

STAFF ANALYSIS
TEMPORARY SPECIAL ACTION
WSA18-01

ISSUES

Temporary Special Action Request, WSA18-01, submitted by the Kodiak/Aleutians Subsistence Regional Advisory Council (Council), requests that Federal public lands in Unit 10, Unimak Island only, be opened for a limited bull caribou hunt from Aug. 15-Oct. 15 for the residents of False Pass only.

DISCUSSION

The proponent would like to provide opportunity for False Pass residents, who have limited or no access to harvest caribou from the Southern Alaska Peninsula Herd (SAPCH), to harvest local caribou from the Unimak Caribou Herd (UCH). Unimak Island has been closed to caribou hunting since 2009 due low population numbers. The Council states that the UCH could sustain a small hunt of up to 10 bull caribou without impacting the current positive growth trend. The quotas, based on health and status of the UCH, would be determined by the Izembek National Wildlife Refuge Manager in consultation with the Alaska Department of Fish and Game (ADF&G).

The proponent requested an emergency special action but because this request establishes a new Federal season and an 804 analysis to limit the harvest to False Pass residents only, a more open public process afforded by a temporary special action was recommended by Office of Subsistence Management (OSM).

The applicable Federal regulations are found in 36 CFR 242.19(b) and 50 CFR 100.19(b) (Temporary Special Actions) and state that:

. . . After adequate notice and public hearing, the Board may temporarily close or open public lands for the taking of fish and wildlife for subsistence uses, or modify the requirements for subsistence take, or close public lands for the taking of fish and wildlife for nonsubsistence uses, or restrict take for nonsubsistence uses.

(1) The Board may make such temporary changes only after it determines that the proposed temporary change will not interfere with the conservation of healthy fish and wildlife populations, will not be detrimental to the long-term subsistence use of fish or wildlife resources, and is not an unnecessary restriction on nonsubsistence users. The Board may also reopen public lands to nonsubsistence uses if new information or changed conditions indicate that the closure is no longer warranted.

Existing Federal Regulation

Unit 10—Caribou

Unit 10 Unimak Island—Residents of Akutan, False Pass, King Cove, and Sand Point

Unit 10-Unimak Island only

No Federal open season

Proposed Federal Regulation

Unit 10—Caribou

Unit 10 Unimak Island—Residents ~~of Akutan, False Pass, King Cove, and Sand Point~~

Unit 10-Unimak Island only -1 bull by Federal registration permit. Up to 10 permits would be issued by the Izembek National Wildlife Refuge Manager.

Aug. 15-Oct. 15

Existing State Regulation

Unit 10—Caribou

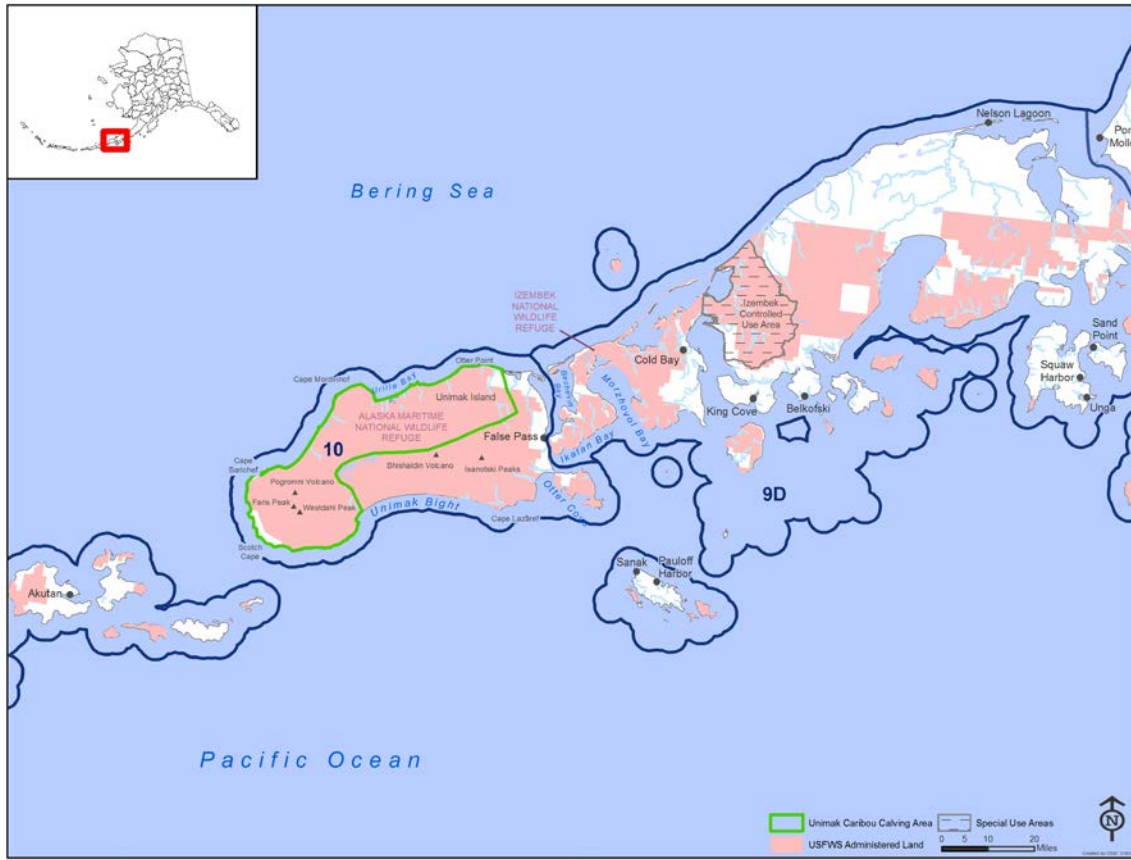
Umnak and Unimak islands

Residents and Nonresidents

No open season

Extent of Federal Public Lands

Federal public lands comprise approximately 90% of Unit 10 (Unimak Island) and consist of 100% U.S. Fish and Wildlife Service (USFWS) managed lands (**Map 1**). Unimak Island is within the Alaska Maritime National Wildlife Refuge but is managed by Izembek National Wildlife Refuge.



Map 1. Unimak Island including the communities with Customary and Traditional Use for caribou - Akutan, False Pass, King Cove, and Sand Point.

Customary and Traditional Use Determinations

Residents of Akutan, False Pass, King Cove, and Sand Point have a customary and traditional use determination for caribou in Unit 10 (**Map 2**).

Regulatory History

The UCH showed a precipitous decline in population in the early 1980s and by the early 1990's required a Federal management response. In response to this decline, caribou harvest in Unit 10 (Unimak Island) was closed to non-Federally qualified subsistence users in 1991 (P91-01) (OSM 1991). In 1993 ADF&G closed the State harvest by Emergency Order when the combined UCH and SAP herds declined below 2,500 caribou; the Federal Subsistence Board (Board) approved Temporary Special Action S93-01 to close Units 9D and 10 (Unimak Island) to all caribou harvest (OSM 1993). In 1994, the Board adopted Proposal P94-28 to continue the closure for another three to five years to allow post-1990 calves to reach reproductive age and successfully reproduce (OSM 1994).

