

**ALASKA DEPARTMENT OF FISH AND GAME  
STAFF COMMENTS FOR THE  
ALASKA BOARD OF GAME SPECIAL MEETING  
MARCH 18, 2021 | WEB-CONFERENCE**

- **Annual Reauthorization Proposals for All Units**
- **Sealing Requirements for Wolves Taken in Unit 2**
- **Align Seasons and Bag Limits for Moose in Unit 15B**



The following staff comments were prepared by the Alaska Department of Fish and Game for use at the Alaska Board of Game meeting, March 18, 2021 online, and are prepared to assist the public and board. The stated staff comments should be considered preliminary and subject to change, if or when new information becomes available.

**PROPOSAL 6 – 5 AAC 92.015. Brown bear tag fee exemption.**

Reauthorize the brown bear tag fee exemptions for the Central/Southwest Region.

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

**WHAT WOULD THE PROPOSAL DO?** This proposal will reauthorize the brown bear tag fee exemptions in Units 9, 10, 11, 13, 16, and 17.

**WHAT ARE THE CURRENT REGULATIONS?** The following regulations are currently in effect for Region IV brown bear hunts:

5AAC 92.015. Brown bear tag fee exemption

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

(1) Unit 11;

(2) Units 13 and 16A;

(3) Units 16B and 17;

...

(11) Unit 9, within the following areas, unless a smaller area is defined by the department in an applicable permit:

(A) Unit 9B, within five miles of the communities of Port Alsworth, Nondalton, Iliamna, Newhalen, Pile Bay, Pedro Bay, Pope Vanoy Landing, Kakhonak, Igiugig, and Levelock;

(B) Unit 9C, within five miles of the communities of King Salmon, Naknek, and South Naknek;

(C) Unit 9D, within five miles of the communities of Cold Bay, King Cove, Sand Point, and Nelson Lagoon;

(D) Unit 9E, within five miles of the communities of Egegik, Pilot Point, Ugashik, Port Heiden, Port Moller, Chignik Lake, Chignik Lagoon, Chignik Bay, Perryville, and Ivanof Bay;

(12) Unit 10, within three miles of the community of False Pass, unless a smaller area is defined by the department in an applicable permit.

(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:

- (1) Unit 9B;
- (2) Unit 9E, that portion including all drainages that drain into the Pacific Ocean between Cape Kumliun and the border of Units 9D and 9E;
- (3) Unit 17;

...

There is a positive customary and traditional use finding for brown bears in those portions of Units 17A and 17B that drain into the Nuyakuk and Tikchik lakes, with an amount reasonably necessary for subsistence of 5. There is a positive customary and traditional use finding for brown bears in the remainder of Unit 17B, and in Unit 17C, with an amount reasonably necessary for subsistence of 10–15 bears.

There is a positive customary and traditional use finding in Unit 9B, with an amount reasonably necessary for subsistence of 10–20 bears, and a positive customary and traditional use finding in 9E, with an amount reasonably necessary for subsistence of 10–15 bears. The remainder of Unit 9 has a negative customary and traditional use finding.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** Hunters will not be required to purchase a brown bear locking tag before hunting brown bears in Units 11, 13, 16, and 17. In addition, brown bear tag fees will not be required for subsistence hunts in Units 9, 10 and 17 or for permit hunts near communities in Unit 9. Reinstating the fee would provide additional funding for the department.

**BACKGROUND:** Brown bear tag fee exemptions must be reauthorized annually, or the fee will be automatically reinstated.

**General Season Hunts:** The Board liberalized brown bear hunting regulations, including the tag fee exemption, to increase the opportunity to take brown bears in Units 11, 13, and 16 during the March 2003 Board of Game meeting and in Unit 17 during the March 2011 Board of Game meeting. The tag fee exemption in these Units provides greater opportunity to harvest brown bears by allowing opportunistic take.

The board also exempted brown bear tag fees for bear hunts near communities in Unit 9 and 10 during the March 2011 Board of Game meeting. Brown bears are abundant in Unit 9 and are managed as a trophy species. Brown bears are frequently observed in communities destroying property in search of food or garbage and occasionally killing pets. The liberalized bear seasons and bag limits along with the elimination of the tag fee is intended to allow people to take bears before they destroy property, to promote a greater acceptance of the unit's bear population, and to resolve some of the compliance issues associated with bears taken by emergency in defense of life or property (DLP).

Subsistence Brown Bear Hunts: The Board waived the brown bear tag fee requirement for subsistence brown bear hunts in Unit 17 and portions of Unit 9.

Subsistence brown bear harvest rates are low and well within sustainable limits. Exempting the resident tag fee has not caused an increase in subsistence harvest in these units. Continuation of the exemption accommodates cultural and traditional uses of brown bears in these units and provides an alternative for hunters who take brown bears primarily for their meat.

**DEPARTMENT COMMENTS:** The department submitted and **SUPPORTS** this proposal because it provides greater sustainable harvest opportunity in Units 11, 13, 16, and 17; and provides subsistence harvest opportunity in portions of Units 9, 10 and 17.

**COST ANALYSIS:** Adoption of this proposal would not result in significant costs to the department.

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**PROPOSAL 12 - 5 AAC 85.045(15). Hunting seasons and bag limits for moose.**

Reauthorize the antlerless moose season in Unit 17A.

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

**WHAT WOULD THE PROPOSAL DO?** This proposal reauthorizes the antlerless moose seasons for Unit 17A.

**WHAT ARE THE CURRENT REGULATIONS?** The current regulations for Unit 17A allow resident hunters a bag limit of two moose per regulatory year under registration permits; however, only 1 moose can be taken during the fall season. Nonresidents are restricted to a bag limit of one bull moose with antler restrictions by drawing permit.

- There are three fall hunts, one of which allows the harvest of an antlerless moose:
  - Registration permit (RM573), for resident hunters only with a bag limit of one bull moose, Aug 25–Sept 25;
  - Registration permit (RM571), for resident hunters only with a bag limit of one antlerless moose, Aug 25–Sept 25;
  - Drawing permit (DM570 - up to 20 permits), for non-resident hunters only, with a bag limit of one bull moose with 50” antlers or antlers with 4 or more brow tines on at least one side, Sept 5–Sept 15.

- There are two winter hunts, open to resident hunters only, one of which allows for the harvest of antlerless moose (A department proposal has been submitted to adjust the season dates for the Central/Southwest Region meeting).
  - Registration permit (RM575), with a bag limit of one antlered bull moose;
  - Registration permit (RM576), with a bag limit of one antlerless moose.
    - Season dates for the winter hunts are as follows: “up to a 31-day season may be announced December 1–the end of February”. The seasons are opened concurrently by emergency order when good snow conditions exist for winter travel.

There is a positive customary and traditional use (C&T) finding for moose in Unit 17 and an amount reasonably necessary for subsistence of 100–150 moose.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** This proposal would reauthorize the antlerless moose hunts in Unit 17A. These antlerless hunts would continue to provide hunters with additional harvest opportunity while helping managers limit the growth of the Unit 17A moose population that is already beyond the upper limit of our population objectives.

**BACKGROUND:** Moose are relative newcomers to much of Unit 17A, with only about 35 animals being present along the eastern border in 1980. Since then, moose have continued to increase in population size and expand throughout Unit 17A and west into Unit 18. Minimum counts of moose in Unit 17A were conducted in 14 different years during the period of 1991–2011, revealing a steady increase in moose numbers over time, with 1,166 moose counted in March 2011. During 2012–2015, surveys were not conducted due to inadequate snow conditions. a Geospatial Population Estimator (GSPE) replaced the minimum count for enumerating moose in Unit 17A. In spring 2017, this survey technique produced an estimate corrected for sightability (1.2) of 2,370 moose, ( $\pm 563$ ).

Moose management in Unit 17A has been guided by the Unit 17A Moose Management Group, consisting of members from the Bristol Bay Federal Subsistence Regional Advisory Council, the Nushagak and Togiak Fish and Game advisory committees, the Togiak National Wildlife Refuge, and the Alaska Department of Fish and Game. This group produced a *Unit 17A Moose Management Plan* that went through several iterations during 1996–2012, with the 2012 plan being used as the guiding document today. This plan has goals and objectives for hunter opportunity, harvest allocation, habitat mapping and population monitoring. The population objective for Unit 17A listed in the plan is 800–1,200 moose. The full plan can be found here [http://www.adfg.alaska.gov/static-f/regulations/regprocess/gameboard/pdfs/2012-2013/central\\_southwest\\_2-8-13/draft\\_moose\\_management\\_plan\\_gmu\\_17a.pdf](http://www.adfg.alaska.gov/static-f/regulations/regprocess/gameboard/pdfs/2012-2013/central_southwest_2-8-13/draft_moose_management_plan_gmu_17a.pdf).

A drawing hunt for nonresident hunters was adopted by the board in 2013, with fall 2014 being the first year of that hunt. The impetus behind the nonresident hunt was abundant harvest opportunity provided by this growing moose population, and objectives within the moose management plan that provide for the nonresident opportunity when the moose population exceeds 1,000 animals and is at a stable or increasing trend.

The winter antlerless hunt was adopted by the board, initiated in RY13, and allows for an antlerless harvest when the moose population is above 600 animals and is stable or increasing. During the five years of the RM576 antlerless hunt (RY13-RY17), 73 antlerless moose have been taken (66 cows and 7 bulls), for an average of ~13 cows/year.

Because of the concerns with the increasing moose numbers in Unit 17A which are already well above population objectives, a proposal was adopted by the board during their spring 2018 meeting in Dillingham to open a fall antlerless hunt (RM571) in fall 2018 to increase harvest on the female segment of the population. During the first year of this hunt in fall 2018, eight antlerless moose were harvested; all were cows. Harvest in 2019 was 5 cows and 2 bulls and preliminary harvest for 2020 is 5 cows.

During RY2013–2017 the mean annual moose harvest in Unit 17 was 303 moose.

**DEPARTMENT COMMENTS:** The department submitted and **SUPPORTS** this proposal. The moose population in this unit is above the upper limit of the population objective. Allowing a harvest of antlerless moose will help limit population growth while providing additional harvest opportunity for hunters.

**COST ANALYSIS:** Adoption of this proposal would not result in significant costs to the department.

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**PROPOSAL 58 – 5 AAC 85.045(11). Hunting seasons and bag limits for moose.**

Reauthorize the antlerless moose seasons in Unit 13.

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

**WHAT WOULD THE PROPOSAL DO?** This proposal reauthorizes the antlerless moose hunts in Unit 13; these hunts must be re-authorized annually by the Board of Game (board) to comply with statutory requirements.

**WHAT ARE THE CURRENT REGULATIONS?** The current moose hunting regulations can be found in 5 AAC 85.045 and in the *2020–2021 Alaska Hunting Regulations*.

The department is authorized to issue up to 200 drawing permits for antlerless moose hunts in Unit 13 for an October 1–31 and March 1–31 season. Hunters are prohibited from taking calves and cows accompanied by a calf.

