The proponent believes Federally qualified subsistence users should have an opportunity to harvest the available surplus. The proponent notes that this regulatory change will allow the Alaska Peninsula/Becharof National Wildlife Refuge (Refuge) Manager to provide opportunities for local subsistence users and open a Federal hunt concurrent with a prospective State Tier II hunt.

At its fall 2015 meeting, the Bristol Bay Subsistence Regional Advisory Council clarified its intent regarding this proposal (BBSRAC 2015: 86–91). It intended to allow only residents of Units 9C and 9E to harvest caribou in the remainder area of Unit 9C described in Federal regulations (Unit 9C excluding the Alagnak River drainage, see **Map 1**) and in Unit 9E. Because the Council requested that the pool of Federally qualified subsistence users be reduced, it required application of ANILCA Section 804 criteria to establish priority among those with a customary and traditional use determination to harvest caribou in Unit 9C remainder or in Unit 9E. After the Bristol Bay Council meeting in fall 2015, staff conducted the ANILCA Section 804 analysis, below, and presented it to the Bristol Bay and Kodiak Aleutian Councils at their joint meeting on March 10, 2016.

As described below, residents of Units 9B, 9C, 17, and Egegik have a customary and traditional use determination for caribou in Unit 9C. It is important to note that the proponent’s request, in part, asks that residents of Unit 9E be eligible to harvest caribou in Unit 9C remainder; however, most residents of Unit 9E (except residents of Egegik) are not included in the customary and traditional use determination for caribou in Unit 9C. As a consequence, the only Unit 9E residents currently eligible to hunt caribou in Unit 9C are residents of Egegik. Other Unit 9E communities (Chignik, Chignik Lagoon, Chignik Lake, Perryville, Ivanof Bay, Pilot Point, Port Heiden, and Ugashik) are not considered for the subsistence user prioritization in Unit 9C, which is described in the Section 804 analysis, below.



Existing Federal Regulation

Unit 9 - Caribou

Unit 9C, that portion within the Alagnak River drainage—2 caribou; no more than 1 caribou may be a bull, and no more than 1 caribou may be taken Aug. 1–Jan. 31. Aug. 1–Mar. 15

Unit 9C remainder¹—Federal public lands are closed to the taking of caribou No open season

Unit 9E—Federal public lands are closed to the taking of caribou No open season

Proposed Federal Regulation

Unit 9—Caribou

Unit 9C, that portion within the Alagnak River drainage—2 caribou; no more than 1 caribou may be a bull, and no more than 1 caribou may be taken Aug. 1–Jan. 31. Aug. 1–Mar. 15

Unit 9C remainder—1 bull by Federal registration permit or State Tier II permit. ~~No open season~~ **To be announced**

Federal public lands are closed to the taking of caribou except by residents of Units 9C and 9E, hunting under these regulations.

Unit 9E—1 bull by Federal registration permit or State Tier II permit. ~~No open season~~ **To be announced**

Federal public lands are closed to the taking of caribou except by residents of Units 9C and 9E, hunting under these regulations.

Federal permits may be issued in conjunction with the State Tier II hunt. Both Federal and State agencies will decide how many total permits to issue for both subunits to make sure that the actual harvest will not significantly exceed the harvestable surplus. Quotas and any needed closures will be announced by the Alaska Peninsula/Becharof National Wildlife Refuge Manager after consultation with ADF&G.

¹ The Unit 9C remainder area in Federal regulations is not the same as the Unit 9C remainder area in State of Alaska regulations.

Existing State Regulation

Unit 9—Caribou

Unit 9C, that portion within the Alagnak River drainage—2 caribou by permit. No more than one bull may be taken; no more than 1 caribou may be taken from Aug. 1–Jan. 31. Aug. 1–Mar. 15

Unit 9C, that portion north of the north bank of the Naknek River and south of the Alagnak River drainage—1 caribou by registration permit during winter season. May be announced

Unit 9C remainder¹ No open season

Unit 9E No open season

Extent of Federal Public Lands

Federal public lands comprise approximately 86% of Unit 9C and consist of 78% National Park Service (NPS) managed lands, 4% U.S. Fish and Wildlife Service (FWS) managed lands, and 4% Bureau of Land Management (BLM) managed lands (**Unit 9 Map**). However, because hunting is not authorized within Katmai National Park, the proposed regulations affect only a small proportion of the total land area in Unit 9C. Federal public lands comprise approximately 49% of Unit 9E and consist of approximately 44% FWS managed lands, 5% NPS managed lands, and less than 1% BLM managed lands (see **Map 1**).

Customary and Traditional Use Determinations

Residents of Units 9B, 9C, 17, and Egegik have a customary and traditional use determination for caribou in Unit 9C. Residents of Units 9B, 9C, 9E, 17, Nelson Lagoon, and Sand Point have a customary and traditional use determination for caribou in Unit 9E (see **Unit 9 Map** and **Unit 17 Map**).

Regulatory History

Proposals WP99-32, 33 and 34 were adopted by the Federal Subsistence Board (Board) in May 1999, closing Federal public lands to non-Federally qualified subsistence users due to the declining population of the Northern Alaska Peninsula Caribou Herd and local residents' reliance upon this subsistence resource. Adoption of the proposals changed the harvest limit in Units 9C and 9E from 4 caribou to one bull by Federal permit. Additionally it changed the season in Unit 9C remainder to Aug. 10 - Sept. 20 and Nov. 15 - Feb. 28, and in Unit 9E to Aug. 10 – Sept. 20 and Nov. 1 – Apr. 30. The Board approved closure to all users except for residents living in Unit 9C and Unit 9E.

In August 2005 the Board approved Special Action Request WSA05-02, which temporarily closed Federal public lands in Units 9C remainder and 9E to the hunting of caribou by Federally qualified subsistence users. In April 2006 the Board adopted Proposal WP06-22, which closed Federal public lands in Units 9C

remainder and 9E to the hunting of caribou by all user groups. The Board took this action due to conservation concerns based on the continued decline of the Northern Alaska Peninsula Caribou Herd.

At its March 2011 meeting, the Council was briefed on Wildlife Closure Review WCR10-06, which discussed the closure for caribou in Units 9C and 9E. The Council recommended retaining the closure based on conservation concerns for the Herd.

At its February 2015 meeting, the Council was presented with Wildlife Closure Review WCR14-06, which again discussed the Unit 9C and Unit 9E caribou closure. In addition, the Alaska Department of Fish and Game (ADF&G) reported that the State may open a very limited Tier II hunt in fall 2016 if Northern Alaska Peninsula Herd survey results continue to show positive composition counts and population minimum counts (BBSRAC 2015). Based on the closure review and ADF&G's report, the Council unanimously recommended to modify the closure but to also provide for a hunt on Federal public lands to Federally qualified subsistence users should the State open a Tier II hunt. This proposal is the result of that recommendation. Restricting the hunt to residents of Units 9C and 9E, as requested in the proposal, requires a Section 804 analysis to determine the priority of users when the harvest quota may be limited.

Biological Background

The Northern Alaska Peninsula Caribou Herd ranges throughout Units 9C and 9E. Historically, the size of this population has fluctuated widely, reaching peaks of approximately 20,000 caribou around 1900, in the early 1940s, and most recently in 1984 (Riley 2011). Prior to 2005, the last population low of approximately 2,000 animals was during the late 1940s. By 1963, the Herd had increased to more than 10,000 animals. In 1981, the estimate was 16,000 caribou and the Herd increased to 20,000 caribou by 1984 (Riley 2011). After that period, the Herd again entered a period of decline (**Table 1**). Since 2009, there has been a slight population increase and the population is currently estimated at approximately 3,000 animals (Crowley 2014).

State management objectives for the Herd are to have a bull:cow ratio of 35 bulls:100 cows and a population of 12,000 – 15,000 caribou (Riley 2011). Results from composition counts since 2010 suggest the population is increasing. Surveys in October 2014 showed a minimum count of at least 2,700 caribou (**Table 1**) (Crowley 2014). The bull:cow ratio currently exceeds the State management objective for the Herd, but the population size remains well below the management objective. Based on the 2014 composition survey results, the bull:cow ratio is now above the management objective, is at the highest level since 2002, and indicates that there are surplus bulls available for harvest (Crowley 2014).