In 1997, the Board approved Temporary Special Action S97-01 to open a caribou season in Units 9D and 10 from Aug. 10-Mar. 31, after caribou surveys indicated there was a sufficient increase in bulls to allow a

subsistence harvest on Federal public lands (OSM 1997). Temporary Special Action SA98-05 established a subsistence hunt via Federal registration permit (OSM 1998), while Temporary Special Action S99-04 authorized a caribou harvest of one caribou from Sept. 1 to Mar. 31 (OSM 1999). In 2000, when the UCH reached 1,000 caribou, the Board adopted Proposal P00-029, establishing a two caribou harvest limit by Federal registration permit in Unit 10 during the fall season of Aug. 1 – Sept. 30 and the winter season from Nov. 15- Mar. 31 (OSM 2000). The State general season was reopened in 2001 to allow residents to harvest one caribou from Aug. 10 – Sept. 30 or Nov. 15 – Mar. 31 and allowed nonresidents one caribou from Sept. 1 – Sept. 30 (Butler 2005).

In 2003, the Board approved Temporary Special Action WSA03-08, which increased the harvest limit from two to four caribou for Unit 10 (Unimak Island) during the fall season of Aug. 1 – Sept. 30, 2003 (OSM 2003a). Temporary Special Action WSA03-10 was approved by the Board and extend the increased harvest limit of four caribou into the winter season from Nov. 15, 2003 to Mar. 31, 2004 (OSM 2003b). In 2004, the Board adopted Proposal WP04-40, increasing the harvest limit from two caribou to four caribou for Unit 10 (Unimak Island) (OSM 2004).

In 2008, the Board adopted Proposal WP08-25 (OSM 2008a), decreasing the harvest number from four to two caribou for Unit 10 (Unimak Island) in response to a decrease in the UCH. In addition, in response to declining population numbers of the SAPCH, the Board also closed the Federal caribou season in Unit 9D in 2008 (WP08-26) (OSM 2008b).

The Alaska Board of Game (BOG) closed all hunting for caribou on Unimak Island (Unit 10) at its February 27 – March 9, 2009 meeting (State Proposal 54). The Board approved Emergency Special Action WSA09-06 on July 1, 2009, closing the fall caribou season from Aug. 1 through Sept. 29 (OSM 2009a) and authorized Temporary Special Action WSA09-07 on November 10, 2009 to close the remainder of the fall (Sept. 30) and winter seasons (OSM 2009b). In 2010, concern that the caribou population could be extirpated from Unimak Island due to the small population size, the BOG and the Board suspended all caribou hunting on Unimak Island, including subsistence hunting, for conservation reasons (WP10-42) (OSM 2010). From 2009-2017, there have been no State or Federal caribou hunts on Unimak Island (Crowley 2015, Peterson 2018, pers. comm.).

Current Events

Comments from ADF&G on Temporary Special Action WSA18-01 were received on May 2, 2018 (**Appendix 1**, ADF&G 2017). ADF&G recommended that Unimak Island remain closed to caribou hunting until the UCH population reaches 600 caribou and the bull:cow ratio is at least 35 bulls: 100 cows. This would allow more time for the UCH to recover.

Ten individuals attended the public hearing in person at False Pass on May 14, 2018 and seven provided testimony on WSA18-01. One was neutral and six supported a limited caribou hunt during the fall on Unimak Island. Several individuals supported an earlier start date of August 1 because by August 15 fall storms make it much more difficult to access the herd by boat near Cape Sarichef. In addition, caribou would be nearer the fishing locations in early August. According to testimony, caribou seldom come close to the community of False Pass, so a boat or small plane are the easiest ways to access the herd on the

western side of the island. In addition, local residents noted that the challenges of hunting caribou on this large island would probably limit the number of caribou taken during the fall season to less than 10. The Izembek Refuge Manager also supported a limited hunt and didn't think that taking a few bulls would have a negative impact on the herd. One individual who did not own a boat asked if a designated hunter could get a caribou for him.

The importance of harvesting and eating caribou to the cultural identity, subsistence way of life, subsistence economy (food is very expensive at the store), and health and nutritional benefits of eating local and traditional foods were expressed by several individuals. Since there has been no caribou season since 2009 several individuals expressed interest in setting up a culture camp to teach youth about use of natural foods including caribou. One individual who remained neutral supported the earlier hunt date and the educational aspects of establishing a cultural camp for the children.

A copy of the State's written comments was provided as a handout at the public hearing. Dave Crowley, ADF&G Area Biologist for Units 9 and 10, also called in to answer questions from local residents attending the public hearing. There was some discussion as to why the UCH remained at low numbers for many years. Most thought wolves and grizzly bears were primarily responsible. Some local residents thought that 9-10 wolves were still on the island while others thought the wolf population had decreased to a few animals. Alaska Department of Fish and Game conducted a parturition survey on UCH in early June 2018 and observed 41 calves, 58 yearlings, 97 cows, and 91 bulls. The pregnancy rate was 69%, which is low, and the minimum population size was 287 which is an increase from 190 observed in 2017 (Crowley 2018, pers. comm.).

