PROPOSAL 123A – 5 AAC 85.045(a)(9). Hunting seasons and bag limits for moose. Delete antlerless moose seasons in Unit 19D and reauthorize the antlerless moose seasons in Units 20A, 20B and 20D.

Units and Bag Limits	Resident Open Season (Subsistence and General Hunts)	Nonresident Open Season
(17)		
Unit 19(D), that portion in the Upper Kuskokwim Controlled Use Area		
1 antlered bull by registration permit[; OR]	Sept. 1–Sept. 25	No open season.
[1 MOOSE BY REGISTRATION PERMIT; DURING THE PERIOD FEB. 1–FEB. 28, A SEASON MAY BE ANNOUNCED BY EMERGENCY ORDER]	[(TO BE ANNOUNCED)]	[NO OPEN] [SEASON.]
Unit 19(D), that		

Unit 19(D), that portion between and including the Cheeneetnuk and Gagaryah River drainages, excluding that portion within 2 miles of the Swift River

RESIDENT HUNTERS:

1 antlered bull; or Sept. 1–Sept. 20

Sept. 1-Sept. 25 1 antlered bull by

registration permit[; OR]

[1 MOOSE BY [(TO BE ANNOUNCED)] [NO OPEN] REGISTRATION PERMIT; [SEASON.]

DURING THE PERIOD FEB. 1-FEB. 28, A SEASON MAY BE ANNOUNCED BY EMERGENCY ORDER]

NONRESIDENT HUNTERS:

1 bull with 50-inch Sept. 1-Sept. 20

antlers or antlers with 4 or more brow tines on one side

Remainder of Unit 19(D)

1 antlered bull; or Sept. 1–Sept. 20 No open season.

1 antlered bull Sept. 1–Sept. 25 No open season.

by registration permit[; OR]

[1 MOOSE BY [(TO BE ANNOUNCED)] [NO OPEN] [SEASON.]

REGISTRATION PERMIT; **DURING THE PERIOD** FEB. 1-FEB. 28, A **SEASON MAY BE** ANNOUNCED BY

EMERGENCY ORDER]

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(18)

Unit 20(A), the Ferry Trail Management Area, Wood River Controlled Use Area, and the Yanert Controlled Use Area

RESIDENT HUNTERS:

1 bull with spike-fork antlers or 50-inch antlers or antlers with 4 or more brow tines on one side; or Sept. 1–Sept. 25 (General hunt only)

1 antlerless moose by drawing permit only; up to 2,000 permits may be issued in combination with the remainder of Unit 20(A); a person may not take a cow accompanied by a calf; or

Aug. 15–Nov. 15 (General hunt only)

1 antlerless moose by registration permit only; a person may not take a cow accompanied by a calf; or Oct. 1–Feb. 28 (General hunt only)

1 bull by drawing permit only; up to 1,000 permits may be issued in combination with the remainder of Unit 20(A); or Sept. 1–Sept. 25 (General hunt only)

1 bull by drawing permit only; by muzzleloader only; up to 75 permits may be issued in combination with nonresidents in Unit 20(A)

Nov. 1–Nov. 30 (general hunt only)

NONRESIDENT HUNTERS:

1 bull with 50-inch antlers or antlers with 4 or more brow tines on one side; or Sept. 1–Sept. 25

1 bull with 50-inch antlers or antlers with 4 or more brow tines on one side by drawing permit only; by muzzleloader only; up to 75 permits may be issued in combination with residents in Unit 20(A) Nov. 1-Nov. 30

Remainder of Unit 20(A)

RESIDENT HUNTERS:

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. 25

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

Aug. 15–Nov. 15 (General hunt only)

1 antlerless moose by registration permit only; a person may not Aug. 25-Feb. 28

take a cow accompanied by a calf; or

1 bull by drawing permit only; up to 1,000 permits may be issued in combination with Unit 20(A), the Ferry Trail Management Area, Wood River Controlled Use Area, and the Yanert Controlled Use Area;

Sept. 1-Sept. 25

NONRESIDENT HUNTERS:

1 bull with 50-inch antlers or antlers with 4 or more brow tines on one side

Unit 20(B), that portion within Creamer's Refuge

1 bull with spike-fork or greater antlers, by bow and arrow only; or

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

Sept. 1–Sept. 30 (General hunt only) Nov. 21–Nov. 27 (General hunt only)

Sept. 1–Nov. 27 (General hunt only)

