

**ALASKA DEPARTMENT OF FISH AND GAME**  
**STAFF COMMENTS FOR PROPOSALS 48, 57, and 58**  
**CENTRAL / SOUTHWEST REGION PROPOSALS**  
**ALASKA BOARD OF GAME MEETING**  
**WASILLA, ALASKA**  
**JANUARY 10-17, 2025**



The following staff comments were prepared by the Alaska Department of Fish and Game for use at the Alaska Board of Game meeting, January 10-17, 2025 in Wasilla, Alaska, 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. Final department positions will be formulated after review of written and oral testimony presented to the board.

**PROPOSAL 48 - 5 AAC 92.121. Intensive Management Plan V.** Modify the intensive management plan in Unit 13 to include caribou.

**PROPOSED BY:** Copper Basin Advisory Committee

**WHAT WOULD THE PROPOSAL DO?** If adopted, the existing Intensive Management Plan for Unit 13 would be modified, or a new Intensive Management Plan for Unit 13 would be developed to include Nelchina caribou.

**WHAT ARE THE CURRENT REGULATIONS?** Under 92.108, the Board of Game has identified the Nelchina Caribou Herd (NCH) as important for providing high levels of harvest for human consumptive use and established an intensive management (IM) population objective of 35,000–40,000 caribou with a harvest objective of 3,000–6,000 caribou. There is also a positive customary and traditional use (C&T) finding for caribou in Units 12 and 13 with an amount reasonably necessary for subsistence (ANS) of 600–1,000 caribou.

**5 AAC 92.121. Intensive Management Plan V:**

(a) Plan established. The intensive management plan for the Unit 13 Wolf Predation Control Area is established in this section. (b) Unit 13 Wolf Predation Control Area: the Unit 13 Predation Control Area is established and consists of all lands within Units 13(A), 13(B), 13(C), 13(D), and that portion of Unit 13(E) east of the Alaska Railroad, except National Park Service and other federal lands where same-day-airborne take of wildlife is not allowed, encompassing approximately 21,066 square miles. The control program for this area is as follows: (1) this is a continuing control program that was first authorized by the board in 2000 for wolf control; it is currently designed to increase moose numbers and harvest by reducing predation on moose by wolves, thereby improving recruitment rates, and is expected to make a contribution to achieving the intensive management (IM) objectives in Unit 13; (2) moose and wolf objectives are as follows: (A) moose IM objectives for Units 13(A), 13(B), 13(C), 13(D), and 13(E) as established in 5 AAC 92.108 are 3,500 - 4,200, 5,300 - 6,300, 2,000 - 3,000, 1,200 - 1,900, and 5,000 - 6,000 moose respectively; (B) the moose harvest objectives for Units 13(A), 13(B), 13(C), 13(D), and 13(E) as established in 5 AAC 92.108 are 210 - 420, 310 - 620, 155 - 350, 75 - 190, and 300 - 600 moose respectively; (C) the department adopted 135 - 165 wolves as the late winter minimum abundance for Unit 13; maintaining this minimum population size will allow for sustained yield of wolves and will ensure that wolves persist in the control area; (3) board findings concerning populations and human use are as follows: (A) moose harvest has been consistently below IM objectives in Units 13(B), 13(C), and 13(E); (B) predation by wolves is an important cause of the failure to achieve population and harvest objectives; (C) a reduction in wolf predation in Unit 13 can reasonably be expected to make progress toward achieving the Unit 13(A), 13(B), 13(C), 13(D), and 13(E) IM objectives for moose; (D) reducing predation is likely to be effective and feasible using recognized and prudent active management techniques and based on scientific information;

