DRAFT STAFF ANALYSIS WP18-24

ISSUES

Proposal WP18-24, submitted by Kenneth Nukwak of Manokotak, requests that Federally qualified subsistence users be allowed to use a snowmachine to position caribou, wolves, and wolverines for harvest in Unit 17, provided the animals are not shot from a moving vehicle.

DISCUSSION

The Alaska National Interest Lands Conservation Act (ANILCA) provides for the appropriate use of snowmobiles, motorboats, and other means of surface transportation for subsistence purposes on Federal lands; however, current agency-specific regulations are prohibitory. The proponent states that the requested regulatory change is needed to prevent hunters from shooting into a herd of animals and to provide better guidelines to hunters for the method of harvest.

Existing Federal Regulation

ANILCA Title VIII §811. Access.

(a) The Secretary shall ensure that rural residents engaged in subsistence uses shall have reasonable access to subsistence resources on the public lands.

(b) Notwithstanding any other provision of this Act or other law the Secretary shall permit on the public lands appropriate use for subsistence purposes of snowmobiles, motorboats, and other means of surface transportation traditionally employed for such purposes by local residents, subject to reasonable regulation.

50 CFR 100.4 and 36 CFR 242.4 Definitions

Take or taking as used with respect to fish or wildlife, means to pursue, hunt, shoot, trap, net, capture, collect, kill, harm, or attempt to engage in any such conduct.

§ _____.26 Subsistence taking of wildlife

....

(b) Except for special provisions found at paragraphs (n)(1) through (26) of this section, the following methods and means of taking wildlife for subsistence uses are prohibited:

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Submitted at the request of Board Member Karen linnell

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(4) Taking wildlife from a motorized land or air vehicle when that vehicle is in motion, or from a motor-driven boat when the boat's progress from the motor's power has not ceased;

(5) Using a motorized vehicle to drive, herd, or molest wildlife.

Proposed Federal Regulation

§_____.26(n)(17)(iii) Unit 17—Unit-specific regulations

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(D) A snowmachine may be used to position a caribou, wolf, or wolverine for harvest, provided that the animals are not shot from a moving snowmachine.

Existing State Regulation

Sec. 16.05.940. Definitions.

(34) "take" means taking, pursuing, hunting, fishing, trapping, or in any manner disturbing, capturing, or killing or attempting to take, pursue, hunt, fish, trap, or in any manner capture or kill fish or game.

5 AAC 92.080. Unlawful methods of taking game; exceptions

The following methods of taking game are prohibited.

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(4) unless otherwise provided in this chapter, from a motor-driven boat or a motorized land vehicle, unless the motor has been completely shut off and the progress from the motor's power has ceased, except that a

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(B) motorized land vehicle may be used as follows:

(iii) notwithstanding any other provision in this section, in Units 9(B), 9(C), 9(E), 17, 18, 19, 21, 22, 24, 25(C) and 25(D), except on any National Park Service or National Wildlife Refuge lands not approved by the federal agencies, a snowmachine may be used to position a hunter to select an individual wolf for harvest, and wolves may be shot from a stationary snowmachine;

(5) except as otherwise specified, with the use of a motorized vehicle to harass game or for the purpose of driving, herding, or molesting game.

5 AAC 92.990. Definitions

(a) In addition to the definitions in AS 16.05.940, in 5 AAC 84 – 5 AAC 92, unless the context requires otherwise,

(70) "harass" means to repeatedly approach an animal in a manner which results in the animal altering its behavior.

Note: The full text of 5 AAC 92.080(4)(B), above, is in Appendix A.

Relevant Regulation

There is a difference between the proposed regulation and agency-specific regulations. Adoption of this proposal may require clarification between new regulation and conflicting agency-specific regulations. Federal subsistence and agency-specific regulations are as follows:

§_____.26(n)(17)(ii) Unit 17—In the following areas, the taking of wildlife for subsistence uses is prohibited or restricted on public lands:

(A) Except for aircraft and boats and in legal hunting camps, you may not use any motorized vehicle for hunting ungulates, bear, wolves, and wolverine, including transportation of hunters and parts of ungulates, bear, wolves, or wolverine in the Upper Mulchatna Controlled Use Area consisting of Unit 17B, from Aug. 1-Nov. 1.

