

# Reauthorizations for Antlerless Moose Hunts and Brown Bear Tag Fee Exemptions

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## PROPOSAL 150

### **5 AAC 92.015(a)(4). Brown bear tag fee exemptions.**

Reauthorize resident grizzly/brown bear tag fee exemptions throughout Interior and Northeast Alaska as follows:

- (a) A resident tag is not required for taking a brown bear in the following units:

...

- (4) Units 12, 19, 20, 21, 24, 25, 26(B), and 26(C)

...

**What is the issue you would like the board to address and why?** Brown bear tag fee exemptions must be reauthorized annually. Reauthorizing the exemption allows residents who have not purchased the \$25 brown bear tag to take bears opportunistically. This reauthorization would assist with our objective of managing Region III brown bear populations for hunter opportunity and would continue to allow hunters to take brown bears opportunistically.

Region III (Interior and Northeast Alaska) brown bear populations are healthy, and harvest is monitored through the brown bear sealing requirement. Reauthorizing all resident brown bear tag fees throughout Region III maintains simpler regulations, provides high resident hunter opportunity, and is not likely to cause declines in these brown bear populations. This reauthorization includes tag fee exemptions for subsistence registration permit hunts in Units 19A and 19B (downstream of and including the Aniak River drainage), 21D, and 24.

The Department of Fish and Game estimates that brown bear harvest accounts for less than 6% of the bear population. Harvest is composed primarily of males and is sustainable. Where harvests are elevated (i.e., Units 20A, 20B, 20D, and portions of 26B), brown bear populations are managed by adjusting seasons and bag limits. The absence of resident tag fees that were in place prior to 2010 appears to have little effect on net harvest across the region in general.

**Did you develop your proposal in coordination with others, or with your local fish and game advisory committee?**

**PROPOSED BY:** Alaska Department of Fish & Game

(HQ-F24-050)

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**PROPOSAL 151**

**5 AAC 92.015. Brown bear tag fee exemptions.**

Reauthorize the current resident tag fee exemptions for brown bear in Units 18, 22, 23 and 26A as follows:

(a) A resident tag is not required for taking a brown bear in the following units:

- ...
- (4) Units... 26;
- ...
- (8) Unit 22;
- (9) Unit 23;
- ...
- (13) Unit 18;
- ...

(b) In addition to the units as specified in (a) of this section, if a hunter obtains a subsistence registration permit before hunting, that hunter is not required to obtain a resident tag to take a brown bear in the following units:

- ...
- (4) Unit 18;
- ...
- (7) Unit 22;
- (8) Unit 23;
- ...
- (10) Unit 26(A).

**What is the issue you would like the board to address and why?** The Board of Game must reauthorize brown bear tag fee exemptions annually or the fee automatically becomes reinstated. The department recommends continuing resident tag fee exemptions for the general season and subsistence season hunts in Region V (Units 18, 22, 23, and 26A).

General Season Hunts: Reauthorizations are needed for: Unit 18, where the tag fee has been exempted for 10 years; Unit 22, where the tag fee has been exempted for 20 years; Unit 23, where the tag fee has been exempted for 15 years; and Unit 26A, where the tag fee has been exempted for 10 years. Tag fee exemptions are desired to allow: 1) incremental increase in annual harvest; 2) opportunistic harvest by resident hunters; and 3) harvest by a wide range of users.

General season brown bear harvest rates are within sustained yield limits and previous exemptions of the resident tag fee have not caused dramatic or unexpected increases in overall harvest. In Units 18 and 26A, tag exemptions were authorized for RY2012 and harvest has remained within sustained yield and continues to be similar to the preceding ten-year period. In Unit 22, the 18-year tag-free period for residents has had an average annual harvest of 50 brown bears (range 41–63 bears). In Unit 23, general harvests have been increasing slowly since 1961 primarily in

response to increases in human population rather than regulatory changes, although annual harvests vary due to weather and hunting conditions. Harvest data for Unit 23 show no trend in the sex ratio, age or size of bears harvested under all types of hunts.

Subsistence Season Hunts: Reauthorizations are needed for Units 18, 22, 23, and 26A where brown bear subsistence hunt requirements include: 1) registration permit, 2) tag fee exemption, 3) salvaging meat for human consumption, 4) no use of aircraft in Units 22, 23 and 26A, 5) no sealing requirement unless hide and skull are removed from subsistence hunt area, and 6) if sealing is required, the skin of the head and front claws must be removed and retained by ADF&G at the time of sealing. Continuing the tag fee exemption helps facilitate participation in the associated brown bear harvest programs maintained by ADF&G for subsistence hunts.

In all units, subsistence brown bear harvest rates are low and well within sustained yield limits and exempting the resident tag fee has not caused an increase in subsistence harvest. In Unit 18, it is estimated that zero to three bears are taken annually in subsistence hunts. In Unit 22, subsistence harvest by permit is quite low, averaging less than one bear per year (less than 1% of the total brown bear harvest). In Unit 23, subsistence permit harvest is less than five bears annually since 1992 (less than 10% of the total brown bear harvest). In Unit 26A, between zero and five bears are taken annually by subsistence hunters.

**Did you develop your proposal in coordination with others, or with your local fish and game advisory committee?**

**PROPOSED BY:** Alaska Department of Fish and Game (HQ-F24-069)  
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**Proposal 152**

**5 AAC 085.045(4) Hunting seasons and bag limits for moose.**

Reauthorize the antlerless moose season in Unit 6(C) as follows:

<b>Seasons and Bag Limits</b>	<b>Resident Open Season (Subsistence and General Hunts)</b>	<b>Nonresident Open Season</b>
(4)		
...		
Unit 6(C)		
1 moose per regulatory year, only as follows:		
1 moose by drawing permit only; up to 40 permits	Sept. 1-Oct. 31 (General hunt only)	No open season.

for bulls and up to 20 permits for antlerless moose may be issued

or

1 moose by registration permit only;

Nov. 1-Dec. 31

No open season.

...

**What is the issue you would like the board to address and why?** Antlerless moose hunts must be reauthorized annually by the Board of Game. The department recommends reauthorizing the state antlerless hunt in Unit 6C to achieve the harvest objectives when the federal subsistence hunt is not able to achieve the desired level of harvest.

The population objective in Unit 6C is 600–800 moose. A population estimate completed during March 2023 yielded an estimate of 503 moose, 22% of which were calves. Because the available antlerless harvest quota in Unit 6C is currently harvested under a federal subsistence season administered by the U. S. Forest Service, we have not held the antlerless hunt since RY99.

A registration hunt was approved by the board (RM169) to provide additional hunt opportunity if harvestable surplus existed after federal hunts were administered. Without an antlerless moose hunt, this hunt cannot function as indented if it is needed. Continuation of the antlerless hunts may be necessary to manage population growth and keep it within the limits of what the habitat can support.

