WP26–28a Executive Summary	
General Description	Wildlife Proposal WP26-28a requests to extend the closing date of the moose season in Unit 11 to September 30. *Submitted by: Southcentral Alaska Subsistence Regional Advisory Council*
Proposed Regulation	**Unit 11—Moose** *Unit 11, that portion draining into the east bank of the Copper River upstream from and including the Slana River drainage—1 antlered bull by joint Federal/State registration permit.* — *Aug. 20—Sep. ~~20~~ **30*** *Unit 11, that portion south and east of a line running along the north bank of the Chitina River, the north and west banks of the Nazina River, and the west bank of West Fork of the Nazina River, continuing along the western edge of the West Fork Glacier to the summit of Regal Mountain—1 bull by Federal registration permit.* — *Aug. 20—Sep. ~~20~~ **30***; *Nov. 20—Jan. 20* *However, during the period Aug. 20-Sep. 20, only an antlered bull may be taken.* *Unit 11, remainder—1 antlered bull by Federal registration permit only* — *Aug. 20—Sep. ~~20~~ **30***
OSM Preliminary Conclusion	**Oppose**
Southcentral Alaska Subsistence Regional Advisory Council Recommendation	
Eastern Interior Alaska Subsistence Regional Advisory Council Recommendation	
Interagency Staff Committee Comments	

ADF&G Comments	
Written Public Comments	**1 support** See Written Public Comments on Wildlife Proposal and Closure Reviews section of the meeting book or www.doi.gov/subsistence/wildlife/public_comments for full comments.

Draft Wildlife Analysis
WP26-28a

ISSUE

Wildlife Proposal WP26-28a, submitted by the Southcentral Alaska Subsistence Regional Advisory Council (Council), requests to extend the closing date of the moose season in Unit 11 to September 30.

Proponent Statement

The proponent states that this proposal would extend the moose season to compensate for changes in climate and allow for additional harvest opportunity and provide a subsistence priority.

Note: Wildlife Proposal WP26-28b requests extending the closing date of the moose season in Unit 13 to September 30.

Current Federal Regulations

Unit 11—Moose

Unit 11, that portion draining into the east bank of the Copper River upstream from and including the Slana River drainage—1 antlered bull by joint Federal/State registration permit.	*Aug. 20—Sep. 20*
Unit 11, that portion south and east of a line running along the north bank of the Chitina River, the north and west banks of the Nazina River, and the west bank of West Fork of the Nazina River, continuing along the western edge of the West Fork Glacier to the summit of Regal Mountain—1 bull by Federal registration permit. *However, during the period Aug. 20-Sep. 20, only an antlered bull may be taken.*	*Aug. 20—Sep. 20* *Nov. 20—Jan. 20*
Unit 11, remainder—1 antlered bull by Federal registration permit only	*Aug. 20—Sep. 20*

Proposed Federal Regulations

Unit 11—Moose

Unit 11, that portion draining into the east bank of the Copper River upstream from and including the Slana River drainage—1 antlered bull by joint Federal/State registration permit.	*Aug. 20—Sep.* ~~*20*~~ ***30***
Unit 11, that portion south and east of a line running along the north bank of the Chitina River, the north and west banks of the Nazina River, and the west bank of West Fork of the Nazina River, continuing along the western edge of the West Fork Glacier to the summit of Regal Mountain—1 bull by Federal registration permit. *However, during the period Aug. 20-Sep. 20, only an antlered bull may be taken.*	*Aug. 20—Sep.* ~~*20*~~ ***30*** *Nov. 20—Jan. 20*
Unit 11, remainder—1 antlered bull by Federal registration permit only	*Aug. 20—Sep.* ~~*20*~~ ***30***

Current State Regulations

Unit 11−Moose

Unit 11, that portion east of the east bank of the Copper River upstream from and east of the east bank of the Slana River	*Residents: One bull by permit, available only by application* *OR*	*CM300*	*Aug. 20—Sept. 20*
	Residents: One bull by permit *OR*	*DM250*	*Aug. 20—Sept. 17*
	Residents: One bull with spike-fork antlers or 50-inch antlers or antlers with 3 or more brow tines on at least one side by permit available in person in Anchorage, Fairbanks, Glennallen, Palmer, Slana Ranger Station, and Tok beginning Aug. 2	*RM291*	*Aug. 20—Sept. 17*