Harvest History

The decline of the Northern Alaska Peninsula Caribou Herd prompted both the Alaska Board of Game and the Federal Subsistence Board to implement more restrictive harvest regulations beginning in the spring of 1999. These regulations were designed to protect the survival of the Herd yet allow for a limited harvest of bull caribou for Federally qualified subsistence users. Between 1997 and 2005, hunter success rates were typically above 61% and the reported harvest ranged from 34 to 438 caribou (**Table 2**).

September has historically been the most important month for the harvest of the Herd. For nonresidents of the area, fall hunts offered favorable weather conditions and ease of access by boat and aircraft. Some nonresident hunters were in this area on combination hunts for other species during this period. Subsistence harvests have been opportunistic and harvest chronology has varied with caribou availability and among communities (Butler 2007).

Table 1. Northern Alaska Peninsula Caribou Herd sex and age composition and herd size estimates, 1984-2014.

Year	Bulls:100 Cows	Calves:100 Cows	Composition Sample Size	Estimated Herd Size^a
1984	39	39	1,087	20,000
1990	41	29	1,484	17,000
1991	42	47	1,639	17,000
1992	40	44	2,766	17,500
1993	44	39	3,021	16,000
1994	34	34	1,857	12,500
1995	41	24	2,907	12,000
1996	48	38	2,572	12,000
1997	47	27	1,064	10,000
1998	31	30	1,342	9,200
1999	40	21	2,567	8,600
2000	38	18	1,083	7,200
2001	49	28	2,392	6,300
2002	46	24	1,007	6,600
2003	36	11	2,776	-
2004	34	7	1,355	3,400
2005	23	7	1,914	2,500
2006	26	14	1,725	-
2007	27	7	1,474	-
2008	19	10	1,841	2,000
2009	19	16	2,126	2,300
2010	25	18	1,795	-
2011	26	20	2,395	-
2012	28	22	1,352	-
2013	31	21	2,076	2,400
2014	40	34	2,295	2,700

^aFrom 2005 to 2014 the estimate of herd size is based on fall composition surveys that were not designed to estimate population size and are considered a minimum count of herd size.

Source: FWS 2006, Butler 2007, Riley 2011, Crowley 2014.

Table 2. Northern Alaska Peninsula Caribou Herd harvest, regulatory years 1997-2014. Local hunters are defined as residents of Units 9A, 9B, 9C and 9E.

Regulatory Year	Local Resident	Nonlocal Resident	Nonresident	Unspecified Residency	Total (% Success)
1997-1998	49	112	277	0	438 (78)
1998-1999	145	136	140	0	421 (68)
1999-2000	157	6	0	2	165 (66)
2000-2001	81	1	0	9	91 (65)
2001-2002	89	0	0	0	89 (67)
2002-2003	74	6	0	2	82 (61)
2003-2004	111	13	0	0	124(72)
2004-2005	34	0	0		34 (69)
2005-2014	----- No permits issued -----				

Source: Butler 2005, Butler 2007; Riley 2011.

The customary and traditional use determinations for Units 9C and 9E include residents of communities situated in Units 9 and 17. Therefore, the Section 804 subsistence user prioritization analysis, below, considers caribou harvest data collected from communities situated in both of these units (see **Unit 9 Map** and **Unit 17 Map**). Data is lacking or incomplete for some communities. One cause of this data gap was that while caribou hunters were required to obtain harvest tickets before hunting in most areas of Unit 17 and some areas of Unit 9 before the 2013 regulatory year, returning harvest reports was not always mandatory during that time. Before the 2013 regulatory season, information concerning the harvest and use of caribou in Units 9 and 17 was obtained primarily through household harvest surveys (see **Appendix 1 Table 1**). Therefore, conventional FWS/ADF&G harvest reporting systems do not always reflect the true level of harvest, but they may provide a view of the relative participation and location of hunting by community. After 2012, caribou hunters were required to obtain registration permits before hunting in all areas of Unit 9 and 17, and returning harvest reports became mandatory (ADF&G 2015a, 2015b; and FWS 2015).

ANILCA Section 804 Subsistence User Prioritization

Section 804 of ANILCA and 50 CFR 100.17 of Federal regulations mandate that the taking on Federal public lands of fish and wildlife for nonwasteful subsistence uses shall be accorded priority over the taking on such lands of fish and wildlife for other purposes. Section 804 of ANILCA and Federal regulation 50 CFR 100.17 further require that whenever it is necessary to restrict the taking of populations of fish and wildlife on such lands for subsistence uses in order to protect the continued viability of such populations or to continue subsistence uses, such a priority shall be implemented through appropriate limitations based on the application of the following three criteria: (1) customary and direct dependence upon the populations as the mainstay of livelihood, (2) local residency, and (3) the availability of alternative resources. The

following sections address these criteria as they relate to each of the communities included in the customary and traditional use determinations for caribou in the remainder area of Unit 9C and in Unit 9E.

The customary and traditional use determinations for Units 9C and 9E include residents of Units 9 and 17. Unit 9 encompasses the Alaska Peninsula and inland areas located in the Kvichak River drainage as far as Iliamna Lake and Lake Clark. Most of this area is referred to locally as the “Lake and Pen Area.” Unit 17 continues in a westerly direction from Unit 9 and encompasses waters flowing into Bristol Bay. The two units are contiguous (see **Unit 9 Map** and **Unit 17 Map**).

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

The following section analyzes caribou harvests by communities with a customary and traditional use determination for Unit 9C remainder or Unit 9E. The section reviews the information in order to analyze each community’s customary and direct dependence on Unit 9C remainder caribou or Unit 9E caribou.

Unit 9C Remainder Federally Qualified Subsistence Users

The 24 widely dispersed communities, approximately 6,800 people, included in the customary and traditional use determination for caribou in Unit 9C remainder are the following: Aleknagik, Clark’s Point, Dillingham, Egegik, Ekwok, Igiugig, Iliamna, King Salmon, Kokhanok, Koliganek, Levelock, Manokotak, Naknek, New Stuyahok, Newhalen, Nondalton, Pedro Bay, Portage Creek, Pope-Vannoy Landing, Port Alsworth, South Naknek, Togiak, and Twin Hills (**Appendix 1 Table 2**).

Three of the communities are situated within the hunt area, Unit 9C remainder: King Salmon, Naknek, and South Naknek (see **Unit 9 Map**).

The table below shows that since 1998 a hunting season in Unit 9C remainder open to all Federally qualified users occurred in only five regulatory years, 2005, 2007, 2008, 2011, and 2012 (**Table 3**). This occurred only on State-managed lands during times when Federal public lands were closed to the harvest of caribou by all users, but it is the only quantitative data that can shed light on relative community dependence on Unit 9C remainder caribou. The harvests reported by Federally qualified subsistence users during these five years are some of the best available information.

Based on FWS/ADF&G harvest reporting systems, **Table 4** describes how many caribou Federally qualified subsistence users reported harvesting in Unit 9C remainder during regulatory years 2005–2014.

Seven communities reported harvesting caribou in Unit 9C remainder. They were the following: Dillingham, Egegik, Iliamna, King Salmon, Naknek, Port Alsworth, and South Naknek. However, in actual numbers of caribou taken, Egegik, King Salmon, Naknek, and South Naknek were the heaviest users of the resource during this time period, as evidence of customary and direct dependence upon the caribou population in Unit 9C remainder. Other Federally qualified subsistence users relied on a range of other areas, most commonly in Units 9B, other areas of Unit 9C (within the Alagnak River drainage), Unit 17A, 17B, and 17C (ADF&G 2015a, FWS 2015). Subsistence studies also indicate that residents of the Egegik, King Salmon, Naknek, and South Naknek have had the most consistent use of the area (Evans et al. 2013;

Table 3. Unit 9C and 9E caribou seasons, 1998–2015.