**Did you develop your proposal in coordination with others, or with your local fish and game advisory committee?**

**PROPOSED BY:** Alaska Department of Fish and Game (HQ-F24-059)

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**Proposal 153**

**5 AAC 85.045(5). Hunting seasons and bag limits for moose.**

Reauthorize the antlerless moose season in the Twenty mile/Portage/Placer hunt area in Units 7 and 14(C) as follows:

<b>Seasons and Bag Limits</b>	<b>Resident Open Season (Subsistence and General Hunts)</b>	<b>Nonresident Open Season</b>
(5)		

...

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

RESIDENT HUNTERS:

1 moose by drawing permit only; up to 60 permits for bulls will be issued in combination with nonresident hunts, and up to 70 permits for antlerless moose will be issued

Aug. 20—Oct. 10  
(General hunt only)

...

NONRESIDENT HUNTERS:

1 bull by drawing permit only; up to 60 permits for bulls will be issued in combination with resident hunts

Aug. 20—Oct. 10

...

**What is the issue you would like the board to address and why?** Antlerless moose seasons must be reauthorized annually, and the Department of Fish and Game recommends reauthorizing the antlerless hunt in Units 7 and 14C. The moose population in the Twentymile/Portage/Placer area has a history of rapid increase following mild winters and sharp reductions during severe winters. In 2009, antlerless permits were issued for the first time since 2004. The number of permits issued depends on the current population estimate and bull:cow ratios, as well as estimated winter mortality. A November 2023 aerial composition count of moose in the Twentymile, Portage, and Placer river drainages found 176 moose with a bull:cow ratio of 22 bulls per 100 cows and a calf:cow ratio of 21 calves per 100 cows.

The harvest of antlerless moose provides the department with a management tool to maintain the number of moose in the Twentymile/Portage/Placer area at an abundance level that reduces the possibility of over-browsing of winter habitat, moose-vehicle collisions, and significant mortality events during severe winters. This hunt, in previous years, has been successful in creating additional moose hunting opportunity with little or no controversy among resource users.

**Did you develop your proposal in coordination with others, or with your local fish and game advisory committee?**

**PROPOSED BY:** Alaska Department of Fish and Game (HQ-F24-070)

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**Proposal 154**

**5 AAC 85.045(5). Hunting seasons and bag limits for moose.**

Reauthorize the antlerless moose seasons in Unit 14(C) as follows:

<b>Seasons and Bag Limits</b>	<b>Resident Open Season (Subsistence and General Hunts)</b>	<b>Nonresident Open Season</b>
(12)		
...		
Unit 14(C), Joint Base Elmendorf-Richardson (JBER) Management Area	Sept. 1—Mar. 31 (General hunt only)	Sept 1.—Mar. 31
1 moose by regulatory year by drawing permit, and by muzzleloading blackpowder rifle or bow and arrow only; up to 185 permits may be issued		
Unit 14(C), that portion known as the Birchwood Management Area	Sept. 1—Sept. 30 (General hunt only)	Sept 1.— Sept. 30
1 moose by drawing permit, by bow and arrow only; up to 25 permits may be issued		
Unit 14(C), that portion known as the Anchorage Management Area	Sept 1.—Nov. 30 (General hunt only)	No open season
1 antlerless moose by drawing permit only, and by bow and arrow, shotgun, or muzzleloading black powder rifle only; up to 50 permits		

may be issued

Unit 14(C), that portion  
of the Ship Creek drainage  
upstream of the Joint Base  
Elmendorf-Richardson (JBER)  
Management Area

1 moose by drawing permit only; up to 50 permits may be issued; or	Sept. 1—Sept. 30 (General hunt only)	Sept. 1—Sept. 30
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1 bull by registration permit only	Oct. 1—Nov. 30 (General hunt only)	Oct. 1—Nov. 30
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...

Remainder of Unit 14(C)

1 moose per regulatory year,  
only as follows:

...

1 antlerless moose by drawing permit only; up to 60 permits may be issued; or	Sept. 1—Sept. 30 (General hunt only)	No open season
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...

**What is the issue you would like the board to address and why?** Antlerless moose hunts must be reauthorized annually, and the Department of Fish and Game recommends reauthorizing the antlerless moose hunts in Unit 14C. The harvest of antlerless moose provides the department with a management tool to maintain the number of moose in Unit 14C at the desired population objective (1,500 moose). This population size has been demonstrated to reduce over-browsing of winter habitat, moose-vehicle collisions, moose-human conflicts in urban areas, and significant mortality events during severe winters. These hunts have also been successful in providing additional moose hunting opportunities in the state's human population center with little or no controversy among resource users.

Moose in Unit 14C are managed intensively for a population objective of 1,500–1,800 moose and an annual harvest objective of 90–270 moose (5AAC 92.108). The number of antlerless permits issued depends on the current population estimate and bull:cow ratios, as well as estimated winter mortality. In 2013, the department estimated that the moose population contained approximately 1,533 moose in Unit 14C based on a combination of population censuses, composition surveys and extrapolation

to areas not surveyed. A combined 2023 aerial composition count of the Joint Base Elmendorf-Richardson Management Area and the Ship Creek drainage found 222 moose with a bull:cow ratio of 30 bulls per 100 cows and a calf:cow ratio of 9 calves per 100 cows. In 2021, a survey of the same area found a total of 301 moose with ratios of 44 bulls per 100 cows and 20 calves per 100 cows, respectively. The persistent, deep snowpack during the winter of 2022 likely resulted in additional winter mortality and an increase in the late winter energetic demands on pregnant cows, potentially reducing both the bull:cow and calf:cow estimates for the population. However, harvest numbers continue to remain relatively steady, and at this population level, there have been fewer reports of human-moose conflicts and moose-vehicle collisions.

Harvesting cow moose is paramount to maintaining the population at the low end of the objective while providing harvest opportunity.

**Did you develop your proposal in coordination with others, or with your local fish and game advisory committee?**

**PROPOSED BY:** Alaska Department of Fish and Game (HQ-F24-071)  
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**Proposal 155**

**5 AAC 085.045(13). Hunting seasons and bag limits for moose.**

Reauthorize the antlerless moose season on Kalgin Island in Unit 15B as follows:

<b>Units and Bag Limits</b>	<b>Resident Open Season (Subsistence and General Hunts)</b>	<b>Nonresident Open Season</b>
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(13) hunting seasons and bag limits for moose in Unit 15 are as follows:

...

Unit 15(B), Kalgin Island

1 moose per regulatory year, by registration permit only	Aug. 20—Sept. 20	Aug. 20—Sept. 20
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...

**What is the issue you would like the board to address and why?** Antlerless moose hunts must be reauthorized annually by the Board of Game. The current regulation for hunting moose on Kalgin Island in Unit 15B allows hunters to harvest antlerless moose with the goal of reducing the population to the management objective.

In response to concerns that the moose population on Kalgin Island had exceeded the island’s carrying capacity and deteriorating habitat conditions, the board established a drawing permit hunt



for antlerless moose in 1995. In a further attempt to reduce the number of moose on the island, the board established a registration hunt for any moose in 1999. Despite these measures to reduce moose numbers, moose remain abundant on the island and continue to meet or exceed the management objective. Antlerless hunts, such as RM572, provide potential opportunities for hunter harvest and improved food security while maintaining healthy moose herds and habitat at this time.