50 CFR 36.12 (Alaska National Wildlife Refuges) Use of snowmobiles, motorboats, dog teams and other means of surface transportation traditionally employed by local rural residents engaged in subsistence uses.

(a) Notwithstanding any other provision of subchapter C of title 50 CFR the use of snowmobiles, motorboats, dog teams and other means of surface transportation traditionally employed by local rural residents engaged in subsistence uses is permitted within Alaska National Wildlife Refuges except at those times and in those areas restricted or closed by the Refuge Manager.

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(d) Snowmobiles, motorboats, dog teams and other means of surface transportation traditionally employed by local rural residents engaged in subsistence uses shall be operated (1) in compliance with applicable State and Federal law, (2) in such a manner as to prevent waste or damage to the refuge, and (3) in such a manner as to prevent the herding, harassment, hazing or driving of wildlife for hunting or other purposes.

36 CFR 13.460 (Alaska National Park System) Use of snowmobiles, motorboats, dog teams, and other means of surface transportation traditionally employed by local rural residents engaged in subsistence uses.

(a) Notwithstanding any other provision of this chapter, the use of snowmobiles, motorboats, dog teams, and other means of surface transportation traditionally employed by local rural residents engaged in subsistence uses is permitted within park areas except at those times and in those areas restricted or closed by the Superintendent.

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(d) Motorboats, snowmobiles, dog teams, and other means of surface transportation traditionally employed by local rural residents engaged in subsistence uses shall be operated:

(1) In compliance with applicable State and Federal law;

(2) In such a manner as to prevent waste or damage to the park areas; and

(3) In such a manner as to prevent the herding, harassment, hazing or driving of wildlife for hunting or other purposes.

43 CFR 8341.1 (Bureau of Land Management)

(f.) No person shall operate an off-road vehicle on public lands: ... (4) In a manner causing or likely to cause significant, undue damage to or disturbance of ... wildlife

Extent of Federal Public Lands

Federal public lands comprise approximately 28% of Unit 17 and consist of 20.97% U.S. Fish and Wildlife Service (USFWS) managed lands, 3.55% Bureau of Land Management (BLM) managed lands, and 3.28% National Park Service (NPS) managed lands (**Unit 17 Map**).

Regulatory History

In 1995, Proposal 95-52 requested that snowmachines and motor-driven boats be used to take caribou and moose in Unit 25 during established seasons with the knowledge that shooting from a snowmachine in motion was prohibited. There was no existing regulation on the use of motorized vehicles in Unit 25 prior to that time. The Federal Subsistence Board (Board) adopted the proposal on the consent agenda as recommended by both the Eastern Interior and Southcentral Subsistence Regional Advisory Councils who supported the proposal in recognition that methods change over time and because it supports subsistence needs.

In 2000, the Board adopted Proposal 00-53 with modification, allowing the use of snowmachines to position a hunter and select individual caribou for harvest in Units 22 and 23. The Board did this to recognize a longstanding customary and traditional practice in the region (FWS 2000). In Proposal 00-53,

the proponent asked to position a caribou, not a hunter. The Board provided a rationale for the modification:

Following the Regional Council winter meetings, the Deputy Regional Director of the U.S. Fish and Wildlife Service (FWS), Alaska Region, met with the Assistant Regional Director for Law Enforcement, the Staff Committee member for FWS, the Refuge Supervisor for Northern Refuges, and the Native Liaison and, after lengthy discussion, agreed to recommend substituting "a hunter" for "caribou" in the proposal language. They agreed that this is consistent with conservation principles and existing agency regulations as long as herding does not occur and shooting from a moving snowmachine is prohibited (FWS 2000:13).

In 2012, WP12-53 was submitted by the Yukon Delta National Wildlife Refuge, and requested unit specific regulation prohibiting a hunter in Unit 18 from pursuing with a motorized vehicle an ungulate that is "fleeing". The Board adopted the proposal with modification and prohibited the pursuit with a motorized vehicle of an ungulate that was "at or near a full gallop" in Unit 18, providing greater clarity of allowable methods of harvest (FWS 2012).