Regulatory year	Unit 9C Caribou Seasons						Unit 9E Caribou Seasons	
	Alagnak River drainage		Federal remainder area					
			North of Naknek River and south of Alagnak River drainage		All other areas			
	Federal lands	Other lands	Federal lands	Other lands	Federal lands	Other lands		
2015	Open	Open	Closed	Closed	Closed	Closed	Closed	Closed
2014	Open	Open	Closed	Closed	Closed	Closed	Closed	Closed
2013	Open	Open	Closed	Closed	Closed	Closed	Closed	Closed
2012	Open	Open	Closed	Open	Closed	Closed	Closed	Closed
2011	Open	Open	Closed	Open	Closed	Closed	Closed	Closed
2010	Open	Open	Closed	Closed	Closed	Closed	Closed	Closed
2009	Open	Open	Closed	Closed	Closed	Closed	Closed	Closed
2008	Open	Open	Closed	Open	Closed	Closed	Closed	Closed
2007	Open	Open	Closed	Open	Closed	Closed	Closed	Closed
2006	Open	Open	Closed	Closed	Closed	Closed	Closed	Closed
2005	Open	Open	Open	Open	Closed	Closed	Closed	Closed
2004	Open	Open	Open	Open	Open	Open	Open	Open
2003	Open	Open	Open	Open	Open	Open	Open	Open
2002	Open	Open	Open	Open	Open	Open	Open	Open
2001	Open	Open	Open	Open	Open	Open	Open	Open
2000	Open	Open	Open	Open	Open	Open	Open	Open
1999	Open	Open	Open	Open	Open	Open	Open	Open
1998	Open	Open	Open	Open	Open	Open	Open	Open
	= Open to residents of Unit 9C or 9E only.							
	= Open to State of Alaska residents with a Tier II permit only.							

Fall, Brown et al. 2012; Holen, Krieg, Walker, and Nicholson 2005; Holen, Stariwat, Krieg, and Lemons 2012; Krieg, Holen, and Koster 2009; Krieg, Kenner et al. 1996; Krieg, Fall et al. 1998).

Unit 9E Federally Qualified Subsistence Users

There are 33 widely dispersed communities, with an approximate total population of 8,400 people, included in the customary and traditional use determination for caribou in the Unit 9E. They are the following: Aleknagik, Chignik, Chignik Lagoon, Chignik Lake, Clark’s Point, Dillingham, Egegik, Ekwok, Igiugig, Iliamna, Ivanof Bay, King Salmon, Kokhanok, Koliganek, Levelock, Manokotak, Naknek, Nelson Lagoon, New Stuyahok, Newhalen, Nondalton, Pedro Bay, Perryville, Pilot Point, Port Heiden, Portage Creek, Pope-Vannoy Landing, Port Alsworth, Sand Point, South Naknek, Togiak, Twin Hills, and Ugashik (see **Appendix 1 Table 3**).

Table 4. The reported caribou harvest, statewide and from Unit 9C remainder, based on FWS/ADF&G reporting systems cumulative 2005-2014 regulatory years, by communities with a customary and traditional use determination.

2005–2014 CUMULATIVE HARVEST				
Federally qualified subsistence users hunting in any Federal or State season				
Unit of residence	Community name	Statewide	Unit 9C remainder	
		Number of caribou harvested	Number of caribou harvested	Percentage of statewide harvest
9B	Igiugig	43		
9B	Iliamna	33	1	3%
9B	Kokhanok	8		
9B	Levelock	16		
9B	Newhalen	2		
9B	Nondalton	15		
9B	Pedro Bay	1		
9B	Pope-Vannoy Landing*	1		
9B	Port Alsworth	50	2	1%
9C	King Salmon	309	250	81%
9C	Naknek	412	294	71%
9C	South Naknek	41	33	80%
9E	Egegik	10	4	40%
17A	Togiak	89		
17A	Twin Hills	7		
17B	Koliganek	64		
17C	Aleknagik	118		
17C	Clark's Point	4		
17C	Dillingham	493	7	1%
17C	Ekwok	27		
17C	Manokotak	222		
17C	New Stuyahok	121		
17C	Portage Creek*	3		

Bold=Communities situated in Unit 9C.

Blank cell=0

*No post office; some data likely lumped with a nearby community.

Source: ADF&G 2015a, FWS 2015.

Nine of the communities are situated within the hunt area, Unit 9E: Chignik, Chignik Lagoon, Chignik Lake, Egegik, Perryville, Ivanof Bay, Pilot Point, Port Heiden, and Ugashik.

Table 3, above, shows no hunting opportunity has been open in Unit 9E to all Federally qualified subsistence users since 1998. A Tier II caribou season was opened from 1999 to 2004, and all Federally qualified subsistence users were eligible to apply for a limited number of permits. Federal public lands were

closed to the harvest of caribou except by residents of Unit 9C or 9E (only a portion of the communities with a customary and traditional use determination for caribou in Unit 9E) during this period, but this is the best available data that can indicate relative community dependence on caribou in the area.

The number of caribou harvested by Federally qualified subsistence users is described in **Table 5**. Twelve communities reported participating in the State Tier II hunt in Unit 9E. They were the following: Chignik (including Chignik Bay, Chignik Lagoon, and Chignik Lake), Egegik, Iliamna, Ivanof Bay, King Salmon, Naknek, Perryville, Pilot Point, Port Heiden, South Naknek, Togiak, and Ugashik. Residents of all nine Unit 9E communities (Chignik Bay, Chignik Lagoon, Chignik Lake, Egegik, Ivanof Bay, Perryville, Pilot Point, Port Heiden, and Ugashik) were the most successful at obtaining Tier II permits and harvested most of their caribou in Unit 9E. Other Federally qualified subsistence users used a range of other areas to harvest caribou, most commonly Units 9B, 9C, 9D, 17A, 17B, and 17C (ADF&G 2015a, FWS 2015). Subsistence studies also indicate that the nine Unit 9E communities, mentioned above, have had the most consistent use of the area (Evans et al. 2013; Fall, Anderson et al. 1993; Fall, Andersen et al. 1993; Fall, Brown et al. 2012; Krieg, Kenner et al. 1996; Krieg, Fall et al. 1998; Krieg, Holen, and Koster 2009; Holen, Krieg, Walker, and Nicholson 2005; Holen, Stariwat, Krieg, and Lemons 2012; Morris 1986).

2. Local Residency

Unit 9C Remainder Federally Qualified Subsistence users

As mentioned previously, of the 24 communities with a customary and traditional use determination for caribou in Unit 9C, three are situated within Unit 9C remainder: King Salmon, Naknek, and South Naknek. Northward, Levelock is situated within about 5 miles of Unit 9C remainder. Ekwok is roughly 40 miles from Unit 9C remainder, and another 17 communities are located further north and west of Unit 9C remainder. They are situated in Units 9B and 17. Egegik is situated roughly 15 miles from the southern boundary of Unit 9C remainder (see **Unit 9 Map** and **Unit 17 Map**).

Unit 9E Federally Qualified Subsistence users

As discussed previously, of the 33 communities with a customary and traditional use determination for caribou in Unit 9E, eight are situated within the wildlife management subunit: Chignik, Chignik Lagoon, Chignik Lake, Egegik, Perryville, Ivanof Bay, Pilot Point, Port Heiden, and Ugashik. Two communities, Naknek and South Naknek, are situated adjacent to the northern boundary, and Naknek is road connected to nearby King Salmon. Going north, Levelock is situated about 30 miles away from Unit 9E, Ekwok is roughly 50 miles from Unit 9E, and another 17 communities are located further north and west of Unit 9E. They are situated in Units 9B and 17. Nelson Lagoon and Sand Point are both situated in Unit 9D roughly 30 miles from the southern boundary of Unit 9E (see **Unit 9 Map** and **Unit 17 Map**).

Table 5. The reported caribou harvest statewide and from Unit 9E based on FWS/ADF&G reporting systems cumulative 1999-2004 by residents of communities with a customary and traditional use determination.

1999–2004 CUMULATIVE HARVEST				
Federally qualified subsistence users hunting in any Federal or State Season				
Unit of residence	Community name	Statewide	Unit 9E	Percentage of statewide harvest
		Number of caribou harvested	Number of caribou harvested	
9B	Igiugig	64		
9B	Iliamna	51	1	2%
9B	Kokhanok	5		
9B	Levelock	22		
9B	Newhalen			
9B	Nondalton	52		
9B	Pedro Bay	1		
9B	Pope-Vannoy Landing*	-		
9B	Port Alsworth	60		
9C	King Salmon	265	9	3%
9C	Naknek	322	13	4%
9C	South Naknek	54	12	22%
9D	Nelson Lagoon	3		
9D	Sand Point	4		
9E	Chignik	64	59	92%
9E	Chignik Lagoon**	1		
9E	Chignik Lake**	1		
9E	Egegik	55	50	91%
9E	Ivanof Bay*	10	9	90%
9E	Perryville	31	27	87%
9E	Pilot Point	46	41	89%
9E	Port Heiden	112	98	88%
9E	Ugashik	33	31	94%
17A	Togiak	52	1	2%
17A	Twin Hills	1		
17B	Koliganek	108		
17C	Aleknagik	98		
17C	Clark's Point	16		
17C	Dillingham	848		
17C	Ekwok	62		
17C	Manokotak	96		
17C	New Stuyahok	156		
17C	Portage Creek*	-		

Bold=Communities situated in Unit 9E.