<b>Units and Bag Limits</b> (11)	<b>Resident Open Season (Subsistence and General Hunts)</b>	<b>Nonresident Open Season</b>
Unit 13 1 moose per regulatory year, only as follows: ...		
1 antlerless moose by drawing permit only; up to 200 permits may be issued; a person may not take a calf or a cow accompanied by a calf ...	Oct. 1—Oct. 31 Mar. 1—Mar. 31 (General hunt only)	No open season

The board has made a positive C&T finding for moose in all of Unit 13, with an ANS of 300–600 moose for the entire game management unit.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** This proposal reauthorizes the antlerless moose hunts in Unit 13 for the 2021 regulatory year; these hunts are needed to keep the moose population within intensive management objectives and provide additional hunting opportunity for residents.

**BACKGROUND:** The Unit 13 antlerless hunt was established in March 2011 and the first Unit 13 antlerless hunt under this regulation took place in September 2012. Ten permits have been issued annually for a single hunt area in the western portion of Unit 13A. The hunt area was extended for RY19 to include all of 13A-West, where bull-to-cow ratios are low, twinning rates are low, browse removal is relatively high, and overall moose abundance in 13A has been at or above the upper end of the abundance objectives since 2009. This hunt resulted in the harvest of four cow moose during the 2012 season and two during the 2013 season. During the 2013 Board of Game meeting in Wasilla, the board adopted a proposal that changed the hunt from September 1–20 to October 1–31 and March 1–31. These new season dates were implemented in the fall of 2014, after which harvest success increased.

Four cows and 3 bulls were harvested during the 2014 season, 7 cows during the 2015 season, 5 cows during the 2016 season, 6 cows and 2 bulls during the 2017 season, 7 cows during the 2018 season, and 8 cows and 2 bulls during the 2019 season. Twenty permits were issued for RY20.

The board has also directed the department to issue antlerless moose permits when the moose population is at or above the midpoint of the population objective, with the goal of harvesting up to 1% of the cow moose population. The current population objective for Unit 13A is 3,500–4,200, and the population was estimated to be above objective in 2015 and 2016, within objectives in 2017, and near the higher end of the objectives in 2018. The antlerless hunt in western Unit 13A contributes to maintaining the moose population within the intensive management objectives. The additional harvest provided through this hunt will also assist in achieving the harvest objectives for the population.

**DEPARTMENT COMMENTS:** The department submitted and **SUPPORTS** this proposal. Antlerless moose hunts must be re-authorized annually by the board to comply with statutory requirements. These hunts are required to regulate the moose populations within the established intensive management objectives for population size, sex ratios and harvest.

**COST ANALYSIS:** Adoption of this proposal is not expected to result in additional costs to the department.

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**PROPOSAL 79 - 5 AAC 85.045 Hunting seasons and bag limits for moose.**

Reauthorize the antlerless moose draw permits in Units 14A and 14B.

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

**WHAT WOULD THE PROPOSAL DO?** This proposal reauthorizes the antlerless moose hunts in Units 14A and 14B; these hunts must be reauthorized annually by the Board to comply with statutory requirements.

**WHAT ARE THE CURRENT REGULATIONS?** The current moose hunting regulations for Units 14A and 14B can be found in 5 AAC 85.045 and in the *2020–2021 Alaska Hunting Regulations*.

- The department has the authority to issue up to 2,000 drawing permits to resident hunters in Unit 14A with a bag limit of one antlerless moose. The season is August 20–September 25 for DM400–DM412 and November 1–November 30 for DM413 and December 1–December 25 for DM414.
- The department may also issue up to 200 permits to resident hunters for the targeted hunt in Unit 14A with a bag limit of one moose during a winter season to be announced by emergency order.

- The department may also issue up to 100 additional permits to resident hunters for a targeted hunt in Unit 14B with a bag limit of one moose during a winter season to be announced by emergency order.

Units 14A and 14B are in the Anchorage-Matsu-Kenai Nonsubsistence Area.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** This proposal reauthorizes the antlerless moose hunts in Units 14A and 14B; these hunts are needed to keep the moose population within management objectives and provide hunting opportunity for residents. The targeted hunt also provides managers with a tool to reduce moose-vehicle collisions and address nuisance moose issues.

**BACKGROUND:** Moose surveys conducted in February 2019 provided an estimate of 7,900 moose in Unit 14A. This is less than the 2018 population estimate of 8,700; however, it is greater than the population objective of 6,000–6,500 moose. Twinning surveys conducted in the spring of 2020 showed a twinning rate of 22%: this is indicative of a population that is still increasing.

The number of antlerless permits available over time has been variable and based on snow levels and moose population levels. The moose population, and as a result, permits available has been increasing since 2011. The success rate for hunters under the antlerless permits has remained stable at 62% over the past 5 years.

The targeted moose hunt in Units 14A and 14B provide an additional tool to address public safety concerns related to moose-vehicle collision and nuisance management issues. The targeted hunt (AM415) has been in place since 2012. Under this permit, hunters are either designated a specific nuisance moose to take or are assigned one of four areas where a high number of moose-vehicle collisions are known to occur. In this scenario permits are issued as snow increases and moose become more prevalent along roadways. Since 2012, for the years that permits were issued, on average 143 permits were issued and 110 moose were taken, providing an average success rate of 77%.

The Unit 14A moose population has exceeded population objectives for the past 12 years and has the potential for large increases in a relatively short amount of time. These increases in density may increase the number of moose-human conflicts, and moose may experience nutritional stress, particularly during severe winters. Moose-vehicle collisions result in property damage and may result in human injury or death. An average of 338 moose per year were killed in vehicle collisions in the Mat-Su Valley area during the last 5 years of average snowfall. The department also receives periodic complaints from the public about crop depredation and aggressive behavior that can be mitigated by this hunt structure. The number of antlerless moose harvested in recent years and the severity of the winters the last couple of years has arrested the growth of the herd and led to a population reduction. The department anticipates offering fewer antlerless permits for RY21 and future permit levels will be adjusted pending more current population information.

Browse surveys completed in the spring of 2016 demonstrated a removal rate of 37.13% ( $\pm 6.9\%$  at the 95% CI). This offtake indicated a relatively high proportion of commonly browsed plants

in the unit are being consumed annually, suggesting the moose population in Unit 14A may be approaching their carrying capacity. Browse surveys were conducted at the end of a winter which had little snowfall and browsing appeared to be more evenly distributed than in what would be found in a typical year.

**DEPARTMENT COMMENTS:** The department submitted and **SUPPORTS** this proposal. Antlerless moose harvests are necessary to achieve and maintain the population within objectives and reduce moose-human conflicts in the Mat-Su Valley by providing significant additional moose hunting opportunity.

**COST ANALYSIS:** Adoption of this proposal would not result in significant costs to the department.

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**PROPOSAL 174 – 5 AAC 85.045(a)(1). Hunting seasons and bag limits for moose.**  
Reauthorize the antlerless moose seasons in Unit 1C.

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

**WHAT WOULD THE PROPOSAL DO?** This proposal would reauthorize the antlerless moose hunts in Unit 1C.

**WHAT ARE THE CURRENT REGULATIONS?** Two antlerless moose hunts are authorized in Unit 1C. Those hunts are authorized for the Berners Bay drainages during the September 15–October 15 general hunt and in the Gustavus hunt area from November 10–December 10. In Berners Bay a maximum of 30 permits may be issued, and in Gustavus a maximum of 100 permits may be issued. Bag limit in both areas is one moose, and both hunts are open to residents and nonresidents.

Berner’s Bay is in the Juneau Nonsubsistence Area, and there is a negative Customary and Traditional use finding for moose in Unit 1C (Gustavus Foreland).

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** The antlerless hunts in Unit 1C (Berners Bay and Gustavus) would be reauthorized for RY2021. Season dates and bag limits would remain the same as summarized above.

**BACKGROUND:** Antlerless hunts in Unit 1C were originally adopted as tools to manage relatively small and isolated moose populations nearing or exceeding carrying capacity of the limited winter range available in the Berners Bay and the Gustavus areas. In February 2019 in Berners Bay, staff counted 106 total moose (2 bulls, 13 calves, 26 cows and 65 unknown adults). Correcting for sightability the population was estimated to be 137±23 moose. A survey was not completed during the 2019/2020 winter; however, there are strong indications from collared animals that survival during the heavy snows late in the 2019/2020 winter was low for adults and survival for calves the following summer was also low. As a result, the next successful survey will likely produce a lower population estimate based on survival data. The antlerless moose hunt in Berners Bay was last open in RY2006.

A February 2020 aerial survey in Gustavus counted 91 moose (10 cows, 1 bull, 13 calves, and 67 unknown adults). Correcting for sightability based on radio-marked cow moose, the department estimated the population to be 188±56. Survival estimates from collared moose in the Gustavus population have been low for the last two years which would support the observed decline in the population. The antlerless moose hunt in Gustavus was last open in RY2008.

**DEPARTMENT COMMENTS:** The department submitted and **SUPPORTS** this proposal to reauthorize antlerless moose hunts in the Berners Bay and Gustavus hunt areas.

Based on surveys in recent years both populations appear to have declined slightly and below carrying capacity of the range. Both herds will continue to be monitored using annual aerial and browse surveys as snow conditions allow and to maintain collared animals in both herds to estimate sightability correction factors as funding allows. Antlerless hunts will only be opened when survey data and population estimates suggest a herd is rapidly expanding or that cow harvests can be sustained over time without detrimental effect on the herd.

**COST ANALYSIS:** Adoption of this proposal is not expected to result in additional costs to the department.

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**PROPOSAL 175 – 5 AAC 85.045(a)(3) Hunting seasons and bag limits for moose.**

Reauthorize the antlerless moose seasons in Unit 5A, Nunatak Bench.

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

**WHAT WOULD THE PROPOSAL DO?** This proposal would reauthorize take of antlerless moose during registration hunt RM059 in Unit 5A, Nunatak Bench.

**WHAT ARE THE CURRENT REGULATIONS?** Registration moose hunt, RM059, is authorized for the Nunatak Bench portion of Unit 5A. Season dates are November 15–February 15 with a bag limit of one moose. A maximum of 5 moose may be taken. This hunt is open to residents and nonresidents.

The board has made a positive customary and traditional use finding for moose in all of Unit 5, with an amount reasonably necessary for subsistence of 50 moose for the entire unit.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** Take of antlerless moose during registration moose hunt, RM059, in Unit 5A would be reauthorized for RY2021. Season dates and bag limits would remain the same as summarized above.

**BACKGROUND:** Because season dates for the Nunatak Bench hunt (RM059) include the period after bulls have dropped their antlers, take of either sex is allowed. Deep snow accumulates in the Nunatak Bench area, greatly limiting habitat accessible to moose. To ensure the small area of available winter habitat can support the number of moose using it, the department manages for relatively low numbers of moose. However, because so few moose have been seen during recent surveys, no registration permits for RM059 have been issued since RY2005. During a December

2015 survey only 14 moose were seen including 3 bulls, 2 cows, 3 calves, and 6 adult moose of unknown sex. An aerial survey was attempted in February 2020 but only a portion of the area was completed due to weather. In the survey area observed, just 3 moose were spotted. Regular surveys in this area are hampered by its remote location, frequently inclement weather, and lack of suitable survey aircraft in Yakutat. However, the department will continue surveys as opportunity allows, and does not plan to issue permits for this hunt until at least 25 moose are counted during a single survey.