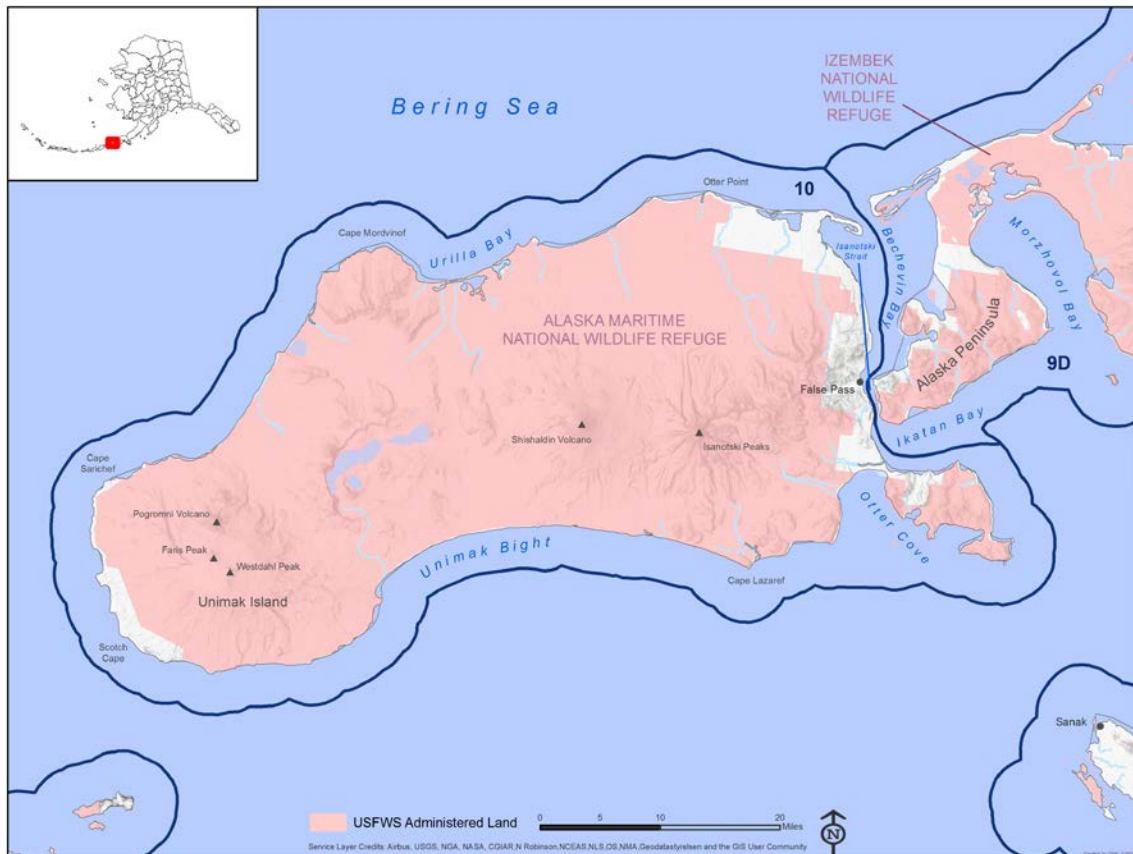
Biological Background

Caribou on Unimak Island and the SAPCH (Unit 9D) were originally managed as a single population. However, subsequent genetic sampling of the UCH and SAPCH has shown enough distinction to classify them as two different herds (Zittlau 2004). Although caribou have been documented to cross Isanotksi Strait, a half-mile passage that has strong tidal currents located between Unimak Island and the Alaska Peninsula (**Map 2**) (Skoog 1968, Sellers 1999, Valkenburg et al. 2003), no significant dispersal between the Unimak Island Caribou Herd and the SAPCH was documented from 2000-2011 (Butler 2009, Peterson 2013). In 2012, one collared cow swam across Isanotsky Strait from Unimak Island to the mainland and was seen in the vicinity of 5-30 other caribou. Given that the nearest collared cow from the SAPCH was 40 miles away, it is possible that this cow was accompanied by 5-30 other caribou when she crossed from Unimak Island (Crowley 2015). In a genetic study on North American caribou herds, Zittlau (2004) found the UCH to be closely related to the Southern and Northern Peninsula caribou herds on the Alaska Peninsula, but quite distinct from all other herds. Zittlau's (2004) findings are consistent with the hypothesis that Unimak caribou derived from the SAPCH, but were subsequently isolated (Sandy Talbot 2018, pers. comm.) and thus emigration and immigration has not been a routine component of UCH population dynamics (USFWS 2010).

The UCH has undergone considerable changes in abundance from 3,334 caribou in 1975 to 192 in 2013 (Valkenburg et al. 2003, Colson et al. 2014, Crowley 2015). Population estimates, based on ground

observations, expert opinion, and reports by Unimak residents, Murie (1959) and Beals and Longworth (1941) estimated that there were 7,000 caribou in 1925 and 3,000 to 8,000 caribou in 1941, respectively. Although Skoog (1968) reported no caribou following aerial surveys in 1949 and 1953, it is unknown if these results represent total absence, very low density, and/or incomplete coverage of the island, due to a lack of information on the sightability conditions and extent of the surveys. Skoog (1968) subsequently reported 1,000 caribou in 1960, so assuming the survey methods were comparable, his observations would indicate that UCH underwent large fluctuations in seven years. The UCH reached a peak in 1975 with an estimated population of 3,334 animals (Irvine 1976) and then decreased to 300 animals by the early 1980s. The severe winter of 1975-1976 likely contributed to the declines in the early 1980s (Crowley 2015).

Since 1996-1997, the Izembek National Wildlife Refuge has conducted seven aerial surveys on systematic transects across Unimak Island in the winter when snow on the ground facilitates observation. Although these flights follow systematic transects across the entire island, some caribou may be missed or counted twice, especially on those surveys that span several days. However, these counts do provide estimates of



Map 2. Unimak Island

minimum population counts. Following the decline in the early 1980s, the UCH increased to approximately 600 animals in 1997 and 1,262 by 2002. The UCH population remained relatively stable at around 1,000 animals until 2005 and then declined to 192 in 2013. In 2016, the UCH increased to

approximately 330 animals (KARAC 2017, 2018, Crowley 2016). Biologists counted 181 and 190 caribou during parturition surveys in 2016 and 2017, respectively (ADF&G 2017).

Since 2000, ADF&G has conducted yearly composition counts during autumn (early to mid-October). From 2000-2005 bull :cow ratios were above the management objectives set for most caribou herds in Alaska (Peterson 2013). In 2005, caribou population composition surveys (**Table 1**) estimated 730 caribou with ratio of 45 bulls: 100 cows, with large bulls making up 39% of all bulls. The 2008 estimate of 9 bulls: 100 cows was a significant decrease from the 2007 estimate of 31 bulls: 100 cows (Butler 2008) and represents a 71% decrease in the bull:cow sex ratio. The bull:cow ratio continued to decline to 5 bulls: 100 cows in 2009 (Riley 2011). In 2016, the bull:cow ratio increased significantly to 33 bulls: 100 cows, which is close to the recommended fall bull:cow ratio of 35 bulls: 100 cows (Crowley 2016). Caribou have a polygynous mating system in which a single male is capable of inseminating many females, however research has shown that there is a sex-ratio threshold for caribou (sex ratio ≤ 0.08 ; males $\leq 8\%$ of the population), as well as other ungulates, below which fecundity may collapse (Bergerud 1974). The mean annual bull:cow ratio from 2008-2013 was 8 bulls: 100 cows (**Table 1**).

Table1. Unimak Caribou Herd winter minimum population counts and fall composition counts in Unit 10 from 1996–2016 (Butler 2006, 2007, 2010; Crowley 2015, 2016; USFWS 2018a, 2018b).

Regulatory Year	Total bulls: 100 cows	Calves: 100 cows	Total Calves	Total Cows	Total bulls	Composition Sample size ^a	Estimate of herd size
1996-1997							603 ^b
1997-1998							
1998-1999							
1999-2000		46				126	
2000-2001	40	21	13	62	25	406	983 ^c
2001-2002							
2002-2003	54	31	17	54	29	392	1,262 ^d
2003-2004							
2004-2005							1,006 ^b
2005-2006	45	7	5	66	29	730	1,009 ^b
2006-2007							806 ^b
2007-2008	31	6	4	73	23	433	
2008-2009	9	6	5	86	9	260	
2009-2010	5	3	3	92	5	221	400 ^b
2010-2011	8	8	7	86	7	284	
2011-2012	6	7	6	89	8	117	224 ^d
2012-2013	10	3	2	89	8	85	
2013-2014	10	19	15	78	8	67	192 ^e
2014-2015	15	22				127	230 ^b
2015-2016							334 ^b
2016-2017	33	40	60	149	49	258	

^a Estimates based on October composition surveys
^b Estimates based on winter (January and April) counts by Izembek National Wildlife Refuge staff.
^c Estimates based on July post calving counts and the proportion of the radio collared caribou encountered
^d May parturition survey by Alaska Department of Fish and Game
^e October census of entire island by Izembek National Wildlife Refuge staff
^f Minimum count conducted by ADF&G

The low bull numbers can be explained, in part, by an aging population structure as a result of reduced recruitment. After several years with poor recruitment into the caribou population, the remaining animals become older, on average, and the number of males usually declines before the females due to higher annual mortality rates, especially after 5-6 years of age (Bergerud 1980). Thus, as the population declines, older individuals and cows make up a larger proportion of the population and this may explain the continued decline of bull:cow ratios in the UCH. The low number of bulls may also result in some cows going unmated, which would further depress pregnancy rates. For example, pregnancy rates for cows two years or older decreased from 85% in 2008 (n=113) to 68% in 2009 (n=40) (Butler 2009).