Blank cell=0

" - " = Information not available.

* No post office; some data likely lumped with nearby community.

** Some data likely lumped with nearby Chignik.

Source: ADF&G 2015a, FWS 2015.

3. Availability of Alternative Resources to Federally Qualified Subsistence Users of Caribou in Unit 9C remainder or Unit 9E

Bristol Bay and Alaska Peninsula communities are all highly dependent upon the annual cycle of subsistence harvests of resources (ADF&G 2015b). The harvest of wild resources is a critical component of the economies in all villages, and all villages rely on the harvest of a wide diversity of resources, including salmon, nonsalmon fish, land mammals (i.e., moose, caribou), marine mammals (walrus, seals, beluga whales), migratory waterfowl (ducks, geese, cranes, swans), other birds (ptarmigan, grouse), furbearers, berries, greens, and wood (ADF&G 2015b). Sources of information on resource use by residents of these areas (Evans et al. 2013; Fall et al. 2012; Krieg et al. 2009; and Holen, Stariwat, Krieg, and Lemons 2012) all point to the wide diversity of fish and wildlife resources used by residents of this area, and to the harvest and use of resources being a foundation of the economy and essential to the well being of residents of the area. Per capita harvests in some of these communities exceed 500 pounds annually, illustrative of the availability of a wide diversity of resources (ADF&G 2015b). It is typical for harvests to be dominated by fishes and large land mammals, including caribou and moose.

Residents of these communities harvest caribou and moose, depending on availability. As caribou herds in Units 9 and 17 have declined, regulations on harvest have become more restrictive. The Mulchatna Caribou Herd is located in Units 9B, 17, 18, 19A and 19B. The population estimates show an increase from 18,599 in 1981 to 200,000 in 1996 and a decline to a minimum of 30,000 caribou by summer 2008. The decline in the caribou population may be due to a combination of factors including predation, weather, nutrition, survival rates, and disease. In the 1990s the Mulchatna Caribou Herd was expanding its range and may have overharvested resources needed for survival, while at the same time hunters reported seeing more wolves and bears in the areas where they hunted caribou (Woolington 2013).

The Nushagak Peninsula Caribou Herd extends to the Nushagak Peninsula in Units 17A and 17C. Within the first 10 years following reintroduction, the Nushagak Peninsula Caribou Herd grew from 146 animals in 1988 to over 1,200 caribou by 1998 (Aderman 2013). By 2015, the population had increased to approximately 1,300 caribou and is currently well above the population objectives outlined in the Nushagak Peninsula Caribou Management Plan (Aderman 2015, pers. comm.).

The Southern Alaska Peninsula Caribou Herd extends from Port Moller to False Pass in Unit 9D. The herd hit its peak population in 1983 with more than 10,000 caribou. By 1993 there were less than 2,300 caribou and hunting for caribou was closed in this area. During the mid-1990s the population increased some, only to decline again by the late 1990s. According to recent studies, wolf predation may be the primary reason for the population decline. The State conducted wolf removal on the calving grounds in 2008, 2009, and 2010, which helped the calf recruitment (Peterson 2013). Other research suggests that the initial decline may have resulted from environmental stress on caribou habitat that occurred when the population was high. Although the caribou population has decreased, the resources they depend on may not have fully recovered. The current population of the Southern Alaska Peninsula Caribou Herd exceeds the minimum management objective and a harvestable surplus of bulls is now available (Peterson 2013).

Communities that have less access to caribou may be more dependent on the subsistence harvest of moose. Moose are also hunted by residents of communities that have a customary and traditional use determination

for caribou in Units 9C and 9E. Moose populations on the Alaska Peninsula increased in the 1950s and 1960s, with some limited expansion south of Port Moller. According to ADF&G, populations began to decline, especially in Unit 9E, in the 1980s, with predation by brown bears and illegal harvest cited as major factors for the decline (Riley 2012). Moose densities remain low in Units 9A, 9B, and 9D, and the southern portion of Unit 9E. Bull:cow ratios observed in Unit 9C seem relatively stable since 2000 and are within range of the average bull:cow ratio observed in this area for the last 25 years. Composition data were collected by ADF&G staff in 2010 and the population in Unit 9E appears stable (Riley 2012).

Declining caribou populations in Unit 9 have led to increased tensions between user groups wanting to harvest more moose as caribou numbers dropped (Riley 2012). Overall, according to ADF&G, “Harvests in Unit 9 have remained relatively stable for the past 30 years, despite major changes to moose regulations. Recent declines in moose harvest have been associated with a decrease in the number of people hunting moose in Unit 9” (Riley 2012:112). The stability of the moose population could change if additional hunting pressure occurs due to reduced opportunity to harvest caribou in Unit 9.

The moose population in Unit 17 has increased in number and in range in the last three decades. In the early 1970s, moose were not very abundant in the Bristol Bay area. At that time, moose mostly inhabited the Nushagak-Mulchatna River system where there was heavy hunting pressure close to communities. Local residents depended more on caribou, reindeer, bears, and beaver for meat when the moose populations were low. Moose can now be found throughout Unit 17 where there is suitable habitat. According to an ADF&G report, as the number of caribou in the Mulchatna Caribou Herd increased in the 1990s, there were fewer reports of illegal moose harvest. The wolf population may have increased as more caribou migrated into Unit 17. It is possible that the moose population was impacted by increasing wolf predation as the caribou population declined (Woolington 2012:245).

In summary, all communities opportunistically harvest caribou or moose, depending on what is available and the regulations in place. Restricting the harvest of caribou in a given area will presumably have an impact on moose populations and vice versa, because many hunters are opportunistic and will harvest whatever large land mammals are available.

Conclusion of Section 804 Subsistence User Prioritization Analysis—Unit 9C Remainder

Residents of Unit 9C (including the communities of King Salmon, Naknek, and South Naknek) and residents of Egegik have a higher level of customary use and dependence on caribou in Unit 9C remainder than do other Federally qualified users after consideration of the three criteria in ANILCA Section 804 and 50 CFR 100.17. The communities consist of an estimated 1,086 people living in 468 households (see **Appendix 1 Table 2**). King Salmon, Naknek, and South Naknek are situated in the hunt area and therefore have a higher degree of local residency. Egegik is situated about 15 miles from the southern boundary of the hunt area and has access to no populations of caribou except the Northern Alaska Caribou Herd and the Mulchatna Caribou Herd when it migrates into Unit 9C remainder. Other Federally qualified users have alternative areas to harvest caribou either in the Alagnak River drainage of Unit 9C, or in Units 9B or 17. All Federally qualified subsistence users are similarly situated regarding their ability to harvest other subsistence resources.

Conclusion of Section 804 Subsistence User Prioritization Analysis—Unit 9E

Residents of Unit 9E have the higher level of customary use and dependence on caribou in Unit 9E than do other Federally qualified users after consideration of the three criteria in ANILCA Section 804 and 50 CFR 100.17. The communities consist of an estimated 653 people living in 235 households (see **Appendix 1 Table 3**). The communities are Chignik Bay, Chignik Lake, Chignik Lagoon, Ivanof Bay, Egegik, Perryville, Pilot Point, Port Heiden, and Ugashik. All nine communities are situated in the hunt area and therefore have the higher degree of local residency. Unit 9E communities situated on the south side of the Alaska Peninsula (Chignik Bay, Chignik Lake, Chignik Lagoon, Ivanof Bay, and Perryville) have access to no other populations of caribou except the Northern Alaska Peninsula Caribou Herd when it migrates into the area. Most Unit 9E communities on the north side of the Alaska Peninsula (Pilot Point, Port Heiden, and Ugashik), except Egegik, also have access to no other populations of caribou except the Northern Alaska Peninsula Caribou Herd. As an alternative to caribou in Unit 9E, communities situated outside of Unit 9E could continue to harvest caribou in Units 9B, 9C, 9D, and 17. All Federally qualified subsistence users are similarly situated regarding their ability to harvest other subsistence resources.