**DEPARTMENT COMMENTS:** The department submitted and **SUPPORTS** this proposal to reauthorize the antlerless moose hunt in Unit 5A, the Nunatak Bench. This hunt (RM059) is considered an attractive option for hunters who were unsuccessful in the other Yakutat area moose hunts (RM061 & RM062).

**COST ANALYSIS:** Adoption of this proposal is not expected to result in additional costs to the department.

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**PROPOSAL 176 – 5 AAC 085.045(a)(4) Hunting seasons and bag limits for moose.**

Reauthorize the antlerless moose seasons in Game Management Unit 6(C).

**PROPOSED BY:** Alaska Department of Fish and Game.

**WHAT WOULD THE PROPOSAL DO?** Adoption of this proposal would ensure that the department has the necessary tools to manage the Unit 6(C) moose population within objectives.

**WHAT ARE THE CURRENT REGULATIONS?**

<b>Seasons and Bag Limits</b>	<b>Resident Open Season (Subsistence and General Hunts)</b>	<b>Nonresident Open Season</b>
(4)		
...		
Unit 6(C)	Sept. 1–Oct. 31 (General hunt only)	No open season
1 moose by drawing permit only; up to 40 permits for bulls and up to 20 permits for antlerless moose may be issued		
1 moose by registration permit only	Nov. 1–Dec. 31	No open season
...		

The board made a negative customary and traditional use finding for moose in all of Unit 6.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** This proposal reauthorizes antlerless hunts in Unit 6(C) as required by statute. Resident hunters would be able to continue to harvest antlerless moose during hunts administered by ADF&G on state-managed lands in Unit 6.

**BACKGROUND:** Antlerless moose seasons must be reauthorized annually. The population objective is 600–800 moose. Population objectives were increased in 2017 in consultation with the local advisory committee and are documented in the most recent moose Management and Operational Plan:

[http://www.adfg.alaska.gov/static/research/wildlife/speciesmanagementreports/pdfs/moose\\_2015\\_2020\\_smr\\_gmu\\_6.pdf](http://www.adfg.alaska.gov/static/research/wildlife/speciesmanagementreports/pdfs/moose_2015_2020_smr_gmu_6.pdf).

A population survey completed during March 2018 yielded an estimate of 677 moose, 32% of which were calves. This population is aggressively harvested to maintain it within population objectives. The department manages this hunt cooperatively with the U. S. Forest Service and the available antlerless harvest quota in Unit 6C is currently harvested under a federal subsistence season. The state antlerless hunt has not been held since the 1999–2000 season. In 2013, a registration hunt was established that could be used to harvest moose, including antlerless moose, if the federal subsistence hunt is not held or it does not result in the desired amount of harvest. Quota adjustments on both the federal and state side appear to have been successful at keeping the population within its objectives. A state hunt for antlered bull moose (DM167) is held each year, in addition to the federal subsistence hunts. Continuation of the antlerless hunts is a necessary tool to achieve population objectives.

**DEPARTMENT COMMENTS:** The department submitted and **SUPPORTS** this proposal to reauthorize antlerless harvests in Unit 6.

**COST ANALYSIS:** Adoption of this proposal is not expected to result in additional costs to the department.

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**PROPOSAL 177– 5 AAC 85.045 (5). Hunting seasons and bag limits for moose.**

Reauthorize the antlerless moose seasons in Units 7 and 14(C).

**PROPOSED BY:** Alaska Department of Fish and Game.

**WHAT WOULD THE PROPOSAL DO?** This proposal reauthorizes the antlerless moose season in the Twentymile/Portage/Placer hunt area in Units 7 and 14(C).

**WHAT ARE THE CURRENT REGULATIONS?** The current regulations are:

<b>Units and Bag Limits</b>	<b>Resident Open Season (Subsistence and General Hunts)</b>	<b>Nonresident Open Season</b>
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(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; or	Aug. 20—Oct. 10 (General hunt only)
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1 bull by drawing permit only;	Sept. 1—Sept. 25
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**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
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...

These units are in the Anchorage-Matsu-Kenai Nonsubsistence Area.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** Antlerless moose seasons must be reauthorized annually. 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 a population level low enough to reduce over-browsing of winter habitat, moose-vehicle collisions, and mortality during severe winters. The moose population will be healthier and more productive due to decreased stress levels associated with winter food shortages.

**BACKGROUND:** The moose population in the Twentymile/Portage/Placer area has a history of rapid increase following mild winters, and sharp reductions during severe winters. The number of permits issued (Table 177-1) depends on the current population estimate and bull:cow ratios, as well as estimated winter mortality. A December 2020 aerial composition count of moose in the Twentymile, Portage, and Placer river drainages found 153 moose with a bull:cow ratio of 30 bulls per 100 cows and a calf:cow ratio of 14 calves per 100 cows. This is very little change when compared to the December 2016 count, which found 155 moose with a bull:cow ratio of 31 bulls per 100 cows and a calf:cow ratio of 18 calves per 100 cows. Since 2016, harvest and roadkill numbers have also remained relatively steady, indicating that population level has likely not fluctuated dramatically.

Table 177-1. Moose harvest in the Twentymile/Portage/Placer hunt area in Units 7 and 14(C), regulatory years 2017-2020.

<b>Regulatory Year</b>	<b>Bull Permits</b>	<b>Antlerless Permits</b>	<b>Bulls Harvested</b>	<b>Cows Harvested</b>
2017	30	30	16	6
2018	31	30	13	6
2019	30	30	13	10
2020	30	30	15	11

**DEPARTMENT COMMENTS:** The department submitted and **SUPPORTS** this proposal to maintain antlerless hunts in Units 7 and 14(C). These hunts have been successful in creating additional moose hunting opportunities with little or no controversy. In addition, the harvest of antlerless moose has helped achieve the department’s goal of maintaining moose numbers at a level to avoid die-offs during harsh winters.

**COST ANALYSIS:** Adoption of this proposal is not expected to result in additional costs to the department.

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**PROPOSAL 178– 5 AAC 85.045 (12). Hunting seasons and bag limits for moose.**

Reauthorize the antlerless moose seasons in Unit 14(C).

**PROPOSED BY:** Alaska Department of Fish and Game.

**WHAT WOULD THE PROPOSAL DO?** Reauthorize the antlerless moose seasons in Unit 14(C).

**WHAT ARE THE CURRENT REGULATIONS?** The current regulations are:

Units and Bag Limits	Resident Open Season (Subsistence and General Hunts)	Nonresident Open Season
(12)		
...		
Unit 14(C), Joint Base Elmendorf-Richardson (JBER) Management Area	Sept 1—Mar 31 (General hunt only)	Sept 1—Mar 31
1 moose per 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 muzzleloader 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

1 bull by registration permit only	Oct. 1—Nov. 30 (General hunt only)	Oct. 1—Nov. 30
...		
Remainder of Unit 14(C)		
1 moose per regulatory year, only as follows:		
1 bull with spike-fork antlers or 50-inch antlers or antlers with 3 or more brow tines on one side; or	Sept. 1—Sept. 30 (General hunt only)	Sept. 1—Sept. 30
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
1 bull by drawing permit only, by bow and arrow only; up to 10 permits may be issued	Oct. 20—Nov. 15	No open season

...

This unit is in the Anchorage-Matsu-Kenai Nonsubsistence Area.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?**

Adoption of this proposal is necessary for antlerless hunts in Unit 14(C) to continue. The harvest of antlerless moose provides the department with a management tool to maintain the number of moose in Unit 14(C) at the desired population objective (1,500 moose). This population level allows for reductions in over-browsing of winter habitat, moose-vehicle collisions, moose-human conflicts in urban areas, and mortality during severe winters.

**BACKGROUND:** Moose in Unit 14(C) 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; Table 178-1). In 2013, the moose population was estimated at approximately 1,533 moose in Unit 14(C) from a combination of population census, composition surveys and extrapolation to unsurveyed areas. A 2020 aerial composition count of the JBER Management Area and the Ship Creek drainage found 244 moose with a bull:cow ratio of 30 bulls per 100 cows and a calf:cow ratio of 25 calves per 100 cows. Compared to the 2013 survey of the same area, where a total of 225 moose were found with bull:cow and calf:cow ratios of 39:100 and 20:100, respectively, very little change has occurred. In addition, harvest numbers have remained relatively steady, indicating that population level has likely not changed dramatically. At this population level, the department has received fewer reports of

human-moose conflicts and of winter mortalities. Harvesting cow moose is paramount to maintaining the population at the low end of the objective while providing harvest opportunity.

Antlerless moose hunts must be reauthorized annually. The number of antlerless permits issued depends on the current population estimate and bull:cow ratios, as well as estimated winter mortality.

Table 178-1. Cow moose harvest in Unit 14(C), regulatory years 2017–2020.

<b>Regulatory Year</b>	<b>Either Sex Permits</b>	<b>Antlerless Permits</b>	<b>Cows Harvested</b>
2017	50	26	28
2018	50	26	22
2019	50	26	19
2020	50	26	24

**DEPARTMENT COMMENTS:** The department submitted and **SUPPORTS** this proposal to reauthorize antlerless hunts in Unit 14(C). These hunts have been successful in providing additional moose hunting opportunities in the state’s human population center with little controversy. In addition, the harvest of antlerless moose has helped achieve the department’s goal of maintaining moose numbers at the low end of the population objective.

**COST ANALYSIS:** Adoption of this proposal is not expected to result in additional costs to the department.

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**PROPOSAL 179 – 5 AAC 85.045(13). Hunting seasons and bag limits for moose.**

Reauthorize the antlerless moose seasons in for Kalgin Island in Unit 15B.

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

**WHAT WOULD THE PROPOSAL DO** This proposal would reauthorize the antlerless moose hunt for Kalgin Island in Unit 15B.

**WHAT ARE THE CURRENT REGULATIONS?** The current regulations as defined in 85.045 are:

<b>Units and Bag Limits</b>	<b>Resident Open Season (Subsistence and General Hunts)</b>	<b>Nonresident Open Season</b>
(13)		
...		
Unit 15(B), Kalgin Island 1 moose per regulatory year, registration permit only	Aug. 20–Sept. 20	Aug. 20–Sept. 20by

There is a positive customary and traditional finding for moose on Kalgin Island, and an amount reasonably necessary of 2 moose.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** The antlerless moose season for Kalgin Island (RM572) in Unit 15B would be reauthorized. This hunt will help to maintain moose populations within sustainable levels on Kalgin Island, provide subsistence opportunity, maximize other harvest opportunity, and decrease the chance of high winterkill due to a lack of suitable forage.