During the most recent moose survey, department staff counted 90 moose on Kalgin Island in December 2022. This count is larger than the population objective of 20–40 moose. In the last 10 years, an average of 120 permits were issued for this hunt; of which 89 permittees hunted, with an annual average harvest of 31 moose.

The any moose registration hunt is recommended to provide liberal harvest opportunity on this predator-free island population. A registration hunt also allows the department to continue gathering biological information from specimens provided by successful hunters. The difficult hunting conditions and limited access will make over-harvest unlikely.

**Did you develop your proposal in coordination with others, or with your local fish and game advisory committee?**

**PROPOSED BY:** Alaska Department of Fish and Game (HQ-F24-060)  
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**Proposal 156**

**5 AAC 85.045(13). Hunting seasons and bag limits for moose.**

Reauthorize the antlerless moose seasons in Unit 15C as follows:

This proposal would reauthorize the antlerless moose hunt for the Homer bench (DM549) and the targeted hunt (AM550).

<b>Units and Bag Limits</b>	<b>Resident Open Season (Subsistence and General Hunts)</b>	<b>Nonresident Open Season</b>
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(13) hunting seasons and bag limits for moose in Unit 15 are as follows:

...

Unit 15(C), that portion from the mouth of Deep Creek easterly along the south bank of Deep Creek to N 59° 55.183', W 151° 8.155'; then southeasterly in a straight line to the unnamed

creek at N 59° 54.342',  
W 151° 6.459'; and easterly down  
the south bank of this stream to  
Caribou Lake and easterly along  
the south shore to the outlet of Fox  
Creek, then south along the west  
bank of Fox Creek to the mouth of  
Fox Creek, and along the mean  
high tide line to the point of origin

RESIDENT HUNTERS:

...

1 antlerless moose by drawing  
permit only; the taking of  
calves, and females accompa-  
nied by calves, is prohibited;  
up to 100 permits may be issued in  
combination with the nonresident  
drawing hunt: or

Oct. 20—Nov. 20

...

1 moose by targeted permit only;      Oct. 15—Mar. 31

NONRESIDENT HUNTERS:

...

1 antlerless moose by drawing  
permit only; the taking of  
calves, and females accompa-  
nied by calves, is prohibited;  
up to 100 permits may be issued in  
combination with the resident  
drawing hunt

Oct. 20—Nov. 20

Remainder of Unit 15(C)

...

RESIDENT HUNTERS:

...

1 moose by targeted permit only      Oct. 15—Mar. 31

...

**What is the issue you would like the board to address and why?** Antlerless moose seasons must be reauthorized annually, and the Department of Fish and Game recommends reauthorization of the Homer bench hunt (DM549) and the targeted hunt (AM550) along the Sterling Highway in Unit 15C for the 2023-24 hunting season.

In February 2023, a GSPE census was conducted in the northern portion of Unit 15C (north of Kachemak Bay) and resulted in a population estimate of 5,162 moose (95% CI: range 3,934–6,390), of which 22% (95% CI: 17–27) were calves. This equates to a density of approximately 4.4 moose/mi<sup>2</sup> in the census area and indicates the population has continued to grow since 2010. However, the spatial distribution of moose during winter is heavily skewed away from elevations > 1000 feet in Unit 15C. The creates high variance of moose abundance in grid cells and removal of a single high density grid cell from the GSPE census reduces the population estimate to 4,486 moose (95% CI: range 3,391–3,581), of which 22% (95% CI: 14–28) were calves. Despite this variability in moose distribution influencing precision of GSPE censuses, the population appears to be at or above the upper end of the Intensive Management population objective. Fall composition counts in core count areas during November 2022 provided a bull ratio of 36 bulls:100 cows. Antlerless hunts, such as DM549 and AM550, provide potential opportunities for hunter harvest and improved food security while maintaining healthy moose herds and habitat at this time.

The lowlands in Unit 15C, south of Deep Creek and Caribou Lake, which encompasses the hunt boundary of DM549, contain high densities of moose when deep snow drives moose to lower elevations. The human population continues to grow in these areas doubling in size since the 1980's, according to U.S. Census Bureau statistics. In 2023, the hunt area was expanded to reduce hunter conflicts with private property owners. Even without deep snow, some moose die due to malnutrition and negative interactions with humans occur as moose become more aggressive in their search for food around human residences. Fifty permits were issued in each of the last 10 years resulting in an average harvest of 25 cows annually.

The purpose of AM550 is to allow for the harvest of antlerless moose along the Sterling Highway in Unit 15C during deep snow winters to reduce moose and vehicle collisions. On average, 63 known animals are killed each year in vehicle collisions in Unit 15C. The department will decide when and where permits will be issued during the hunt period. Targeted hunts are administered through a registration permit and up to 100 moose may be taken. The number of permits issued each year will depend on conditions, and it is possible no permits will be issued in some years.

**Did you develop your proposal in coordination with others, or with your local fish and game advisory committee?**

**PROPOSED BY:** Alaska Department of Fish and Game (HQ-F24-061)  
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**PROPOSAL 157**

**5 AAC 85.045(a)(16). Hunting seasons and bag limits for moose.**

Reauthorize the resident antlerless moose season in Unit 18 as follows:

<b>Units and Bag Limits</b>	<b>Resident Open Season (Subsistence and General Hunts)</b>	<b>Nonresident Open Season</b>
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(16)

Unit 18 Kuskokwim Area, that portion easterly of a line from the mouth of the Ishkowitz River to the closest point of Dall Lake then to east bank of the Johnson River at its entrance into Nunavakanukakslak Lake (60 59.41' N. latitude, 162 22.14' W. longitude), continuing upriver along a line one-half mile south and east of, and paralleling a line along the southerly bank of the Johnson River to the confluence of the east bank of Crooked Creek, then continuing upriver along the east bank of Crooked Creek to the outlet at Arhymot lake, then following the south bank of Arhymont Lake easterly to the Unit 18 border and north of and including the Eek River drainage

**RESIDENT HUNTERS:**

...

1 antlerless moose by drawing permit only, up to 100 permits may be issued

Sept. 1-Oct. 15

...

Unit 18, that portion that drains into Kuskokwim Bay south of the Carter Bay drainage

RESIDENT HUNTERS:

...

1 moose by registration permit only; to be announced by emergency order

Dec. 1—Mar. 31  
(Season to be announced)

No open season.

Remainder of Unit 18

RESIDENT HUNTERS:

3 moose; of which only 1 may be an antlered bull; a person may not take a calf or a cow accompanied by a calf; or

Aug. 1—Sept. 30

3 antlerless moose; or

Oct. 1—Nov. 30

3 moose

Dec. 1—April 30

NONRESIDENT HUNTERS:

1 antlerless moose

Dec. 1— Mar. 15

...