Other Alternative Considered

Maintaining the “No open season” status was considered since there currently are no Federal or State open seasons. Keeping the closed season would require the Refuge to respond to any potential special action requests for opening the Federal season in response to State management actions. However, there is a possibility that the State may open a Tier II hunt in fall 2016. Having a “To be announced” season in regulation would provide the Refuge with management flexibility to provide Federally qualified subsistence users the opportunity to harvest caribou.

Effects of the Proposal

If this proposal was adopted it would establish a “To be announced” season, limited to residents of Units 9C and 9E. Quotas and any needed closures would be announced by the Alaska Peninsula/Becharof National Wildlife Refuge Manager after consultation with ADF&G and the Chair of the Bristol Bay Regional Advisory Council. This “To be announced” season would provide the Refuge Manager the flexibility to open a subsistence hunt for surplus bulls, when warranted. This would provide a limited harvest opportunity for Federally qualified subsistence users, while still allowing the Northern Alaska Peninsula Caribou Herd to grow.

OSM PRELIMINARY CONCLUSION

Support Proposal WP16-21 with **modification** to specify a “May be announced” season, remove regulatory language referencing quotas and permits, and delegate authority to the Alaska Peninsula/Becharof National Wildlife Refuge to open and close the season, determine quotas, issue permits, set permit conditions and establish harvest limits, by delegation of authority letter only (**Appendix 2**), reduce the pool of eligible subsistence users in Unit 9C remainder to residents of only 9C and Egegik; and reduce the pool eligible users in Unit 9E to residents of only Unit 9E. The modified regulation should read:

Unit 9 - Caribou

Unit 9C, that portion within the Alagnak River drainage—2 caribou; no more than 1 caribou may be a bull, and no more than 1 caribou may be taken Aug. 1–Jan. 31. Aug. 1–Mar. 15

Unit 9C remainder –1 bull by Federal registration permit or State permit.

~~No open season~~ **May be announced**

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

Unit 9E – 1 bull by Federal registration permit or State permit.

~~No open season~~ **May be announced**

Federal public lands are closed to the taking of caribou except by residents of Unit 9E.

Justification

The Northern Alaska Peninsula Caribou Herd population parameters have continued to improve, indicating that there may be a limited harvestable surplus of bulls in the population in the near future. Adopting a “May be announced” season into Federal regulation would be proactive and provide the Refuge a means of providing subsistence users the opportunity to harvest caribou on Federal public lands should the opportunity arise. This regulatory change will provide management flexibility and allow for a limited subsistence opportunity in future years. A “May be announced” season is preferable to a “To be announced” season because the latter implies that a season will be announced regardless of Herd composition or abundance. Delegating authority to the Refuge Manager via a delegation of authority letter would simplify the published regulations for subsistence users and allow the Manager to make in-season decisions in response to changing caribou populations or harvest levels.

Because the proponent requested to restrict the harvest of caribou in Unit 9C remainder and Unit 9E to only some Federally qualified subsistence users, an ANILCA Section 804 analysis was conducted. The conclusion of the analysis was that residents of only Unit 9C (including the communities of King Salmon, Naknek, and South Naknek) and Egegik should be eligible to harvest caribou in Unit 9C remainder. As an alternative to caribou in Unit 9C remainder, other communities could continue to harvest caribou in areas closer to their communities in Units 9B, 9C within the Alagnak River drainage, or Unit 17. Although the proponent requested that all residents of Unit 9E be eligible to harvest caribou in Unit 9C remainder, this was not considered because most do not have a customary and traditional use determination for caribou in Unit 9C remainder, except for residents of Egegik.

Further, only residents of Unit 9E should be eligible to harvest caribou in Unit 9E. Communities in Unit 9E are the following: Chignik Bay, Chignik Lake, Chignik Lagoon, Ivanof Bay, Egegik, Perryville, Pilot Point, Port Heiden, and Ugashik. As an alternative to caribou in Unit 9E, communities situated outside of Unit 9E could continue to harvest caribou in areas closer to their communities in Units 9B, 9C, 9D, or 17.

Limiting the Unit 9C remainder caribou hunt to residents of these four communities and the Unit 9E caribou hunt to residents of these nine communities may have an effect on Federally qualified subsistence users in the remaining communities, but given the small number of caribou likely to be available for harvest, this is unavoidable.

ANALYSIS ADDENDUM

ISSUE

At their March 10, 2016 meeting, Bristol Bay and Kodiak-Aleutian Councils met together and again reviewed the OSM analysis and conclusion (shown above); however, this time with the Section 804 prioritization of subsistence users included. A member of each Council voiced concerns that the communities of Nelson Lagoon and Sand Point would not be eligible to harvest caribou in Unit 9E if this conclusion was adopted. Council members said that the Southern Alaska Peninsula Caribou Herd's migration was a long way from the communities, and Sand Point residents were known to rely on caribou accessible along Stepovak Bay. Stepovak Bay is the deep bay located northeast of Sand Point and is situated in Unit 9E (see **Unit 9 Map**; BBSRAC/KASRAC *in publication*).

Immediately afterward, staff reviewed Council member comments and other sources of information and learned that Nelson Lagoon is situated at a former seasonal fish camp used by Aleuts of the Port Moller area, on a long spit of land near the entrance to the large bay that is Port Moller. The spit is quite a distance from Southern Alaska Peninsula Herd caribou populations, and people must travel far up the Caribou River (also called Hoodoo River) to harvest Southern Alaska Peninsula Herd caribou in Unit 9D. It is easier for people to travel to Port Moller, in Unit 9E, to harvest caribou (Langdon 1982). Residents of Nelson Lagoon are very dependent on caribou, when available, and caribou are up to half of the community's annual harvest of wild foods, in pounds edible weight (47% in 1987; ADF&G 2015b).

Sand Point is situated on Unga Island, and residents hunt caribou in the bays along the indented coastline of the southern Alaska Peninsula, accessible to them by boat, from Pavlof Bay to Stepovak Bay, which includes areas in Unit 9E, taking caribou as they venture down to the water's edge (Langdon 1982; Fall, Andersen et al. 1993). Residents cannot easily access inland areas. Langdon (1982) suggested that caribou topped even salmon in its contribution to the community's wild resource harvest, but has dropped most likely because of declining herd size (Fall, Andersen et al. 1993).

OSM CONCLUSION

Support Proposal WP16-21 with **modification** to specify a "May be announced" season, remove regulatory language referencing quotas and permits, and delegate authority to the Alaska Peninsula/Becharof National Wildlife Refuge to open and close the season, determine quotas, issue permits, set permit conditions and establish harvest limits, by delegation of authority letter only (**Appendix 2**), reduce the pool of eligible subsistence users in Unit 9C remainder to residents of only 9C and Egegik; and reduce the pool eligible users in Unit 9E to residents of only Unit 9E, Nelson Lagoon, and Sand Point. The modified regulation should read:

Unit 9 - Caribou

Unit 9C, that portion within the Alagnak River drainage—2 caribou; no more than 1 caribou may be a bull, and no more than 1 caribou may be taken Aug. 1–Jan. 31. Aug. 1–Mar. 15

Unit 9C remainder –1 bull by Federal registration permit or State permit.

~~No open season~~ **May be announced**

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

Unit 9E – 1 bull by Federal registration permit or State permit.

~~No open season~~ **May be announced**

Federal public lands are closed to the taking of caribou except by residents of Unit 9E, Nelson Lagoon, and Sand Point.

Justification

Nelson Lagoon and Sand Point residents should be eligible to harvest caribou in Unit 9E. They and residents of Unit 9E have the higher level of customary use and dependence on caribou in Unit 9E than do other Federally qualified users after consideration of the three criteria in ANILCA Section 804 and 50 CFR 100.17. Residents are highly dependent on caribou and both communities are situated within roughly 30 miles of Unit 9E, an area that they regularly use to harvest wild resources (ADF&G 2015b; BBSRAC/KASRAC *in publication*; Fall, Andersen et al. 1993; Langdon 1982). Nelson Lagoon does not have easy access to the Southern Alaska Peninsula Caribou Herd in Unit 9D as an alternative to caribou in Unit 9E. The community of Sand Point is situated on an island, and residents' caribou hunting is limited to their use of boats seeking caribou on the beach along the coastline of the mainland. A large portion of their available search area is along Stepovak Bay, in Unit 9E (BBSRAC/KASRAC *in publication*; Fall, Andersen et al. 1993). Moose are sparsely distributed to nonexistent in the area and cannot be harvested as an alternative resource to caribou (Riley 2012). Therefore, residents of Nelson Lagoon and Sand Point should be eligible to harvest caribou in Unit 9E, if an opportunity becomes available.