**BACKGROUND:** Antlerless moose hunts must be reauthorized annually by the Board. 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 due to 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 exceed the management objective.

During the most recent moose survey (2020), department staff counted 115 moose on Kalgin Island. This count exceeded the population objective of 20–40 moose. In the last 10 years, an average of 125 permits were issued for this hunt; of which 88 permittees hunted, with an annual harvest of 29 moose.

The "any moose" registration hunt is recommended to provide additional mortality 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 minimize the danger of overharvest.

**DEPARTMENT COMMENTS:** The department submitted and **SUPPORTS** this proposal. This hunt helps to control the moose population on Kalgin Island and keep it within sustainable limits and provides subsistence opportunity.

**COST ANALYSIS:** Adoption of this proposal is not expected to result in additional costs to the Department.

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**PROPOSAL 180 – 5 AAC 85.045.(a)(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 land (DM549) and the targeted hunt (AM550).

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

**WHAT WOULD THE PROPOSAL DO?** This proposal would reauthorize the antlerless moose hunt for the Homer Bench and the targeted antlerless hunt along the Sterling Highway in Unit 15C.

**WHAT ARE THE CURRENT REGULATIONS?** The current regulations as defined in 85.045 are:

<b>Units and Bag Limits</b>	<b>Resident Open Season (Subsistence and General Hunts)</b>	<b>Nonresident Open Season</b>
(13)		
...		
Unit 15(C), that portion south of the south fork of the Anchor River and northwest of Kachemak Bay		
<b>RESIDENT HUNTERS:</b>		
1 bull with spike or 50-inch antlers or antlers with 3 or more brow tines on one side; or	Sept. 1–Sept. 25 (General hunt only)	
1 antlerless moose by drawing permit only; the taking of calves, and females accompanied by calves, is prohibited; up to 100 permits may be issued in combination with the nonresident drawing hunt: or	Oct. 20–Nov. 20	
1 bull by drawing permit only; or	Sept. 1–Sept. 25	
1 moose by targeted permit only,	Oct. 15–Mar. 31	
<b>NONRESIDENT HUNTERS:</b>		
1 bull with 50-inch antlers or antlers with 3 or more brow tines on one side; or		Sept. 1–Sept. 25
1 antlerless moose by drawing permit only; the taking of calves, and females accompanied by calves, is prohibited;		Oct. 20–Nov. 20

up to 100 permits may be issued in combination with the resident drawing hunt

Remainder of Unit 15(C)

**RESIDENT HUNTERS:**

1 bull with spike or 50–inch antlers or antlers with 3 or more brow tines on one side; or	Sept. 1–Sept. 25 (General hunt only)
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1 bull by drawing permit only; or	Sept. 1–Sept. 25
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1 moose by targeted permit only,	Oct. 15–Mar. 31
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**NONRESIDENT HUNTERS:**

1 bull with 50–inch antlers or antlers with 3 or more brow tines on one side	Sept. 1–Sept. 25
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These hunts are within the Anchorage-Matsu-Kenai Nonsubsistence Area.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** The antlerless moose season for the Homer Bench (DM549) and the targeted hunt (AM550) along the Sterling Highway in 15C would be reauthorized for the 2020–2021 hunting season. This harvest will help minimize human–moose conflicts and winter kill deaths of moose due to limited habitat on the Homer Bench.

**BACKGROUND:** Antlerless moose seasons must be reauthorized annually. The Homer Bench in Unit 15C, which encompasses the hunt boundary of DM549, often holds high moose densities in winters when deep snow pushes the moose down into human populated areas. Even without deep snow, moose die due to malnutrition, and negative interactions with humans are also common as moose become more aggressive in their search for food around human residences.

In February 2017, a GSPE census was conducted in the northern portion of Unit 15C (north of Kachemak Bay) that produced a population estimate of 3,529 moose (95% CI: range 2,769–4,289), of which 19% (95% CI: 14–24) were calves. When compared to the 2013 GSPE estimate of 3,204 ± 650, the 2017 estimate suggests the 15C moose population is stable or increasing slightly. Fall composition counts in core count areas in November of 2020 provided a bull ratio of 38 bulls:100 cows. Fifty permits were issued in each of the last 10 years, resulting in an average annual harvest of 25 cows per year.

The purpose of AM550 is to allow for the harvest of moose along the Sterling Highway in Unit 15C during winters with deep snow accumulation that result in moose congregating near the Sterling Highway, which pose a significant threat to highway vehicles. On average, 62 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. The hunt is 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. This hunt was established in 2015 and no permits have been issued to date.

**DEPARTMENT COMMENTS:** The department submitted and **SUPPORTS** this proposal. Local residents are in favor of a limited antlerless moose harvest that provides additional opportunity and helps to limit habitat degradation and wildlife conflicts.

**COST ANALYSIS:** Adoption of this proposal is not expected to result in additional costs to the Department.

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**PROPOSAL 181 - 5 AAC 85.045 Hunting season and bag limits for moose.**

Reauthorize the antlerless moose seasons in Remainder of Unit 18.

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

**WHAT WOULD THE PROPOSAL DO?** This proposal reauthorizes the resident and nonresident antlerless moose season south of and including the Goodnews River drainage and in the remainder of Unit 18.

**WHAT ARE THE CURRENT REGULATIONS?** Antlerless hunting during the winter seasons is allowed for resident hunters south of and including the Goodnews River drainage in Unit 18 in a “may be announced” season from December 1 to March 31. The season timing and length depend on the winter travel conditions and how many moose are left from the fall quota.

Antlerless hunting during fall and winter seasons is allowed for resident hunters in the “Remainder of Unit 18”. There are three components to antlerless seasons:

- 1) during August 1–September 30 the bag limit is 2 moose; however, only one antlered bull may be taken and taking calves or cows accompanied by calves is prohibited;
- 2) during October 1–November 30 the bag limit is 2 antlerless moose with no additional restrictions; and
- 3) during December 1–April 30 the bag limit is 2 moose with no additional restrictions.

There is a positive C&T finding for moose in Unit 18, and an ANS of 200–400.

Antlerless moose hunting is also allowed for nonresident hunters in Unit 18 remainder. The current season for nonresidents is December 1- March 15 and the bag limit is one antlerless moose.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** The antlerless hunts in the areas south of and including the Goodnews River drainage and the remainder of Unit

18 would be reauthorized for RY2021. Hunters would have slightly longer seasons and the same bag limits as RY2020 (see Current Regulations above). Adoption of this proposal will help control the rapidly increasing moose population in this area. This will reduce habitat degradation that may ultimately lead to crash in the Unit 18 moose population.

**BACKGROUND:** Antlerless moose seasons must be reauthorized annually. Both hunt areas support a large moose population, reaching a conservative estimated minimum population of 15,500 moose. In all areas surveyed, moose populations had twinning rates of 20-42% in 2020.

Harvests by residents in RY2019 (n=751) is higher than the previous 3-year average harvest (n=661). In RY2019, the harvest ticket reports from the remainder of Unit 18 included 208 cows taken, along with the harvest of 543 bull moose. The combined harvest for the remainder of Unit 18 represented in this reauthorization is well within sustained yield, and the population trajectory has not been affected by antlerless harvests.

RY2017 was the first year for antlerless hunts for nonresidents. No nonresidents reported harvesting moose from Dec. 1 through March 15 in RY2017 or RY2018 and only one in RY2019. The department anticipates that participation in this hunt will remain low.

The total harvest in the area south of and including the Goodnews River drainage was 12 bulls and one cow moose.

Continuing antlerless moose harvest opportunity will benefit hunters and may also help slow the growth rate of the population.

**DEPARTMENT COMMENTS:** The department submitted and **SUPPORTS** this proposal to maintain antlerless hunts in areas where moose populations are increasing.

**COST ANALYSIS:** Adoption of this proposal is not expected to result in additional cost to the department.

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**PROPOSAL 182 – 5 AAC 85.045(a)(17). Hunting seasons and bag limits for moose.**

Reauthorize the antlerless moose seasons in a portion of Unit 19(D).

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

**WHAT WOULD THE PROPOSAL DO:** This proposal would reauthorize the antlerless moose hunt in Unit 19D East which is that portion of the Kuskokwim River drainage upstream of the Selatna River but excluding the Black River.

**WHAT ARE THE CURRENT REGULATIONS?** Unit 19D currently has an antlerless moose hunt available to resident hunters by registration permit during the entire month of February in those portions of the Kuskokwim River drainage upstream from the Selatna River drainage but excluding the Black River drainage. A person may not take a cow accompanied by a calf.

There is a positive C&T finding for moose in Unit 19 outside the Lime Village Management Area, with an ANS of 400–700 moose, including 175–225 in Unit 19A and 20–24 in Unit 19B.

Hunts for bull moose are also available in this unit. Refer to the *2020–2021 Alaska Hunting Regulations* for specific details about moose hunting seasons in this area.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** If adopted, this proposal will allow antlerless hunts to continue to be available to resident hunters, and the department will continue to have the authority to use antlerless hunts as a tool to regulate the moose population.

**BACKGROUND:** Antlerless moose hunting seasons must be reauthorized annually. The goals of this hunt are to provide additional harvest opportunity while protecting bull-to-cow ratios and meet harvest objectives.

The moose population in Unit 19D East has approximately doubled since predator removals began in 2003. The department is starting to observe decreasing nutritional status as indicated by declining twinning rates. Prior to intensive management, bull-to-cow ratios along the Kuskokwim River drainage were measured at 18 bulls per 100 cows. After predator reductions and a closure of moose hunting in the Bear Control Focus Area (BCFA), ratios improved to 39 bulls per 100 cows by 2007. By 2020 ratios had declined again, due to increasing numbers of cows rather than hunter harvest, and the two-year average was 19 bulls per 100 cows.

To maintain a healthy and productive moose population, department research (Boertje et al. 2007) indicates that when the 2-year average twinning rate is 11–20% populations should be stabilized. Twinning rates in Unit 19D East remained high until 2015; however, the current 2-year average twinning rate is now 17%, indicating a decreasing nutritional status in this population. The current Intensive Management plan for Unit 19D East calls for stabilizing the population through harvest when the 2-year average twinning rate is between 15 and 20%.

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

**DEPARTMENT COMMENTS:** The department submitted and **SUPPORTS** this proposal. Additional moose are available for harvest and this proposal will help meet IM harvest objectives. There are no biological concerns associated with harvest of antlerless moose taken under these regulations in this area. However, the department has biological concerns regarding reduced nutritional condition, and reduced reproductive success if antlerless hunts are eliminated. The board should also consider whether a reasonable opportunity for subsistence uses on populations with positive C&T findings would still be provided if these hunts were eliminated.

**COST ANALYSIS:** Adoption of this proposal is not expected to result in additional costs to the Department.

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**PROPOSAL 183 – 5 AAC 85.045(18) Hunting seasons and bag limits for moose.**

Reauthorize the antlerless moose seasons in Unit 20A.

