WP26–17 Executive Summary	
General Description	Proposal WP26-17 requests establishing a late fall season for moose in Unit 7 remainder from Oct. 20 – Nov. 10. *Submitted by: Onie Wilkes of Cooper Landing*
Proposed Regulation	**Unit 7—Moose** *Unit 7, remainder—1 antlered bull with spike-fork or 50-inch antlers or with 3 or more brow tines on either antler, by Federal registration permit only* — *Aug. 20 –Sep. 25.* / ***Oct. 20 – Nov. 10***
OSM Preliminary Conclusion	**Oppose**
Southcentral Alaska Subsistence Regional Advisory Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	**None**

Draft Wildlife Analysis
WP26-17

ISSUE

Proposal WP26-17, submitted by Onie Wilkes of Cooper Landing, requests establishing a late fall season for moose in Unit 7 remainder from Oct. 20 – Nov. 10.

Proponent Statement

The proponent states that currently, residents of Cooper Landing, which is located in Unit 7, are allowed to hunt moose during a late fall season in Unit 15B, but not in Unit 7. Both units allow moose hunting from Aug. 20 – Sep. 25 with the same antler restrictions. However, the Unit 15B moose hunt has an additional late fall season. The proponent states that having this same additional harvest period in Unit 7 would allow Cooper Landing residents the opportunity to participate in the late season hunt closer to home where they customarily and traditionally hunt.

Current Federal Regulations

Unit 7—Moose

Unit 7, remainder—1 antlered bull with spike-fork or 50-inch antlers or with 3 or more brow tines on either antler, by Federal registration permit only	*Aug. 20-Sep. 25.*

Proposed Federal Regulations

Unit 7—Moose

Unit 7, remainder—1 antlered bull with spike-fork or 50-inch antlers or with 3 or more brow tines on either antler, by Federal registration permit only	*Aug. 20 –Sep. 25.* ***Oct. 20 – Nov. 10***

Current State Regulations

Unit 7−Moose

Unit 7 Remainder	*Residents and Nonresidents – 1 bull with a spike on at least one side or 50-inch antlers or antlers with 3 or more brow tines on one side*	*HT*	*Sept. 1 - Sept. 25*
Unit 7, the Placer River drainages, and that portion of the Placer Creek (Bear Valley) drainage outside the Portage Glacier Closed Area, and that portion of Unit 14(C) within the Twentymile River drainage	*Residents and Nonresidents: 1 bull by drawing permit only*	*DM210*	*Aug. 20 - Sep. 30*
	Residents: 1 antlerless moose by drawing permit	*DM211*	*Aug. 20 – Oct. 10*

Extent of Federal Public Lands

Unit 7 is comprised of approximately 84% Federal public lands that consist of 52% U.S. Forest Service (USFS) managed lands, 27% National Park Service (NPS) managed lands, and 5% U.S. Fish and Wildlife Service (USFWS) managed lands.

Customary and Traditional Use Determination

Rural residents of Chenega Bay, Cooper Landing, Moose Pass, Hope and Tatitlek have a customary and traditional use determination for moose in Unit 7.

Regulatory History

In 2008, Proposal WP08-22a requested that the Federal Subsistence Board (Board) recognize the customary and traditional use (C&T) of moose by residents of Cooper Landing in Unit 7. The Board agreed with the Southcentral Alaska Subsistence Regional Advisory Council's (Southcentral Council's) recommendation and adopted the proposal. Proposal WP08-22b requested establishing a moose season in Unit 7 remainder. The Board adopted WP08-22b with modification and established an Aug. 10 – Sep. 20 season with a harvest limit of 1 antlered bull with a spike-fork or 50-inch antlers or

with 3 or more brow tines on either antler. This hunt had identical harvest limits as State regulations but, the Federal season started 10 days earlier than the State season.

In 2010, Proposal WP10-33 requested that the Board recognize the C&T of moose by residents of Hope and Sunrise in Unit 7. The Board agreed with the Southcentral Council's recommendation and adopted the proposal.

