PROPOSAL 174

5 AAC 85.045(a)(1). Hunting seasons and bag limits for moose.

Reauthorize the antlerless moose seasons in Unit 1C.

5 AAC 85.045. Hunting seasons and bag limits for moose.

Units and Bag Limits	Resident Open Season (Subsistence and General Hunts)	Nonresident Open Season
Unit 1C, Berners Bay drainages 1 moose by drawing permit only; up to 30 permits may be issued	Sept. 15 – Oct. 15 (General hunt only)	Sept. 15 – Oct. 15
…		
Unit 1C, that portion west of Excursion Inlet and north of Icy Passage 1 moose per regulatory year, only as follows:		
…		
1 antlerless moose by drawing permit only; up to 100 permits may be issued	Nov. 10 – Dec. 10 (General hunt only)	Nov. 10 – Dec. 10

What is the issue you would like the board to address and why? Antlerless moose hunts have been authorized for the Berners Bay and Gustavus moose populations in Unit 1C for over a decade. Those hunts were instituted as tools that could be used to manage both populations to within carrying capacity of the limited habitat in each area and to offer additional harvest opportunity as warranted. Antlerless hunts have been periodically and successfully used in both areas but must be reauthorized each year.

Berners Bay: The Berners Bay (Unit 1C) strategic moose management plan calls for a post-hunt population of 90 moose based on the area's estimated carrying capacity. The Department o Fish and Game (department) has been successful at maintaining the Berners Bay population close to the post-hunt population objective by implementing both bull and cow hunts.

From 1998–2006 the number of drawing permits for Berners Bay moose ranged from 10 bull and 10 antlerless permits to 7 bull permits and no antlerless permits. The average annual harvest of bulls during that period was 7 moose, and in years when antlerless permits were issued, the annual harvest averaged 4 cow moose. Although the department has authorization to issue a total of 30 permits each year, no more than 20 total permits have been issued during a single year. Several severe winters from 2006 – 2009 resulted in overwinter mortality and population declines. No Berners Bay moose permits were issued from 2007–2013.

The number of drawing permits issued annually for Berners Bay is based on the number of moose observed during winter aerial surveys. The mean number of moose seen during aerial surveys conducted from 1990–2006 was 77 (range: 59–108). The number of moose seen on surveys declined during consecutive severe winters from 2006–2009 and with only 33–62 moose seen during surveys from 2007-2009. Since 2010 most winters have been moderate to mild and the population has recovered. Under ideal survey conditions in 2012, 102 moose were observed, including 21 bulls, 81 cows, and 14 calves. Since 2012 the moose population has been stable. The department was unable to complete a survey during the winter 2019/2020, but snow conditions were some of the deepest since the harsh winter of 2006/2007. The most recent survey was February 2019 when a total of 106 moose were observed, including 2 bulls, 26 cows, 13 calves, and 65 adult moose of unknown sex. Based on that survey and sightability of collared moose, the population was estimated to be 137 +/- 23 moose. Since 2012 the moose population in Berners has been stable and even though we received heavy snow during the 2019/2020 winter it came later in the year and the impacts to the moose population are expected to be minimal. Moose management is expected to be the same this coming year as it has been since 2012.

Berners Bay is almost entirely federal land. In 2018 the Federal Subsistence Board established a federal moose hunt in Berners Bay requiring 25% of the available hunting opportunity to be reserved for federally qualified hunters residing in Units 1-5. Those same federally qualified users also remain eligible for Berners Bay permits issued through the state draw permit system. The federal hunt was first held in fall 2019, and two of the seven available permits were issued to federally qualified hunters leaving 5 permits available for the State hunt. In 2020 the state plans to offer 6 permits while 2 permits will be issued to Federally qualified hunters. All permits will be for bulls only.

The department maintains management authority over the Berners Bay population and would like to retain the ability to implement an antlerless moose hunt should the population or habitat conditions warrant that type of management.

Gustavus: The Gustavus moose population (Unit 1C) rapidly expanded from just a few animals in the 1980s and early 1990s to a peak of about 400 animals in 2003. In 2002 the department estimated the density of moose on the Gustavus Forelands winter range exceeded 5 moose per km^2 despite only a small proportion of the area consisting of productive (abundant willow) winter habitat. In response to concerns about moose damaging the winter habitat, the department initiated spring browse surveys in 1999 and determined that an unsustainable level (85% - 95%) of the current annual growth of willow twigs had been consumed by moose.

To conserve winter habitat the department requested the board authorize an antlerless moose hunt, and the first antlerless hunt was held in the fall of 2000. From 2002– 2008 hunters harvested between 11 and 67 antlerless moose annually, depending on the number of permits issued. No hunt

was held in fall 2007 due to high moose mortality during the severe winter of 2006-2007, and no antlerless hunts have been held since 2009.

The objective of antlerless moose hunts in Gustavus is to maintain the moose population using the winter range to levels commensurate with habitat capability. Based on aerial surveys corrected for sightability and annual browse surveys, management of the population using antlerless hunts has been successful. In 2013, under favorable survey conditions 186 moose (25 bulls, 121 cows, and 40 calves) were observed. The population estimate corrected for sightability was 323 +/- 87 moose. Under poor late winter survey conditions in March 2014 91 (24 cows, 12 calves, and 55 unknown) moose were seen yielding a sightability corrected population estimate of 244 +/- 98 moose. Due to exceptionally mild winter weather, at the time of this survey, a number of radiocollared moose had already transitioned to forested summer range outside the survey area. There was little snow cover during the winter of 2014–15, so no survey was attempted. A moose survey was completed in February 2020 and observed 91 moose (1 bull, 10 cows, 13 calves, and 67 unknown sex). The resulting population estimate was 188 ± 56 moose. This is slightly lower than the winter 2018 estimate of 218 $\pm$ 22 moose.

Severe winters from 2006 through 2009 reduced calf survival, but since then calf survival has improved. Even during severe winters survival of adult females remained high at about 89%. Given the improved survival rate of calves during successive mild winters and stable cow survival, the potential exists for the Gustavus moose population to rapidly increase.

The Gustavus moose population is currently at a level the department believes is appropriate for the available winter habitat. However, it is important to retain the ability to implement antlerless hunts should the population increase to a level that is detrimental to the habitat.

PROPOSED BY: Alaska Department of Fish and Game (HQ-F20-069)

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