**What is the issue you would like the board to address and why?** To be retained, the antlerless moose seasons in Unit 18 must be reauthorized annually. The current antlerless hunts in the Remainder of Unit 18 were adopted at the January 2014 Board of Game meeting in Kotzebue. The current antlerless hunt in the Goodnews Hunt area and nonresident antlerless hunt was adopted at the January 2017 board meeting in Bethel. The Kuskokwim hunt was adopted at the January 2024 board meeting in Kotzebue. Both the Remainder and Goodnews antlerless hunts were amended at the board meeting in Nome in 2020 . The board has previously reauthorized the antlerless moose

season for resident hunts in Unit 18 remainder for regulatory year (RY) 2016 through RY2023. This proposal requests reauthorization for RY2024.

Implementation of antlerless hunts began in 2007 and has continued each year due to increased moose abundance, productivity, and population growth along the Yukon River drainage in Unit 18. Based on the steady growth in moose populations and productivity, ADF&G proposes continued antlerless moose hunts in the Remainder of Unit 18.

Within the areas near the Yukon River, the moose population is estimated at a minimum of 24,000 animals with calf:cow ratios ranging from 36:100 to 61:100, and twinning rates from 15% to 50% for all areas. Population growth and range expansion continues in this portion of Unit 18. The population is expected to continue to grow with high recruitment and adult survival.

Current year harvest data in the Remainder of Unit 18 has not been finalized; harvest is expected to be similar to the past 4 years and well below sustained yield for this robust population. Allowing antlerless harvest will benefit hunters through increased opportunity, and any increases in harvest may help slow the growth rate of the population in this portion of Unit 18. The nonresident antlerless moose hunt has had very low participation. Harvest has been three antlerless moose (all cows) in the past 5 years.

The moose population in the Goodnews River drainage has grown steadily in the past 15 years following a closure in 2004. The fall hunt had a quota of 10 in the first few years of the hunt and recently increased to 45. The season has not been closed by executive order in that time, and for the past few years the quota has not been met. In the seven years that the winter hunt has been held, harvest has been low (with a range of 0-6 animals). The March of 2024 survey observed 450 moose and based on the steady growth in moose populations and productivity, ADF&G proposes continued antlerless moose hunts in the Goodnews River Drainage.

In January of 2024 at the board meeting in Kotzebue, the board adopted a drawing hunt for antlerless moose on the Kuskokwim River. The first hunt is anticipated to be held in the fall of 2025. In February of 2024 the midpoint of the population estimate was 3,336 moose in Zone 1 of the Kuskokwim hunt area. In the same month, the department counted an additional 2,327 moose in a minimum count of Zone 2 of the hunt area. Following a moratorium, the Kuskokwim moose population has experienced rapid growth and range expansion and is starting to see early signs of resource limitation and high browse removal rates.

**Did you develop your proposal in coordination with others, or with your local fish and game advisory committee?**

**PROPOSED BY:** Alaska Department of Fish and Game (HQ-F24-057)  
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**PROPOSAL 158**

**5 AAC 85.045(a)(17). Hunting seasons and bag limits for moose.**

Reauthorize a fall antlerless hunt during September and a winter any-moose season during February in a portion of Unit 19D as follows:

Units and Bag Limits	Resident Open Season (Subsistence and General Hunts)	Nonresident Open Season
(17)		
...		
Unit 19(D) upstream of the Selatna River, excluding the Black River		
1 antlerless moose by drawing permit only; up to 20 permits may be issued	Sept. 1 – Sept. 30	No open season
...		
1 moose by registration permit only, a person may not take a cow accompanied by a calf	Feb. 1 – Last day of Feb.	No open season
...		

**What is the issue you would like the board to address and why?** Antlerless moose hunting seasons must be reauthorized annually.

The moose population in Unit 19D upstream of the Selatna River recently experienced a significant decline due to an extremely difficult winter in 2022/2023. During a November 2023 survey a decline was documented from 2,471 moose (2.2 moose/mi<sup>2</sup>) to 1,591 moose (1.4 moose/mi<sup>2</sup>). Due to this decline the Department of Fish and Game closed the winter hunt in regulatory year (RY) 23 by emergency order. Proposal 66, which was passed by the Board of Game in March 2024, authorized a new draw permit hunt in the fall for antlerless moose in a portion of Unit 19D. This proposal was submitted by the McGrath Advisory Committee prior to the documented decline of moose. While the department does not intend to issue antlerless permits in RY24 we would like to keep the hunt available as a tool to provide additional opportunity when it is again warranted.

**Did you develop your proposal in coordination with others, or with your local fish and game advisory committee?**

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**PROPOSAL 159**

**5 AAC 85.045(18). Hunting seasons and bag limits for moose.**

Reauthorize the antlerless moose seasons in Unit 20A as follows:

<b>Units and Bag Limits</b>	<b>Resident Open Season (Subsistence and General Hunts)</b>	<b>Nonresident Open Season</b>
(18)		
Unit 20(A), the Ferry Trail Management Area, Wood River Controlled Use Area, and the Yanert Controlled Use Area		
RESIDENT HUNTERS:		
...		
1 antlerless moose by drawing permit only; up to 2,000 permits may be issued in combination with the Remainder of Unit 20(A); a person may not take a cow accompanied by a calf; or	Aug. 15–Nov. 15 (General hunt only)	
1 antlerless moose by registration permit only; a person may not take a cow accompanied by a calf; or	Oct. 1–Last day of Feb.	
...		
1 moose by targeted permit only; by crossbow	Season to be announced by emergency order	



shotgun, or bow and arrow only; up to 100 permits may be issued

(General hunt only)

...

Remainder of Unit 20(A)

RESIDENT HUNTERS:

...

1 antlerless moose by drawing permit only; up to 2,000 permits may be issued in combination with Unit 20(A), the Ferry Trail Management Area, Wood River Controlled Use Area, and the Yanert Controlled Use Area; a person may not take a cow accompanied by a calf; or

Aug. 15–Nov. 15  
(General hunt only)

1 antlerless moose by registration permit only; a person may not take a cow accompanied by a calf; or

Aug. 25–last day of Feb.

...

1 moose by targeted permit only; by crossbow, shotgun, or bow and arrow only; up to 100 permits may be issued

Season to be announced by emergency order

...

**What is the issue you would like the board to address and why?** Antlerless moose hunting seasons must be reauthorized annually. Antlerless hunts are important for maintaining the moose population at levels that the habitat can support. Antlerless hunts also help regulate moose population growth, help to meet Intensive Management (IM) objectives for high levels of harvest,

and provide subsistence hunters with a reasonable opportunity to pursue moose for subsistence uses without reducing bull-to-cow ratios.

If antlerless moose hunts are not reauthorized, the moose population could increase to levels beyond the ability of the habitat to support the moose population. Allowing the population to grow beyond what the habitat can support may require the population to be reduced dramatically to avoid long term habitat damage. Opportunity to hunt a harvestable surplus of cow moose would be lost, and the ability to meet IM harvest objectives could be compromised. Subsistence hunters in the portion of Unit 20A outside the Fairbanks Nonsubsistence Area (part of the western Tanana Flats) may not have a reasonable opportunity to pursue moose for subsistence uses.