In 2011, the Board adopted Wildlife Special Action WSA11-02, submitted by the Kenai National Wildlife Refuge, which changed the harvest limits in Unit 7 remainder from 1 antlered bull with a spike-fork or 50-inch antlers or with 3 or more brow tines on either antler to 1 antlered bull with a spike-fork or 50-inch antlers or with 4 or more brow tines for the Aug. 10 – Sep. 20, 2011 season only. This Wildlife Special Action followed the adoption of the Alaska Board of Game (BOG) Proposal 169, which established the same harvest limits and season in State regulations. Both proposals reflected conservation concerns in Units 7 and 15.

In 2013, State Proposal 143 requested the harvest limit in Units 7 and 15 be changed back to what they were before a population decline prompted the change to 4 brow tines. The BOG adopted an amended version of the proposal to allow the harvest of 1 antlered bull with a spike-fork in addition to the existing 50-inch antlers or with 4 or more brow tines on either antler harvest limit.

In 2014, Proposal WP14-10 requested C&T for moose for residents of Chenega and Tatitlek. The Board agreed with the Southcentral Council's recommendation and adopted the proposal.

For the 2015 regulatory year (RY), the BOG shifted the moose season for Unit 7 remainder from Aug. 20 – Sep. 20 to Sep. 1 – 25. This accounted for the changing climate, as the summers had been staying warmer longer. Pushing the season back allowed users to harvest moose when conditions were cooler and allowed easier handling of the meat (ADF&G 2015).

In 2018, the BOG adopted Proposal 65, changing the harvest limit in Units 7 and 15 from 4 brow tines to 3 brow tines per side because bull:cow ratios in Unit 15 had been above the Alaska Department of Fish and Game (ADF&G) management objective of 20-25 bulls:100 cows since 2012. ADF&G adjusts regulations on a Kenai Peninsula-wide basis from information primarily from Unit 15 because of its abundant moose population data (ADF&G 2019). Proposal 78, submitted by Kenai/Soldotna Fish and Game Advisory Committee (AC), established an any-bull draw hunt in the Placer River area of Unit 7 based on these population metrics. This hunt was established with the understanding that the population in Units 15A and 7 were declining. The BOG decided to adopt the proposal and allow ADF&G biologists to determine the number of permits to allocate per unit (ADF&G 2019).

In 2022, the Board adopted Proposal WP22-16 recognizing the customary and traditional use of moose in Units 7, 15A and 15B for residents of Moose Pass, which had recently been designated a rural community. The Board also adopted Proposal WP22-28 with modification to shift the moose season in

Unit 7 from Aug. 10-Sep. 20 to Aug. 20-Sep. 25 in deference to the Southcentral Council. This change aligned the closing dates of State and Federal moose hunts in Unit 7 and allows for moose harvest later in the season when the weather is cooler and more suitable for meat preservation.

Biological Background

A moose population estimate has never been performed for moose in Unit 7. Trend count areas were established in the 1960s but have not been consistently surveyed. However, trend counts have been conducted every other year in the Resurrection Creek and Juneau Creek count areas since the 1990s. While these surveys are not rigorously comparable, the established population trend is declining and has been since the 1970s, however a population survey has not been conducted in Unit 7 since 2013 Herreman and Fowler 2022). ADF&G management objectives for Unit 7 are to maintain a minimum bull-to-cow ratio of 20-25 bulls:100 cows (Herreman and Fowler 2022).

Trend count data has bull:cow ratios of 17, 12 and 25 bulls:100 cows in 2010, 2011 and 2013, respectively. Calf to cow ratios for the same timeframe are 10, 18 and 16 calves:100 cows (Herreman 2018). Fall calf:cow ratios of < 20 calves:100 cows, 20-40 calves:100 cows, and > 40 calves:100 cows may indicate declining, stable, and growing moose populations, respectively (McDonough 2010, Selinger 2012), suggesting the Unit 7 moose population was declining at that time. No trend counts were conducted 2014-2024 due to funding, weather, and logistical constraints (Herreman and Fowler 2022, Bottom 2025, pers. comm.). Due to the lack of data for Unit 7, and migratory connections between Unit 7 and Unit 15 allowing the populations to co-mingle, Unit 7 is frequently managed in tandem with Unit 15.