In addition to the effects of the aging population structure and emigration, predation and hunting mortality may have contributed to the decline in the bull:cow ratio from 2006 to 2014. Bull only seasons have the potential to increase bull mortality from caribou populations (Bergerud 1974). In the presence of natural wolf and bear populations the generalized maximum sustainable harvest mortality is three percent annually (Bergerud 1980). Conservative caribou management guidelines for small populations or populations in decline are to have no bull harvest or a small bull harvest of 1% of the total population (Environment Yukon 2016). Both Federal and State hunting seasons were closed from 1993-1996 and from 2009 to 2017. The UCH population continued to decline from 2006-2014, even though the reported harvest remained below the 3% guideline from 2001-2008 and no legal harvest from 2009-2014.

In 2016, the ratio of 40 calves: 100 cows was significantly greater than in previous surveys from 2005-2012 when the average was 6 calves:100 cows (**Table 1**). Stable population growth generally requires an average fall recruitment ratio of 20-25 calves: 100 cows. Fall calf:cow ratios are typically a good indicator of the number of calves entering the herd as adults as most mortality occurs within the first few months of life. The yearly average of the number of calves: 100 cows from 2005-2012 was 5.7 calves: 100 cows. Calf recruitment from 2005-2012 was not sufficient to offset adult mortality and helps to explain the overall decreasing population trend for the UCHd during this time. Limited movements of caribou to and from the Southern Alaska Peninsula and the high fidelity of the UCH to calving grounds suggests that the decline was not due to caribou from the UCH migrating to the mainland. In addition, immigration from the SAPCH was less likely from 2002-2008 because the annual SAPCH calf recruitment was also at its lowest levels (6 calves: 100 cows) during this time (Butler 2007).

Other specific limiting factors, such as poor nutrition, predation, weather events, disease, and parasites, that may have contributed to the low calf recruitment from 2003-2013 and subsequent population decline are not known (Keech and Valkenburg 2007). Valkenburg et al. (2003) stated that, typically, predation is a limiting factor to caribou populations, particularly in small isolated herds. In 1999, Sellers et al. (2003) conducted a study on the SAPCH and found that wolves and bears were responsible for most of the calf mortality that occurred during the summer after the neonate stage. Sellers et al. (2003) noted that predation by brown bears was well below levels found in interior Alaska despite the high density of brown bears in the SAPCH area. This was different from the results of a study in Denali National Park, where brown bears were opportunistic predators of caribou, particularly neonate calves (Adams et al. 1995). Only one wolf was sighted during the 2016 surveys on Unimak Island (KARAC 2017, 2018).

Data is not available on potential weather patterns, for example severe winter storms or icing events that may have contributed to the population declines in the UCH. Valkenburg et al. (2003) noted that in 1998, many of the calves handled in the range of the SAPCH had incisors worn to the gum line which may have been due to volcanic ash. Despite this these calves were in relatively good condition. It is unlikely that the high rate of calf mortality in the UCH since 2005 was due primarily to stochastic events such as icing and volcanic eruptions, although they may have contributed.

In summary, indirect evidence suggests that multiple factors may have contributed to the decline of the UCH. From 2002 to 2013, the UCH population declined by approximately 85% and bulls declined by about 97% (**Table 1**). Limited calf recruitment is thought to be the primary cause of the decline in the UCH population.

In 2007, ADF&G revised the Southern Alaska Peninsula Caribou Herd Operational Plan (Draft) to reflect the separation of the SAPCH and the UCH (ADF&G and FWS 2007). To date, no formal management objectives have been defined by ADF&G for the UCH due to the difficult logistics in accessing the island. General ADF&G management objectives are to keep the Unimak Herd at 1,000 to 1,500 animals due to limited habitat on the island. In lieu of a formal management plan for the UCH, management objectives for the SAPCH, as outlined in the 2007 Southern Alaska Peninsula Caribou Herd Operational Draft Plan, may provide a framework for the population management objectives of the UCH. The SAPCH draft management plan is to sustain a total population of 3,000-3,500 animals, maintain a fall bull:cow ratio of 20-40:100, and discontinue harvest when the SAPCH is below 875 and has been in a period of decline for three years (ADF&G and FWS 2007).

Habitat

Unimak Island is the easternmost volcanic island in the Aleutian Islands, located 700 miles southwest of Anchorage just off the tip of the Alaska Peninsula (**Map 2**). It is the only Aleutian Island with natural populations of caribou, brown bear, and wolf. Ninety-eight percent of the Refuge is designated as a wilderness. The village of False Pass, located across the mainland on Isonotski Strait, is the only permanent village on Unimak Island and has a population of 35 people (U.S. Census Bureau 2010).

Four volcanos occur on the island including Shishaldin (elevation 9,372 ft.) which is one of the 10 most active volcanos in the world (Izembek 2010). The Bering Sea lowland consists of a gently sloping plain on the north side of the island is characterized by dense vegetation and numerous lakes, streams, marshes and hills (Sekora 1971). The mean annual temperature is 38°F (range -10°F-70.0°F) and temperatures below zero are rare. Winter lasts 6-9 months and snowfall averages 40-45 inches which can accumulate into deep drifts. Rainfall, which averages 30-35 inches per year, is evenly distributed throughout the year. Winds average about 20 mph but maximum speeds of up to 100 mph have been recorded at Cape Sarichef.

Unimak Island is classified as a marine tundra environment and is characterized by the absence of trees, large areas of barren ground from high winds and recent volcanic activity. Dominant vegetation community types include dwarf-shrub cowberry tundra heath (*Empetrum nigrum*), sedge meadows (*Carex spp.*), tall-shrub alder (*Alnus crispa*) and low-shrub willow (*Salix spp.*) (Talbot et al. 2006). Skoog (1968)

considered the caribou habitat on the Alaska Peninsula as marginal due to severe icing conditions and ash fall from frequent volcanic eruptions.

Valkenburg et al. (2003) noted that lichen biomass is low on the Alaska Peninsula due to historically sustained grazing by caribou, which is consistent with the finding that the diet of the UCH had higher proportions of forbs than other caribou herds (Legner 2014). Legner (2014) found that during the spring, summer, and fall, the nutritional quality of the habitat seemed to be sufficient. In addition, the body condition of cows and calves from 2009 (USFWS 2010) to 2014 (Peterson 2013, Crowley 2015) indicate that nutrition was not limiting UCH population growth and survival. The pregnancy rate for Unimak caribou from 2006-2008 also indicated that the herd was in good nutritional condition even though calf recruitment remained low (Butler 2009). However, it is often the forage availability and quality during the winter that limits the productivity of caribou herds. Lichen species, mainly consisting of the lichens in the genus *Cladonia*, are typically the major component of caribou winter diet. However, the lichen species found mainly on Unimak Island are the foliose lichen group belonging to the *Peltigera* genus, a non-forage species of caribou. In addition, Unimak Island had a low occurrence of lichen in all vegetative community types (Legner 2014). Evidence suggests that forage quality and quantity on the winter range, versus summer range, may be a limiting factor for the UCH (Legner 2014).