(E) reducing predation is likely to be effective given land ownership patterns, and (F) reducing predation is in the best interest of subsistence users; Unit 13 has long been an important hunting area for subsistence by local area residents and much of the state's population in Anchorage, the Matanuska-Susitna Valley, as well as Fairbanks and other communities around the state; it is recognized under the state's intensive management law as an area where moose are to be managed for high levels of human consumptive use; (4) authorized methods and means are as follows: (A) hunting and trapping of wolves by the public in the Unit 13 Wolf Predation Control Area during the term of the program will occur as provided in the hunting and trapping regulations set out elsewhere in this title, including the use of motorized vehicles; (B) notwithstanding any other provisions in this title, the commissioner may issue public aerial permits or public land-and-shoot permits as a method for wolf removal under AS 16.05.783; (5) time frame is as follows: (A) through July 1, 2031, the commissioner may authorize the removal of wolves in the Unit 13 Wolf Predation Control Area; (B) annually, the department shall, to the extent practicable, provide to the board a report of program activities conducted during the preceding 12 months, including implementation activities, the status of moose and wolf populations, and recommendations for changes, if necessary, to achieve the objectives of the plan; (6) the commissioner will review, modify or suspend program activities as follows: (A) when the mid-point of the IM population and harvest objectives for the moose population is achieved; (B) when wolf inventories or accumulated information from permittees indicate the need to avoid reducing wolf numbers below the management objective of 135 wolves specified in this subsection; (C) if after three years, the harvest of wolves is not sufficient to make progress towards the intensive management population objectives for wolves; (D) predation control activities may be suspended (i) if after three years, there is no detectable increase in the total number of moose in the control area; (ii) if after three years, any measure such as estimates of rump fat, short-yearling mass, and twinning rates, consistent with significant levels of nutritional stress in the moose population are identified; (iii) when the moose population and harvest objectives within Unit 13 predation control area have been met.

(c) Habitat Enhancement. The department may plan and execute habitat enhancement projects in areas identified for improvement based on evidence at the landscape or population level through prescribed burns, wildfire, or mechanical means to increase the potential carrying capacity across the range in Unit 13.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** Incorporating Thresholds to activate predator control in Unit 13 based on Nelchina caribou population status would enable the department to activate wolf control in a subunit if the caribou population is low, even if the moose population in that subunit is above the midpoint of the abundance objective. This would necessitate that cow moose hunts be in place to take advantage of extra moose that may occur on the landscape and prevent overabundance of moose if predator numbers are reduced to aid Nelchina caribou. Cow moose hunts are not currently available in Unit 13, as the necessary Advisory Committees failed to reauthorize them in 2023 for RY2024. As such, this proposal has

the potential to negatively impact local moose populations where abundance is high. When moose populations are below the midpoint of the abundance objectives then this proposal would have no effect, as wolf control would already be active under the existing IM plan.

**BACKGROUND:** The Intensive Management plan that establishes the Unit 13 Wolf Predation Control Area has been in place since RY2001, although Unit 13C was not added until RY2005 and Unit 13D was not added until RY2022. In 2016 the board adopted a proposal to renew the Unit 13 IM plan which included a new format that conforms to the department's protocol for IM regulations. One of the changes included removing all references to caribou which keeps the IM plans species specific which follows guidance from statutes and regulations. Statute and regulation instructs IM findings and objectives to be made at the population level, not geographic location, and be species specific. Wolf control occurs in the winter, when snow conditions allow for effective tracking and removal of wolves. Wolf control is not activated in a subunit until moose composition and minimum count surveys are completed and moose population status is assessed in November, for a wolf control start date of January 1. Wolf control in Unit 13 is currently activated or suspended on a subunit level based on moose population status for each subunit (the board will also deliberate Proposals 39, 40, and 41 to adjust population and harvest objectives for moose in Unit 13, and Proposal 58 to adjust the wolf population objective in Unit 13). Wolf control would be most beneficial for Nelchina caribou in Units 13A, 13E, and 13B, as the Nelchina herd typically spends minimal time in Units 13C and 13D, although a portion of Unit 13C does include a regular migratory corridor for the herd.

With the recent decline of the Nelchina caribou herd, the department developed a feasibility assessment for intensive management of Nelchina caribou and submitted that assessment to the Board of Game at the March 2023 meeting in Soldotna as RC026. If adopted, the department will revisit the feasibility assessment and report to the board at a later date.