Reauthorizing antlerless moose hunts will allow hunting opportunity and harvest to increase and allow the Department of Fish and Game to manage the moose populations at an optimum level. The additional harvest will help meet IM harvest objectives without reducing bull-to-cow ratios. Meat and subsistence hunters will benefit from the opportunity to harvest cow moose. Moose populations will benefit by maintaining moose densities at a level compatible with their habitat. Motorists and residents may benefit from reduced moose–vehicle collisions and moose–human conflicts.

The current objective is to maintain moose numbers within the IM population objective of 10,000–15,000 moose, while monitoring indicators of moose and habitat condition for positive density-dependent responses. The Unit 20A population was estimated at between 9,240–12,800 moose (90% confidence interval) in November 2022. There is an estimated 5,040 mi<sup>2</sup> of moose habitat in Unit 20A which equates to a moose density of between 1.8 and 2.5 moose/mi<sup>2</sup>. The median of this estimate falls within the IM population objective. The department will continue to monitor Unit 20A twinning rates and short yearling weights as indices for nutritional condition of the moose population. The department has seen a slow and steady increase in both twinning rates (16%) and short yearling weights (400lbs) and are nearing the thresholds of 20% twinning rates and 400lb short yearling weights. This indicates that the nutritional condition of these moose is improving. However, the department does not want the population to further increase until we reach the thresholds of both 20% twinning rate and 400lb short yearlings. As the department continues to monitor Unit 20A twinning rates and short yearling weights, it may recommend fewer antlerless hunts in the future if these two thresholds are surpassed. The Unit 20A population is currently at the low end of the IM population objective and recovering from the difficult winter of 2021/2022. The department wants to survey the Unit 20A population in November of 2024 and evaluate the population and how it is recovering after the difficult winter. No antlerless hunts have been conducted since that winter and a cautious approach on when antlerless harvest is again appropriate is being taken. If the department detects the population is again growing in Unit 20A and is within IM population objectives then a modest harvest rate may be available for hunters. A harvest rate of 1% of the population has been shown to stabilize the moose population at its current level. Antlerless harvest would be by drawing permits for a majority of Unit 20A and a registration permit outside the Fairbanks non-subsistence area in northwest Unit 20A near Nenana. The harvest objective will be based on the most recent survey results. The antlerless harvest will target the highest density portions of Unit 20A. The Department did not issue antlerless moose permits in 2022 because of a severe 2021/2022 winter

and the anticipated high mortality, or in 2023 and 2024 because a population estimate was not completed until after the drawing permit application period. The next possible time to hunt antlerless moose would be in the fall of 2026.

The number of moose in Unit 20A was estimated at 17,768 (3.5 moose/mi<sup>2</sup>) in 2003. Research indicated this high-density moose population was experiencing density-dependent effects, including low productivity, relatively light calf weights, and high removal rates of winter forage. The objective beginning in regulatory year 2004–2005 (RY04) was to reduce moose numbers to the population objective of 10,000–12,000 moose (1.5–1.8 moose/mi<sup>2</sup>) unless indicators of moose condition showed signs of improvement at higher densities. In 2016, the Board of Game adopted the IM population objective of 10,000–15,000 moose and the 2022 population estimate is within the IM objective.

**Did you develop your proposal in coordination with others, or with your local fish and game advisory committee?**

**PROPOSED BY:** Alaska Department of Fish and Game (HQ-F24-051)

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**PROPOSAL 160**

**5 AAC 85.045(18). Hunting seasons and bag limits for moose.**

Reauthorize the antlerless moose seasons in Unit 20B as follows:

<b>Units and Bag Limits</b> (18)	<b>Resident Open Season Subsistence and General Hunts</b>	<b>Nonresident Open Season</b>
...		
Unit 20(B), that portion within Creamer’s refuge		
...		

**Units and Bag Limits**

1 antlerless moose by bow and arrow only, by drawing permit only; up to 150 bow and arrow permits may be issued in the Fairbanks Management Area; a recipient of a drawing permit is prohibited from taking an antlered bull moose in the Fairbanks Management Area; or

1 antlerless moose by muzzle-loader by drawing permit only; up to 10 permits may be issued; a recipient of a drawing permit is prohibited from taking an antlered bull moose in the Fairbanks Management Area

Unit 20(B), remainder of the Fairbanks Management Area

...

1 antlerless moose by bow and arrow only, by drawing permit only; up to 150 bow and arrow permits may be issued in the Fairbanks Management Area; a recipient of a drawing permit is prohibited from taking an antlered bull moose in the Fairbanks Management Area; or

1 moose by targeted permit only; up to 100 permits may be issued

Unit 20(B), that portion within the Minto Flats Management Area

**RESIDENT HUNTERS:**

...

**Resident  
Open Season  
Subsistence and  
General Hunts**  
Sept. 1–Nov. 27  
(General hunt only)

Dec. 1–Jan. 31

Sept. 1–Nov. 27  
(General hunt only)

Season to be announced  
by emergency order

**Nonresident  
Open Season**  
Sept. 1–Nov. 27  
(DM786 only)

No Open Season

Sept. 1–Nov. 27  
(DM786 only)

No open season.

<b>Units and Bag Limits</b>	<b>Resident Open Season Subsistence and General Hunts</b>	<b>Nonresident Open Season</b>
1 antlerless moose by registration permit only	Oct. 15–Feb. 28 (Subsistence hunt only)	No open season.
...		
Unit 20(B), the drainage of the Middle Fork of the Chena River		
1 antlerless moose by drawing permit only; up to 300 permits may be issued; a person may not take a cow accompanied by a calf; or	Aug. 15–Nov. 15 (General hunt only)	
1 antlerless moose by registration permit only; a person may not take a cow accompanied by a calf; or	Oct. 1–Last day of Feb. (General hunt only)	No open season.
...		
Unit 20(B), that portion southeast of the Moose Creek dike within one-half mile of each side of the Richardson highway		
...		
1 moose by drawing permit only; by crossbow, bow and arrow, or muzzleloader only; up to 100 permits may be issued; or	Sept. 16–Last day of Feb. (General hunt only)	No open season.
1 moose by targeted permit only; by crossbow, shotgun, or bow and arrow only; up to 100 permits may be issued	Season to be announced by emergency order	No open season.
Remainder of Unit 20(B)		
1 antlerless moose by drawing permit only; by youth hunt only; up to 200 permits may be issued; or	Aug. 5–Aug. 14 (General hunt only)	No open season

Units and Bag Limits	Resident Open Season Subsistence and General Hunts	Nonresident Open Season
...		
1 antlerless moose by drawing permit only; up to 1,500 permits may be issued in the remainder of Unit 20(B); a person may not take a cow accompanied by a calf; or	Aug. 15–Nov. 15 (General hunt only)	No open season.
1 antlerless moose by registration permit only; a person may not take a cow accompanied by a calf; or	Oct. 1– Last day of Feb.	
1 moose by targeted permit only; by crossbow, shotgun, or bow and arrow only; up to 100 permits may be issued	Season to be announced by emergency order	No open season.
...		

