	WP26–48 EXECUTIVE SUMMARY
General Description	Wildlife proposal, WP26-48, proposes to increase the hunting harvest limit for wolves in Unit 18 from 10 to 15. *Submitted by: Yukon-Kuskokwim Delta Subsistence Regional Advisory Council.*
Proposed Regulation	**Unit 18—Wolf hunting** *Unit 18—**15** ~~10~~ wolves* *Aug. 10—Apr. 30*
OSM Preliminary Conclusion	**Support**
Yukon-Kuskokwim Delta Subsistence Regional Advisory Council Recommendation	
Western Interior Alaska Subsistence Regional Advisory Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	**None**

Draft Wildlife Analysis
WP26-48

ISSUE

Proposal WP26-48, submitted by the Yukon-Kuskokwim Delta Regional Advisory Council (YKD Council) requests to increase the hunting harvest limit for wolves in Unit 18 from 10 to 15.

Proponent Statement

This would provide additional opportunity for federally qualified subsistence users. There are no conservation concerns for wolves in Unit 18.

Current Federal Regulations

Unit 18—Wolf hunting

Unit 18—10 wolves	*Aug. 10—Apr. 30*

Unit 18—Wolf trapping

Unit 18— No limit	*Nov. 10—Mar. 31*

Proposed Federal Regulations

Unit 18—Wolf hunting

*Unit 18—**15** ~~10~~ wolves*	*Aug. 10—Apr. 30*

Current State Regulations

Unit 18−Wolf hunting

Residents and Nonresidents 10 wolves	*Aug. 10—Apr. 30*

Unit 18−Wolf trapping

Residents and Nonresidents No limit	*Nov. 10—Apr. 30*

Extent of Federal Public Lands

Unit 18 is comprised of approximately 68% Federal public lands and consists of 65% U.S. Fish and Wildlife Service (USFWS) managed lands and 3% Bureau of Land Management (BLM) managed lands.

Customary and Traditional Use Determination

Rural residents of Units 6, 9, 10 (Unimak Island only), 11, 12, 13, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, and Chickaloon have a customary and traditional use determination for wolf in Unit 18.

Regulatory History

In 1990, the Federal wolf hunting harvest limit in Unit 18 was 4 wolves per year. In 1993, the Alaska Department of Fish and Game (ADF&G) submitted Proposal P93-02 to change the Unit 18 hunting harvest limit to 5 wolves. The YKD Council recommended that P93-02 be amended to "no limit" for wolves in Unit 18. Based on conservation concerns, the Federal Subsistence Board (Board) adopted the 5 wolves per year limit for hunting. The hunting harvest limit for wolves in Unit 18 was 5 wolves per year until 2012.

The Alaska Board of Game (BOG), at its November 2011 meeting, adopted Proposal 15 to increase the State hunting harvest limit from 5 to 10 in Unit 18 (OSM 2012).

In 2012, the Board adopted Proposal WP12-54, increasing the Federal wolf hunting harvest limit from 5 to 10 in Unit 18, aligning with State regulations (OSM 2012).

In 2016, the Board rejected Proposal WP16-35, which requested to close Federal public lands in a portion of Unit 18 to the harvest of black bears, brown bears, moose, and wolves by non-federally qualified subsistence users because it was not necessary for conservation or the continuation of subsistence uses (OSM 2016).

The BOG, at its January 2024 meeting, adopted Proposal 16, lengthening the wolf trapping season in Unit 18 by one month to end on April 30.

Biological Background

Wolves (*Canis lupus)* are found throughout most of Unit 18 and are well adapted to the hills, tundra, and river valleys of the unit. Wolves first breed at age two to four and produce pups in dens during the spring. Litters average five or six pups. Wolves abandon the den after about eight weeks and live at sites above ground until early autumn when the entire pack roams a large territory for the rest of the fall and winter. Pups constitute about half of the wolf population each August, and these young wolves disperse from packs at high rates as yearlings and 2-year-olds (Adams et al. 2008). Meier et al. (2006) reported that 28% of the wolves leave their packs each year, and that most offspring eventually leave the pack. Dispersing wolves form new packs when they locate dispersers of the opposite sex from another pack and a vacant area to establish a territory (Rothman and Mech 1979). Meier et al. (2006)

reported that wolves sometimes disperse great distances. The longest documented dispersal of a Denali National Park and Preserve wolf was 435 miles. Adams et al. (2008) reported that 7 of 11 dispersing wolves (<36 months old) were subsequently detected 40–430 miles from their initial home range in the Gates of the Arctic National Park and Preserve.