At its March 2014 meeting, the Alaska Board of Game adopted Proposal 177, which allowed a hunter to use a snowmachine in Units 22, 23 and 26(A) to position a caribou, wolf, or wolverine for harvest, so long as these animals were shot from a stationary snowmachine (Appendix A). The purpose of the proposal was to change hunting restrictions to allow the use of snowmachines to track and pursue these animals without the prohibition against driving, herding, harassing, or molesting game in Unit 23 while hunting these species.

In 2016, Proposal WP16-48, submitted by the Native Village of Kotzebue, requested that Federally qualified subsistence users be allowed to use snowmachines to position a caribou, wolf, or wolverine for harvest in Unit 23. The Board adopted the proposal with modification to allow this method of harvest only on those lands managed by the BLM. The Board recognized use of snowmachine to position animals as customary and traditional practice. However, positioning animals by snowmachine is prohibited on NPS and USFWS lands under agency-specific regulations. BLM regulatory language does not specifically prohibit the use of snowmachines to position animals for hunting and the harvest method is allowed on State managed lands.

Cultural Knowledge and Traditional Practices

During his study years of 1964 and 1965, VanStone (1967:134) documented winter travel along the Nushagak River as occurring almost exclusively by dog team. During the winter months dog teams were used to harvest caribou, access trap lines, and provide for the transportation of supplies and people throughout the region. At the time of his study, VanStone was only aware of a few Bristol Bay residents that possessed snowmachines. Approximately 10 years later, when the Alaska Department of Fish and Game (ADF&G) first began conducting research on subsistence harvest activities, dog teams were barely mentioned. Instead it was noted that the communities of Nushagak Bay and Unit 17 were using mostly boat, aircraft, and snowmachine to access animals for harvest (Coiley-Kenner et al. 2003; Evans et al. 2013;

Fall et al. 1986; Holen et al. 2012; Holen et al. 2005; Kreig et al. 2009; Schinchnes and Chythlook 1988; Seitz 1996; Wright, Morris and Schroeder 1985).

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In the past, prior to the use of snowmachines, people in the region were more nomadic. Residents of Southwest Alaska practiced an annual round of harvest activities that allowed them to effectively position themselves in proximity to important resources that supported their families through extended travel to seasonal subsistence camps. In a 2003 report, elders describe a harvest year that began at fish camp in the early summer, moved up the river to hunting and trapping camps for the fall and winter, traveled through mountain passes and down rivers to bays and estuaries for the spring harvest of migratory waterfowl and eggs, finally returning to fish camp once again in time for the salmon runs of early summer (La Vine and Lisac 2003). A trip such as this required travel by boat, sled, and foot and took the family hundreds of miles and 12 months to complete. This seasonal cycle is consistent with regulation in other parts of the state that allows for the positioning of a hunter in order to select individual animals for harvest. As village life solidified around schools and economic opportunities, technological advances like boats with outboard motors and snowmachines allowed people to travel further over shorter periods of time in order to access the resources they once had to follow over seasons instead of hours.

Similarly, in north western Alaska where caribou harvest is an essential part of the subsistence way of life, Alaska Native people have also transitioned from dog team to snowmachine as a necessary continuance of their subsistence practice (Anderson et al. 1998). Some of the practice described in the following provides greater detail on how hunters might position themselves in order to strategically harvest an animal, but it also describes practices that can be identified as positioning an animal. In winter, there were advantages to using dog teams, and now snowmachines, for hunting caribou. When caribou were not present near a village or hunt camp, hunters needed to be mobile and travel long distances to locate bands of caribou. Sleds and snowmachines are now used together and allow transport of more hunters, gear, meat, and hides.

Anderson et al. (1998:203) described winter caribou hunts with dog teams:

The usual technique was to drive across open, wind-packed areas and stop on rises to scan the terrain. If trees, brush, or large rocks were within a half mile of caribou, the hunter usually took his [dog] team there, secured it, and stalked the animals on foot. . . . Occasionally, circumstances did not allow tethering the dogs or stalking on foot, so the man drove his team directly at the herd, hoping to come close enough for firing. Some teams ran to within 150 yards of a herd. Just before the animals started to run, the hunter would stop his dogs, anchor the sled, and fire a few shots. As the caribou ran away, he pulled up the sled anchor and gave chase. Caribou can easily outdistance a dog team. However, they tend to run away at an angle and will stop once or twice to look back, so the hunter could guide his team to intersect their path of flight.... when the caribou paused, the driver would again stop his team and fire.