LITERATURE CITED

ADCCED (Alaska Department of Commerce, Community, and Economic Development). 2015. Community Database Online. <https://www.commerce.alaska.gov/web/dcra/ResearchAnalysis.aspx>, accessed November 20, 2015. Division of Community and Regional Affairs.

ADF&G. 2015a. Harvest General Reports. On line database https://secure.wildlife.alaska.gov/index.cfm?adfg=harvest.main&_ga=1.201511121.1737277369.1440527570.

ADF&G. 2015b. Community Subsistence Information System. <http://www.adfg.alaska.gov/sb/CSIS/> Division of Subsistence. Anchorage.

Aderman, A. 2013. Population monitoring and status of the Nushagak Peninsula Caribou Herd, 1988–2012. Togiak National Wildlife Refuge. FWS. Dillingham, AK.

Aderman, A. R. 2015. Wildlife biologist. Personal communication: phone, email. Togiak National Wildlife Refuge, FWS. Dillingham, AK.

BBSRAC. 2015. Transcripts of the Bristol Bay Subsistence Regional Advisory Council proceedings, October 28, 2015 in Dillingham, Alaska. Office of Subsistence Management, FWS. Anchorage, AK.

BBSRAC/KASRAC. *In publication*. Transcripts of the joint Bristol Bay Subsistence Regional Advisory Council and Kodiak-Aleutian Subsistence Regional Advisory Council proceedings, March 10, 2016 in Anchorage, Alaska. Office of Subsistence Management, FWS. Anchorage, AK.

Butler, L. 2005. Units 9C & 9E caribou management report. Pages 38-48 *in* P. Harper, editor. Caribou management report of survey and inventory activities 1 July 2002-30 June 2004. Alaska Department of Fish and Game. Juneau, AK.

Butler, L. 2007. Units 9C & 9E caribou management report. Pages 33-42 *in* P. Harper, editor. Caribou management report of survey and inventory activities 1 July 2004-30 June 2006. Alaska Department of Fish and Game. Juneau, AK.

Crowley, D. 2014. Northern Alaska Peninsula Caribou Herd fall composition and population survey. Memorandum October 28, 2014. Alaska Department of Fish and Game. King Salmon, AK.

Ellana, L.J., and A. Balluta. 1992. *Nuvendaltin quaht'ana* The people of Nondalton. Smithsonian Institution Press, Washington DC.

Evans, S, M. Kukkonen, D. Holen, and D.S. Koster. 2013. Harvests and uses of wild resources in Dillingham, Alaska, 2010. ADF&G Division of Subsistence, Technical Paper No. 375.

Fall, J.A., D.B. Andersen, L. Brown, M. Coffing, G. Jennings, C. Mishler, A. Paige, C.J. Utermohle, and V. Vanek. 1993. Noncommercial harvest and uses of wild resources in Sand Point, Alaska, 1992. ADF&G Division of Subsistence, Technical Paper No. 226.

Fall, J.A., C.L. Brown, N.M. Braem, L. Hutchinson-Scarborough, D.S. Koster, .M. Krieg, A.R. Brenner. 2012. Subsistence harvests and uses in three Bering Sea communities, 2008: Akutan, Emmonak, and Togiak. ADF&G Division of Subsistence, Technical Paper No. 371.

FWS. 2006. Staff Analysis WP06-22. Pages 236-242 *in* Federal Subsistence Board Meeting Materials May 16-18, 2006. Office of Subsistence Management, FWS. Anchorage, AK 529 pages.

FWS. 2015. Office of Subsistence Management Federal Subsistence Permit System. Anchorage, AK.

Holen, D., T.M. Krieg, R. Walker, and H. Nicholson. 2005. Harvests and uses of caribou, moose, bears, and Dall sheep by communities of Game Management Units 9B and 17, Western Bristol Bay, Alaska 2001-2002. ADF&G Division of Subsistence, Technical Paper No. 283.

- Holen, D., J. Stariwat, T.M. Krieg, and T. Lemons. 2012. Subsistence harvests and uses of wild resources in Aleknagik, Clark's Point, and Manokotak, Alaska, 2008. ADF&G Division of Subsistence, Technical Paper No. 368.
- Krieg, T.M., D.L. Holen, and D. Koster. 2009. Subsistence harvests and uses of wild resources in Igiugig, Kokhanok, Koliganek, Levelock, and New Stuyahok, Alaska, 2005. ADF&G Division of Subsistence, Technical Paper No. 322.
- Krieg, T.M., P. Kenner, L. Hutchinson-Scarborough, and L. Brown. 1996. Subsistence harvests and uses of caribou, moose and brown bear in 12 Alaska Peninsula communities, 1994/95. ADF&G Division of Subsistence, Technical Paper No. 240.
- Krieg, T.M., J.A. Fall, C.J. Utermohle, and L. Brown. 1998. Subsistence harvests and uses of caribou, moose, and brown bear in 12 Alaska Peninsula communities, 1995/96 and 1996/97. ADF&G Division of Subsistence, Technical Paper No. 244.
- Morris, J.M. 1986. Subsistence production and exchange in the Iliamna Lake Region, Southwest Alaska, 1982–1983. ADF&G Division of Subsistence Technical Paper No. 136. Juneau.
- Langdon, S.J. 1982. Alaska Peninsula socioeconomic and sociocultural systems analysis. U.S. Bureau of Land Management, Alaska Outer Continental Shelf Office. Alaska OCS Socioeconomic Studies Program, Technical Report No. 71. National Technical Information Service, Springfield, Virginia.
- Peterson, C. 2013. Units 9C and 9E caribou management report. Pages 46–56. *In* P. Harper, editor. Caribou management report of survey and inventory activities 1 July 2010–30 June 2012. Alaska Department of Fish and Game, Species Management Report ADF&G/DWC/SMR-2013-3 Juneau. Fish and Game, Species Management Report, ADF&G/DWC/SMR-2012-5, Juneau.
- Riley, M.D. 2011. Units 9C & 9E caribou management report. Pages 33-44 *in* P. Harper, editor. Caribou management report of survey and inventory activities 1 July 2008-30 June 2010. Alaska Department of Fish and Game, Juneau, AK.
- Sellers, R.A. 2003. Unit 9C and E caribou management report. Pages 53–63 *in* C. Healy, editor. Caribou management report of survey and inventory activities 1 July 2000–30 Jun 2002. Alaska Department of Fish and Game. Juneau, AK.
- Woolington, J. D. 2012. Unit 17 moose management report. Pages 245–269 *in* P. Harper, editor. Moose management report of survey and inventory activities 1 July 2009–30 June 2011. Alaska Department of Fish and Game, Species Management Report ADF&G/DWC/SMR-2012-5, Juneau.
- Woolington, J. D. 2013. Mulchatna caribou management report, Units 9B, 17, 18 south, 19A & 19B. Pages 23–45 *in* P. Harper, editor. Caribou management report of survey and inventory activities 1 July 2010–30 June 2012. Alaska Department of Fish and Game, Species Management Report ADF&G/DWC/SMR-2013-3, Juneau.

SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Bristol Bay Subsistence Regional Advisory Council

Support WP16-21 with modification. The Council supports the flexibility for the agency to open up the hunt if the population continues to improve, and to replace “To be announced” with “may be announced.” The “May be announced” season will provide for opportunity to harvest caribou. The Northern Alaska Peninsula Caribou Herd is continuing to improve and the delegation of authority to open or close the season allows for the Manager to make in-season decisions in response to the changing caribou populations. Additionally, the Council supports the Section 804 conclusion with modification to include residents of Nelson Lagoon and Sand Point in the pool of Federally qualified subsistence users who are eligible to harvest caribou in Unit 9E.