Sept. 1-Nov. 27

Sept. 1–Sept. 30

Nov. 21-Nov. 27

Sept. 1–Sept. 25

1 antlerless moose by muzzleloader by drawing permit only; up to 10 permits may be issued; a recipient of a drawing permit is prohibited from taking an antlered bull moose in the Fairbanks Management Area Unit 20(B), remainder of the Fairbanks Management Area	Dec. 1–Jan. 31 (General hunt only)	Dec. 1–Jan. 31
1 bull with spike-fork or greater antlers, by bow and arrow only; or	Sept. 1–Sept. 30 (General hunt only) Nov. 21–Nov. 27 (General hunt only)	Sept. 1–Sept. 30 Nov. 21–Nov. 27
1 antlerless moose by bow and arrow only, by drawing permit only; up to 150 bow and arrow permits may be issued in the Fairbanks Management Area; a recipient of a drawing permit is prohibited from taking an antlered bull moose in the Fairbanks Management Area	Sept. 1–Nov. 27 (General hunt only)	Sept. 1–Nov. 27
Unit 20(B), that portion within the Minto Flats Management Area		
1 bull; or	Aug. 21–Aug. 27 (Subsistence hunt only)	No open season.
1 bull with spike-fork or 50-inch antlers or antlers	Sept. 8–Sept. 25	No open season.

with 4 or more brow tines on one side; or

Salcha River drainage upstream

1 antlerless moose by Oct. 15-Feb. 28 No open season. registration permit only; (Subsistence hunt only) Unit 20(B), the drainage of the Middle Fork of the Chena River 1 antlerless moose by Aug. 15-Nov. 15 No open season. drawing permit only; (General hunt only) up to 300 permits may be issued; a person may not take a cow accompanied by a calf; or Oct. 1-Feb. 28 1 antlerless moose by No open season. registration permit only; (General hunt only) a person may not take a cow accompanied by a calf; or 1 bull; or Sept. 1–Sept. 20 Sept. 1-Sept. 20 1 bull, by bow Sept. 21–Sept. 30 Sept. 21-Sept. 30 and arrow only; or Nov. 1-Nov. 30 1 bull by drawing No open season. permit only; by (General hunt only) muzzleloader only; up to 60 permits may be issued in combination with the hunt in the Salcha River drainage upstream from and including Goose Creek; Unit 20(B), that portion of the

from and including Goose Creek

1 bull; or	Sept. 1–Sept. 20	Sept. 1–Sept. 20
1 bull, by bow and arrow only; or	Sept. 21–Sept. 30	Sept. 21–Sept. 30
1 bull by drawing permit only; by muzzleloader only; up to 60 permits may be issued in combination with the hunt in the Middle Fork of the Chena River;	Nov. 1–Nov. 30	No open season.
Unit 20(B), that portion southeast of the Moose Creek dike within one-half mile of each side of the Richardson highway		
1 bull; or	Sept. 1–Sept. 20	Sept. 5–Sept. 20
1 moose by drawing permit only; by bow and arrow or muzzleloader only; up to 100 permits may be issued	Sept. 16–Feb. 28 (General hunt only)	No open season.
Remainder of Unit 20(B)		
1 bull; or	Sept. 1–Sept. 20	Sept. 5–Sept. 20
1 antlerless moose by drawing permit only; up to 1,500 permits may be issued in the Remainder of Unit 20(B); a person may not take a cow accompanied by a calf; or	Aug. 15–Nov. 15 (General hunt only)	No open season.

1 antlerless moose by registration permit only; a person may not take a cow accompanied by a calf; Oct. 1–Feb. 28 (General hunt only)

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Unit 20(D), that portion lying west of the west bank of the Johnson River and south of the north bank of the Tanana River, except the Delta Junction Management Area and the Bison Range Youth Hunt Management Area

RESIDENT HUNTERS:

1 bull with spike-fork or 50-inch antlers or antlers with 4 or more brow tines on one side; or Sept. 1–Sept. 15 (General hunt only)

1 bull by drawing permit; or

Sept. 1–Sept. 15 (General hunt only)

1 antlerless moose by drawing permit only; up to 1,000 permits may be issued in combination with that portion in the Delta Junction Management Area; a person may not take a calf or a cow accompanied by a

Oct. 10–Nov. 25 (General hunt only)

1 antlerless moose by

calf; or

Oct. 10-Nov. 25

registration permit only; a person may not take a calf or a cow accompanied by a calf (General hunt only)

NONRESIDENT HUNTERS:

1 bull with 50-inch antlers or antlers with 4 or more brow tines on one side Sept. 5–Sept. 15