	Nonresidents: One bull with 50-inch antlers or antlers with 3 or more brow tines on at least one side by permit available in person in Anchorage, Fairbanks, Glennallen, Palmer, Slana Ranger Station, and Tok beginning Aug. 2	*RM291*	*Aug. 20—Sept. 17*
Unit 11, remainder	*Residents: One bull by permit, available only by application*	*CM300*	*Aug. 20-Sept. 20*
	Residents: One bull by permit	*DM250*	*Aug. 20-Sept. 20*
	Residents and Nonresidents: 1 bull with spike-fork antlers or 50-inch antlers or antlers with 3 or more brow tines on at least one side	*HT*	*Aug. 20-Sept. 20*

Extent of Federal Public Lands

Unit 11 is comprised of approximately 89% Federal public lands that consist of 86% National Park Service (NPS), 2% U.S. Forest Service (USFS), and <1% Bureau of Land Management (BLM) managed lands.

Customary and Traditional Use Determination

Rural residents of Units 11, 12, 13A, 13B, 13C, and 13D, Chickaloon, Dot Lake and Healy Lake have a customary and traditional use determination for moose in Unit 11, north of the Sanford River.

Rural resides of Units 11, 13A, 13B, 13C, and 13D, and Chickaloon have a customary and traditional use determination for moose in Unit 11 remainder.

Under the guidelines of Alaska National Interest Lands Conservation Act (ANILCA), National Park Service regulations identify qualified local rural subsistence users in National Parks and National Monuments by: (1) identifying Resident Zone Communities that include a significant concentration of people who have customarily and traditionally used subsistence resources on park lands; and (2) identifying and issuing subsistence use (13.440) permits to individuals residing outside of the Resident Zone Communities who have a personal or family history of subsistence use within the park or monument.

Resident zone communities must also have a customary and traditional use determination for moose in the area to be eligible to hunt moose in Wrangell-St. Elias National Park. In Unit 11 north of the Sanford River, the following communities meet both criteria: Chisana, Chistochina, Chitina, Copper

Center, Gakona, Gakona Junction, Glennallen, Gulkana, Kenny Lake, Lower Tonsina, McCarthy, Mentasta Lake, Nabesna, Northway, Slana, Tazlina, Tanacross, Tetlin, Tok, and Tonsina. In Unit 11 remainder, the following communities meet both criteria: Chistochina, Chitina, Copper Center, Gakona, Gakona Junction, Glennallen, Gulkana, Kenny Lake, Lower Tonsina, McCarthy, Mentasta Lake, Slana, Tazlina, and Tonsina

Regulatory History

In 1992, the Federal Subsistence Board (Board) added 10 days to the moose season in Unit 11, aligning it with the Aug. 25-Sept. 20 seasons in adjacent Units 6, 12, and 13 (OSM 1992).

In 1999, Healy Lake was added to communities having a customary and traditional use determination for moose in the portion of Unit 11 north of the Sanford River (OSM 1999a). In 1999, the Board adopted Proposal P99-16 with modification to extend the start date of the Unit 11 moose season by five days to provide additional opportunity for subsistence harvest while protecting the moose population from disruption during the breeding season, and to align Federal and State seasons (OSM 1999b).

In 2000, the Board adopted Proposal P00-20 to modify the general regulations requiring evidence of sex, allowing hunters in Units 11 and 13 to possess either sufficient portions of the external sex organs, still attached to a portion of the carcass, or the head (with or without the antlers attached) to indicate the sex of the harvested moose; however this does not apply to the carcass of an ungulate that has been butchered and placed in storage or otherwise prepared for consumption upon arrival at the location where it is to be consumed (OSM 2000).

In 2007, the Board rejected Proposal WP07-20 to change the season dates from Aug. 20-Sept. 20 to Sept. 1–Sept. 30 to reduce spoilage due to warm weather, because the moose population was low and shifting the season had the potential to increase moose harvest, which would have detrimental effects for the conservation of the population (OSM 2007).