Unit 7 is very mountainous, and below alpine is primarily mature forest in late successional stages, with some extensive areas of spruce beetle kill. Severe winters with heavy snow are normal. There have been no habitat assessments and few enhancement projects in Unit 7. Poor habitat due to forest succession is suspected of being the limiting factor for the Unit 7 moose population (Herreman 2018). During winter, Unit 7 moose are observed to concentrate in low elevation areas with lower snow depth and more winter browse. Additionally, each year between 2015 and 2019, more Unit 7 moose died accidental deaths, such as car or train strikes, than by hunter harvest (Herreman and Fowler 2022). Since 2021, when new a tracking system was implemented, 71 moose have been killed by vehicle strikes compared to 54 moose taken through harvest (Bottom 2025, pers. comm.). The moose population in Unit 7 is overall believed to be at a low density relative to historic levels (Herreman and Fowler 2022).

Cultural Knowledge and Traditional Practices

Present-day Unit 7 remainder overlaps with the traditional territory of the Dena'ina Athabascans of the northern Kenai Peninsula and the Alutiiq of the outer Kenai Peninsula coast and neighboring Prince William Sound (Townsend 1981, Clark 1984, Fall 2013). Residents of the northern Kenai Peninsula

communities of Cooper Landing, Moose Pass, and Hope, and the Prince William Sound communities of Chenega Bay and Tatitlek, are federally qualified to hunt for moose in Unit 7 remainder. Of these, Cooper Landing, Moose Pass, and Hope are located within Unit 7 remainder.

Dena'ina oral tradition and historical reports indicate that caribou were the dominant ungulate on the Kenai Peninsula until large wildfires in the 1880s, which, along with other factors, contributed to extirpation of caribou in the area by the early 20th century (Lutz 1960, Herreman 2015). Dena'ina reported that moose were scarce or unknown throughout most of their territory until around this same time (Lutz 1960, Fall 2013). However, Fall notes that "other traditions viewed moose populations as cyclical (2013: 23). Where moose were present, the Dena'ina likely hunted them in the fall and winter (Ford 1984, Seitz et al. 1994).

Cooper Landing, Moose Pass, and Hope-Sunrise

Squilantnu archaeological district, located near Cooper Landing, contains evidence of a substantial Dena'ina population that was present into the historic era (Mishler 2007). Present-day Cooper Landing, Hope-Sunrise, and Moose Pass had their origins in the early gold rush period of the 19th century (Seitz et al. 1994). Moose Pass was the terminus of an unsuccessful effort to connect Seward to the Matanuska-Susitna Valley by railroad, beginning in 1904 (Davis et al. 2003). Amid these developments, the Dena'ina population on the northern Kenai Peninsula was severely impacted by epidemics, wildfires, and interception of salmon in the late 19th and early 20th century, and never recovered (Mishler 2007).

Comprehensive subsistence surveys conducted periodically by ADF&G Division of Subsistence provide information about a community's harvest and use of subsistence resources under State or Federal opportunity. Cooper Landing, Moose Pass, and Hope-Sunrise have each been surveyed once by ADF&G Division of Subsistence. Cooper Landing was surveyed for the 1990 to 1991 study year. Seitz et al. (1994) found that moose were the most widely used land mammal in Cooper Landing. Moose were hunted "along rivers, roads, and lakes of the central and northern Kenai Peninsula" (Seitz et al. 1994: 42-43). Cooper Landing residents harvested most of their moose in September, with some hunting also occurring in August (Seitz et al.1994).

Moose Pass was surveyed for the 2000 to 2001 study year. During the study period, 8% of surveyed households harvested moose, and 41% of surveyed households used moose. Surveyed households' moose search area was concentrated within Unit 7 remainder (Davis et al. 2003). Information on the timing of harvest during the survey year is not available (Davis et al. 2003).