**PROPOSED BY:** Alaska Department of Fish and Game.

**WHAT WOULD THE PROPOSAL DO?** Reauthorize the antlerless moose hunting seasons in Unit 20A.

**WHAT ARE THE CURRENT REGULATIONS?** Antlerless moose hunts in Unit 20A Ferry Management Trail, Wood River Controlled Use, and the Yanert Controlled Use Areas are as follows:

Residents:

- Drawing permit for one antlerless moose, August 15–November 15.
- Targeted hunt for one moose by permit (AM751) announced by emergency order.
- Registration permit for one antlerless moose; a person may not take a cow accompanied by a calf, Oct. 1–last day of February. In most of Unit 20A these permits have not been issued for several years because harvest is being obtained with drawing permits.

Nonresidents:

- No antlerless moose season.

Unit 20A remainder

Residents:

- Drawing permit for one antlerless moose, August 15–November 15.
- Registration permit for one antlerless moose; a person may not take a cow accompanied by a calf, August 25–last day of February. In most of Unit 20A these permits have not been issued for several years because harvest is being obtained with drawing permits.
- Registration permit, RM768, has been issued to provide reasonable opportunity to harvest antlerless moose for subsistence uses; this hunt occurs outside the Fairbanks Nonsubsistence Area.

Nonresidents:

- No antlerless moose season.

Hunts for bull moose are also available in Unit 20A. Refer to the *2020–2021 Alaska Hunting Regulations* for specific details about bull moose hunting seasons in Unit 20A.

The intensive management (IM) population objective for moose in Unit 20A is 10,000–15,000 moose and the IM harvest objective is 500–900 moose.

There is a positive C&T finding for moose in Unit 20A outside the boundaries of the Fairbanks Nonsubsistence Area with an ANS of 50–75 moose.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** The Alaska Department of Fish and Game (department) will have the authority to use antlerless hunts as a management tool to regulate the moose population in Unit 20A and to provide moose hunting opportunity inside and out of the Fairbanks Nonsubsistence Area.

**BACKGROUND:** Antlerless moose hunting seasons must be reauthorized annually. Antlerless hunts help regulate moose population growth, provide subsistence hunters with a reasonable opportunity to harvest moose, and can reduce incidences of vehicle collision and other nuisance situations. Overall, the goal is to protect the long-term health and habitat of the Unit 20A moose population and to provide for a wide range of public uses and benefits.

The department intends to maintain the Unit 20A population at roughly 12,000 moose and monitor nutritional condition. In 2015, the post-hunt population estimate was 12,315 moose (10,622–14,009, 90% confidence interval) and in 2019 the population estimate was 11,770 moose (9,581–13,959, 90% confidence interval). This high-density moose population (approximately 2.5 moose/mi<sup>2</sup>) continues to experience density-dependent effects, including low productivity and relatively light short-yearling female weights. Although sporadic signs of improvement in nutritional condition have been observed (i.e., higher twinning rates in portions of 20A and increases in male short-yearling weights in 2015 and 2016 compared to the late 1990s through early 2000s), no clear signals or significant trends have yet been detected. The department recommends continued antlerless hunts in regulatory year 2021 to regulate population growth (i.e., stabilize the population at 12,000 moose).

**DEPARTMENT COMMENTS:** The department submitted and **SUPPORTS** this proposal because antlerless hunts are an important management tool in regulating this high-density, nutritionally stressed moose population. If antlerless moose hunts are not reauthorized, the department will lose the ability to regulate this moose population, the IM harvest objectives may not be met, and the IM population objective may be exceeded. Additionally, the public will lose opportunity to harvest a surplus of cow moose and subsistence hunters in the portion of Unit 20A outside the Fairbanks Nonsubsistence Area (part of the western Tanana Flats). Finally, if antlerless moose hunts are not reauthorized, the board may want to consider whether reasonable opportunity for subsistence uses is still provided.

**COST ANALYSIS:** Adoption of this proposal would not result in any additional costs to the department.

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**PROPOSAL 184 – 5 AAC 85.045(18). Hunting seasons and bag limits for moose.**  
Reauthorize the antlerless moose seasons in Unit 20B.

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

**WHAT WOULD THE PROPOSAL DO?** Reauthorize antlerless moose hunting seasons in Unit 20B.

**WHAT ARE THE CURRENT REGULATIONS?** Antlerless moose hunts are available in Unit 20B by drawing, registration, or targeted permit only, as follows:

Creamer's Field within the Fairbanks Management Area

Residents and nonresidents:

- 1 antlerless moose by drawing permit, by bow and arrow only, up to 150 permits, a recipient is prohibited from taking an antlered bull in the Fairbanks Management Area, September 1–November 27.
- 1 antlerless moose by muzzleloader, by drawing permit, up to 10 permits, a recipient is prohibited from taking an antlered bull in the Fairbanks Management Area, Dec 1–January 31.

Remainder of the Fairbanks Management Area

Residents and nonresidents:

- 1 antlerless moose by drawing permit, by bow and arrow only, up to 150 permits, a recipient is prohibited from taking an antlered bull in the Fairbanks Management Area, September 1–November 27.

Residents only:

- 1 moose by targeted permit by shotgun, crossbow or bow and arrow only, up to 100 permits, season to be announced by emergency order.

Minto Flats Management Area

Residents only:

- 1 antlerless moose by registration permit, October 15–February 28.

Middle Fork of the Chena River drainage

Residents only:

- 1 antlerless moose by drawing permit, up to 300 permits, taking of calves or cows with calves is prohibited, August 15–November 15.
- 1 antlerless moose by registration permit, taking of calves or cows with calves is prohibited, October 1–February 28.

Southeast of the Moose Creek dike within ½ mile each side of the Richardson Highway

Residents only:

- 1 moose by drawing permit, by bow and arrow, crossbow, or muzzleloader, up to 100 permits, September 16–February 28.
- 1 moose by targeted permit by shotgun, crossbow, or bow and arrow only, up to 100 permits, season to be announced by emergency order.

Remainder of Unit 20B

Residents only:

- 1 antlerless moose by drawing permit, by youth hunt only, up to 200 permits, August 5–14.
- 1 antlerless moose by drawing permit, up to 1,500 permits, taking of cows with calves is prohibited, August 15–November 15.

- 1 moose by targeted permit by shotgun, crossbow, or bow and arrow only, up to 100 permits, season to be announced by emergency order.

Hunts for bull moose are also available in Unit 20B. Refer to the *2020–2021 Alaska Hunting Regulations* for specific details about moose hunting seasons in Unit 20B.

Unit 20B has a positive finding for intensive management (IM). The IM population objective is 12,000–15,000 moose and the harvest objective is 600–1,500 moose.

There is a positive C&T finding for moose in Unit 20B, within the Minto Flats Management Area, with an ANS of 20–40 moose.

There is a positive C&T finding for moose in Unit 20B, outside the boundaries of the Minto Flats Management Area and outside the boundaries of the Fairbanks Nonsubsistence Area, with an ANS of 75–100 moose.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** Antlerless hunts will continue to be available to hunters, and the department will continue to have the authority to use antlerless hunts as a tool to regulate the moose populations.

**BACKGROUND:** Antlerless moose hunting seasons must be reauthorized annually. The goal in Unit 20B is to protect the health and habitat of moose populations and to provide for a wide range of public uses and benefits. Antlerless hunts are important for improving or maintaining the ability of moose habitat to support current populations. They also help regulate moose population growth, provide hunting opportunity, help meet Intensive Management (IM) objectives for high levels of harvest, and provide subsistence hunters with a reasonable opportunity for subsistence uses without reducing bull-to-cow ratios. If antlerless hunts are not reauthorized, subsistence hunters in the portion of Unit 20B outside the Fairbanks Nonsubsistence Area may not have a reasonable opportunity to pursue moose for subsistence uses. Unit 20B has implemented many different antlerless opportunities over the last 10 years. Currently the moose population is estimated to be within the Intensive Management objective of 12,000–15,000 moose; therefore, the necessity for antlerless harvest is minimal and fewer hunts are offered at this time. The antlerless hunts that we are currently conducting are as follows:

*Fairbanks Management Area (FMA)* – The purposes of these antlerless hunts are to regulate population growth in the FMA and potentially reduce moose–vehicle collisions and moose–human conflicts.

The number of moose–vehicle collisions in the FMA is high and poses significant safety risks to motorists. In addition, moose–human conflicts continue to place significant demands on property owners and staff. To increase hunting opportunity and harvest and to reduce moose–vehicle collisions, the department incrementally increased the number of drawing permits for antlerless moose in the FMA during Regulatory Year 1999 (RY99; that is, RY = 1 July 1999 through 30 June 2000) through RY10. Moose–vehicle collisions and moose–human conflicts declined during RY06–RY19, presumably, in part due to the consistent antlerless moose harvests during RY09–RY19.

*Minto Flats Management Area (MFMA)* – The primary purposes of this antlerless hunt are to provide a reasonable opportunity for subsistence uses and to regulate the moose population in the MFMA.

The MFMA moose density was high in 2010 (4.1 moose/mi<sup>2</sup>). To reduce the moose population, harvest of antlerless moose during RY12 and RY13 was about 2.5% of the population. The fall 2013 estimate showed a more sustainable density (2.6 moose/mi<sup>2</sup>) in the MFMA. The 2020 estimate now indicates densities are at approximately 1.9 moose/mi<sup>2</sup>. The antlerless harvest in this area is intended to stabilize this population; therefore, we intend to only harvest antlerless moose at about 1% of the total population to maintain the current population size.

*Targeted Hunts* – The purpose of the targeted hunts is primarily to reduce moose–vehicle collisions and moose–human conflict near schools, neighborhoods, and roads by harvesting moose that habitually spend time along roadways and have a high likelihood of being injured by highway vehicles or have already been injured. The department also uses targeted hunts as an option for resolving moose–human conflict situations. These permits are used sparingly but allow the public to harvest specific moose instead of the department dispatching them.

**DEPARTMENT COMMENTS:** The department submitted and **SUPPORTS** this proposal. There are no biological concerns associated with the harvest of antlerless moose taken under these regulations in these hunt areas; however, elimination of these hunts would create a biological concern as the population grows beyond capacity of the habitat. The board may wish to consider whether a reasonable opportunity for subsistence uses on populations with positive C&T findings would still be provided if these hunts were eliminated. The Unit 20B moose population has potential for growth due to the extensive burns (i.e., increased productivity) and high survival rates. If antlerless moose hunts are not reauthorized, the moose population may exceed carrying capacity and would require population reduction. These hunts maintain the opportunity to hunt a harvestable surplus of cow moose and help to meet IM harvest objectives.

**COST ANALYSIS:** Approval of this proposal is not expected to result in additional costs to the department.

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**PROPOSAL 185 – 5 AAC 85.045(a)(18). Hunting seasons and bag limits for moose.**

Reauthorize the antlerless moose hunting season in Unit 20D.