Unit 20(D), that portion within the Bison Range Youth Hunt Management Area

1 bull with spike-fork or 50-inch antlers or antlers with 4 or more brow tines on one side; or 1 antlerless moose, per lifetime of a hunter, by drawing permit only; up to10 permits may be issued; a person may not take a calf or a cow accompanied by a calf

Sept. 1–Sept. 30 (General hunt only)

Sept.1–Sept. 30

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

RESIDENT HUNTERS:

1 bull with spike-fork or 50- inch antlers or antlers with 4 or more brow tines on one side by drawing permit only; up to 30 permits may be issued; or

Sept. 1–Sept. 15 (General hunt only)

1 antlerless moose by drawing permit only; up to 1,000 permits may be issued in combination with that portion lying west of the west bank of the Johnson River and south of the north bank of the Tanana River; a person may not take a calf or a cow accompanied by a calf; or

Oct. 10–Nov. 25 (General hunt only)

1 antlerless moose by registration permit only; a person may not take a calf or a cow accompanied by a calf Oct. 10–Nov. 25 (General hunt only)

NONRESIDENT HUNTERS:

1 bull with 50-inch antlers or antlers with 4 or more brow tines on one side by drawing permit only; up to 30 permits may be issued Sept. 5–Sept. 15

. . .

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

Unit 19D: The Department is not recommending reauthorization of antlerless moose hunts in Unit 19D because current population size and trend does not indicate an antlerless hunt will be sustainable in the near future. This hunt was approved by the Board in response to increasing moose numbers and concern about habitat within the Upper Kuskokwim Moose Management

Area (MMA) in the Unit 19D (East) predation control area. The Department did not implement the hunt. After reaching an estimated high of 1,820 (90% CI ±323) moose in 2009, numbers have declined in the MMA to 1,337 (90% CI ±199) in 2012. In addition, fall calf per100 cow ratios have declined from a high of 66:100 (90% CI ±18) post bear removal in 2004 to 35:100 (90% CI ±11) in 2012, and calf mortality was likely high during the severe winter of 2011–2012. The two-year average twinning rate for 2011 and 2012 was 36%, indicating the moose are in good nutritional condition. However, number of bears within the bear control area has likely recovered to the pre-control level and predation may have increased.

Unit 20A: The purpose of antlerless moose hunts in Unit 20A is to regulate population growth, to meet the IM mandate for high levels of harvest, and to provide subsistence hunters with a reasonable opportunity to pursue moose for subsistence uses in Unit 20A outside the Fairbanks Nonsubsistence Area (part of the western Tanana Flats). Our goal is to protect the health and habitat of the moose population and to provide for a wide range of public uses and benefits. The number of moose in Unit 20A was estimated at 17,768 in 2003. Research indicated this high-density moose population was experiencing density-dependent effects, including low productivity, relatively light calf weights, and high removal rates of winter forage.

Our objective beginning in regulatory year 2004 (RY begins 1 July and ends 30 June, e.g., RY04 = 1 July 2004 through 30 June 2005) was to reduce moose numbers to the population objective of 10,000–12,000 moose (2.0–2.5 moose/mi²) unless indicators of moose condition showed signs of improvement at higher densities. The Unit 20A population was estimated at 12,724 moose in Unit 2011. Based on harvest rates and population trends observed during RY96–RY11, continuation of these antlerless hunts is necessary to regulate the population at stable levels near this population objectives

The Unit 20A antlerless moose hunt provides additional harvest opportunity which helps to meet human consumption interests and intensive management (IM) harvest objectives. In addition, this hunt has been successful in reversing moose population growth and in increasing moose harvest and hunter participation.

Unit 20B: Fairbanks Management Area (FMA) — The purpose of this antlerless hunt is to provide opportunity to harvest a surplus of antlerless moose in the FMA and potentially reduce moose–vehicle collisions and nuisance moose problems.

The number of moose–vehicle collisions in the FMA are high and pose significant safety risks to motorists. In addition, moose nuisance issues continue to place significant demands on property owners. To increase hunting opportunity and harvest and reduce moose–vehicle collisions, the department incrementally increased the number of drawing permits for antlerless moose in the FMA during RY99–RY10. Moose–vehicle collisions and moose nuisance problems have declined during RY06–RY11, presumably, in part due to the higher antlerless moose harvests of XX to XX during RY09–RY11.

Minto Flats Management Area (MFMA) — The primary purpose of this antlerless hunt is to provide a reasonable opportunity for subsistence uses.