Harvest History

In 1997 the Board opened a subsistence hunt on Federal lands and the State opened a general hunt in 2001 (Table 2). A study on subsistence activity by Fall et al. (1990, 1996) reported that residents from False Pass hunted primarily on the Alaska Peninsula rather than Unimak Island. Although some unreported local harvest may occur, limited access is believed to constrain the UCH subsistence harvest (Bruce Dale, pers. comm. in Izembek 2010). A majority of the caribou take from 1997-2008, which averaged 12 annually, were taken by non-local residents.

Table 2. Unit 10 Reported Caribou Harvest 1997-2008 for the Unimak Island Caribou Herd (USFWS 2010, Crowley 2015, ADF&G 2018, USFWS 2018a, 2018b, WinfoNet 2018).

Year	Federal Registration Permits			State Harvest Tickets			Total Reported Harvest ^a
	Permits Issued	Bulls Harvested	Cows Harvested	Permits issued	Bulls Harvested	Cows Harvested	
1997	11	6	0	HT	0	0	6
1998	10	4	0	HT	0	0	4
1999	0	0	0	0	0	0	0
2000	8	5	0	0	0	0	5
2001	0	0	0	HT	19	0	19
2002	4	0	0	HT	11	1	12

2003	0	0	0		HT	10	0	10
2004	0	0	0		HT	15	0	15
2005	0	0	0		HT	15	0	15
2006	1	1	0		HT	12	1	14
2007	12	2	0		HT	13	0	15
2008	0	0	0		HT	9	0	9

^a Doesn't include illegal or unreported harvest

Section 804 Subsistence User Prioritization Analysis

Section 804 of ANILCA, 36 CFR 242.17, 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 at 36 CFR 242.17 and 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 determination for caribou in Unit 10 Unimak Island.

The customary and traditional use determinations for Unit 10 Unimak Island caribou include the communities of False Pass (which is the only community on Unimak Island), Akutan, and two communities of Unit 9D (King Cove and Sand Point). Cold Bay and Nelson Lagoon are also within Unit 9D but do not have a customary and traditional use determination for caribou on Unimak Island. Unit 10 consists of the Aleutian Islands, Unimak Island, and the Pribilof Islands. Unit 9D consists of all Alaska Peninsula drainages west from Port Moller to the shared boundaries of Unit 10, and includes the Shumagin and Sanak Islands. The two units are contiguous (see **Unit 9 Map** and **Unit 10 Map**). **Table 3** describes the population of each community as represented through the US Census in 1990, 2000, and 2010 (U.S. Census Bureau, 1990, 2000, 2010). It should be noted that for Akutan, the vast majority of persons counted in the census were seasonal cannery workers and are not considered Federally qualified subsistence users for the purpose of this analysis.

Table 3. US Census data for analysis communities (U.S. Census Bureau 1990, 2000, 2010).

Community & GMU	US Census			
	1990	2000	2010	
	Population			Occupied Households
Akutan *(Unit 10)	589 (88)	713 (75)	1027 (90)	40
False Pass (Unit 10)	148	64	35	15
King Cove (Unit 9D)	677	792	938	181
Sand Point (Unit 9D)	878	952	976	246
* The number within the brackets () are those persons living within a household, not in cannery group quarters.				

The sections below describe the customary and traditional harvest and use of Unimak Island caribou by local communities, the degree of local residency of subsistence users, and the availability of subsistence resources as an alternative to Unimak Island caribou.

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

This section analyzes caribou harvests by community with a customary and traditional use determination for caribou in Unit 10 Unimak Island. The section reviews the information in order to analyze each community's customary and direct dependence on caribou in general and caribou on Unimak Island specifically. Direct dependence can be assessed through current and past harvest data, customary dependence can be assessed through ethnographic research and public testimony.

ADF&G, Division of Subsistence, conducted comprehensive subsistence surveys in all four communities over different study years; 1988 for False Pass, 1992 for King Cove and Sand Point, and 2008 for Akutan (Fall, Stanek et al 1996; Fall, Mason et al 1992; Fall, Anderson et al 1992; Fall, Brown et al 2008). The Division of Subsistence conducted other harvest surveys in all four communities over subsequent years, however they were not comprehensive and did not include data on large land mammals. In addition to research conducted by ADF&G, Reedy conducted comprehensive subsistence surveys in two of the four communities more recently. Surveys were administered in 2010 for the 2009 study year in Akutan and False Pass (Reedy-Maschner & Maschner 2012). Currently Reedy is conducting surveys in King Cove, Sand Point, and Cold Bay however this most recent data will not be completed in time for this analysis.

Akutan – During the 2008 study year, Akutan harvested a total of 26,909 lbs. of wild foods or 327 lbs. per capita. Of the total community harvest approximately 4% was comprised of large land mammals, none of which was caribou. However, caribou was used in approximately 8% of the community households indicating that the resource was shared with some households, potentially from outside the community.

In 2009, Reedy reported a total estimated community subsistence harvest of 24,309 lbs. or about 276 lbs. per person. Reedy reported no harvest or use of caribou in Akutan for the 2009 study year (Reedy-Maschner & Maschner 2012). Reedy-Maschner and Machner do not appear to report the household use of resources not harvested but that may have been shared.

False Pass - During the 1988 study year, False Pass harvested a total of 28,586 lbs. of wild foods or 413 lbs. per capita. Of the total community harvest about 19 % was comprised of large land mammals or 79 lbs. per person, most of which was caribou at 74 lbs. per person. Caribou was reported as harvested by 35% of the households in False Pass, however 90% of the households reported using caribou and 85% reported receiving caribou during the study year denoting the significance of sharing for this community.

In 2009, Reedy reported a total estimated community harvest of 23,525 lbs. or approximately 689 lbs. per person (Reedy assessed the population at 35 for the study year, as opposed to a population of 69 in 1988). Reedy reported no harvest of caribou for the study year, and when asked whether people used less, same or more of a resource in 2009 than in the past, caribou was the only resource for which all households reported using less (Reedy-Maschner & Maschner 2012). Additionally, in summarizing the False Pass chapter, Reedy writes that residents expressed concern about the Unimak Island caribou closure. They cited the lack of opportunity for caribou harvest as one of the factors contributing to people leaving the island. They also noted that caribou harvest played a key role in their seasonal round of subsistence harvest and sharing activities.

King Cove - During the 1992 study year, King Cove harvested a total of 142,496 lbs. of wild foods or 256 lbs. per capita. Of the total community harvest 15 % was made up of large land mammals (39 lb per person) about half of which was caribou (19 lb per person). Caribou was used in 64% of community households and harvested by approximately 25% of those households. About 45% of households in the community reported receiving caribou.