In many years, such as the winter of 2023/24, the Nelchina herd winters on federal lands and developing Nelchina thresholds for other areas outside of Unit 13 would not be relevant for years such as this past winter. Furthermore, developing additional thresholds for Nelchina caribou across other portions of the range without the ability to take advantage of extra animals in those areas (such as cow moose hunts) could cause detrimental results for moose and other caribou populations if a decrease in predators results in ungulate overabundance, specifically moose. Cow moose hunts were available in Unit 13A from RY2012 to RY2023 and in Units 13C and 13E in RY2023, which made it more reasonable to activate wolf control even if moose abundance was relatively high.

Bear control is not incorporated in the current Unit 13 Intensive Management plan for moose. However, a baseline population study was conducted in 1998 that determined a brown bear density estimate of 21.3 independent bears per 1,000 km<sup>2</sup> (95% CI=18.3–25.9). Based on an aerial capture-mark-resight density survey done on bears that were collared from 2006 to 2011 in Unit 13A, there was a 25–40% reduction in brown bear densities compared to the baseline study, with 13.0 independent bears per 1,000 km<sup>2</sup> estimated in 2011. Brown bear population density in the Unit

13A study area declined by 4% annually for independent bears and 2% annually for total number of bears (dependent cubs included) and harvest rates were estimated to be greater than 8% annually. This study was repeated from 2019 to 2022 although there was slight modification to the study area to improve future sampling. With an overlap of 1,752 km<sup>2</sup> between the two project areas, comparability remains difficult but preliminary analyses suggest that the brown bear population in the Unit 13A study area has stabilized at a level lower than 1998 and shows some increase in the total number of bears since 2011. The density of independent bears (which are subjected to hunting) have generally remained the same (2011:13/1,000 km<sup>2</sup> vs 2022: 14.8/1,000 km<sup>2</sup>) with average annual harvests prior to, and after 2011, of 140 and 138 respectively. While the density estimate for the Unit 13A study area may not be applicable to all other parts of Unit 13, these estimates serve as an index for the brown bear population over time. The generally lower population density for brown bears compared to the 1998 baseline is believed to be applicable to the Unit 13 population as a whole and the population is no longer in decline. An additional genetic mark-recapture study designed to provide additional insight and validation on the 2011/2022 capture-mark-resight population work is expected to be finalized soon.

The department is investigating cause-specific mortality of neonate caribou for the Nelchina herd, which began a with pilot effort in the spring of 2024. The pilot effort included deploying 32 neonate collars to gather calf weights comparable to the previous two seasons and identify causes of neonate mortality (calves are considered neonates within the first 15 days of life). The timing of collar deployment may have captured a slightly lower mortality rate compared to the entire 2024 cohort of calves born, but this effort included the collection of data on the temporal distribution of Nelchina caribou calving to inform future investigative efforts. Out of 32 calves, 6 died within the first 15 days of life (19%). All 6 mortalities were a result of predations and evidence strongly suggests that 4 of those deaths were caused by eagles while the other 2 deaths were caused by toothed predators such as brown bears, wolves, or wolverines. By late June a total of 12 of the 32 calves had died (38%), with initial evidence suggesting that all deaths were caused by predation; 6 most likely by eagles and 6 most likely by toothed predators such as bears, wolves, or wolverine. No evidence was identified to suggest that these calves were predisposed to predation risk due to other factors. The late June 2024 calf-to-cow ratio for the Nelchina herd was 46 calves per 100 cows, which supports the preliminary results suggesting that the Nelchina herd may have started with less than 85 calves per 100 cows and the timing of neonate collar deployment was likely to result in slightly lower mortality rates for the sampled calves compared to the overall calf cohort for 2024.

**DEPARTMENT COMMENTS:** The department **SUPPORTS** development of a caribou specific IM plan for the NCH to include public removal of wolves and department staff removal of wolves and bears. As noted above, the department develops species and population specific plans. The department does not support modifying the existing moose IM plan for Unit 13 to include caribou. Based on the direction of the board the department will develop a feasibility assessment for NCH IM and present this information to the board at a future meeting.