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

**WHAT WOULD THE PROPOSAL DO?** Reauthorize antlerless moose hunting seasons in Unit 20D.

**WHAT ARE THE CURRENT REGULATIONS?** Unit 20D currently has antlerless hunts available by drawing permit only, with fewer than 40 permits available. Current antlerless moose (except a calf or a cow accompanied by a calf) seasons in Unit 20D are as follows:

- Bison Range Youth Moose Hunt (YM792): youth (ages 10 to 17) hunters that are residents or nonresident children of residents; one bull per lifetime, with spike-fork or 50-inch antlers

or antlers with 4 or more brow tines on one side, or one antlerless moose; however, a calf or cow accompanied by a calf may not be taken; September 1–30.

- Purple Heart Recipient Hunt (DM795): qualified Purple Heart Recipient, resident and nonresident hunters; one moose every 4 years; however, a calf or cow accompanied by a calf may not be taken; September 1–15 within the Delta Junction Management Area
- Southwestern Unit 20D drawing hunt (DM791) excluding the Delta Junction Management Area; resident hunters; one antlerless moose; however, a calf or cow accompanied by a calf may not be taken; October 10–16.

All antlerless hunts listed above occur in the Fairbanks Nonsubsistence Area (FNA). Additional antlerless hunts outside the FNA are not sustainable. In addition to these drawing hunts, registration hunts are retained in the codified regulation for the department to utilize in reducing or maintaining the moose population in some areas of southern Unit 20D by increasing antlerless harvest.

Hunts for bull moose are also available in this unit. Refer to the *2020–2021 Alaska Hunting Regulations* for specific details about moose hunting seasons in this area.

Moose in that portion of Unit 20D that is north of the Tanana River and outside the boundaries of the Fairbanks Nonsubsistence Area have a positive C&T finding and an ANS of 5-15. Moose in that portion of 20D that is south of the Tanana River also have a positive C&T finding and an ANS of 5.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** If adopted, this proposal will allow antlerless hunts to continue to be available to hunters, and the department will continue to have the authority to use antlerless hunts as a tool to regulate the moose population.

**BACKGROUND:** Antlerless moose hunting seasons must be reauthorized annually. The goals of Unit 20D antlerless hunts are to make progress toward achieving the board’s intensive management (IM) harvest objective by harvesting cow moose from this highly productive population and to address concerns about range degradation, reduced nutritional indices, and reduced reproductive success by slowing the moose population growth. It is important to manage this population for stability and a consistent harvestable surplus, rather than allow large population expansions and contractions, which can cause wide swings in the number of cow moose available for harvest.

These antlerless moose hunts will likely improve or maintain the ability of moose habitat to support the current moose population. Hunting opportunity and harvest could increase, and the additional harvest could contribute to meeting Intensive Management (IM) harvest objectives. Moose populations will benefit by having moose densities compatible with their habitat. Delta Junction residents, staff, and motorists may benefit from reduced moose–vehicle collisions and moose–human conflicts.

To maintain a healthy and productive moose population, department research (Boertje et al. 2007) indicates that 10-month-old calves should weigh at least 385 pounds and that the population should not be allowed to grow when the 2-year average twinning rate is 11–20%. Although we confirmed in 2019 that 10-month-old calves exceeded the minimum weight, the 2-year twinning rate of 11%

may be an indication this population is showing signs of nutritional stress. The department will continue to monitor these, and other, density-dependent indices of nutritional condition.

The department intends to adjust the number of antlerless moose permits needed to maintain a healthy moose population in Unit 20D, and expects to issue 20–75 drawing permits for antlerless moose in RY21. During RY17–RY20 we issued an average of 30 drawing permits in Unit 20D for which the bag limit included antlerless moose, with an average harvest of 19 females. Registration permits will only be issued in specific areas if additional harvest is necessary to maintain optimal moose densities.

**DEPARTMENT COMMENTS:** The department submitted and **SUPPORTS** this proposal. There are no biological concerns associated with harvest of antlerless moose taken under these regulations in these hunt areas. However, we do have biological concerns regarding habitat degradation, reduced nutritional condition, and reduced reproductive success if antlerless hunts are eliminated. The Unit 20D moose population has great potential for growth due to the extensive agricultural land, wildland fire footprints, and high predator harvest. If antlerless moose hunts are not reauthorized, the moose population may quickly exceed carrying capacity. These hunts maintain the opportunity to hunt a harvestable surplus of cow moose and help to meet IM harvest objectives.

**COST ANALYSIS:** Adoption of this proposal would not result in any additional costs to the department.

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**PROPOSAL 186 – 5 AAC 85.045 (a)(19). Hunting seasons and bag limits for moose.**  
Reauthorize the antlerless moose hunting season in a portion of Unit 21D.

**PROPOSED BY:** Alaska Department of Fish and Game.

**WHAT WOULD THE PROPOSAL DO?** This proposal will reauthorize the 15-day RM831 registration any-moose season to-be-announced during March in a portion of Unit 21D. The season has a harvest quota established by the department prior to the beginning of the season, and if the total harvest or harvest of cows reaches the quota, the season will be closed by emergency order.

**WHAT ARE THE CURRENT REGULATIONS?** In that portion of Unit 21D south of the south bank of the Yukon River, downstream of the up-river entrance of Kala Slough and west of Kala Creek, the antlerless moose hunting season is as follows:

RM831 any-moose season is announced by emergency order in March when conditions allow for good success in harvesting moose and closed after 15 days, or once the quota is reached. A person may not take a cow accompanied by a calf.

There is a positive C&T finding for moose in all of Unit 21, with an ANS of 600–800 moose.

The intensive management (IM) population objective for moose in all of Unit 21D is 7,000–10,000 moose and the IM harvest objective is 450–1,000 moose.

Hunts for bull moose are also available in this unit. Refer to the *2020–2021 Alaska Hunting Regulations* for specific details about moose hunting seasons in this area.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** Adoption of this proposal would continue to allow harvest of antlerless bulls and cows in March when conditions allow for good success in harvesting moose. Because few moose have antlers during this March hunt, hunter success is higher with an antlerless season. This will not increase harvest in excess of harvestable surplus, because there is a harvest quota for this hunt.

**BACKGROUND:** Antlerless moose hunting seasons must be reauthorized annually. The goals of this antlerless moose season are to provide additional opportunity during a time of year when conditions allow for good success in harvesting moose, provide subsistence opportunity, slow the growth of this moose population, and to make progress toward achieving the board’s intensive management (IM) harvest objective of 450–1,000 moose in all of Unit 21D by harvesting cows from this highly productive area. Reauthorizing this hunt will likely make progress toward achieving these goals.

If this antlerless moose hunt is not reauthorized, opportunity to utilize a harvestable surplus of cow moose would be lost, subsistence opportunity may be lost, and our ability to meet Intensive Management (IM) harvest objectives could be compromised. In addition, rather than allow large population expansions and contractions, we believe it is important to manage the population for stability and a consistent harvestable surplus.

The department intends to open a season in spring 2021, with a 2-day reporting requirement and a quota of 25 moose with no more than 20 cows. Harvest from this hunt will make progress toward achieving the IM harvest objectives without reducing bull-to-cow ratios to low levels. Five cows and 3 bulls were harvested in the March 2019 hunt, 11 cows and 3 bulls were harvested in 2020, and we expect harvest to increase as more hunters begin participating in this hunt.

Unit 21D has a positive finding for intensive management (IM), with IM objectives of a population of 7,000–10,000 and harvest of 459–1,000 moose. The IM harvest objective has not been met since 2003 when the estimated harvest was 489 moose. The average estimated harvest during regulatory years 2008–2019 was 408 moose, including reported and estimated unreported harvest. The overall Unit 21D population estimate at the end of 2018 was 10,478 moose ( $\pm 1,572$ ). The current estimated combined harvestable surplus is least 1,095 moose for Unit 21.

This antlerless moose hunt area is approximately 2,559 mi<sup>2</sup> (21%) of the 12,093.6 mi<sup>2</sup> encompassed by Unit 21D. Moose abundance in this area was estimated at 4,000–4,500 moose, which is approximately 39–44% of the estimated total Unit 21D moose population.

The moose population in this portion of 21D is increasing, especially the number of cows in the population (Figure 186-1). Analysis of three Trend Count Areas (Squirrel Creek, Pilot Mtn., and Kaiyuh Slough TCAs) within the Kaiyuh Flats showed an increase in moose abundance among all age classes. Geospatial Population Estimate data also showed a statistically significant increase from 1,897 ( $\pm 11\%$ ) moose in 2011 to 4,116 ( $\pm 10\%$ ) moose in 2017. Moose twinning data for the winter any-moose hunt area showed high and stable twinning rates since 2004 (avg. = 38.7%).

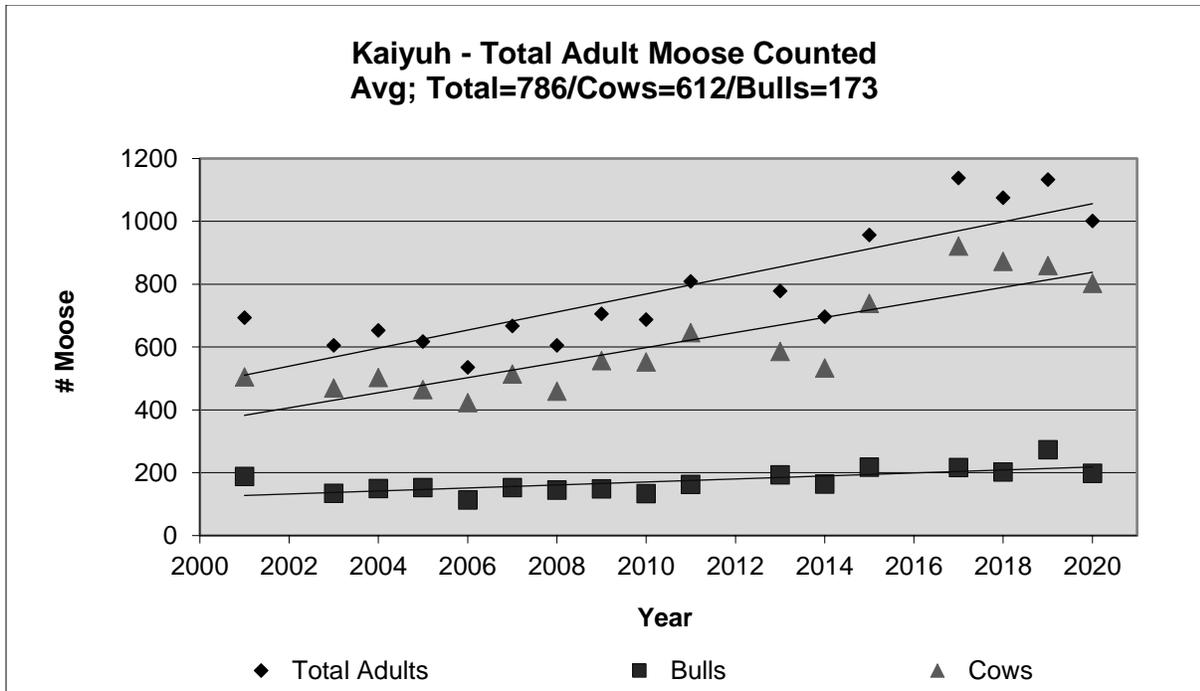


Figure 186-1. Kaiyuh Trend Count Areas combined count of adult moose, 2001–2020, Unit 21D.