Sand Point - During the 1992 study year, Sand Point harvested a total of 155,002 lbs. of wild foods or 256 lbs. per capita. Of the total community harvest 11% was made up of large land mammals (about 28 lb per person) about a third of which was caribou (10 lbs. per person). Caribou was used in 51% of community households and harvested by approximately 12% of those households. About 43% of the households reported receiving caribou.

Community Specific harvest data from permits issued - ADF&G and USFWS maintain a harvest reporting database (USFWS 2018b); however, complete records were not kept until the mid-1980s and ADF&G data have not been added to USFWS data since 2010. Regardless, some indication of harvest patterns can be discerned. **Table 4** demonstrates the cumulative harvest of caribou in Unit 10 by Federally qualified subsistence users from 1983 to 2010. While permits were issued in each community, False Pass was issued the highest number of permits (29), resulting in the highest harvest of caribou from Unit 10.

Table 4. Cumulative harvest of caribou in Unit 10 from 1983 to 2010 (USFWS 2018b).

Res Comm	Unit	Issued	Hunted	Kill
KING COVE	9	13	3	2
SAND POINT	9	4	0	0
AKUTAN	10	1	1	1
FALSE PASS	10	29	16	15

Harvest reporting data from ADF&G can be further refined to assess area specific hunting effort and harvest. According to data available for the 1997-2009 hunting seasons, a total of 224 individual harvest

reports indicated successful harvest of caribou on Unimak Island during this time period. Of the 224 reports, only 20 of these originated with Federally qualified subsistence users; 14 were from False Pass and six were from King Cove, representing four households and two households respectively.

Use of a resource may not be necessarily represented by successful harvest. Between 1997-2009, 26 harvest reports were returned indicating that the hunters sought caribou on Unimak Island but were unsuccessful at harvesting caribou. Of these, only two reports originated with Federally qualified subsistence users; they were from a single household in King Cove.

2. Local Residency

As mentioned previously, of the 4 communities with a customary and traditional use determination for Unimak Island caribou in Unit 10, only False Pass is actually situated on the Island within Unit 10. Akutan is also within Unit 10 and is situated on Akutan Island to the southwest of Unimak Island. King Cove and Sand Point are northeast of Unimak Island on the Alaska Peninsula within Unit 9D. There are no roads connecting the communities to each other or to provide access to the caribou resource. The two communities within closest proximity to the caribou range on Unimak Island are False Pass and Akutan. Both communities require a boat to access the herd but False Pass may be closest to the resource depending on the location of the herd. Farthest from the Unimak Island caribou herd are King Cove and Sand Point respectively.

It should be noted that while Akutan has a US Census population of 1,027 people, most live in the group quarters of the Trident Seafood cannery complex and do not hold Alaska state residency (see **Table 3**). During the 2010 US Census, of the 1,027 documented as living in Akutan, only 90 were noted as living in occupied households of Akutan Village.

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

The communities of Akutan, False Pass, King Cove and Sand Point are all highly dependent upon the subsistence way of life as a critical component to the local economy, and as demonstrated earlier in the analysis, the per capita harvest of wild foods is high. As Alaskan Peninsula and Aleutian Island communities they are bounded by the sea, and marine resources including salmon (i.e., coho, sockeye, chum) marine mammals (primarily seal), invertebrates (clam, crab, octopus), and other marine nonsalmon fish (halibut, Pacific cod) make up the majority of the harvest in all four communities. Also harvested were large land mammals (caribou, feral cattle, bison, deer), migratory waterfowl (ducks, geese), other birds (ptarmigan, grouse), furbearers, berries, greens, and wood (Fall, Stanek et al 1996; Fall, Mason et al 1992; Fall, Anderson et al 1992; Fall, Brown et al 2008).

This diversity of available and used resources can be represented by describing the range of resources used in a year by households surveyed. For example, in False Pass during the 1987-88 survey year, each community household used an average of about 23 different specific resources each. The smallest number of different resources reported used by a household was 9, while the maximum number reported used in a household was 42. For all four communities considered in this analysis, the maximum number of different

wild foods reported used in a household ranged from 42 resources in False Pass and Akutan, to 57 different kinds of wild harvested foods in Sand Point (Fall, Stanek et al 1996; Fall, Mason et al 1992; Fall, Anderson et al 1992; Fall, Brown et al 2008).

Residents of these communities harvest caribou depending on accessibility and availability. Unimak Island caribou were available for harvest up until 1993 and between the years of 1997 and 2008. The SAPCH, which extends from Port Moller to False Pass in Unit 9D, is also available for harvest although it too has a population that fluctuates. 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. The current population of the SAPCH exceeds the minimum management objective and a harvestable surplus of bulls is now available (Peterson 2013). Residents of Unit 9D (which includes King Cove and Sand Point), as well as residents of Akutan and False Pass, have customary and traditional use determinations for caribou in Unit 9D, the southern-most extent of the SAPCH.

Unique resources available locally to Akutan, False Pass, King Cove, and Sand Point are feral cattle and introduced bison. In 2016, feral cattle populations were known to exist on Akun, Popof, Sanak, Unga, and Wosnesenki Islands, and Bison were available on Popof Island, within close proximity to the analysis communities (Reedy 2016). **Table 5** describes the household harvest and use of large land mammals in all four communities over each study year by ADF&G. The first three columns describe the percentage of households within a community that 1) used the resource, that 2) attempted to harvest a resource, and the percentage of households that 3) were successful in their harvest. The following three columns describe 4) the total number of animals harvested within the community, 5) the total community harvest by estimated pounds, and then 6) the average pounds harvested per person. While a wide range of animals were harvested or used in each community, feral cattle was the only large land mammal actually harvested by all four. King Cove harvested the most feral cattle at approximately 20 lbs. per capita, Akutan harvested about 14 lbs. per capita, False Pass harvested around 6 lbs. per capita, and Sand Point harvested approximately 5 lbs. per capita (Fall, Stanek et al 1996; Fall, Mason et al 1992; Fall, Anderson et al 1992; Fall, Brown et al 2008). In 2009, the year the closure of reinstated, Reedy-Maschner and Maschner documented feral cattle harvest of approximately 142 lbs. per person in False Pass, and 26 lbs. per person in Akutan (Reedy-Maschner & Maschner 2012).

Table 5. Large land mammal harvest and use by households within each community (ADF&G 2018)

Species	% used	% attempt	% harvest	# animals	Total lbs	Lbs per capita
Akutan, 2008 (pop. 82, hh 40)						
Bison	0	0	0	0	0	0
Brown Bear	0	0	0	0	0	0
Caribou	8.3	0	0	0	0	0
Deer	2.8	2.8	2.8	1	43.2	0.6
Feral Cattle	52.8	2.8	2.8	3	1050	14.2
Moose	13.9	0	0	0	0	0
False Pass, 1988 (pop. 69 hh 22)						
Bison	0	0	0	0	0	0
Brown Bear	0	0	0	0	0	0
Caribou	90	50	35	31	4650	73.8
Deer	0	0	0	0	0	0
Feral Cattle	15	5	5	1	350	5.6
Moose	10	5	0	0	0	0
King Cove, 1992 (pop. 560 hh 158)						
Bison	4	0	0	0	0	0
Brown Bear	1.3	1.3	1.3	1	0	0
Caribou	64	29.3	25.3	34	5100	19.7
Deer	16	0	0	0	0	0
Feral Cattle	25.3	13.3	13.3	15	5250	19.7
Moose	0	0	0	0	0	0
Sand Point, 1992 (pop.606 hh 204)						
Bison	54.8	8.7	7.7	8	3600	11.7
Brown Bear	1	0	0	0	0	0
Caribou	51	15.4	11.5	20	3000	9.7
Deer	1	0	0	0	0	0
Feral Cattle	15.4	3.8	3.8	4	1400	4.5
Moose	23.1	2.9	1	1	540	1.8