**COST ANALYSIS:** Adoption of this proposal would increase costs associated with Intensive Management administration.

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**PROPOSAL 57 - 5 AAC 92.132. Bag limit for brown bears and 85.020 (a)(12) Hunting seasons and bag limits for brown bears.** Increase the bag limit from one brown bear every regulatory year to two every regulatory year in Unit 13.

**PROPOSED BY:** Matanuska Valley Advisory Committee

**WHAT WOULD THE PROPOSAL DO?** The proposal would increase the bag limit for brown bears in Unit 13 from one bear every regulatory year to two bears every regulatory year. This would allow for the sale of brown bear hides harvested in Unit 13.

**WHAT ARE THE CURRENT REGULATIONS?** The current brown bear hunting regulations can be found in 5AAC 85.020 and in the *2024–25 Alaska Hunting Regulations*.

Unit 13E within Denali State Park: one bear every regulatory year, August 10–June 15.

Unit 13 remainder: one bear every regulatory year, no closed season.

- Take of cubs or sows with cubs is prohibited.
- Take of brown bears over registered bait stations in Unit 13 is allowed, April 15–June 30, and brown bears may be taken at bait stations the same day a person has flown, provided the hunter is 300 feet from the plane at the attempt to take game.
- No resident locking tag is required.
- Brown bears must be sealed within 30 days of kill.

5 AAC 92.200 allows for the skulls and hides with claws attached of brown bears harvested in areas where the bag limit is two bears per regulatory year to be sold under the conditions of a permit issued by the department. All bears intended for sale must be sealed as well.

There is a negative customary and traditional use finding for brown bear in Unit 13.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** If adopted, the bag limit of brown bears would increase from one to two bears per regulatory year in Unit 13 and brown bear hides (with claws attached) and skulls could be sold after sealing. If adopted, the proposal will create additional harvest opportunity for hunters.

**BACKGROUND:** Brown bear population data are available for limited portions of Unit 13. Annual brown bear harvests in Unit 13 were relatively stable from the mid-1990s through the mid-2010s, ranging from 103 to 166. Harvest increased in regulatory year (RY) 13–18 when the take of brown bears over bait was allowed in Unit 13, but since then, the harvest has stabilized at slightly lower levels (Table 57-1). The most recent five-year average harvest (2018–2022) of 139 is similar

to the previous five-year average of 142 bears annually (2013–2017), which was an increase over the previous five-year average of 135 bears (2008–2012).

In 2013, the spring harvest of brown bears over bait was allowed in Unit 13D, resulting in a 116% increase in the overall Unit 13D brown bear harvest. In 2013, 26 of 32 spring brown bear were harvested over bait. Harvest in Unit 13D dropped to more typical levels in 2014 but remained slightly higher in the following years (Table 57-1). During the spring of 2015 the harvest of brown bears over bait was allowed in all of Unit 13, and the overall harvest of brown bears increased by 49% compared to the previous year, with 41 of the 90 spring-harvested brown bears being taken over bait (Table 57-2). Harvest numbers are highest in Unit 13E and lowest in Unit 13C (Table 57-1). Differences in harvest levels between subunits can be attributed to multiple factors, including access, habitat, and overall subunit size. The percent of females in the Unit 13 harvest has increased in recent years, both in overall harvest and in harvest of bears over bait (Table 57-2). Bear baiting activity in Unit 13 has increased substantially since RY2013, with 247 bait stations registered in RY2023 (Table 57-3).

**Table 57-1.** Number of brown bears harvested in Unit 13 by subunit, regulatory years 2010 through 2023.

Regulatory Year	Unit 13A	Unit 13B	Unit 13C	Unit 13D	Unit 13E	Unit 13 Total
2010	34	18	3	27	56	138
2011	19	18	5	21	57	120
2012	24	20	12	25	48	129
2013 <sup>1</sup>	28	22	8	54	47	159
2014	10	14	10	24	45	103
2015 <sup>2</sup>	20	25	16	37	55	153
2016	33	27	11	32	44	147
2017	26	31	7	30	54	148
2018	23	33	10	25	59	150
2019	28	28	12	27	39	134
2020	20	20	14	20	64	138
2021	23	26	16	30	37	132
2022	29	36	10	17	47	139
2023 <sup>3</sup>	22	18	13	23	44	120
<i>Average<sup>4</sup></i>	<i>24</i>	<i>24</i>	<i>10</i>	<i>28</i>	<i>50</i>	<i>138</i>

<sup>1</sup> First year of spring brown bear take over bait in 13D, 26 brown bears taken over bait.