The modified regulation should read:

Unit 9 - Caribou

Unit 9C, that portion within the Alagnak River drainage—2 caribou; no Aug. 1–Mar. 15 more than 1 caribou may be a bull, and no more than 1 caribou may be taken Aug. 1–Jan. 31.

Unit 9C remainder –1 bull by Federal registration permit or State permit.

~~No open season~~ **May be announced**

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

Unit 9E – 1 bull by Federal registration permit or State permit.

~~No open season~~ **May be announced**

Federal public lands are closed to the taking of caribou except by residents of Unit 9E, Nelson Lagoon, and Sand Point.

Kodiak/Aleutian Subsistence Regional Advisory Council

Support WP16-21 with modification. The Council supports giving the inseason manager flexibility to establish a hunt if the population allows. Additionally, the Council supports the Section 804 conclusion with modification to include residents of Nelson Lagoon and Sand Point in the pool of Federally qualified subsistence users who are eligible to harvest caribou in Unit 9E.

The modified regulation should read:

Unit 9 - Caribou

Unit 9C, that portion within the Alagnak River drainage—2 caribou; no more than 1 caribou may be a bull, and no more than 1 caribou may be taken Aug. 1–Jan. 31. Aug. 1–Mar. 15

Unit 9C remainder –1 bull by Federal registration permit or State permit.

~~No open season~~ **May be announced**

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

Unit 9E – 1 bull by Federal registration permit or State permit.

~~No open season~~ **May be announced**

Federal public lands are closed to the taking of caribou except by residents of Unit 9E, Nelson Lagoon, and Sand Point.

APPENDIX 1

Appendix 1 Table 1. The harvest and use of caribou by communities in the customary and traditional use determination in Unit 9C remainder or Unit 9E, based on household surveys, by study year.

CARIBOU HARVEST								
HOUSEHOLD HARVEST SURVEYS								
Unit of residence	Community	Study year	Percentage of households using caribou	Caribou harvest				
				Estimated Harvest	Lower Estimate	Higher Estimate	Per Person	95% confidence interval
				(caribou)	(caribou)	(caribou)	(lb)	(+/- %)
9B	Igiugig	2005	100	24	23	30	90.8	22
		2001	100	23	23	23	127.8	0
		1992	100	62	53	71	200.0	14
		1983		7	2	19	15.8	171
9B	Iliamna	2004	77	3	2	5	7.0	62
		2001	76	40	30	54	66.2	34
		1991	96	107	86	128	164.0	19
		1983		16	9	28	17.3	75
9B	Kokhanok	2005	80	21	18	28	20.5	32
		2001	94	20	9	36	22.1	84
		1992	97	137	126	155	118.1	13
		1983		1	1	3	1.5	200
9B	Levelock	2005	100	27	20	36	120.0	33
		2001	100	28	19	38	67.9	37
		1992	100	86	73	99	116.5	15
		1988	100	86	70	102	118.0	18
9B	Newhalen	2004	88	49	45	54	59.4	9
		2001	94	71	62	81	72.1	14
		1991	100	154	128	180	146.5	16
		1983		24	10	45	28.3	87
9B	Nondalton	2004	53	16	16	19	16.6	9
		2001	94	19	19	30	22.8	30
		1983		79	140	266	108.7	31
		1981		44			61.1	
		1980		31			69.4	
		1973		96			111.6	
9C	King Salmon	2007	33	16	14	18	9.9	11
		1996	76	114	58	169	46.1	49
		1995	87	183	121	245	66.0	34
		1994	86	226	155	297	91.9	31
		1983	74	182	122	242	73.9	32

Continued on next page.

Appendix 1 Table 1. Continued from previous page.

CARIBOU HARVEST								
HOUSEHOLD HARVEST SURVEYS								
Unit of residence	Community	Study year	Percentage of households using caribou	Caribou harvest				
				Estimated Harvest	Lower Estimate	Higher Estimate	Per Person	95% confidence interval
				(caribou)	(caribou)	(caribou)	(lb)	(+/- %)
9C	Naknek	2007	49	74	66	83	20.9	11.5
		1996	67	279	201	357	82.3	28
		1995	57	252	167	336	69.8	34
		1994	85	432	332	532	118.2	23
		1983	73	140	92	188	54.6	34
9C	South Naknek	2007	62	2	2	3	7.1	6
		1996	89	138	128	175	157.4	27
		1995	87	128	110	149	133.1	17
		1994	96	103	77	129	118.6	25
		1992	86	82	68	100	91.1	21
		1983	91	135	75	195	147.5	44
9D	Nelson Lagoon	1987	92	53	38	81	118.8	52
9D	Sand Point	1992	51	39	22	56	9.7	43
9B	Pedro Bay	2004	28	1	1	1	2.5	0
		2001	21	0	0	0	0.0	0
		1996	54	15	10	29	34.9	99
		1982		6	5	11	15.0	83
9B	Port Alsworth	2004	86	6	5	8	9.4	21
		2001	90	4	3	8	5.6	82
		1983		6	4	10	12.8	66
9E	Chignik Bay	2003	59	1	1	3	2.3	100
		1996	63	5	5	6	8.5	19
		1995	71	3	3	5	5.6	40
		1994	71	1	1	2	2.4	100
		1991	87	13	9	20	15.5	53
		1989	77	12	11	15	15.3	25
		1984	68	6	4	9	7.3	50
9E	Chignik Lagoon	2003	63	8	6	12	17.3	49
		1996	93	5	3	9	9.6	95
		1995	83	15	9	26	24.6	76
		1994	93	21	20	24	33.3	14
		1989	73	4	4	4	14.6	0
		1984	77	5	4	8	10.5	60

Continued on next page.

Appendix 1 Table 1. Continued from previous page.

CARIBOU HARVEST								
HOUSEHOLD HARVEST SURVEYS								
Unit of residence	Community	Study year	Percentage of households using caribou	Caribou harvest				
				Estimated Harvest	Lower Estimate	Higher Estimate	Per Person	95% confidence interval
				(caribou)	(caribou)	(caribou)	(lb)	(+/- %)
9E	Chignik Lake	2003	95	19	13	33	24.7	70
		1996	100	55	36	77	76.1	41
		1995	100	67	49	86	87.5	28
		1994	94	111	91	134	105.0	20
		1991	100	105	79	131	120.0	24
		1989	95	129	97	180	173.2	39
		1984	100	82	66	98	78.9	19
9E	Ivanof Bay	1996	100	13	13	13	78.0	
		1995	100	14	9	29	51.9	102
		1994	88	5	4	6	20.7	19
		1989	100	23	23	23	107.8	0
		1984	100	20	12	31	81.8	55
9E	Egegik	1996	83	77	56	98	85.7	27
		1995	94	128	109	146	144.3	14
		1994	86	147	90	204	186.3	38
		1984	96	151	112	190	232.8	25
9E	Perryville	2003	70	12	10	17	14.9	38
		1996	86	23	16	42	29.3	82
		1995	82	24	15	49	26.8	103
		1994	75	12	8	22	17.7	83
		1989	67	22	19	29	28.2	31
		1984	100	30	22	41	38.8	36
9E	Pilot Point	1996	100	129	113	160	169.5	24
		1995	100	51	44	61	65.4	18
		1994	100	127	118	144	182.5	13
		1987	94	98	93	109	228.7	11
9E	Pilot Point/Ugashik	1991	100	135			260.7	
9E	Ugashik	1996	100	34	31	37	435.0	10
		1995	100	21	13	29	300.0	40
		1994	100	21	16	26	350.0	23
		1987	80	20	20	20	300.0	0
9E	Port Heiden	1996	91	175	120	241	227.9	38
		1995	100	240	167	312	274.7	30
		1994	100	139	114	178	196.6	28
		1991	100	174			226.6	
		1987	100	168	168	168	244.7	0

Continued on next page.

Appendix 1 Table 1. Continued from previous page.