Hope-Sunrise was surveyed for the 1991 study year. That year 9% of surveyed households harvested moose and 68% used moose (ADF&G 2025). Survey participants stated that the low moose population at the time meant that they no longer relied on moose as much as they did in the past; however, moose continued to be a subsistence resource for residents (Seitz et al. 1994). Prior to the implementation of

regulations mandating moose hunting seasons, moose were traditionally hunted in late October and early November (Seitz et al. 1994). During the study year, surveyed Hope households hunted moose in August and September, primarily within Unit 7 remainder (Seitz et al. 1994).

Chenega Bay and Tatitlek

The Chugach Alutiiq people have lived in the Prince William Sound area for thousands of years (Clark 1984). The subsistence pattern of Prince William Sound residents focuses on the marine environment, a characteristic that extends far back into the archaeological history of the region (de Laguna 1956, Clark 1984, Stratton and Chisum 1986, Stratton 1990). Moose have also been hunted where available (Stratton and Chisum 1986). A relatively small population of moose are indigenous to the Western Prince William Sound area near Kings Bay and the Nellie Juan River (Stratton 1990). While moose harvests are not as common as other subsistence harvests, Kings Bay has been an important site for the moose hunting that does occur in the area (SCRAC 1997). However, Kings Bay is a separate hunt area, and is not addressed in this analysis.

ADF&G has conducted numerous subsistence studies of Chenega and Tatitlek since the 1980s (Stratton and Chisum 1986; Stratton 1990; Fall 1991a, 1991b, 2006; Fall and Utermohle 1999; Simeone and Miraglia 2000, Fall and Zimpelman 2016, Keating et al. 2020). In Tatitlek, surveyed households were documented to have harvested moose during a single survey year, in 1987 (Stratton 1990). That year, the community harvested an estimated two moose (ADF&G 2025). Harvest effort was additionally documented in two other survey years (ADF&G 2025). However, information about the timing and location of this moose hunting is not available (Stratton 1990, Fall and Utermohle 1999, Fall and Zimpelman 2016). In Chenega Bay, surveyed households harvested moose in half of all study years and attempted to harvest moose in one additional year (ADF&G 2025). However, information about the timing and location of harvests is not available for the most recent survey years.

Harvest History

Moose harvest in Unit 7 remainder occurs under Federal regulations by Federal registration permit FM0004 and under State regulations by harvest ticket. Both hunts have antler restrictions; however, bulls with forked antlers may be harvested under Federal regulations, but not State regulations. Additionally, the Federal season is longer (Aug. 20-Sep. 25) than the State season (Sep. 1-25). Therefore, any moose harvested with forked antlers or from Aug. 20-31 occurred under Federal regulations.

On average, from 2018-2024, 62 permits were issued each year for the Unit 7 Federal moose hunt, FM0004, and 29 hunters reported using their permit each year. This number is slightly, but not significantly higher since Moose Pass received C&T for the Unit 7 hunt. Moose harvest in the Unit 7 Federal hunt has ranged from 0 to 7 moose since Moose Pass received C&T.

Total moose harvest in Unit 7 under both Federal and State permits steadily increased from 10 moose in 2018 to 35 moose in 2023, before declining to 14 moose in RY24 (**Figure 1**). The average reported harvest for the most recent 5-year period (2020-2024) was 22.6 moose, which is up from 20 moose during the previous 5-year period (2015-2019) but still far below the historic 1963-1983 average of 104 moose per year (Herreman 2018). During the 2020-2023 period, both federally qualified subsistence users and non-federally qualified users saw increased harvest, driving the increase in total moose harvested (**Figure 2**). Non-federally qualified users account for 80-100% of the reported moose harvest in Unit 7 (**Figure 2**). However, hunter success in the Federal hunt has been more variable than in the State hunt (**Figure 3**).