**What is the issue you would like the board to address and why?** Antlerless moose hunting seasons must be reauthorized annually. The goal is to provide for a wide range of public uses and benefits, and to protect the health and habitat of moose populations. Antlerless hunts are important for improving or maintaining the ability of moose habitat to support current populations. They also help regulate moose population growth, help to meet Intensive Management (IM) objectives for high levels of harvest, and provide subsistence hunters with a reasonable opportunity to pursue moose for subsistence uses without reducing bull-to-cow ratios.

If antlerless moose hunts are not reauthorized, the moose population may exceed population objectives causing habitat degradation and a loss of opportunity to hunt a surplus of antlerless moose. The reauthorization of antlerless moose hunts in Unit 20B will allow Alaska Department of Fish and Game (ADF&G) to manage the moose population within the population objectives of 12,000 to 15,000 moose. Hunting opportunity and harvest will increase and allow ADF&G to manage this moose population at optimum levels. The additional harvest is necessary to meet intensive management harvest objectives while maintaining bull-to-cow ratios within objectives. Moose populations will benefit by maintaining moose densities at levels compatible with their habitat. Motorists and residents may benefit from reduced moose–vehicle collisions and moose–human conflicts.

The moose population level in Unit 20B is currently below the population objective of 12,000–15,000 moose. The population declined from an estimated 20,173 moose in 2009 to 11,064 in 2015, due in large part to antlerless moose hunts designed to lower the population to those objectives. The population increased slightly to 12,871 moose in 2017 and was estimated at

12,479 in 2020. A population estimate was conducted in the fall of 2023. It was the first survey completed since the winter of 2021/2022 which was a difficult winter for moose due to weather events. The 2023 Unit 20B moose population estimate was 7,848 moose. The department feels that at this time antlerless hunts should be limited until the population recovers and is within IM objectives. The department recommends limited antlerless hunts in the Fairbanks Management Area (FMA) and the Richardson Highway corridor hunt. The department will continue to monitor the moose population and may implement additional antlerless hunts in the future if the population can sustain the harvest.

*Fairbanks Management Area (FMA)*—The purpose of this antlerless hunt is to regulate population growth in the FMA and reduce potential moose–vehicle collisions and nuisance moose problems.

The number of moose–vehicle collisions in the FMA is high and poses significant safety risks to motorists. In addition, moose nuisance issues continue to place significant demands on property owners. To increase hunting opportunity and harvest, and reduce moose–vehicle collisions, the department incrementally increased the number of drawing permits for antlerless moose in the FMA during RY99–RY10. Moose–vehicle collisions and moose nuisance problems have remained lower since this time, presumably, in part due to consistent antlerless moose harvests.

*Richardson Highway Corridor Hunt*- This hunt is an “any” moose drawing permit that allows hunters to hunt within ½ mile of each side of the Richardson Highway. The purpose of this hunt is to allow hunters to harvest moose along the Richardson Highway to help reduce moose-vehicle collisions.

**Did you develop your proposal in coordination with others, or with your local fish and game advisory committee?**

**PROPOSED BY:** Alaska Department of Fish and Game. (HQ-F24-052)  
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**PROPOSAL 161**

**5 AAC 85.045(18). Hunting seasons and bag limits for moose.**

Reauthorize the antlerless moose hunting seasons in Unit 20D as follows:

(18) hunting seasons and bag limits for moose in Unit 20 are as follows:

<b>Units and Bag Limits</b>	<b>Resident Open Season (Subsistence and General Hunts)</b>	<b>Nonresident Open Season</b>
...		

Unit 20(D), that portion lying

west of the west bank of the Johnson River and south of the north bank of the Tanana River, except the Delta Junction Management Area and the Bison Range Controlled Use Area

RESIDENT HUNTERS:

...

1 antlerless moose, per lifetime of a hunter, by youth hunt drawing permit only; up to 100 permits may be issued in combination with those portion in the Delta Junction Management Area and the Bison Range Controlled Use Area; a person may not take a calf or a cow accompanied by a calf;

Sept. 16 – Sept. 25  
(General hunt only)

1 antlerless moose by registration permit only; a person may not take a calf or a cow accompanied by a calf

Oct. 10 - Nov. 25  
(General hunt only)

...

Unit 20(D), that portion within the Bison Range Controlled Use Area

...

1 antlerless moose, per lifetime of a hunter, by youth hunt drawing permit only; up to 100 permits may be issued in Unit 20(D) lying west of the west bank of the Johnson River and south of the north bank of the Tanana River and the Delta Junction Management Area; a person may

Sept. 16 – Sept. 25  
(General hunt only)



not take a calf or a cow accompanied by a calf;

Unit 20(D), that portion within the Delta Junction Management Area

RESIDENT HUNTERS:

...

1 antlerless moose, per lifetime of a hunter, by youth hunt drawing permit only; up to 100 permits may be issued Unit 20(D) lying west of the west bank of the Johnson River and south of the north bank of the Tanana River and the Bison Range Controlled Use Area; a person may not take a calf or a cow accompanied by a calf;

Sept. 16 – Sept. 25  
(General hunt only)

1 moose every four regulatory years by drawing permit a person may not take a calf or a cow accompanied by a calf; or

Sept. 1 - Sept. 15  
(General hunt only)

...

1 antlerless moose by registration permit only; a person may not take a calf or a cow accompanied by a calf

Oct. 10 - Nov. 25  
(General hunt only)

NONRESIDENT HUNTERS:

1 moose every four regulatory years by drawing permit only, a person may not take a calf or a cow accompanied by a calf; or

Sept. 1 - Sept. 15

...

**What is the issue you would like the board to address and why?** Antlerless moose hunts must be reauthorized annually. The objectives of the Unit 20D antlerless moose hunts are to 1) stabilize population growth of this high-density moose population; 2) address concerns about range degradation, reduced nutritional condition of moose, and reduced reproductive success of moose; 3) make progress toward meeting the Unit 20D intensive management (IM) harvest objective of 500–700 moose; and 4) provide youth and disabled veteran hunting opportunity. These objectives are being met.

If antlerless moose hunts are not reauthorized, the moose population could quickly increase to levels beyond the ability of the habitat to support the moose population. Allowing the population to grow beyond what the habitat can support may require the population to be reduced dramatically to avoid long term habitat damage. Opportunity to hunt a harvestable surplus of cow moose would be lost, and the ability to meet IM harvest objectives could be compromised.

Antlerless moose hunts are offered in southwest Unit 20D, which has the highest moose density in the unit. This area has great potential for population growth due to an abundance of high-quality moose habitat created from extensive land clearing for agricultural use and multiple wildfires over the past 40 years. Total moose harvest in all of Unit 20D averaged 146 bull moose during regulatory years 2020 and 2021. No antlerless moose were harvested in regulatory year (RY) 22 or RY23 as the moose population experienced a 40% decline as a result of the severe winter of 2021 – 2022. However, the population has begun to rebound, and a very small antlerless hunt is planned for RY24 with less than 20 tags issued.