In 2012, the Board adopted Proposal WP12-70 with modification, dividing Unit 11 into two hunt areas and creating a single, joint Federal/State registration permit for the hunt area in Units 11 and 12 along the Nabesna Road, and a Federal registration permit for Unit 11 remainder. The season dates for Unit 12 remainder were also modified. These changes aligned State and Federal seasons within the area of the joint State/Federal registration permit and helped to improve harvest reporting. In addition, the moose population was healthy enough to allow for the potential increase in bull harvest (OSM 2012).

In 2014, the Board adopted Proposal WP14-16 with modification to establish a winter moose season from Nov. 20 to Dec. 20 in Unit 11, south and east of a line running along the north bank of the Chitina River, the north and west banks of the Nizina River, and the west bank of the West Fork of the Nizina River, continuing along the western edge of the West Fork Glacier to the summit of Regal Mountain (Unit 11 South). The Board also delegated authority to the WRST Superintendent to open and close any portion of the winter season and to establish a harvest quota (OSM 2014). Moose in the area south of the Chitina River typically stay at higher elevations during the fall where they are largely inaccessible to subsistence users. In addition, there is limited access during the fall moose season due,

in part, to having to cross the Chitina River. The winter hunt provides subsistence hunters with more opportunity to hunt moose when they are more accessible by snowmachine and allows them to store meat without freezers.

In 2018, the Board adopted Proposals WP18-16/50 to extend the closing date of the winter moose hunt in the Unit 11 South (FM1107) from December 20 to January 20. Both the Southcentral and Eastern Interior Councils supported the season extension as there were no conservation concerns, and the extension would benefit subsistence users by allowing safer travel across the Chitina River and Nizina River when the rivers are more likely to be frozen, and provide better weather conditions for preserving meat.

Also in 2018, the Board rejected Proposal WP18-17 to extend the moose season in Unit 11, that portion draining into the east bank of the Copper River upstream from and including the Slana River drainage (Unit 11 Nabesna Rd.) and Unit 11 remainder from Aug. 20-Sept. 20 to Aug. 20-Mar. 31. The Southcentral Council opposed the proposal due to low moose densities and conservation concerns over increasing harvest to unsustainable levels by extending the season by six months.

In April 2020, the Board adopted deferred Proposal WP18-19 with modification to establish a community harvest system for moose and caribou in Units 11 and 13 administered by the Ahtna Intertribal Resource Commission (AITRC). The modification was to name eight individual communities within the Ahtna traditional use territory authorized to harvest caribou and moose as part of the community harvest system, subject to a framework established by the Board under unit specific regulations. In 2022, the Board adopted WP22-36 with modification which clarified and codified several regulation changes regarding the community harvest system, including expanding the system into a portion of Unit 12.

Current Events

Proposal WP26-01 requests to move authority to manage Federal hunts currently delegated to Federal in-season managers through Delegation of Authority Letters (DALs) into unit-specific regulations for many hunts across Alaska and rescind the associated DALs. The delegated authority to the WRST superintendent for in-season management of the Unit 11 South winter moose hunt is included in this proposal.

Biological Background

The moose population has been considered low density across Unit 11 for many years, although counts during aerial surveys tend to vary between very low periods (0.1 moose/mi^2 in 1979 and 1992) and considerably higher periods (1.0 moose/mi^2 in 1969 and 2012; 1.2 moose/mi^2 in 2017) (Hepler 2025). Predation on moose calves by bears and wolves has been shown to be an important limiting factor in some moose populations (Tobey 2010). High brown bear and wolf numbers in Unit 11 may be contributing to the low calf:cow ratios observed in this unit, as well as the overall low, but stable density moose population (Tobey 2008).

The State management objective for moose in Unit 11 is to maintain a population with a post-hunt (fall) minimum bull:cow ratio of 30 bulls:100 cows (Hepler 2025).