Summary of Section 804 Subsistence User Prioritization Analysis—Unit 10 Unimak Island Caribou

Based on harvest records and comprehensive subsistence surveys, residents of False Pass demonstrate a higher level of customary and direct dependence upon Unimak Island caribou as the lifting of closures allow. All four communities have exhibited harvest patterns for this resource when hunting has been permitted. Though the herd can be difficult to access, residents of False Pass, King Cove, and Akutan have sought Unimak Island caribou when available. False Pass represented the most frequent harvest and use of the resource between 1997 and 2009. During this twelve year period, only 20 caribou were harvested by False Pass residents, suggesting that the likelihood that “up to ten caribou” would be harvested in a single year is low. Residents of False Pass are the closest to the resource considering the community is the only one with customary and traditional use determination for caribou on Unimak Island that is actually situated

on the island. For Akutan, Unimak Island is the closest caribou herd for which they have a customary and traditional use determination, however they also rely heavily upon feral cattle which are available in closer proximity on Akun Island. Both communities of King Cove and Sand Point are in closer proximity to the SAPCH in Unit 9D as opportunity allows. All four communities have a diversity of alternative resources available including feral cattle and in some instances bison. Only False Pass has credited some of the community population decline to the loss of opportunity for caribou harvest, and expressed the value of caribou harvest for their customary practice of sharing and receiving.

Other Alternatives Considered

One alternative considered was to oppose WSA18-01 based on conservation concerns resulting from continuing low population numbers of the UCH, susceptibility to extirpation due to stochastic events, and uneven age structure. In 2016, a population estimate put the UCH at approximately 334 animals, which is about 30% of the lower threshold of 1,000 animals recommended by the State for this island population of caribou. Although the UCH population may be on a positive trend, the population is still low and has experienced wide fluctuations in the past. The age structure of this population is unstable due little or no calf recruitment during the last 8-10 years and pregnancy rates remain low as of June 2018. Finally, the population declined during the period from 2002-2008 when there was limited harvest of 14 bulls per year. This recommendation would be to take a conservative approach and wait to see if the population continues to increase along with positive trends in the bull:cow and calf:cow ratios before opening a limited caribou hunt on Unimak Island.

A limited hunt of up to 10 bull caribou was not considered viable given the current status of the UCH. In an effort to balance the conservation concerns for the UCH along with providing for meaningful subsistence opportunity, it was decided that a very limit bull hunt was more appropriate.

In response to community desire for educational opportunities relative to the UCH, another option to this special action was discussed. The Federal Subsistence Board will consider applications for a Cultural/Educational Program (CEP) permit as defined in regulation (36 CFR 242.25(g)(1) and 50 CFR 100.25(g)(1)). The Board will consider applications for an initial permit for a qualifying cultural or educational program, for a permit when the circumstances have changed significantly, when no permit has been issued within the previous five years, or when there is a request for harvest in excess of that initially approved. After an initial CEP permit is issued, a designated local Federal official may issue permits via delegated authority from the Board in subsequent years to harvest fish, wildlife, or shellfish for a qualifying cultural or educational program to an organization that has been granted a Federal subsistence permit for this event within the previous five years. A qualifying program must have instructors, enrolled students, minimum attendance requirements, and standards for successful completion of the course. If the initial request for a CEP permit is granted, the Federal manager may issue follow-up permits to harvest the fish, wildlife, or shellfish by the requesting community's cultural and educational program within five years of the last permit issued. This alternative was not chosen as it was not part of the initial request. However it is an option the community may wish to pursue in the future.

Effects of the Proposal

If approved, this special action would provide a limited bull caribou harvest for the residents of False Pass. A small annual harvest of caribou would be significant to the residents of False Pass in terms of nutrition and by providing a meaningful experience that allows for the transfer of knowledge between generations. The Izembek National Wildlife Refuge Manager would have regulatory flexibility to issue permits based on health of the UCH. The most recent population survey in 2016 suggests that the population may be increasing and for the first time in many years the bull:cow and calf:cow ratios are close to being within the normal range for stable or increasing caribou populations of 30-40 bulls: 100 cows and 20-25 calves: 100 cows. However the tendency for the UCH to undergo wide fluctuations, the uneven age structure of the population, and population levels that are at approximately 30% of the lower threshold of 1,000 animals, recommended by the State based on the limited habitat on Unimak Island, suggests caution.

OSM CONCLUSION

Support Temporary Special Action WSA18-01 **with modification** to allow the Izembek National Wildlife Refuge Manager to permit a harvest of up to 3 bull caribou and set dates for a may be announced season between August 15 to October 15, 2018 for residents of False Pass only.

The modified regulation should read:

Unit 10—Caribou

*Unit 10 Unimak
Island—Residents of Akutan,
False Pass, King Cove, and
Sand Point*

*Unit 10-Unimak Island only -1 bull by
Federal registration permit. Up to 3 permits
would be issued by the Izembek National
Wildlife Refuge Manager.*

*Aug. 15-Oct. 15
May be
announced.*

Justification

Recognizing the importance of the continuation of subsistence uses of the UCH by False Pass residents and that no harvest from UCH has occurred since 2009, a small but limited hunt would give False Pass residents an opportunity for continuation of customary and traditional practices and to pass cultural knowledge to the younger generation. Only residents of False Pass, as determined through the Section 804 analysis, would be eligible for this hunt. Harvest data from the period in which the UCH was open to harvest (1997-2009) shows that harvest by False Pass residents was less than two animals per regulatory year. Given the difficulty of accessing the area frequented by the herd, harvest is anticipated to remain low.

In 2016, a population estimate put the UCH at approximately 334 animals, which is about 30% of the lower threshold of 1,000 animals recommended by the State for this island population of caribou. The UCH population appears to have stabilized and may be increasing slightly. Given that the UCH has experienced wide population fluctuations in the past and given their susceptibility to extirpation by a stochastic event, the harvest quota should not exceed 3 bulls, or approximately 1% of the population.

Giving the Izembek National Wildlife Refuge Manager delegated authority to set the harvest quota and opening and closing dates for a *may be announced season* would allow for assessment of the UCH population status and determine if a limited hunt, that would provide a meaningful subsistence opportunity, would be possible. Updated population information for the Unimak Island Caribou Herd is expected in the near future and results could influence the conservative management of this herd.

INTERAGENCY STAFF COMMITTEE RECOMMENDATION

Approve Temporary Special Action request WSA18-01 **as modified by OSM** to allow the Izembek National Wildlife Refuge Manager to permit a harvest of up to 3 bull caribou and set dates for a *may be announced season* between August 15 to October 15, 2018 for residents of False Pass only.