<sup>2</sup> First year of spring brown bear take over bait in all of Unit 13, 41 brown bears taken over bait.

<sup>3</sup> Harvest data has not been finalized for RY2023

<sup>4</sup> Not including RY2023

**Table 57-2.** Brown bear harvest by season and percent females in harvest in Unit 13, regulatory years 2010 through 2022.

Regulatory Year	Fall	Fall Females (%)	Spring	Spring Females (%)	Bait	Baited Females (%)	Total	Total Females (%)
2010	104	38 (37)	34	13 (38)	n/a	-	138	51 (37)
2011	79	35 (44)	41	12 (29)	n/a	-	120	47 (39)
2012	89	37 (42)	40	13 (33)	n/a	-	129	50 (39)
2013 <sup>1</sup>	102	44 (43)	57	16 (28)	26	8 (31)	159	60 (38)
2014	65	27 (42)	38	13 (34)	13	3 (23)	103	40 (39)
2015 <sup>2</sup>	63	28 (44)	90	33 (37)	41	13 (32)	153	61 (40)
2016	76	39 (51)	71	28 (39)	36	10 (28)	147	67 (46)
2017	85	39 (46)	63	26 (41)	30	13 (43)	148	65 (44)
2018	81	37 (46)	68	27 (40)	42	18 (43)	150	64 (43)
2019	65	31 (48)	69	30 (43)	39	17 (44)	134	61 (46)
2020	83	41 (49)	55	17 (31)	27	11 (41)	138	58 (42)
2021	69	30 (43)	62	31 (50)	29	13 (45)	131	61 (47)
2022	77	43 (56)	62	32 (52)	29	15 (52)	139	75 (54)

<sup>1</sup> First year of spring brown bear take over bait in 13D, 26 brown bears taken over bait.

<sup>2</sup> First year of spring brown bear take over bait in all of Unit 13, 41 brown bears taken over bait.

**Table 57-3.** Number of registered bear bait stations in Units 13 by subunit, regulatory years 2010 through 2023.

Regulatory Year	Unit 13A	Unit 13B	Unit 13C	Unit 13D	Unit 13E	Unit 13 Total <sup>1</sup>
2010	16	1	6	62	33	118
2011	22	3	4	95	29	153
2012	11	1	4	107	30	153
2013 <sup>1</sup>	17	1	8	139	25	198
2014	13	2	12	155	33	224
2015 <sup>2</sup>	34	24	23	139	47	274
2016	24	25	17	142	44	262
2017	25	31	18	145	49	284
2018	20	26	12	138	62	279