The size of the home range of a wolf pack is dependent on prey abundance, the activities of neighboring packs, and each pack's individual habits. Wolf pack territories overlap one another and change over time (Meier et al. 2006). As a pack makes its way around its territory, it may encounter and engage other wolves within its territory at any time. A fight to the death can occur during such encounters. Predation by other wolves is probably the major cause of natural mortality among adult wolves (Adams et al. 2008). Meier et al. (2006) observed that at least 60% of the wolf deaths in Denali National Park and Preserve came from wolves being killed by other wolf packs. With high reproductive capacity, good survival of young, and high dispersal rates, wolf populations are able to quickly respond to changes in prey abundance (Adams et al. 2008).

Wolf numbers were low throughout Unit 18 from the demise of reindeer herding in the 1930s (Calista 1984) until the 1980s, when moose populations became established. Based on observations from trappers, hunters, fur buyers, and agency biologists, wolf numbers have increased in Unit 18, particularly along the main stem of the Yukon River and in the Kilbuck Mountains east of Bethel (Perry 2009). There have been recent increases in the wolf population along the Kuskokwim River and its tributaries from Kalskag to Bethel. The distribution and abundance of wolves in Unit 18 reflect the expanding distribution and increased abundance of moose (Perry 2009).

From 2010-2015, it was estimated there was 200–300 wolves in 20–35 packs within Unit 18 (Jones 2022). Estimates were based on recent trends and reported harvest; trapper questionnaire data; observations of animals, tracks, and concentrations of activity; reported sightings; and other reports by the public. Packs are established within the Yukon Delta and throughout the Yukon River riparian corridor. Around 2009, there were least five resident packs along the Kuskokwim River upriver of Bethel (Perry 2009). The distribution of these packs follows the distribution, population growth, and range expansion of moose, as well as the seasonal movements of Mulchatna caribou (Perry 2009). Wolf packs have established themselves within the Kilbuck Mountains (Jones 2022). These wolves prey predominately on caribou and moose (Perry 2009). It appears that a large proportion of the wolves that use the eastern portion of Unit 18 are transient packs and leave the unit when the caribou migrate to Unit 17 to calve. Wolves are occasionally encountered on the tundra between the riparian corridors of the Kuskokwim and Yukon rivers and on Nelson Island; these wolves are probably transient animals (Perry 2009). Beavers within the riparian corridors around the unit are now found in high densities and likely help support year-round territories and a potential increase in wolf populations (Jones 2022). It appears that the Unit 18 wolf population is regulated more by natural factors than by human harvest (Jones 2022).

Harvest History

The harvest of wolves, and the use, barter, and sale of pelts is important for subsistence in Unit 18 (Weekley et al. 2011, Krauthoefer and Koster 2007). Wolf ruffs are highly prized as parka trim. The local domestic demand for wolf pelts is very high (Perry 2006).

State and Federal regulations require that wolves harvested in Alaska be sealed by an ADF&G representative or appointed fur sealer. During the sealing process, information is obtained concerning the date and location of take, sex, color of pelt, estimated size of the wolf pack, method of take and access used. Some of the wolves taken in Unit 18 are neither sold nor sealed (Perry 2006). Perry (2009) observed that there is a poor understanding of wolf hunting regulations by many hunters, particularly those who take wolves opportunistically and those using snowmachines to take wolves.

From regulatory year 2002/03 to 2023/24, the reported annual harvest of wolves in Unit 18 ranged from 6 to 88 wolves per year (**Figure 1**). During the last 5-year period (RY2019-2023), the average annual Unit 18 reported wolf harvest of 26 wolves was dramatically lower than the average of 46 wolves from the previous 5-year period (RY2014-2018). Male wolves are more vulnerable to harvest than females, likely due to their larger range and dispersal. From regulatory year 1985/86 to 2004/05, 62% of the wolves that were harvested in Unit 18 were males (Perry 2006). In any given year, snow conditions for snowmachine travel and weather affect the wolf harvest level. With increasing gas prices, subsistence users are unable to travel as far to harvest wolves.

Wolves may be harvested via trap, snare, or shooting. Since RY2002, shooting has accounted for 57% of reported wolf harvest on average. From 2002/03 to 2023/24, the number of reported wolves harvested via shooting ranged from 1—53 wolves per year (**Figure 1**). Based on sealing data and community harvest surveys, only 50% of the Unit 18 wolf harvest may be reported (Jones 2022).