Population estimation surveys indicate the MFMA moose density is high (>4. moose/mi2). The annual reported harvest of antlerless moose taken during RY96–RY10 was approximately 1% to 2% of the MFMA moose population and is likely sustainable.

Unit 20(B), drainage of the Middle Fork of the Chena River and the Remainder of Unit 20B— The antlerless moose harvest in this area is designed to curb growth of this population that has surpassed the upper limit of the IM population objective of 12,000–15,000 moose and helps to meet IM harvest objectives for Unit 20B. Increasing population estimates (from 12,313 in 2001 to 20,173 in 2009) and high calf:cow ratios (37–43:100 during 2003–2009) indicate numbers are increasing. Moreover, moose densities are relatively high (2.2 moose/mi2) in central Unit 20B surrounding Fairbanks.

The drawing permit hunts for antlerless moose were approved by the board in 2006 to take advantage of relatively high and increasing moose numbers in central Unit 20B. The overall Unit 20B moose population continues to grow at 4% per year, despite significant roadkill and harvest of more than 200 cows annually (258 in 2009, 265 in 2010), representing 1.2% of the prehunt population estimate (21,105 moose). The goal is to increase the cow harvest until the growth is stopped to prevent over use of the habitat.

To mitigate hunter conflicts, we spread hunters out over space and time. Each of 16 hunt areas has permits in three time periods: one before the general hunt, one during, and one after. This way we maintain few hunters at a time in each permit area, yet expect to achieve a harvest of 400–500 cows.

Mortality from vehicle and train collisions has been high, averaging 149 moose killed annually by motor vehicles in Unit 20B. By focusing harvest in the more heavily roaded central Unit 20B, road kill may be reduced.

Finally, extensive burns in northcentral Unit 20B will provide excellent habitat in the future. With improving habitat, continued high predator harvest, and relatively mild winters, we can expect continued high productivity and survival of moose, along with increased yield.

Unit 20D: The density of moose in Unit 20D reached the IM population objective of 8,000–10,000 moose in about 2005. The highest density of moose was in southwest Unit 20D at 5.6 moose/mi² during 2006. The moose population in this area was demonstrating the effects of increased competition for food, with a moderately low level 2-year average twinning rate of 14%. Also, browse surveys indicated that moose are consuming moderately high quantities (25%) of available browse over winter. Antlerless moose hunts during 2006–2009 helped reduce the density of moose in southwest Unit 20D to 3.9 moose/mi². Continued antlerless hunts are likely needed to maintain the population at the optimal density and will contribute toward meeting the IM harvest objective of 500–700 moose. Registration permits will be issued only if additional harvest is needed in specific areas to maintain optimal moose densities.

Extensive management and research data to guide antlerless hunt decisions were collected in 2010, including calf weights, twinning rates, a population estimate, an extensive browse utilization survey, and aerial survey sightability information. These data are currently being analyzed to determine the continued need for antlerless hunts in southwest Unit 20D.

WHAT WILL HAPPEN IF NOTHING IS DONE? The moose population may increase to unacceptable levels or may need reduction when new data is available and analyzed. Opportunity to hunt a harvestable surplus of cow moose will be lost, and our ability to meet intensive management harvest objectives will be compromised. Subsistence hunters in the portion of Unit 20A outside the Fairbanks Nonsubsistence Area (part of the western Tanana Flats) may not have a reasonable opportunity to pursue moose for subsistence uses. Delta Junction and Fairbanks residents may benefit from reduced moose—vehicle collisions and moose—human conflicts.

WILL THE QUALITY OF THE RESOURCE HARVESTED OR PRODUCTS PRODUCED BE IMPROVED? Yes. This reauthorization of antlerless moose hunts will likely improve or maintain the ability of moose habitat to support the current moose population. Hunting opportunity and harvest will increase and allow the department to manage these moose populations at optimum levels. The additional harvest will help in meeting intensive management harvest objectives. It will also allow hunters to harvest moose toward meeting the intensive management harvest objective without reducing bull-to-cow ratios to low levels.

WHO IS LIKELY TO BENEFIT? Meat and subsistence hunters will benefit from the opportunity to harvest cow moose. Moose populations will benefit by having moose densities compatible with their habitat.

WHO IS LIKELY TO SUFFER? Those opposed to harvest of antlerless moose.

OTHER SOLUTIONS CONSIDERED? None.

PROPOSED BY: Alaska Department of Fish and Game EG050712676