Given the low hunting pressure, limited access, and relatively low levels of predator harvest in Unit 11, the moose population is expected to remain at a relatively stable but low density. Bull:cow ratios remain well above management objectives, and other metrics including calf:cow ratios and overall moose densities have remained relatively stable. Annual fluctuations may occur with changing winter severity (Hepler 2025). Indeed, the annual snowpack in Unit 11 was well above average from 2021-2023 (~34" vs. the average 24") (ADF&G 2025). This higher snowpack three winters in a row may have negatively impacted overwinter survival and recruitment of the Unit 11 moose population. Higher snowpack also makes moose more susceptible to wolf predation.

ADF&G conducts aerial surveys along the western slopes of Mt. Drum in Unit 11 about every other year to determine population and composition trends. While this survey area only comprises a small portion of Unit 11, it is a long-term, consistent data set and provides an index for moose status in Unit 11 unit-wide. Between 1998 and 2017, moose densities ranged from 0.4 – 1.2 moose/mi^2 with the highest density estimate occurring in 2017 (**Table 1**). Over the same time period, bull:cow ratios ranged from 50-157 bulls:100 cows, averaging 89 bulls:100 cows. While bull:cow ratios have been declining since 2000, they are still very high, well above management objectives.

Fall calf:cow ratios of < 20 calves:100 cows, 20-30 calves:100 cows, and > 30-40 calves:100 cows may indicate declining, stable, and growing moose populations, respectively (Stout 2010). From 1998-2017, calf:cow ratios in the Mt. Drum survey area ranged from 9-48 calves:100 cows, averaging 21 calves:100 cows (**Table 1**). While 48 calves:100 cows were estimated in 2006, the next highest ratio was 26 calves:100 cows in 2013. These low calf:cow ratios suggest the Mt. Drum moose population is stable to declining (Hepler 2025; OSM 2018).

Wrangell-St. Elias National Park and Preserve (WRST) has also conducted periodic moose surveys across Unit 11 and portions of Unit 12. Their most recent survey in 2023 estimated a record low number of moose, representing a nearly 40% decline from the previous survey in 2013 (**Table 2**). Bull:cow ratios remained well above management objectives, while calf:cow ratios were below 20 calves:100 cows in all survey years, indicative of declining moose populations. The lowest calf:cow ratio occurred in 2023 with only 8 calves:100 cows (**Table 2**). One explanation for the drastic population decline in 2023 is the record snow amounts during the winters of 2021-2023 (Cutting 2025).

Habitat

In 2009, the Chakina fire near McCarthy burned 56,000 acres in the accessible portion of Unit 11 south of the Chitina River and should produce forage for the next 20 years (Hatcher 2014). A portion of that area (approximately 20,000 acres) re-burned in the Steamboat Creek fire in 2016 (WRST 2016). Typically within 10 –15 years following fires or disturbance (Loranger et al. 1991), early seral forest habitat becomes the most productive area for moose because it supports high density of forage species such as paper birch (*Betula papyrifiera*), aspen (*Populus tremuloides*), and willow (*Salix sp.*). The

severity and frequency of fires will determine how productive an area becomes for moose (Loranger et al. 1991; Johnstone and Kasischke 2005; Brown and Johnstone 2012).

Table 1. Unit 11 moose population demographics on the western slopes of Mount Drum, Wrangell-St Elias National Park and Preserve, AK, – a lightly hunted population (Tobey 2004, 2008; Schwanke 2013, Hatcher 2014, Robbins 2017, pers.comm., Hepler 2025).

Regula-tory Year	Total Moose	Bulls:100 cows	Calves: 100 Cows	Density (#/mi^2)
1998	104	111	15	0.4
1999	122	109	21	0.4
2000	104	157	24	0.4
2001	93	94	9	0.3
2002	----		---	----
2003	138	115	15	0.5
2004	----		----	----
2005	----		----	----
2006	149	92	48	0.5
2007	----		----	----
2008	164	73	17	0.6
2009	----		----	----
2010				
2011	265	71	21	0.9
2012	282	84	13	1.0
2013	221	88	26	0.8
2014	230	50	23	0.8
2015	230	50	23	0.8
2016	-		-	-
2017	358	58	18	1.2
2018	-		-	-
2019	-		-	-
Average	189.2	88.6	21.0	0.7

Table 2. Survey results from four moose population surveys, Unit 11 and 12, Wrangell-St. Elias National Park and Preserve (Cutting 2025).