ADF&G subsistence household harvest surveys provide additional insights on wolf harvest in Unit 18. They are grouped into two geographical areas: 8 communities in the Lower Yukon and 10 communities in the Lower Kuskokwim. The Lower Yukon communities were surveyed during five separate years from 2008-2021, with a total of 14 wolves reported harvested (**Table 1**). The Lower Kuskokwim communities were surveyed during five separate years from 1998-2013, with a total of 55 wolves reported harvested (**Table 2**). The percentage of households attempting to harvest wolves was low across all communities in all survey years, ranging from 0-7% (ADF&G 2025).

It is estimated that in years around 2009, wolf harvests in Unit 18 ranged from 10% to 30% of the wolf population (Perry 2009). Based on an analysis of information from North American wolf populations, Adams et al. (2008) concluded that wolf populations appear to be largely unaffected by human take of ≤29% of the population annually. Given the limited effects of moderate levels of human take, Adams et al. (2008) concluded that the risks of reducing wolf populations through regulated harvest are quite low. Creel and Rotella (2010) suggested that, “wolf populations can grow while being harvested. However, point estimates for the maximum offtake rate associated with stable wolf populations are below the threshold identified by recent state wolf management plans” which are based on studies such as Adams et al. (2008).

Based on ADF&G's wolf harvest records from 1997/98 to 2009/10, there are only twelve cases of someone shooting five or more wolves in a given regulatory year in Unit 18 (ADF&G 2011). Since wolves may be shot with either a hunting license or a trapping license, it is not possible to determine how many of these people took their limit of wolves under hunting regulations. Sundown noted that many subsistence users in Unit 18 purchase both a hunting and trapping license (2011, pers. comm.). The Federal wolf trapping season in Unit 18 is from Nov. 10 - Mar. 31 with no harvest limit, while the State wolf trapping season is from Nov. 10 - April 30 with no harvest limit.

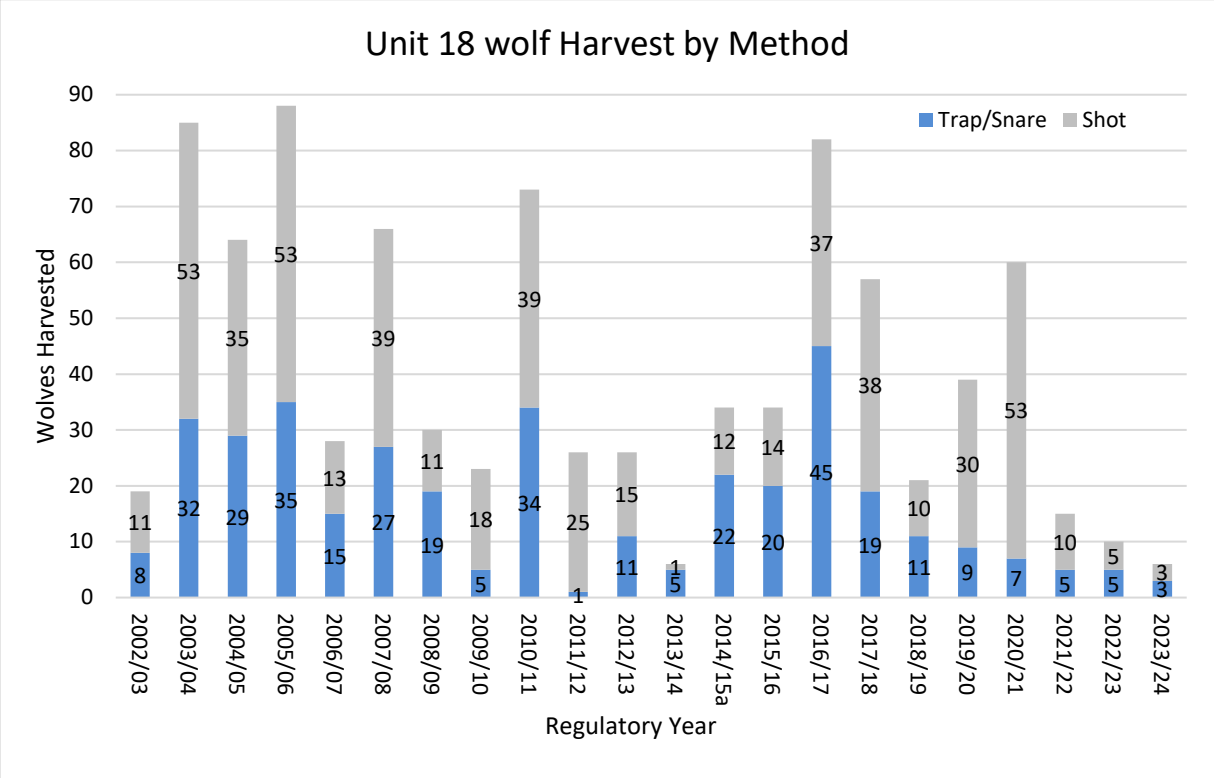

Figure 1. Number of reported wolf harvest in Unit 18 by method for each RY (ADF&G 2024; OSM 2012).