The modified regulation should read:

Unit 10—Caribou

<i>Unit 10 Unimak Island—Residents of Akutan, False Pass, King Cove, and Sand Point</i>	<i>Unit 10-Unimak Island only -1 bull by Federal registration permit. Up to 3 permits would be issued by the Izembek National Wildlife Refuge Manager.</i>	<i>Aug. 15-Oct. 15 May be announced.</i>
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Justification

The Interagency Staff Committee (ISC) concurs with the OSM staff analysis' recognition of the importance of the continuation of subsistence uses of the Unimak Caribou Herd (UCH) by False Pass residents. As noted in the staff analysis, no harvest from UCH has occurred since 2009. Providing an opportunity to harvest a limited number of caribou would offer False Pass residents a chance carry out customary and traditional practices and to pass cultural knowledge to the younger generation. Only residents of False Pass, as determined through the Section 804 subsistence user prioritization analysis, would be eligible for this hunt. Harvest data from the period in which the UCH was open to harvest (1997-2009) shows the average harvest by Federal Registration permit was less than two animals per regulatory year. Given the difficulty of accessing the area frequented by the herd, harvest is anticipated to remain low.

The regulatory flexibility provided to the in-season manager to issue a limited number of permits based on the health of the UCH offers a conservative approach for providing harvest opportunity if additional herd health information is not available prior to announcing a season. As indicated in the staff analysis the tendency for the UCH to undergo wide fluctuations, the uneven age structure of the population, and population levels (2016 estimate 334 animals) that are at approximately 30% of the lower threshold of 1,000 animals suggests caution. Although the UCH population may be on a positive trend, the population is still low and has experienced wide fluctuations in the past. If three (3) bulls are harvested from the estimated 49 in 2016-17, then this accounts for six percent of the bull population. Given the current health

status of the herd, the ISC suggests that the in-season manager consider additional 2018 caribou herd data, if available, prior to announcing a season and issuing permits to see if the population continues to show positive trends in the bull:cow and calf:cow ratios. The ISC supports efforts to provide residents of False Pass a potential opportunity to harvest caribou while also conserving the resource.

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APPENDIX 1



THE STATE
of ALASKA
GOVERNOR BILL WALKER

Department of Fish and Game

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Date: May 2, 2018

To: Anthony Christensen, Chair
Federal Subsistence Board

From: Alaska Department of Fish and Game
Sam Cotten, Commissioner through Bruce Dale, Director Division of Wildlife
Conservation, and Hazel Nelson, Director Division of Subsistence

Subject: Wildlife Special Action WSA 18-01: Temporary Special Action Request

The State of Alaska, Department of Fish and Game (ADF&G), respectfully recommends that the board does not open a hunt for Unimak caribou as requested by Wildlife Special Action (WSA) 18-01: Temporary Special Action Request, which was submitted by the Kodiak/Aleutians Subsistence Regional Advisory Council. The WSA requests the Federal Subsistence Board to open a limited bull caribou hunt on Unimak Island, Unit 10, for Federally qualified subsistence users from the community of False Pass only. The proposed season would open August 15 and close October 15, 2018. Dependent upon harvestable surplus, up to 10 bulls could be harvested by subsistence users. Quotas and permits will be issued under Delegation of Authority by the Izembek National Wildlife Refuge Manager.

Background:

Caribou numbers on Unimak Island have cycled widely over the decades as have the Northern and Southern Alaska Peninsula (SAP) caribou herds. Although there are historical accounts of caribou moving between Unimak Island and the mainland, and the Unimak caribou herd (UCH) was once considered part of the SAP, more recent evidence including fidelity to calving grounds, prolonged genetic isolation, and long-term radio collar data demonstrated distinction between island and mainland caribou to classify these as two different herds. The Alaska Board of Game has made a positive customary and traditional subsistence use finding for the South Alaska Peninsula herd when it was located in Units 9D and 10 Unimak Island, and found that 100–150 SAP caribou are reasonably necessary for subsistence uses. The Board of Game has not yet considered separate subsistence uses of the now-distinct Unimak herd.

Following a precipitous decline in the late 1970s and early 1980s the UCH population again reversed its course and began increasing. By 1997 the herd had grown to at least 600 caribou and by 2000 to approximately 1,000 animals. The population was relatively stable until 2005 (or possibly earlier, prior to commencement of annual surveys) when composition surveys began indicating low annual calf-to-cow ratios. This continued through 2012 when it bottomed out at three calves:100 cows. Population size and bull-to-cow ratios declined correspondingly, and predation on calves was suspected to be the cause of poor calf survival.

State and federal hunts were closed by emergency orders in 1993 when the then-combined SAP and UCH herds declined below 2,500 caribou. The federal subsistence season reopened in regulatory year (RY) 2000 when the UCH reached 1,000 animals and herd management was officially separated from SAP. The state general season reopened in RY01. State and federal UCH hunts were once again closed in RY09 following the most recent decline and remain closed.

Discussion:

The last minimum count conducted by Izembek National Wildlife Refuge (INWR) staff in 2015 located 230 caribou. ADF&G conducted a minimum count in 2016 and found 334 caribou. Both counts were below the population objective of 1,000 caribou for the island. The last estimate of the bull-to-cow ratio was 33:100 and was still below management objective (35:100 cows); however, it was an improvement over the previous composition count in 2014 (15:100 cows). Surveys were not conducted in 2017 due to unfavorable weather conditions. Therefore, current herd status is unknown, and a sustainable bull-to-cow ratio is critical for the herd to continue its recovery.

A parturition survey in spring of 2017 suggested a stable herd size based on the number of animals observed. ADF&G detected 100% of radio collared cows but counted only 190 caribou on Unimak Island. In 2016, 181 caribou were located during the parturition survey.

Assuming a population of 300 caribou, 30% of which are bulls, a harvest of 10 bulls is approximately 10% of the bulls in the herd. This harvest rate is too high based on the management objectives and would prevent the herd from reaching the objective of 35 bulls per 100 cows. As a result, we recommend the hunt remain closed until the objective is met and at least 600 caribou are observed during fall composition surveys or spring parturition surveys.

The Subsistence Regional Advisory Council suggests that using boats for hunting is prohibitively expensive, yet harvest records indicate successful hunters from False Pass used boats almost exclusively except for one who reported using an airplane. Based on our routine surveys and radio collared animals, caribou do not often occur in the False Pass drainage. This is especially true for bulls. Residents use boats to access parts of the island where caribou occur. Additionally, between 1998 and 2000, six hunters from False Pass reported using boats to hunt caribou on the southern Alaska Peninsula. False Pass residents have reported no recent hunting activity on the SAP herd in state hunts, which have been opened since 2013.

In conclusion, ADF&G encourages more time for herd recovery before providing harvest opportunity at this time. It is important to meet the existing state management objectives before opening a hunt that will meet recognized wildlife management principles. Subsistence users will benefit in the long term by allowing the Unimak caribou herd additional time to recover before reestablishing a hunting season.

Thank you for consideration of our comments.

cc: Bruce Dale, Director, Division of Wildlife Conservation
Hazel Nelson, Director, Subsistence Division
Seth Beausang, Assistant Attorney General, Department of Law
Cheryl Brooking, Attorney, Department of Law