Year	Population Count	Calves:100 Cows	Bulls:100 Cows
2007	1650	19	53
2010	1533	17	51
2013	2199	18	64
2023	1330	8	44

Harvest History

Moose harvest from 1963 to 1974 averaged 164 moose per year in Unit 11. During this time, there was both a fall and winter season and cows made up as much as 50% of the harvest (Tobey 2010). In response to declining moose numbers, seasons were shortened, the winter season was eliminated, and harvest was restricted to bulls only from 1975 to 1989. The average annual bull harvest was 45 (range 21-58) between 1975 and 1989. In 1990 the State season was shortened to Sept. 5 - 9 to align the season with adjacent Unit 13 and because of population declines due to increased mortality during the severe winter of 1989/1990. During the 1990s, the average harvest was 34 bulls (range 22-42) (Tobey 1993, 2010).

Moose harvest occurs under a variety of different Federal and State hunts in Unit 11. Along the Nabesna Road area of Unit 11, harvest occurs by State registration permit RM291 under both State and Federal regulations. The State RM291 hunt has antler restrictions, while the Federal hunt just limits harvest to any antlered bull. The State also has a resident draw permit hunt (DM250) and the community hunt (CM300) for moose in Unit 11. In Unit 11, remainder the State also has a general season, antler restricted hunt. Federal fall hunts in Unit 11 South and Unit 11 remainder are by Federal registration permit FM1106, while Unit 11 South also has a winter registration permit hunt, FM1107.

Between 2000 and 2024, harvest averaged 55 moose, which includes an estimated 10 unreported moose being harvested each year (**Table 3**) (Cohen 2025 pers. comm.; OSM 2018, Hepler 2025). Between 2000 and 2019, Federal harvest comprised 25% of the total reported harvest (Hepler 2025). Success rates for Unit 11 moose hunts are generally low with the Federal subsistence hunts (FM1106 and FM1107) averaging success rates of 15% from 2014 – 2024 (Cohen 2025 pers. comm.). The joint Federal/State RM291 permit hunt averaged a 16% success rate during the same time frame (Hepler 2025).

The majority of moose harvest with general season harvest tickets occurs late in the season, with 58% of harvests occurring during the last two weeks of the season, on average from 2015-2019 (**Figure 1**). A similar pattern is assumed for the Federal RM291 and FM1106 permit hunts. Bull moose generally increase their movements at the onset of rut in mid-September, during which time they also respond better to hunter calls. This timing also coincides with leaf drop. The combination of factors results in bull moose being more vulnerable to harvest toward the end of the hunting season (Hepler 2025).