**DEPARTMENT COMMENTS:** The department submitted and **SUPPORTS** this proposal. Additional harvest opportunity, including the harvest of cows, exists in this portion of 21D. If antlerless moose hunts are not reauthorized, progress toward the IM harvest objectives may not be achieved, and the IM population objective may be exceeded. Additionally, the public will not have the opportunity to harvest a surplus of cow moose, reducing opportunity to pursue moose for subsistence uses.

**COST ANALYSIS:** Adoption of this proposal would not result in any additional costs for the department.

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**PROPOSAL 187 – 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.

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

**WHAT WOULD THE PROPOSAL DO:** This proposal would reauthorize the antlerless moose hunt in Unit 21E.

**WHAT ARE THE CURRENT REGULATIONS?** Unit 21E currently has antlerless hunts available to resident hunters by registration permit only during Feb 15 – Mar 15. A person may not take a cow accompanied by a calf.

There is a positive C&T finding for moose in all of Unit 21, with an ANS of 600–800 moose.

Hunts for bull moose are also available in this unit. Refer to the *2020–2021 Alaska Hunting Regulations* for specific details about moose hunting seasons in this area.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** If adopted, this proposal will allow antlerless hunts to continue to be available to hunters, and the department will continue to have the authority to use antlerless hunts as a tool to regulate the moose population, and will provide additional moose hunting opportunity.

**BACKGROUND:** Antlerless moose hunting seasons must be reauthorized annually. The goals of this hunt are to provide additional harvest opportunity for resident hunters, meet harvest objectives, and stabilize the 21E moose population.

The most current moose survey in 2019 indicated there are 9,777 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, approximately 200 moose are harvested each year and there are additional moose available to harvest. Bull-to-cow ratios are high, with 42 bulls per 100 cows in 2018.

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 2.1 moose/mi<sup>2</sup> in 2019. During most of these years of growth, twinning rates remained high; however, twinning rates began declining in 2015. The 2-year average twinning rate in the Holy Cross area is 12%, while north of Anvik and Shageluk (where moose density is lower) the twinning rate is 32%. The current intensive management plan calls for stabilizing the population through harvest when the 2-year average twinning rate is 15–20%. Browse utilization is high in the Holy Cross area where the population density is highest and where winter mortality in deep snow years is a concern.

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

**DEPARTMENT COMMENTS:** The department submitted and **SUPPORTS** this proposal. Additional moose are available for harvest and this proposal will help meet IM harvest objectives and provide subsistence opportunity. There are no biological concerns associated with harvest of antlerless moose taken under these regulations in this area. However, the department has biological concerns regarding reduced nutritional condition, and reduced reproductive success if antlerless hunts are eliminated. The board should also consider whether a reasonable opportunity for subsistence uses on populations with positive C&T findings would still be provided if these hunts were eliminated.

**COST ANALYSIS:** Adoption of this proposal is not expected to result in additional costs to the Department.

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**PROPOSAL 188 – 5 AAC 85.045(24). Hunting seasons and bag limits for moose.**

Reauthorize the antlerless moose seasons in Unit 26A.

**PROPOSED BY:** Alaska Department of Fish and Game.

**WHAT WOULD THE PROPOSAL DO?** This proposal reauthorizes the antlerless moose season in the western portion of Unit 26A.

**WHAT ARE THE CURRENT REGULATIONS?** Antlerless moose hunts for residents are allowed in the portion of Unit 26A west of 156° 00' W. longitude, excluding the Colville River drainage, where antlerless hunting with a 1 moose bag limit is allowed July 1–September 14. There is a positive C&T for moose in Unit 26, and an ANS of 21–48, including 15–30 in Unit 26A.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** The antlerless moose hunt in the portion of Unit 26A west of 156° 00' W longitude and north of the Colville drainage would be reauthorized. Because antlerless moose seasons were closed due to population declines in the remainder of the unit, only the western portion of Unit 26A has a hunt affected by this proposal.

**BACKGROUND:** The moose population is low in Unit 26A and has declined since 2008. The minimum population count declined from 1,180 moose in 2008 to 610 moose in 2011. The population grew slowly from 2011–2013 but declined again to 294 moose in 2014. The most recent minimum count was conducted in 2017 and estimated 339 moose. Reported moose harvest in recent years has remained low, ranging between 1 and 13 moose for the period 2010–2020. Moose in these regions can be a useful source of meat in times of low caribou abundance or sparse caribou distribution.

The portion of Unit 26A west of 156° 00' W longitude and north of the Colville drainage does not have a year-round moose population. Moose occasionally disperse away from the major river drainages to the coastal plain during summer months, and these are the only moose available for harvest in this northwestern portion of Unit 26A. The small number of antlerless moose harvested under the hunt have very little impact on the size of the population. To date, after several years of hunting opportunity in this area, only 4 antlerless moose have been harvested: 1 cow in 2006, 1 in 2008, 1 in 2014, and 1 in 2018. One bull moose was harvested under this regulation in 2020. Keeping an antlerless moose season in this portion of Unit 26A provides additional opportunity in a portion of the state that generally does not have moose.

**DEPARTMENT COMMENTS:** The department submitted and **SUPPORTS** this proposal. Antlerless harvests in the western section of Unit 26A are anticipated to be very low and have little impact on the population.

**COST ANALYSIS:** Approval of this proposal is not expected to result in additional costs to the department.

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**PROPOSAL 189 – 5 AAC 92.015(a)(4). Brown bear tag fee exemptions.**

Reauthorize resident grizzly/brown bear tag fee exemptions throughout Interior and Eastern Arctic Alaska.

**PROPOSED BY:** Alaska Department of Fish and Game.

**WHAT WOULD THE PROPOSAL DO?** The proposal would reauthorize the current resident tag fee exemptions for brown bears in Units 12, 19, 20, 21, 24, 25, 26B, and 26C.

**WHAT ARE THE CURRENT REGULATIONS?** Brown bear tag fees and locking tags are not required for residents in Units 12, 19, 20, 21, 24, 25, 26B, and 26C. See below for regulations regarding the customary and traditional use findings and the amounts reasonably necessary for subsistence harvests of brown bears.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** The \$25 resident tag fee exemption would be continued for brown bear hunts in Units 12, 19, 20, 21, 24, 25, 26B, and 26C.

**BACKGROUND:** The Board of Game must annually reauthorize all resident tag fee exemptions. Resident brown bear tag fees were put in place statewide during the mid-1970s to discourage incidental harvest, elevate the status of brown bears to trophies, and to provide revenue. Today, Region III populations are healthy, brown bears are highly regarded as trophies, and season dates and bag limits effectively regulate harvest. Reauthorizing these tag fee exemptions would allow residents who are unable to purchase the \$25 tag before hunting, due to lack of vendors or economic reasons, to opportunistically and legally harvest brown bears.

Eliminating all resident brown bear tag fees throughout Region III simplifies regulations, increases resident hunter opportunity, and is not likely to cause declines in these brown bear populations. 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. During regulatory years 2006–2015 approximately 22% of brown bears harvested by resident hunters in Region III were taken incidentally to other activities, compared with 9% statewide.

The department estimates that a harvest rate of up to 8%, composed primarily of males, is sustainable. Human-caused mortality in most of Region III has been consistently less than 6% of the population. Where harvests are elevated (i.e., Units 20A, 20B, 20D, and portions of 26B), brown bear populations are managed through changes in seasons and bag limits. Resident tag fees that were in place prior to 2010 appeared to have no effect on harvest rates in these areas.

As part of this request to reauthorize exemption of resident brown bear tag fees throughout Region III, we recommend that the board, at a minimum, continue to reauthorize the 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 customary and traditional use findings and amounts reasonably necessary for subsistence are presented below:

**Customary and traditional use findings, and amounts reasonably necessary, brown bear populations, Region III:**

<b>Unit</b>	<b>Finding</b>	<b>Amount reasonably necessary for subsistence</b>
Unit 12	Negative	---
Units 19A and 19B upstream of and excluding the Aniak River drainage, and Unit 19D	Positive	10–15
Units 19A and 19B downstream of and including the Aniak River drainage	Positive	5
Unit 19C	Negative	N/A
Unit 19D	Positive	2–6
Units 20A and 20B outside the boundaries of the Fairbanks Nonsubsistence Use Area and Unit 20C	Positive	1–3
Unit 20D, outside the boundaries of the Fairbanks Nonsubsistence Area	Positive	1–2
Unit 20E	Negative	N/A
Units 21 and 22	Positive	20–25
Units 23, 24, and 26	Positive	25–35
Unit 25A, 25B, 25C	Negative	N/A
Unit 25D	Positive	None made

**DEPARTMENT COMMENTS:** The department submitted and **SUPPORTS** this proposal. Brown bear numbers appear to be stable in the Interior and Eastern Arctic Units. Resident tag fees that were in place prior to 2010 appeared to have no effect on harvest rates in the region. Therefore, this proposal does not present a biological concern.

**COST ANALYSIS:** Adoption of this proposal would not result in any additional costs to the department.

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**PROPOSAL 190–5 AAC 92.015 Brown bear tag fee exemptions.**

Reauthorize the brown bear tag fee exemption for Units 18, 22, 23, and 26A.

**PROPOSED BY:** Alaska Department of Fish and Game.

**WHAT WOULD THE PROPOSAL DO?** The proposal would reauthorize the resident tag fee exemptions for brown bears for Units 18, 22, 23, and 26A.

**WHAT ARE THE CURRENT REGULATIONS?** Brown bear tag fees are not required for residents in drawing, registration, or subsistence permits hunts in Units 18, 22, 23, and 26A.

Below are the C&T findings and ANSs for subsistence uses for brown bears in Units 18, 21, 22, 23, 24, and 26:

Game Management Unit	Finding	Amounts Reasonably Necessary
Unit 18	Positive	23-30
Units 21 and 22	Positive	20-25
Units 23, 24, 26	Positive	25-35

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?**

Resident hunters would not be required to purchase a resident locking tag for general season, drawing or registration permit brown bear hunts in Units 18, 22, 23 and 26A. Hunters participating in subsistence registration permit hunts would also not be required to purchase a brown bear locking tag to harvest a bear, although possession of the subsistence registration permit would be required.

**BACKGROUND:** The Board of Game must reauthorize brown bear tag fee exemptions annually or the fee automatically becomes reinstated. Brown bear general season, drawing, and registration permit hunts have had the tag fees exempted in Unit 18 and 26A for 7 years, in Unit 22 for 17 years, and in Unit 23 for 12 years. Exemptions have been implemented to allow: 1) incremental increases in harvest; 2) additional opportunity for residents; and 3) harvest for a wide range of uses. Current harvest levels in each of the Units are appropriate based on sealing and anecdotal information. Previous exemptions of resident tag fees have not caused dramatic or unexpected increases in overall harvest.