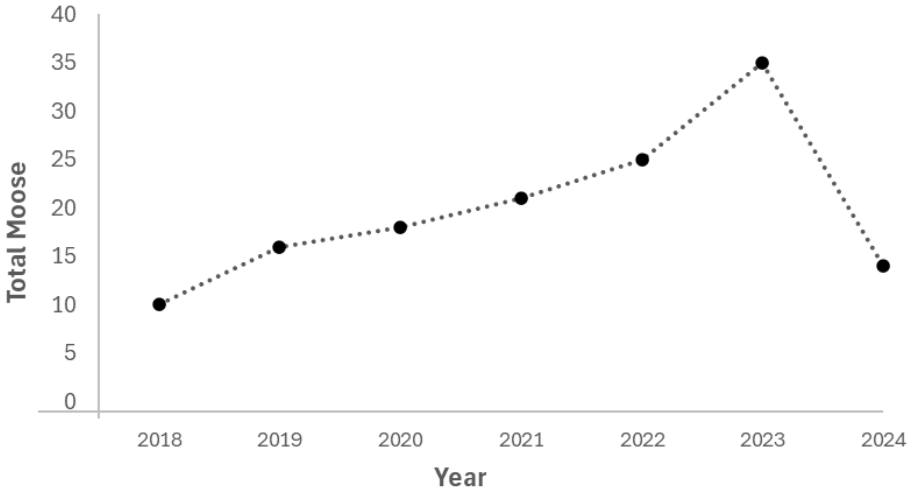

Figure 1. Total reported moose harvest in Unit 7 (Herreman and Fowler 2022, Bottom 2025, pers. comm., OSM 2025)

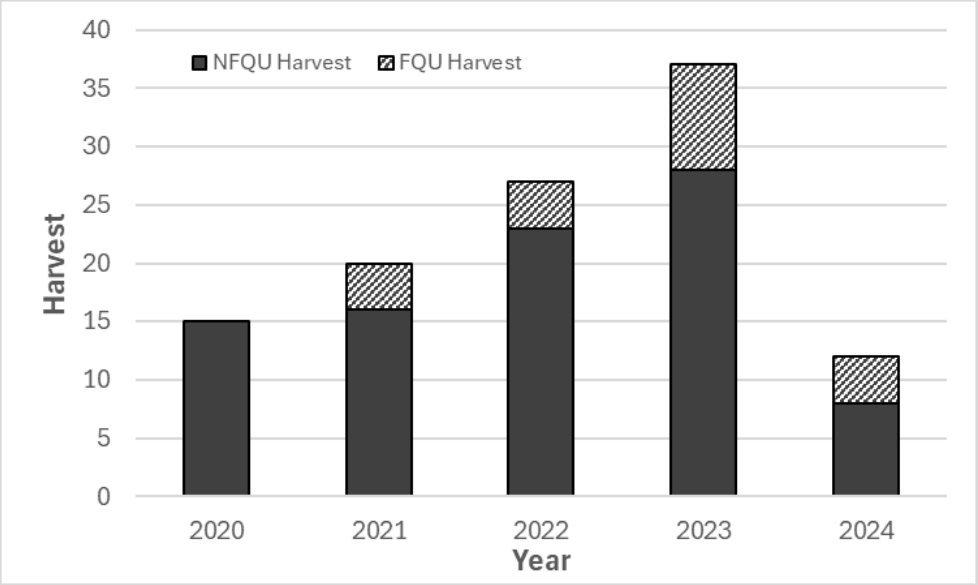

Figure 2. Reported moose harvest by federally qualified subsistence users under both Federal and State regulations, and by non-federally qualified users in Unit 7 from 2020 to 2024. Years 2018 and 2019 were not included because the State harvest data were not differentiated between user groups for those years 7 (Bottom, 2025 pers. comm., OSM 2025)