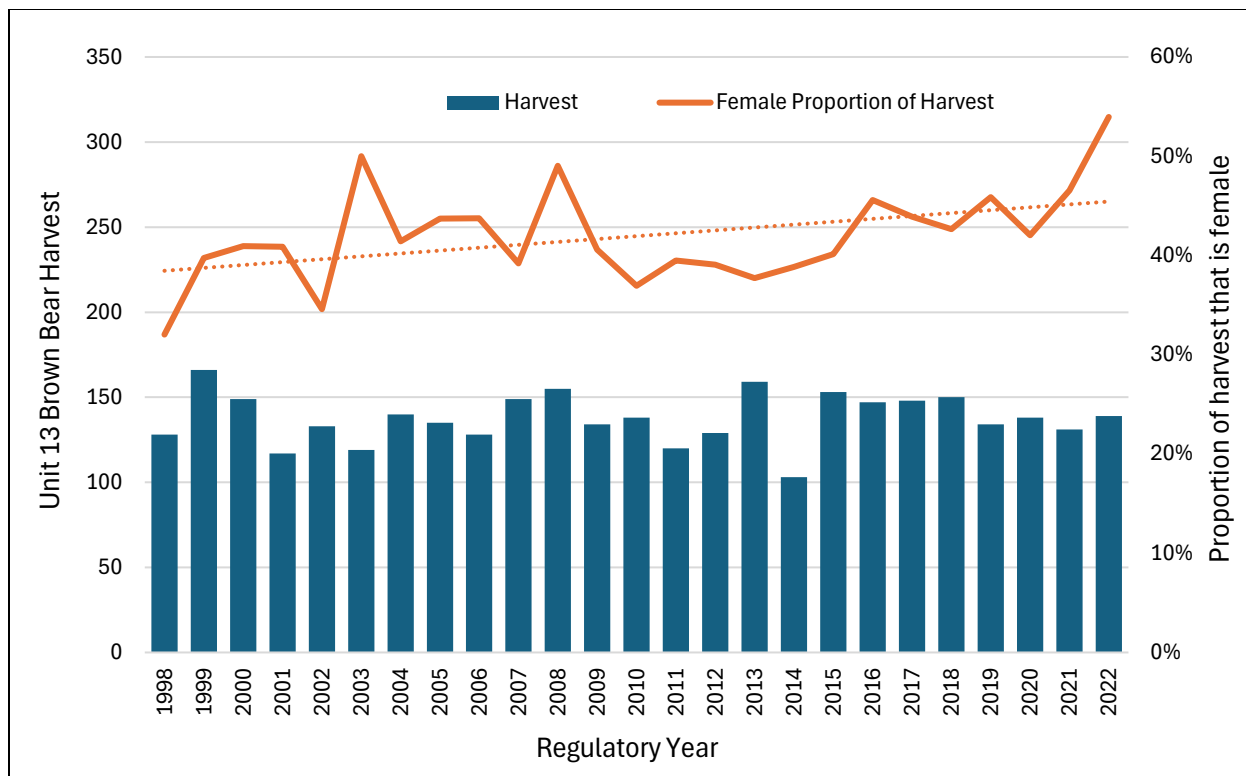
2019	22	23	18	114	52	232
2020	39	25	7	124	52	247
2021	36	17	12	122	48	235
2022	29	19	11	121	47	227
2023	48	31	8	111	49	247
<i>Average</i>	<i>22</i>	<i>15</i>	<i>12</i>	<i>124</i>	<i>41</i>	<i>209</i>

<sup>1</sup> Includes bait stations coded to 13Z.

<sup>2</sup> First year of spring brown bear take over bait in 13D, 26 brown bears taken over bait.

<sup>3</sup> First year of spring brown bear take over bait in all of Unit 13, 41 brown bears taken over bait.

In 1995, the board established a goal to reduce the population of brown bears in Unit 13 by increasing harvest opportunity while maintaining a minimum of 350 independent brown bears unitwide. The intention of this goal was to improve survival for moose calves. A baseline study was conducted in 1998 that determined a brown bear density estimate of 21.3 independent bears per 1,000 km<sup>2</sup> (95% CI=18.3–25.9). Based on an aerial capture-mark-resight survey done on bears in 2011 in Unit 13A, there was a 25–40% reduction in brown bear densities compared to the baseline study, with 13.0 independent bears per 1,000 km<sup>2</sup> estimated in 2011. Brown bear population density in the Unit 13A study area declined by 4% annually for independent bears and 2% annually for total number of bears (dependent cubs included) and harvest rates were estimated to be greater than 8% annually. This study was repeated in 2022 although there was slight modification to the study area to improve sampling. This change makes comparability with 2011 difficult, but preliminary analyses suggest that the brown bear population in the Unit 13A study area has stabilized at a level lower than 1998 and shows some increase in the total number of bears since 2011. The density of independent bears (which are subjected to hunting) have generally remained the same (2011:13/1,000 km<sup>2</sup> vs 2022: 14.8/1,000 km<sup>2</sup>) with average annual harvests prior to, and after 2011, of 140 and 138 respectively. While the density estimate for the Unit 13A study area may not be applicable to all other parts of Unit 13, these estimates serve as an index for the brown bear population over time. The generally lower population density for brown bears compared to the 1998 baseline is believed to be applicable to the Unit 13 population as a whole and the population is no longer in decline. An additional genetic mark-recapture study designed to provide additional insight and validation on the 2011/2022 capture-mark-resight population work is expected to be finalized soon.