In subsistence brown bear registration permit hunts, reauthorizations are needed for Unit 18, 22, 23 and 26A where requirements include: 1) a registration permit; 2) a tag fee exemption; 3) salvage of 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 the subsistence registration permit hunt area; 6) if sealing is required, the skin of the head and the front claws must be removed and retained by the department at the time of sealing. Continuing the tag fee exemption helps facilitate participation in the associated brown bear harvest programs maintained by the department for subsistence registration permit hunts. In all units, subsistence brown bear registration permit harvest rates are low and believed to be appropriate based on harvest reports; exempting the resident tag fee has not caused an increase in subsistence harvest.

**DEPARTMENT COMMENTS:** The department submitted and **SUPPORTS** this proposal. Brown bear numbers in the identified units are stable or increasing and the increased harvests that result from the tag fee exemption do not present a conservation concern.

**COST ANALYSIS:** Approval of this proposal is not expected to result in additional costs to the department.

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**PROPOSAL 194 - 5 AAC 92.170(b). Sealing of marten, fisher, lynx, beaver, otter, wolf, and wolverine.** Establish a 7-day sealing period for wolves taken under hunting or trapping regulations in Unit 2.

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

**WHAT WOULD THE PROPOSAL DO?** This proposal will change the sealing period for wolves taken under hunting or trapping regulations in Unit 2.

**WHAT ARE THE CURRENT REGULATIONS?**

**5 AAC 85.056. Hunting seasons and bag limits for wolf**

<b>Units and Bag Limits (Subsistence and General Hunts)</b>	<b>Resident Open Season Open Season</b>	<b>Nonresident</b>
(1) ...		
Unit 2 5 wolves	Dec. 1 - Mar. 31	Dec. 1 - Mar. 31

**5 AAC 84.270. Trapping seasons and bag limits for furbearers are as follows:**

(13)		
Wolf	Open Season	Bag Limit
Unit 2	Nov. 15 - Mar. 31	No limit.

**Federal Hunting Season:**

Unit 2	Harvest Limits	Open Seasons
Wolf		
All rural residents	No limit	Sept. 1- Mar. 31

**Federal Trapping Regulations**

Wolf-All rural residents		
Unit 2	No limit	Nov. 15 – Mar. 31

Unless otherwise specified, wolves taken under a hunting license must be sealed within 30 days of take; and wolves taken under a trapping license must be sealed within 30 days of the end of the season.

There is a positive customary and traditional use finding (C&T) in Unit 2 with an amount reasonably necessary for subsistence (ANS) of 90% of the harvestable portion of the population.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** If this proposal is adopted, individuals harvesting wolves in Unit 2 under hunting or trapping regulations will need to seal each wolf taken within 7 days of take. More precise information on when each wolf is removed from the population will contribute toward more accurate and precise annual population estimates.

**BACKGROUND:** Management of the Unit 2 wolf population has been contentious for decades. Residents of Unit 2 and elsewhere place a high value on deer as a food resource. Deer are also the primary prey of wolves in Unit 2. Hunters perceive competition with wolves for deer and there is considerable interest in limiting the effects of wolf predation on deer.

Conversely, organizations within and outside Alaska perceive the Unit 2 wolf population as threatened, and to date three petitions to list wolves in Southeast Alaska under the Endangered Species Act have been submitted to the U.S. Fish and Wildlife Service. Petitions submitted in 1994 and 2011 were found unwarranted. A decision on whether to accept a petition submitted in July 2020 is pending.

Wolf hunting and trapping are managed under state and federal regulations. Seasons, specifically ending dates, are determined cooperatively between the Department of Fish and Game (department) and the Tongass National Forest District Ranger in Craig.

This proposal will correct an unforeseen consequence of a previous regulatory change. In 2019 the department proposed eliminating the 14-day sealing requirement for wolves harvested by trapping in Unit 2 as part of a larger proposal intended to establish a more responsive harvest management strategy for Unit 2 wolves. The Board adopted that proposal resulting in the sealing requirement for Unit 2 wolves harvested by trapping reverting to within 30 days of the close of the season. Since that change, the department has determined that the more precise information on when each wolf was removed from the population provided by the short sealing period had contributed toward the accuracy and precision of Unit 2 wolf population estimates.

The department currently uses a DNA-based spatially explicit capture-recapture model for estimating the size of the fall Unit 2 wolf population. That technique relies on capturing DNA from wolves that roll and leave hair samples on an array of scented hair boards distributed throughout a large study area on northern and central Prince of Wales Island. Fall (October – December) is the only feasible time of year to operate the hair board array. At other times of year black bears interfere with sampling and in winter snow blocks access to sampling locations and renders hair boards ineffective.

Hunting and trapping seasons both partially coincide with the sampling period for population estimates. Consequently, wolves are harvested and removed from the population during the sampling period. More precise information on when individual wolves are removed from the population and no longer available to be sampled at hair board stations will allow the department to incorporate those removals into its population estimation models with greater precision, which should increase the precision and accuracy of those estimates.

Accurate and precise population estimates are key to managing harvest and maintaining the fall Unit 2 wolf population within the objective range of 150-200 wolves. The department believes a 7-day sealing period is feasible for hunters and trappers in Unit 2. Currently wolves and other furbearers may be sealed in Craig, Thorne Bay, and Coffman Cove with two or more sealers in each community.

**DEPARTMENT COMMENTS:** The department submitted and SUPPORTS this proposal, which is non-allocative in nature and seeks to address an unforeseen effect of a previous regulatory change. The department intends to submit a similar proposal to the Federal Subsistence Board for consideration at their April 2022 wildlife cycle meeting. To be effective this proposal needs to be adopted by the Alaska Board of Game, the federal Subsistence Regional Advisory Council, and the Federal Subsistence Board.

**COST ANALYSIS:** Approval of this proposal is not expected to result in additional costs to the department.

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**PROPOSAL 195 – 5 AAC 85.045(13). Hunting seasons and bag limits for moose.**

Resolve discrepancies and align general season harvest moose hunts in Unit 15B.

**PROPOSED BY:** Alaska Department of Fish and Game.

**WHAT WOULD THE PROPOSAL DO?** This proposal would align moose hunting regulations in the remainder of Unit 15B by addressing three unintentional discrepancies that occurred when new regulations were passed during the March 2019 Southcentral Board of Game meeting:

1. No bow season was established in the old permit area (known as 15B east) to match the current season dates already present in the remainder of Unit 15B.
2. Spike antlered bull moose were not listed as an animal legal for harvest in the old permit area (known as 15B east).
3. The general season dates in the old permit area (known as 15B east) were five days shorter than the general season throughout the rest of Units 7 and 15.

**WHAT ARE THE CURRENT REGULATIONS?** The current regulations as defined in 85.045 are:

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

(13)

...

Unit 15(B), that portion bounded by a line running from the mouth of Shantatalik Creek, Tustumena Lake, northeastward to the head of the westernmost fork of Funny River; then downstream along the westernmost fork of Funny River to the Kenai National Wildlife Refuge boundary; then east along the refuge boundary to its junction with the Kenai River; then eastward along the south side of the Kenai River and Skilak Lake; then south along the western side of Skilak River, Skilak Glacier, and Harding Icefield; then west along the Unit 15(B) boundary to the mouth of Shantatalik Creek	Sept. 1—Sept. 20 (General hunt only)	Sept. 1—Sept. 20
1 bull with 50-inch antlers or antlers with 3 or more brow tines on one side; or		
1 bull by drawing permit only;	Sept. 1—Sept. 25	No open season.
Unit 15(B), Kalgin Island		
1 moose per regulatory year, by registration permit only	Aug. 20—Sept. 20	Aug. 20—Sept. 20
Remainder of Unit 15(B)		
1 bull per regulatory year, only as follows:		
1 bull with spike or 50-inch antlers or antlers with 3 or more brow tines on	Aug.22—Aug. 29 (General hunt only)	Aug.22—Aug. 29

one side, by bow and arrow only; or

1 bull with spike or 50-inch antlers or antlers with 3 or more brow tines on one side; or

Sept. 1—Sept. 25  
(General hunt only)

Sept. 1—Sept. 25

1 bull by drawing permit only;

Sept. 1—Sept. 25

No open season.

The three unintentional discrepancies are all hunts that occur within the Anchorage-Matsu-Kenai Nonsubsistence Area.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** Moose general season dates and bag limits and bow and arrow only season dates and bag limits would be consistent throughout Unit 15B. This would also provide consistent moose general season dates and bag limits for all of Units 7 and 15. If adopted the moose hunting regulations would be as follows:

<b>Units and Bag Limits</b>	<b>Resident Open Season (Subsistence and General Hunts)</b>	<b>Nonresident Open Season</b>
(13) ...		
Unit 15(B), Kalgin Island		
1 moose per regulatory year, by registration permit only	Aug. 20—Sept. 20	Aug. 20—Sept. 20
Remainder of Unit 15(B)		
1 bull per regulatory year, only as follows:		
1 bull with spike or 50-inch antlers or antlers with 3 or more brow tines on one side, by bow and arrow only; or	Aug.22—Aug. 29 (General hunt only)	Aug.22—Aug. 29
1 bull with spike or 50-inch antlers or antlers with 3 or more brow tines on one side; or	Sept. 1—Sept. 25 (General hunt only)	Sept. 1—Sept. 25

1 bull by drawing permit only;

Sept. 1—Sept. 25

No open season.

**BACKGROUND:** At the March 2019 Southcentral Board of Game meeting, the Board of Game passed Proposal 69 put forth by the Central Peninsula Fish and Game Advisory Committee to open all of Unit 15B except Kalgin Island to general season moose hunting by harvest ticket and eliminate the previous drawing hunt system in the area known as 15B east. The proposal’s intent was to adopt consistent general season moose hunting regulations in the remainder of Unit 15B. This would also make the general season moose regulations consistent throughout Units 7 and 15. This proposal was similar to proposals submitted by the Alaska Department of Fish and Game (Proposal 71) and the Kenai/Soldotna Fish and Game Advisory Committee (Proposal 70) and was well supported by local Advisory Committees. When the proposal was put into regulation three discrepancies occurred:

1. No bow season was established in the old permit area (known as 15B east) to match the current season dates already present in the remainder of Unit 15B.
2. Spike antlered bull moose were not listed as an animal legal for harvest in the old permit area (known as 15B east).
3. The general season dates in the old permit area (known as 15B east) were five days shorter than the general season throughout the rest of Units 7 and 15.

These discrepancies caused unintentional confusion for the hunting public.

**DEPARTMENT COMMENTS:** The department submitted and **SUPPORTS** this proposal. Adopting this proposal will allow for the original intent of Proposal 69 that was adopted during the March 2019 Southcentral Board of Game meeting and provide consistent general season moose regulations throughout Units 7 and 15.

**COST ANALYSIS:** Adoption of this proposal is not expected to result in additional costs to the Department.

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