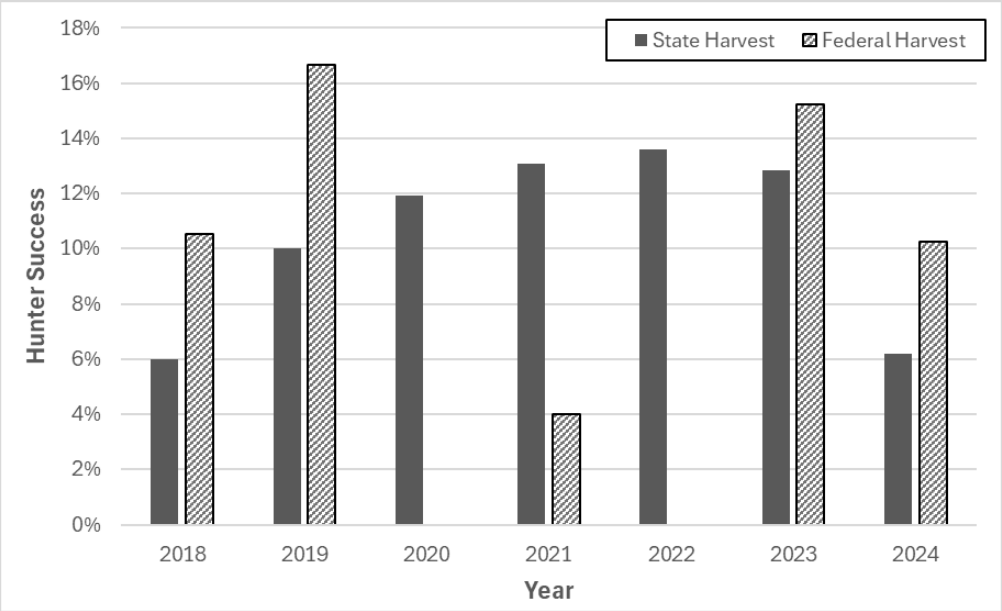

Figure 3. Unit 7 moose harvest success under State and Federal regulations (Herreman and Fowler 2022, Bottom, 2025 pers. comm., OSM 2025)

Alternative(s) Considered

One alternative considered was to delegate authority to the USFS Seward District Ranger to close the late fall season, if needed, based on conservation concerns. This would align with the Unit 15B moose season, creating consistency for federally qualified subsistence moose hunters across the Kenai Peninsula. This also protects the Unit 7 moose population from overharvest.

Discussion and Effects

If this proposal were adopted, a late fall moose season of Oct. 20-Nov. 10 would be established for Unit 7. Adding a late fall season would increase opportunity for federally qualified subsistence users and may increase harvest success if early winter conditions concentrate moose in low elevation river valleys and creek bottoms where they are more accessible. A late season hunt would also provide greater opportunity to hunt during cooler weather that is more conducive to meat handling. This would also align seasons with the adjacent Unit 15B.

The status of the Unit 7 moose population is uncertain due to lack of data but appears to be low density due to habitat limitations and low harvest numbers. No composition surveys have been performed since 2013. While bull:cow ratios were at the upper limit of the objective range, they were well below objectives in previous surveys and are unknown now, 12 years later. While current calf:cow ratios are unknown, the most recent estimates were indicative of a declining population. Harvest and hunter success has increased in recent years, but has remained low overall, averaging 23 moose/year with 6% to 14% annual overall success rate.

Forest succession and lack of winter habitat are thought to be severely limiting the moose population in Unit 7. Accidental deaths from wildlife/traffic interactions are also a significant cause of mortality for moose in Unit 7. Therefore, given the depressed population and multiple stressors facing moose in Unit 7, additional moose harvest in the proposed late season would likely present a conservation concern.

OSM PRELIMINARY CONCLUSION

Oppose Proposal WP26-17

Justification

While adoption of Proposal WP26-17 would provide greater opportunity to federally qualified subsistence users, the limited data available suggests a potential conservation concern for Unit 7 moose. The Unit 7 moose population appears to occur at low density due to habitat limitations and is possibly declining. Therefore, conservative management is warranted, and additional harvest pressure is not recommended at this time.

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