Antlerless hunting opportunity and harvest is limited at present to help maintain this moose population at current densities and within habitat carrying capacity. The largest antlerless harvest (n=510) occurred in Unit 20D in 2007, when antlerless hunts were first authorized to reduce population size and address moose nutritional concerns. Since 2011, the southwest Unit 20D population estimates (range = 2,500–4,500 moose) and bull harvest in southwestern Unit 20D (201–282) have been stable. The 2022 population estimate for southwest Unit 20D was 2,459 moose (corrected for sightability) with a density of 1.94 moose per square mile, 28 calves:100 cows and 23 bulls:100 cows. The 2022 population estimate is 40% lower than the 2020 estimate, likely due to increased mortality as a result of severe winter conditions during 2021–2022, which included deep snow and winter rain events. The Department of Fish and Game does expect nutritional indices to improve because of fewer moose on the landscape relative to habitat capacity. This process is already evident as the 2023 population estimate of 3,555 moose was an increase compared to 2,459 moose in 2022. In order to prevent the moose population from experiencing nutritional stress in future years, a few antlerless permits will be warranted annually going forward.

Continued antlerless harvest will likely be needed to maintain this population at the optimal density relative to habitat constraints and will contribute additional harvest toward meeting the IM harvest objective of 500–700 moose without reducing bull-to-cow ratios below management objectives. The current population trend suggests that low, consistent antlerless harvest provided by drawing permit hunts in Unit 20D, in conjunction with other mortality factors (including ceremonial harvest, vehicle collision, accidents, and predation), is appropriate to maintain population stability.

The department will continue to evaluate antlerless moose hunts and their effect on moose density and population growth. Future antlerless moose hunts will be implemented as needed based on the evaluation of the following three indices of density-dependent moose nutritional conditions in relation to changes in moose density: biomass removal of current annual growth on winter browse, proportion of females with twin calves, and late-winter calf weights.

Additional drawing or registration permits will be issued only if more harvest is needed in specific areas to maintain optimal moose densities.

**Did you develop your proposal in coordination with others, or with your local fish and game advisory committee?**

**PROPOSED BY:** Alaska Department of Fish & Game (HQ-F24-053)  
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**PROPOSAL 162**

**5 AAC 85.045(a)(18). Hunting seasons and bag limits for moose.**

Reauthorize the antlerless moose seasons in Unit 20E as follows:

<b>Units and Bag Limits</b>	<b>Resident Open Season (Subsistence and General Hunts)</b>	<b>Nonresident Open Season</b>
(18)		
...		
Unit 20(E), remaining portion of the Ladue River Controlled Use Area		
<b>RESIDENT HUNTERS:</b>		
...		
1 antlerless moose by drawing permit only; by youth hunt only; up to 100 permits may be issued in combination with the nonresident drawing hunt; a person may not take a cow accompanied by a calf; or	Aug. 5–Sept. 5 Oct. 15–Nov. 30	

1 antlerless moose by drawing permit only; up to 400 permits may be issued; a person may not take a cow accompanied by a calf

Oct. 15–Nov. 30

NONRESIDENT HUNTERS:

...

1 antlerless moose by drawing permit only; by youth hunt only; up to 100 permits may be issued in combination with the nonresident drawing hunt; a person may not take a cow accompanied by a calf

Aug. 5–Sept. 5

Oct. 15–Nov. 30

Unit 20(E), that portion outside of the Ladue River Controlled Use draining into 1) the Ladue River upstream of the South Fork of the Ladue River, 2) the Dennison Fork of the Fortymile River, and 3) the Mosquito Fork of the Fortymile River drainage.

RESIDENT HUNTERS:

...

1 antlerless moose by drawing permit only; by youth hunt only; up to 100 permits may be issued in combination with the nonresident drawing hunt; a person may not take a cow accompanied by a calf; or

Aug. 5–Sept. 5

Oct. 15–Nov. 30

1 antlerless moose by drawing permit only; up

Oct. 15–Nov. 30

to 400 permits may be issued;  
a person may not take a cow  
accompanied by a calf

NONRESIDENT HUNTERS:

...

1 antlerless moose by  
drawing permit only; by youth  
hunt only; up to 100 permits  
may be issued in combination  
with the nonresident drawing  
hunt; a person may  
not take a cow accompanied  
by a calf

Aug. 5–Sept. 5  
Oct. 15–Nov. 30

...

**What is the issue you would like the board to address and why?** Antlerless moose hunting seasons must be reauthorized annually. The Unit 20E antlerless moose hunts were originally adopted by the Board of Game in March 2022 as a proactive management tool with the primary goals to 1) slow population growth to avoid habitat damage, 2) help achieve intensive management (IM) harvest objectives, and 3) provide the management flexibility to rapidly respond to changes in nutrition.

Current Unit 20E moose harvest is below IM harvest objectives; therefore, antlerless harvest, if enacted, would help achieve IM harvest objectives without reducing bull:cow ratios below management objectives. The Unit 20E IM harvest objective is 250–450 moose, and the RY19–RY23 annual average unit wide reported harvest was 191 moose.

The decision framework to initiate antlerless harvest in Unit 20E includes population trend, bull:cow ratios, and nutritional indices. The moose population within a 1,821 mi<sup>2</sup> area along the Taylor Highway in southern Unit 20E approximately doubled from 0.7 moose/mi<sup>2</sup> in 2005 to 1.4 moose/mi<sup>2</sup> in 2018, but declined to 0.9 moose/mi<sup>2</sup> by 2023 following several severe winters. Bull:cow ratio estimates in southern Unit 20E are currently stable and above the minimum management objectives. Finally, nutritional indices show that the moose population is currently at healthy nutritional levels. Twinning rates are healthy at 34% (2021–2023, 3-year weighted average). The department closely monitors these rates given the potential for them to lag as an indicator of population-level nutritional condition. Additionally, the estimated browse removal rate in spring 2022 was 28%, which is below the rate observed in nutritionally stressed populations.

Given the current stable population trend and bull:cow ratios and healthy nutritional indices, the department does not plan to enact antlerless hunts during regulatory year (RY) 25 but would like to retain the hunts as a proactive management tool. The Unit 20E antlerless harvest framework

provides management flexibility to rapidly respond to potential future changes in nutrition and the ability to proactively reduce population growth rates, if necessary, to maintain the current high nutritional levels.

**Did you develop your proposal in coordination with others, or with your local fish and game advisory committee?**

**PROPOSED BY:** Alaska Department of Fish & Game (HQ-F24-054)  
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**PROPOSAL 163**

**5 AAC 85.045(a)(19)(B). Hunting seasons and bag limits for moose.**

Reauthorize a winter any-moose season during March in a portion of Unit 21D as follows:

<b>Units and Bag Limits</b>	<b>Resident Open Season (Subsistence and General Hunts)</b>	<b>Nonresident Open Season</b>
...		
(19)		
...		