Anderson et al. (1998:209) described winter caribou hunts using snowmachines:

Today, well over 90 percent of all winter caribou hunting . . . is done with snowmachines. Whereas in the past this was largely an individualistic affair, men now prefer to travel in

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pairs or small groups. . . . Under most circumstances, using two or more machines will greatly increase the chances of success in a hunt. In open areas, hunters generally spread out as they travel but keep each other in view, so they can survey the greatest area possible. When game is spotted the drivers come together and decide the best approach. If the terrain, number of caribou, and number of machines warrants it, one group of hunters circles behind the caribou while the other group moves ahead. Usually this maneuver causes the caribou to run directly across the path of the forward hunters. Another way to hunt most effectively is by having two men on each machine, so the driver can concentrate on maneuvering close to the caribou while the other (who usually rides behind on the sled) can shoot as soon as the machine stops.

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Discussion from the analysis of WP16-48 is relevant here, even if it describes characteristics or terms for hunting from more northern communities, as it can be a starting point for potential Council discussions and public testimony on similar practices within Unit 17. In the context of caribou hunting, the Iñupiaq word *inillak* means "the *hunter positions himself* close to where the caribou would pass or cross depending on the way the wind is blowing... to the Iñupiat, *inillak* is quite different from herding and it is used specifically in caribou hunting. Herding means to gather animals such as reindeer into an enclosed area" (FWS 2000:19). Iñupiaq hunters position both themselves and caribou during a hunt. During the discussions in 2000, Mike Patkotak from the North Slope Subsistence Regional Advisory Council said, "When you are *positioning caribou*, you're out in the open; you're not putting them into an enclosed corral.... You're not trapping them into an enclosed area." (FWS 2000:19).

Whether using dog team, snowmachine, or stalking, it is customary for "a hunter to go on one side of the herd and *unu* them towards the hunter waiting on the other side. This is also called *unuraq*, driving the caribou. This gives them a better position to be successful in their harvesting of the caribou that they want" (FWS 2000:22). The Iñupiaq word *unu* means to "cooperatively push or move the caribou. One or more hunters wait on one section of the hunting area and young runners go around behind the herd to make them head in the shooters' direction" (FWS 2000:19). This remains a common practice in Unit 23, and the current preferred method of positioning both hunters and animals in winter is by snowmachine.

In wildlife proposal WP12-53, contemporary practice of snowmachine use in Unit 18 was defined as follows:

Hunters from some lower Yukon River villages described hunting in the Andreafsky Mountains in the 1980s. It was unclear if the group was hunting caribou of reindeer from the nearby heard at Stebbins. Caribou/reindeer roamed in small groups, difficult to approach my snowmachine. Several hunters attempted to herd a group to locations where shots could be taken, such as up a cul-de-sac or toward a heavy bush line. In this description, the high speed chase was considered "a relatively risky, dare-devil technique" (Wolfe and Pete 1984: 9). Kwethluk hunters in the 1980s hunting with snowmachines reported hunting in upper Kwethluk and Kisaralik River valleys. "The high hills and low mountains scattered throughout the area provided lookouts where hunters car watch for caribou" (Coffing 1991:157)(FWS 2012).

The level of detail described by Anderson et al. (1998) and within the analysis of P00-53 (FWS 2000) was not found within accessible literature or transcripts for Unit 17.

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Wolves and Wolverine

Across Alaska, both wolves and wolverine are highly prized for their fur which is used to trim locally made parkas and other items of clothing or handicrafts. While not as prominent an activity as in the past, rural residents still participate in trapping as a source of income in the Bristol Bay region, particularly for wolverine, which continues to fetch a high price for quality fur (Woolington 2013). Snowmachines were the primary form of transportation used by hunters and trappers for taking wolves and furbearers in Unit 17 from 2008 through 2012 (Woolington 2012; Woolington 2013). Most wolves were harvested by firearm between the regulatory years of 1992 and 2010 while wolverines were more frequently taken by trap or snare.

Biological Background

Caribou

Two distinct caribou populations are present in Unit 17. The Nushagak Peninsula Caribou Herd (NPCH) primarily occupies the ~425 mi² Nushagak Peninsula, which is the portion of Units 17A and 17C south of the Igushik River, the Tuklung River, and the Tuklung Hills. The Mulchatna Caribou Herd (MCH) ranges across ~60,000 square miles, primarily within Units 9B, 9C, 17A, 17B, 17C, 18 19A and 19B (Woolington 2013).