**Figure XX-1.** Unit 13 brown bear harvest and proportion of harvest comprised by females, RY98–22.

2022 preliminary analyses support the protection of females and dependent offspring within the study population as a sufficient safeguard to avoiding sharp declines in population numbers at current harvest rates. Hunters often report seeing far more sows with cubs in Unit 13 than independent bears without cubs. Preliminary data suggests the population is being maintained at more than 350 independent brown bears in Unit 13, which is consistent with board guidance.

It is unclear if adoption of this proposal will result in additional brown bear harvest in Unit 13. Nonresident hunters are still required to be accompanied by a guide or resident relative within second degree of kindred to hunt brown bears, which is likely a limiting factor for those hunters.

Current brown bear harvest pressure is highest in areas with road access to public lands, especially those areas that are within closer driving distance to large population centers such as Anchorage and the Mat-Su Valley. Unit 13C receives less harvest pressure, as public lands are relatively further away and/or more difficult to access. This area may have relatively higher brown bear densities compared to 13A but increasing the brown bear bag limit for all of Unit 13 is not likely to focus harvest efforts to localized subunits where brown bear densities may be higher.

Two bear bag limits are available to hunters in nearby Units 12 and 16. The harvest data from these units were used to determine potential additional harvest if this proposal is adopted. The bag limit in Unit 12 increased to two bears in RY2024 and, of the successful hunters in that unit in the fall of 2024, no hunter harvested two bears. The bag limit in Unit 16A was increased to two bears per

year in RY2018 and, of the 129 brown bears taken since then, only 10 hunters in Unit 16A have sealed more than one bear in a year (1 in RY2018, 0 in RY2019, 2 in RY2020, 3 in RY2021, 2 in RY2022, 1 in RY2023, and 1 in RY2024).

**DEPARTMENT COMMENTS:** The department **SUPPORTS** this proposal to increase the brown bear bag limit in Unit 13. Although the brown bear population in Unit 13A declined after 1998, the recent Unit 13A population index suggests that the population is no longer in decline and has, at a minimum, stabilized. The 2022 index of all bears did show growth in Unit 13A. However the department is cautious in applying the population index across subunits and unit-wide. Some subunits such as 13C may have higher brown bear densities than others, but limitations such as access are likely to mitigate the potential for increased brown bear harvest if the bag limit is increased to two brown bears. It is not clear whether increasing the brown bear bag limit will result in increased harvest of brown bears in Unit 13 as a whole. As noted above the number of female bears harvested has increased. The department will monitor this closely but at this time there is not a conservation concern.

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

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**PROPOSAL 58 – 5 AAC 92.121. Intensive Management Plan V.** Reduce the minimum wolf population objective in the Unit 13 Intensive Management Plan.

**PROPOSED BY:** Copper Basin Advisory Committee

**WHAT WOULD THE PROPOSAL DO?** If adopted the existing Intensive Management Plan for Unit 13 would be modified to establish a late winter minimum abundance of 100 wolves, down from 135–165.

**WHAT ARE THE CURRENT REGULATIONS?** There is a positive customary and traditional use finding for wolves in Unit 13 with an amount reasonably necessary for subsistence of 8–24 wolves.

**5 AAC 92.121. Intensive Management Plan V:**

(a) Plan established. The intensive management plan for the Unit 13 Wolf Predation Control Area is established in this section. (b) Unit 13 Wolf Predation Control Area: the Unit 13 Predation Control Area is established and consists of all lands within Units 13(A), 13(B), 13(C), 13(D), and that portion of Unit 13(E) east of the Alaska Railroad, except National Park Service and other federal lands where same-day-airborne take of wildlife is not allowed, encompassing approximately 21,066 square miles. The control program for this area is as follows: (1) this is a continuing control program that was first authorized by the board in 2000 for wolf control; it is currently designed to increase moose numbers and harvest by reducing predation on moose by wolves, thereby improving recruitment rates, and is expected to make a contribution to achieving