CARIBOU HARVEST								
HOUSEHOLD HARVEST SURVEYS								
Unit of residence	Community	Study year	Percentage of households using caribou	Caribou harvest				
				Estimated Harvest	Lower Estimate	Higher Estimate	Per Person	95% confidence interval
				(caribou)	(caribou)	(caribou)	(lb)	(+/- %)
17A	Togiak	2008	83	136	105	161	25.5	23
		2001		106	77	134	22.6	27
		1999	71	178	136	219	36.6	23
17A	Twin Hills	2001		8	7	10	15.9	31
		1999	92	25	17	33	54.2	32
17B	Koliganek	2005	89	91	65	117	91.5	28
		2001	91	93	55	131	75.7	41
		1987	91	186	164	208	150.0	11
17C	Aleknagik	2008	13	0	0	0	0.0	0
		2001	89	48	37	59	45.8	23
		1989	84	57	52	63	60.5	10
17C	Clarks Point	2008	36	2	1	5	6.5	216
		2001	86	28	28	28	71.2	0
		1989	77	18	18	18	48.2	0
17C	Dillingham	2010	36	63	63	63	4.1	52
		2001	14	344	242	446	21.1	30
		1984	70	379	258	500	27.9	31
17C	Ekwok	2001	97	28	26	34	39.8	23
		1987	93	57	52	64	80.4	12
17C	Manokotak	2008	49	20	19	22	8.1	5
		2001	88	68	57	80	27.9	17
		1999	88	130	117	143	49.3	10
		1985	89	44	41	50	21.5	13
17C	New Stuyahok	2005	92	178	141	215	63.5	20
		2001	98	260	226	294	79.9	13
		1987	98	253	205	301	107.6	18
17C	Portage Creek	2001	71	10	10	10	41.7	0

Source: ADF&G 2015b.
Blank cell=data not available.

Appendix 1 Table 2. The population of communities in the customary and traditional use determination for caribou in Unit 9C.

UNIT 9C						
Communities in the customary and traditional use determination for caribou						
Unit of residence	Community	US Census				
		1980	1990	2000	2010	
		Number of people			Number of people	Number of households
9B	Igiugig	33	33	53	50	16
9B	Iliamna	94	94	102	109	39
9B	Kokhanok	83	152	174	170	52
9B	Levelock	79	105	122	69	27
9B	Newhalen	87	160	160	190	50
9B	Nondalton	173	178	221	164	57
9B	Pedro Bay	33	42	50	42	19
9B	Pope-Vannoy Landing	NA	NA	8	6	5
9B	Port Alsworth	22	55	104	159	44
9C	King Salmon	545	696	442	374	157
9C	Naknek	318	575	678	544	247
9C	South Naknek	145	136	137	79	35
9E	Egegik	75	122	116	109	29
17A	Togiak	470	613	809	817	231
17A	Twin Hills	70	66	69	74	29
17B	Koliganek	117	181	182	209	55
17C	Aleknagik	155	185	223	219	71
17C	Clark's Point	79	60	75	62	24
17C	Dillingham	1,563	2,017	2,466	2,329	855
17C	Ekwok	77	77	130	115	37
17C	Manokotak	294	385	399	442	121
17C	New Stuyahok	331	391	471	510	114
17C	Portage Creek	48	5	36	2	1
	TOTAL	6,290	6,328	7,227	6,844	2,315

Bold=Communities situated in Unit 9C.

NA=Information not available.

Source: ADCCED 2015.

Appendix 1 Table 3. The population of communities in the customary and traditional use determination for caribou in Unit 9E.

UNIT 9E						
Communities in the customary and traditional use determination for caribou						
Unit of residence	Community	US Census				
		1980	1990	2000	2010	
		Number of people			Number of people	Number of households
9B	Igiugig	33	33	53	50	16
9B	Iliamna	94	94	102	109	39
9B	Kokhanok	83	152	174	170	52
9B	Levelock	79	105	122	69	27
9B	Newhalen	87	160	160	190	50
9B	Nondalton	173	178	221	164	57
9B	Pedro Bay	33	42	50	42	19
9B	Pope-Vannoy Landing	NA	NA	8	6	5
9B	Port Alsworth	22	55	104	159	44
9C	King Salmon	545	696	442	374	157
9C	Naknek	318	575	678	544	247
9C	South Naknek	145	136	137	79	35
9D	Nelson Lagoon	59	83	83	52	22
9D	Sand Point	625	878	952	976	246
9E	Chignik	178	188	79	91	41
9E	Chignik Lagoon	48	53	103	78	29
9E	Chignik Lake	138	133	145	73	27
9E	Ivanof Bay	40	35	22	7	2
9E	Egegik	75	122	116	109	29
9E	Perryville	111	108	112	113	38
9E	Pilot Point	66	53	100	68	27
9E	Port Heiden	92	119	119	102	35
9E	Ugashik	13	7	11	12	7
17A	Togiak	470	613	809	817	231
17A	Twin Hills	70	66	69	74	29
17B	Koliganek	117	181	182	209	55
17C	Aleknagik	155	185	223	219	71
17C	Clark's Point	79	60	75	62	24
17C	Dillingham	1,563	2,017	2,466	2,329	855
17C	Ekwok	77	77	130	115	37
17C	Manokotak	294	385	399	442	121
17C	New Stuyahok	331	391	471	510	114
17C	Portage Creek	48	5	36	2	1
	TOTAL	7,660	7,985	8,953	8,416	2,789

Bold=Communities situated in Unit 9E.

NA=Information not available.

Source: ADCCED 2015.

APPENDIX 2

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

Dear Refuge Manager:

This letter delegates specific regulatory authority from the Federal Subsistence Board (Board) to the Manager of the Alaska Peninsula/Becharof National Wildlife Refuge, as approved by the Board, to issue emergency special actions if necessary to ensure the continued viability of a wildlife population, to continue subsistence uses of wildlife, or for reasons of public safety; or temporary special actions if the proposed temporary change will not interfere with the conservation of healthy wildlife populations, will not be detrimental to the long-term subsistence use of wildlife resources, and is not an unnecessary restriction on non-subsistence users. This delegation only applies to the Federal public lands subject to Alaska National Interest Lands Conservation Act (ANILCA) Title VIII jurisdiction within Unit 9C remainder and Unit 9E as it applies to caribou on these lands.

It is the intent of the Board that actions related to management of caribou by Federal officials be coordinated, prior to implementation, with the Alaska Department of Fish and Game (ADF&G), the Bureau of Land Management, the National Park Service and the Chair of the Bristol Bay Subsistence Regional Advisory Council (Council) to the extent possible. Federal managers are expected to work with managers from the State and other Federal agencies, the Council Chair and applicable Council members to minimize disruption to subsistence resource users and existing agency programs, consistent with the need for special action.

DELEGATION OF AUTHORITY

1. Delegation: The Alaska Peninsula/Becharof National Wildlife Refuge Manager is hereby delegated authority to issue emergency or temporary special actions affecting caribou on Federal lands as outlined under the **Scope of Delegation** of this section. 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 open and close the season, set quotas, any permit requirements or conditions, and harvest limit, including any sex restrictions, for the May-be-announced season for caribou on Federal public lands in Unit 9C remainder and Unit 9E.

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

All other proposed changes to codified regulations, such as customary and traditional use determinations, adjustments to methods and means of take, or closures to only non-Federally qualified users shall be directed to the Federal Subsistence Board.

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

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

5. Guidelines for Delegation: You will become familiar with the management history of the wildlife species relevant to this delegation in the region, with current State and Federal regulations and management plans, and be up-to-date on population and harvest status information. You will review special action requests or situations that may require a special action and all supporting information to determine (1) consistency with 36 CFR 242.19, (2) if the request/situation falls within the scope of authority, (3) if significant conservation problems or subsistence harvest concerns are indicated, and (4) what the consequences of taking an action or no action may be on potentially affected Federally qualified subsistence users and non-Federally qualified users. Requests not within your delegated authority will be forwarded to the Federal Subsistence Board for consideration. You will maintain a record of all special action requests and rationale for your decision. A copy of this record will be provided to the Administrative Records Specialist in the Office of Subsistence Management (OSM) no later than sixty days after development of the document.

You will notify OSM and coordinate with local ADF&G managers, the Bureau of Land Management, the National Park Service and the Chair of the Bristol Bay Subsistence Regional Advisory Council regarding special actions under consideration. You will issue decisions in a timely manner. Before the effective date of any decision, reasonable efforts will be made to notify the public, OSM, affected State and Federal managers, law enforcement personnel, and Council 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 Subsistence Regional Advisory Council(s) at the end of each calendar year for presentation to the Council(s).

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

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

Sincerely,

Tim Towarak
Chair, Federal Subsistence Board

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