Caribou were absent from the Nushagak Peninsula for more than 100 years prior to reintroduction of caribou from the Northern Alaska Peninsula Herd in 1988. Following reintroduction, the NPCH grew from 146 animals to over 1,200 caribou by 1998. Subsequently, calf recruitment and adult female survival decreased and the population fell below 600 caribou by 2006. Since then, improvements in calf recruitment and adult survival have resulted in a population increase (Aderman 2015).

The most recent population survey occurred in June 2017, when a minimum of 786 caribou were observed. This is down 36% from the 2016 count of 1,230 caribou but it is near the upper end of the Nushagak Peninsula Caribou Management Plan's population objective, which is to maintain a population of 400–900 caribou and an optimum of 750 caribou (Aderman 2015). The large decrease in population is due to the increased harvest of caribou during the 2016/17 regulatory year. The most recent composition surveys were conducted in October 2016. These surveys estimated 51 bulls:100 cows and 40 calves:100 cows (Aderman 2017, pers. comm.).

Like the NPCH, the MCH has experienced dramatic changes in population size, as well as in distribution. In the early 1980s, the MCH was estimated to include \sim 20,000 caribou and its range was mostly limited to the area east of the Mulchatna River between the Bonanza Hills and Iliamna Lake. By the mid-1990s, the herd had grown to its peak size of \sim 200,000 caribou and had begun wintering in southern Unit 18 and southwestern Unit 19B. Subsequently, the herd began a period of decline that persisted until recently. (Woolington 2013).

Recent population surveys indicate that the MCH was at its smallest in 2013, with 18,308 caribou, and has varied between 26,000 and 31,000 caribou since then. The most recent estimate is 27,242 caribou (Barten 2016), which is approaching the lower bound of the State's population objective of 30,000 - 80,000 caribou.

In 2016, the bull:cow ratio was 39 bulls:100 cows. This is the highest estimate since 2000, which is above the State's management objective of 35 bulls:100 cows. The proportion of bulls classified as large in 2016 was 28%, which is among the highest estimates on record and is well above the long-term average of 19% (Barten 2016). Calf:cow ratios have been variable, as is typical of caribou herds occupying interior and southwest Alaska. In 2016, the overall calf:cow ratio was 22 calves:100 cows, a decrease relative to 2014 and 2015, but within the range of variability observed in recent years (Barten 2016).

Research on winter recreation and hunting has documented evidence of both positive and negative biological effects in ungulates related to snowmachine use in caribou habitat (Harris et al. 2014; Webster 1997). Results of these studies and similar recreational use studies may not be directly relevant to winter caribou hunting in Unit 17 because the majority of Federally qualified subsistence users do not operate snowmachines during subsistence hunts in the same manner as recreational users or sport hunters.

Wolves

Wolves are present throughout Unit 17C. As with other furbearers in Alaska, relative abundance of wolves is estimated using trapper questionnaires, rather than population surveys or other objective measures. These records indicate that the wolf population has rebounded from a population decline that occurred in the late 1980s and early 1990s, and is widely distributed and relatively abundant (Woolington 2012; ADF&G 2013; Barten 2017, pers. comm.).

Wolverines

Wolverines, whose habitat most commonly consists of boreal forest and tundra ecosystems (Copeland and Whitman 2003), occur throughout Unit 17 (Woolington 2013). Though formal assessments of population status have not been undertaken in this area, trapper reports suggest that they are common (ADF&G 2013) and that the wolverine population in this area is relatively stable (Woolington 2013). Within Unit 17, the population objective established by ADF&G is to maintain a population sufficient to sustain an average annual harvest of 50 wolverines.

Harvest History

Caribou

Typically, annual harvest of the NPCH has increased as the population has grown and harvest limits have increased. Prior to the 2016 regulatory year, annual reported harvest ranged from zero when the population was small and harvest was heavily regulated, to over 125 when caribou were abundant and regulations were liberalized. Overall, harvest has averaged 62 caribou annually since 1994, the first year harvest was authorized under Federal regulation. Until 2015, all caribou hunting on the Nushagak

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Peninsula was limited to Federally qualified subsistence users, due to the Federal lands closure that has been in place since harvest was authorized (Aderman 2015, Aderman 2017, pers. comm.).