Table 1. Wolf harvest in 8 different Lower Yukon communities during 5 different survey years (ADF&G 2025). The columns for used, attempt, harvest, share, and receive all represent the percentage of households for each activity. The # harvest is the total number of wolves that were reported to be harvested during each community survey.

Year	Community	Used	Attempt	Harvest	Share	Receive	# Harvest
2021	Chevak	0%	0%	0%	0%	0%	0
2021	Hooper Bay	0%	0%	0%	0%	0%	0
2013	Pilot Station	1%	1%	1%	0%	0%	1
2013	Scammon Bay	0%	4%	0%	0%	0%	0
2011	Russian Mission	2%	7%	2%	0%	0%	3
2010	Marshall	7%	4%	4%	0%	2%	9
2010	Mountain Village	2%	3%	1%	0%	1%	1
2008	Emmonak	0%	1%	0%	0%	0%	0
Total							**14**

Table 2. Wolf harvest in 10 different Lower Kuskokwim communities during 5 different survey years (ADF&G 2025). The columns for used, attempt, harvest, share, and receive all represent the percentage of households for each activity. The # harvest is the total number of wolves that were reported to be harvested during each community survey.

Year	Community	Used	Attempt	Harvest	Share	Receive	# Harvest
2013	Eek	0%	2%	0%	0%	0%	0
2013	Tuntutuliak	0%	0%	0%	0%	0%	0
2012	Bethel	1%	2%	1%	0%	0%	10
2011	Bethel	1%	2%	1%	0%	0%	28
2011	Napakiak	0%	0%	0%	0%	0%	0
2011	Napaskiak	0%	0%	0%	0%	0%	0
2010	Akiak	0%	0%	0%	0%	0%	0
2010	Kwethluk	0%	0%	0%	0%	0%	0
2010	Oscarville	0%	0%	0%	0%	0%	0
2010	Tuluksak	2%	2%	2%	2%	2%	2
1998	Akiachak	1%	3%	1%	0%	0%	15
Total							**55**

Alternatives Considered

One alternative considered was to extend the Federal wolf trapping season in Unit 18 to close April 30 to align with the State trapping season. However, this alternative is outside the scope of this proposal.

Discussion and Effects

If Proposal WP26-48 is adopted, the Federal hunting harvest limit for wolves in Unit 18 will increase to 15 wolves, increasing subsistence opportunity. Specifically, users may harvest an additional five wolves under a hunting license on Federal public lands from Aug. 10-Apr. 30. Users may already harvest an unlimited number of wolves by firearm under a trapping license from Nov. 10-April 30 under State regulations, including on all Federal public lands in Unit 18. Therefore, the functional effect of this proposal is allowing users to harvest an additional 5 wolves from Aug. 10-Nov. 9.

The impact of this proposal on the Unit 18 wolf population is uncertain as there is limited information available. Wolf abundance appears to be more dependent on prey availability than harvest numbers. While less than 50% of harvest is thought to be reported through the sealing process, household harvest surveys suggest relatively few households attempt to harvest wolves. Access to harvesting areas by snowmachine is dependent on the snow cover that varies annually. Few users likely harvest 10 wolves by firearm each year between Aug. 10 and Nov. 9. Additionally, the hides of all harvested wolves must be salvaged, and the condition of wolf hides during late summer and early fall may not be prime. Therefore, harvest would likely be more opportunistic. The expected low harvest pressure, resilience of wolf populations, and their ability to withstand high mortality rates suggests this proposal would have minimal impacts to the Unit 18 wolf population.

This proposal would increase regulatory complexity by misaligning State and Federal hunting harvest limits for wolves in Unit 18.

OSM PRELIMINARY CONCLUSION

Support Proposal WP26-48.

Justification

This proposal increases opportunity for federally qualified subsistence users and conservation concerns are unlikely.

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