(B) on or after July 1, 2018, the hunting seasons and bag limits for moose in Unit 21 are as follows:

...

Unit 21(D), that portion south of the South bank of the Yukon River, downstream of the up-river entrance of Kala Slough and west of Kala Creek

**RESIDENT HUNTERS:**

...

1 moose, by registration permit only, up to 15 days during March; a person may not take a cow accompanied by a calf

(Winter season to be announced)

...

**What is the issue you would like the board to address and why?** Antlerless moose hunting seasons must be reauthorized annually. The goal is to provide additional harvest opportunity and meet harvest objectives. This harvest opportunity of antlerless moose recently emerged because the moose population in the Kaiyuh Flats is increasing rapidly, especially the number of cows in the population. This reauthorization will likely improve or maintain hunting opportunity. If this antlerless moose hunt is not reauthorized, opportunity to utilize a harvestable surplus of cow moose would be lost, and the ability to meet intensive management (IM) harvest objectives could be reduced. In addition, rather than allow the population to go through dramatic rates of expansion and contraction, it is necessary to slow the rate of increase.

The IM harvest objective for Unit 21D is 450–1,000 moose. The 10-year average estimated harvest during 2014–2023 was 391 moose, which includes the reported and estimated unreported harvest. The annual estimated harvest has not met the harvest objective since 2003 when the estimated harvest was 489 moose. Additional harvest from this hunt will help make progress toward achieving the IM harvest objectives without reducing bull-to-cow ratios to low levels. Subsistence hunters will benefit from the opportunity to harvest cow moose.

Analysis of three Trend Count Areas (TCAs) (Squirrel Creek, Pilot Mountain, and Kaiyuh Slough TCAs) within the Kaiyuh Flats in this hunt area demonstrated an increase in moose abundance among all age classes from 2001 to present. Geospatial population estimate data also increased from 1,897 ( $\pm 11\%$ ) moose in 2011 to 4,116 ( $\pm 10\%$ ) moose in 2017. Moose twinning data for the hunt area also showed high twinning rates 2004-2023 (avg. = 35.4%), although the most recent 5-year twinning rate average (2019-2023) was 26.0%.

The portion of Unit 21D affected by this reauthorization is approximately 21% (2,559 mi<sup>2</sup>) of the u (12,093.6 mi<sup>2</sup>). Moose abundance in this area was estimated at 4,000–4,500 moose, which is approximately 39–44% of the total moose in Unit 21D; estimated at 10,478 moose ( $\pm 1,572$ ) in 2023. The total Unit 21D moose population estimate was above the IM population objective of 9,000–10,000 moose for all of Unit 21D (12,093.6 mi<sup>2</sup>).

**Did you develop your proposal in coordination with others, or with your local fish and game advisory committee?**

**PROPOSED BY:** Alaska Department of Fish & Game (HQ-F24-056)  
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**PROPOSAL 164**

**5 AAC 85.045(a)(19). Hunting seasons and bag limits for moose.**

Reauthorize a winter any-moose season during part of February and March in Unit 21E as follows.

<b>Units and Bag Limits</b>	<b>Resident Open Season (Subsistence and General Hunts)</b>	<b>Nonresident Open Season</b>
(19)		
...		
Unit 21(E)		
RESIDENT HUNTERS:		
...		
1 moose, by registration permit only, a person may not take a cow accompanied by a calf	Feb 15 – Mar 15	
...		

**What is the issue you would like the board to address and why?** Antlerless moose hunting seasons must be reauthorized annually. The goal is to provide additional harvest opportunity and meet harvest objectives.

The most current survey in 2022 indicated there are approximately 9,300 moose in Unit 21E, which is within the range of the Intensive Management (IM) population objective of 9,000–11,000 moose. There is currently a harvestable surplus of 390 moose, however many of those moose are not accessible in the fall. Approximately 200 moose are harvested each fall along the rivers. Bull-to-cow ratios are high, with 46 bulls per 100 cows in 2022. The IM harvest objective for Unit 21E is 550–1,100 moose.

Within the Unit 21E moose survey area (4,094 mi<sup>2</sup>), the overall moose density increased from 1.0 moose/mi<sup>2</sup> in 2000 to 1.9 moose/mi<sup>2</sup> in 2022. The two-year average twinning rate in the Holy Cross area is 26%, while north of Anvik and Shageluk (where the moose density is lower) the twinning rate is 56%.

Additional harvest opportunity is available. Winter hunts distribute hunter pressure temporally and allow access to areas inaccessible in the fall.



**Did you develop your proposal in coordination with others, or with your local fish and game advisory committee?**

**PROPOSED BY:** Alaska Department of Fish & Game (HQ-F24-055)  
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**PROPOSAL 165**

**5 AAC 85.045(a)(24). Hunting seasons and bag limits for moose.**

Reauthorize the resident antlerless moose season in Unit 26 as follows:

<b>Units and Bag Limits</b>	<b>Resident Open Season (Subsistence and General Hunts)</b>	<b>Nonresident Open Season</b>
(24) ... Unit 26(A), that portion west of the eastern shore of Admiralty Bay where the Alaktak River enters, following the Alaktak River to 155 00 longitude excluding the Colville River drainage  1 moose	July 1 - Sept. 14	No open season.

**What is the issue you would like the board to address and why?** To be retained, the antlerless moose season in the portion of Unit 26A west of 156° 00' W longitude and excluding the Colville drainage must be reauthorized annually. This hunt was recently created by the board at the 2024 meeting in Kotzebue after being closed for the previous year due to not being reauthorized in 2023.

The moose population in the western portion of Unit 26A north of the Colville drainage is somewhat unique compared to the unit-wide population, and the distribution is very sparse because there is very little moose habitat in the coastal plain. However, each year a small number of bulls and cows migrate into the area from the major river drainages in the central and southern parts of the unit. So far, the marginal habitat in this portion of Unit 26A has not allowed moose to establish a population, but these moose provide the only opportunity to harvest a moose in the northwestern portion of Unit 26A.

Unit 26A moose population estimates have historically fluctuated between 294 and 609 moose between 2011 and 2014. More recently, 348 moose and 438 moose were observed in 2018 and

2021, respectively. The overall trend appears to be slow growth after a decline that started about 2007. The number of moose in the antlerless hunt area is difficult to estimate, but is approximately 10 moose. Harvest reports indicate 4 antlerless moose have been harvested since 2005, and the annual harvest rate of antlerless moose is less than 1% of the total population. Due to the low harvest rate, the department proposes reauthorization of the antlerless moose season in this area to provide additional hunting opportunity for the small number of hunters to opportunistically harvest antlerless moose in this remote portion of Unit 26A.

**Did you develop your proposal in coordination with others, or with your local fish and game advisory committee?**

**PROPOSED BY:** Alaska Department of Fish and Game (HQ-F24-058)  
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