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In recent years, total reported harvest has been lower than expected, given the NPCH size. This is likely due to poor winter travel conditions resulting from low snowfall and warm temperatures. In 2016/17, good travel conditions combined with liberal harvest regulations (including temporary rescission of the Federal lands closure, generous harvest limits, and allowance of same day airborne hunting for Federally qualified subsistence users) resulted in a record high harvest of 371 caribou (Aderman 2017, pers. comm.).

Like the NPCH, harvest of the MCH is affected by caribou abundance, environmental conditions, and harvest restrictions. Reported harvest of the MCH has decreased significantly since the early 2000s, when the herd was very large. Total reported caribou harvest declined from 3,949 caribou in 2000 to 307 caribou in 2016. Harvest among all user groups declined during this period, but the decline was especially pronounced among non-local residents and nonresidents, owing to reduction of State harvest limits in 2006 and elimination of the nonresident season in 2009 (ADF&G 2017; Barten 2017, pers. comm.). In 2016, 84% of the reported harvest, across the range of the herd, was taken by Federally qualified subsistence users. However, underreporting is a known problem in this region and it is likely that reported harvest underestimates total harvest by local users. Among Federally qualified subsistence users, 64% of the total reported harvest was taken Jan. – Mar. and 25% of the total reported harvest was taken in Unit 17.

Wolves

According to sealing records kept by ADF&G, wolf harvest averaged 70 wolves annually between 1991 and 2010. Seventy-five percent, or 52 wolves annually, were harvested by firearm during this time period. By contrast, only 16 wolves annually were trapped or snared (Woolington 2012). There is considerable variation in annual harvest rates. For instance, in regulatory year 2002, just 30 wolves were sealed. The following year, 141 wolves were sealed. Local biologists attribute much of this variation to winter travel conditions which provide ease of access by snowmachine rather than availability of wolves. Typically, most wolf harvest occurs between January and April, when travel conditions are more favorable. However, harvest has occurred in August and September too, incidental to caribou and moose hunting (Woolington 2012).

Wolverines

Sealing records indicate that wolverine harvest in Unit 17 averaged 42 wolverines annually between 1992 and 2011. The majority of wolverines are taken with traps and snares. On average, 27%, or 11 wolverines annually, were taken by firearm (Woolington 2013). Wolverine harvest in Unit 17 has remained relatively stable since 1976, despite annual fluctuations. These fluctuations likely reflect trapper effort, which varies with travel conditions. Historically, wolverine harvest was highest in January and February, but March has become an important time for harvesting wolverine as well (Woolington 2013).

Effects of the Proposal

If adopted, Proposal WP18-24 would allow hunters to use a snowmachine to position caribou, wolves, and wolverine for selection and harvest, as long as they are not shot from a moving snowmachine. This proposal would address the need for Federally qualified subsistence users to be able to use the most efficient and effective methods to take wild resources important for their livelihood. The proposed regulation is not expected to result in significant population changes for caribou, wolves, or wolverines as snowmachines are already extensively utilized in Unit 17 to access hunting grounds and trap lines and harvest numbers will continue to be managed by season and limits within regulation. However, adopting this Federal regulatory change would emphasize the difference between ANILCA Section 811 and existing agency-specific regulations on NPS and USFWS lands.

The biological effects of winter hunting with snowmachines on caribou, wolves and wolverine in Unit 17 are largely unknown. If this proposal were adopted any biological effects, positive or negative, that may occur in these species related to traditional winter hunting practices are anticipated to remain mostly unchanged as snowmachine are already extensively utilized in this manner, in order to bring hunters within close proximity to the animals they harvest.

OSM PRELIMINARY CONCLUSION

Support Proposal WP18-24.

Justification

The proposed regulatory changes would ensure that Federally qualified subsistence users are provided the opportunity to use snowmachines as an efficient and effective means to harvest caribou, wolves, and wolverines during winter months in Unit 17.

The proposed changes would have little to no effect on current hunting behavior, and any changes in the population status of caribou, wolves, and wolverines are anticipated to continue to be addressed through season and bag limits.

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