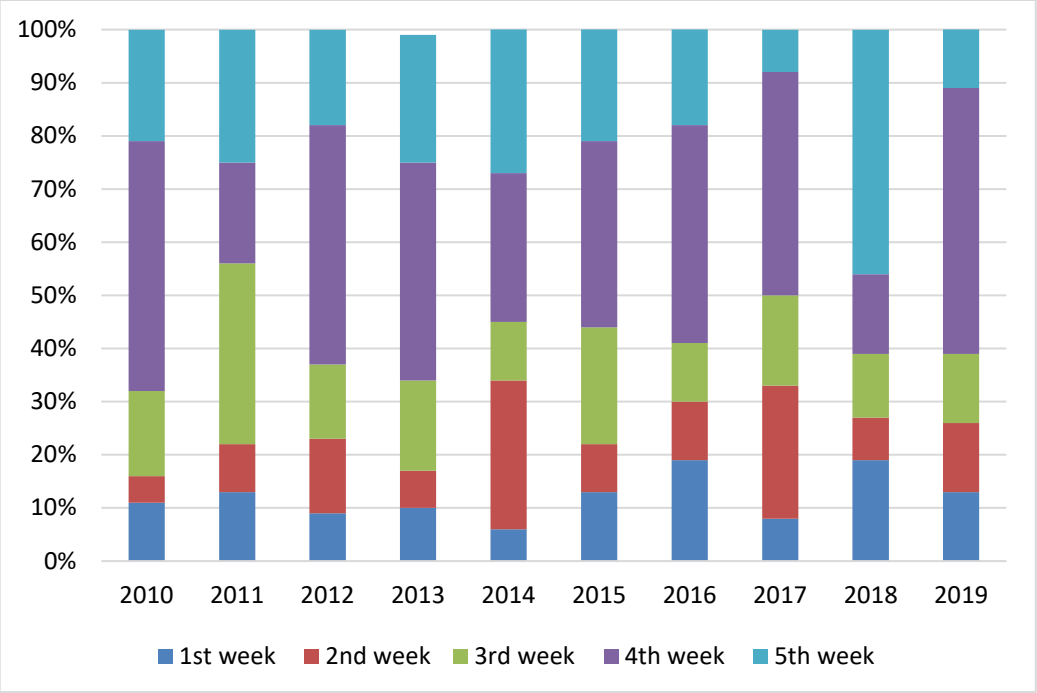

Figure 1. Percent of Unit 11 moose harvest during each week of the season under the general season state harvest ticket in Unit 11 remainder (Aug. 20 – Sep. 20) (Hatcher 2017; Hepler 2025).

Table 3. State and Federal moose harvest in Unit 11 from RY 2000-2024. Federal harvest includes harvest by Federal permit. State harvest includes harvest by State harvest ticket, registration permit, and community harvest permit. Harvests by federally qualified subsistence users under the joint State/Federal permit established in 2012 (RM291) are included in the "Total State" column. Unreported moose kill is estimated as 10 moose per year and included in the total harvest column (Cohen 2025 pers. comm.; OSM 2018; Hepler 2025).

Regulatory Year	M	F	U	Federal Total	State Total	Total
2000	52	0	1	23	30	63
2001	43	1	1	14	31	55
2002	40	0	1	8	33	51
2003	45	0	0	15	30	55
2004	56	0	1	27	30	67
2005	47	1	0	24	24	58
2006	41	0	1	20	22	52
2007	47	2	0	25	24	59
2008	53	0	0	28	25	63
2009	64	0	2	20	36	66
2010	38	0	0	20	18	48
2011	74	0	0	27	37	74
2012	48	0	0	9	39	58
2013	61	0	0	12	39	61
2014	39	0	0	10	29	49
2015	48	0	0	13	48	71
2016	63	0	0	17	63	90
2017	54	0	1	14	55	79
2018	56	0	0	13	56	79
2019	48	0	0	11	48	69
2020				17	37	54
2021				11	34	45
2022				16	26	42
2023				12	20	32
2024				13	24	37
Average	50.9	0.2	0.4	13.3	31.1	54.5

Discussion and Effects

If Proposal WP26-28a is adopted, the closing date of the Unit 11 moose season would be extended to September 30. This would provide an additional 10 days of opportunity for federally qualified subsistence users and provide for more of a subsistence priority. Subsistence users already have a priority for moose hunting in Unit 11 through more liberal harvest limits, a 3-day longer season in the Unit 11 Nabesna Rd (RM291) hunt area, and a winter season in the Unit 11 South hunt area (FM1107). Adoption of WP26-28a would also result in different season dates for federal hunters in the RM291 hunt area, depending on whether they were hunting in Unit 11 or 12.

Adopting this proposal could also improve harvest success as bulls are more susceptible to harvest in late September when they are in rut, especially given the warmer falls in recent years, which has been delaying leaf drop (making animals more difficult to spot) and making meat care in the field more difficult.

Impacts on the moose population are uncertain. While harvest pressure is expected to be relatively low, the Unit 11 moose population declined substantially in 2023, likely as a result of severe winters with record snow depths three years in a row. Therefore, the Unit 11 moose population may need more time to recover before seasons are extended, especially during late September when harvest success may increase.

OSM PRELIMINARY CONCLUSION

Oppose Proposal WP26-28a

Justification

While this proposal increases subsistence opportunity, there are conservation concerns for the Unit 11 moose population, which has declined substantially in recent years. Increasing harvests on the Unit 11 moose population is not recommended at this time.

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WRITTEN PUBLIC COMMENTS

Ahtna Intertribal Resource Commission