the intensive management (IM) objectives in Unit 13; (2) moose and wolf objectives are as follows: (A) moose IM objectives for Units 13(A), 13(B), 13(C), 13(D), and 13(E) as established in 5 AAC 92.108 are 3,500 - 4,200, 5,300 - 6,300, 2,000 - 3,000, 1,200 - 1,900, and 5,000 - 6,000 moose respectively; (B) the moose harvest objectives for Units 13(A), 13(B), 13(C), 13(D), and 13(E) as established in 5 AAC 92.108 are 210 - 420, 310 - 620, 155 - 350, 75 - 190, and 300 - 600 moose respectively; (C) the department adopted 135 - 165 wolves as the late winter minimum abundance for Unit 13; maintaining this minimum population size will allow for sustained yield of wolves and will ensure that wolves persist in the control area; (3) board findings concerning populations and human use are as follows: (A) moose harvest has been consistently below IM objectives in Units 13(B), 13(C), and 13(E); (B) predation by wolves is an important cause of the failure to achieve population and harvest objectives; (C) a reduction in wolf predation in Unit 13 can reasonably be expected to make progress toward achieving the Unit 13(A), 13(B), 13(C), 13(D), and 13(E) IM objectives for moose; (D) reducing predation is likely to be effective and feasible using recognized and prudent active management techniques and based on scientific information; (E) reducing predation is likely to be effective given land ownership patterns, and (F) reducing predation is in the best interest of subsistence users; Unit 13 has long been an important hunting area for subsistence by local area residents and much of the state's population in Anchorage, the Matanuska-Susitna Valley, as well as Fairbanks and other communities around the state; it is recognized under the state's intensive management law as an area where moose are to be managed for high levels of human consumptive use; (4) authorized methods and means are as follows: (A) hunting and trapping of wolves by the public in the Unit 13 Wolf Predation Control Area during the term of the program will occur as provided in the hunting and trapping regulations set out elsewhere in this title, including the use of motorized vehicles; (B) notwithstanding any other provisions in this title, the commissioner may issue public aerial permits or public land-and-shoot permits as a method for wolf removal under AS 16.05.783; (5) time frame is as follows: (A) through July 1, 2031, the commissioner may authorize the removal of wolves in the Unit 13 Wolf Predation Control Area; (B) annually, the department shall, to the extent practicable, provide to the board a report of program activities conducted during the preceding 12 months, including implementation activities, the status of moose and wolf populations, and recommendations for changes, if necessary, to achieve the objectives of the plan; (6) the commissioner will review, modify or suspend program activities as follows: (A) when the mid-point of the IM population and harvest objectives for the moose population is achieved; (B) when wolf inventories or accumulated information from permittees indicate the need to avoid reducing wolf numbers below the management objective of 135 wolves specified in this subsection; (C) if after three years, the harvest of wolves is not sufficient to make progress towards the intensive management population objectives for wolves; (D) predation control activities may be suspended (i) if after three years, there is no detectable increase in the total number of moose in the control area; (ii) if after three years, any measure such as estimates of rump fat, short-yearling mass, and twinning rates, consistent with significant levels of nutritional stress in the moose population are identified; (iii) when the moose population and harvest objectives within Unit 13 predation control area have been

met. (c) Habitat Enhancement. The department may plan and execute habitat enhancement projects in areas identified for improvement based on evidence at the landscape or population level through prescribed burns, wildfire, or mechanical means to increase the potential carrying capacity across the range in Unit 13.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** Wolf control in Unit 13 is currently activated or suspended on a subunit level based on moose population status for each subunit. Most often at least one subunit is not active for IM to ensure a minimum of 135 wolves remain in the Unit as required by the adopted IM plan. If this proposal were adopted and the minimum number of wolves is reduced, it may be feasible to have wolf control active in all Unit 13 subunits in a given winter if moose populations in all subunits warrant active wolf control.

**BACKGROUND:** The Intensive Management plan that establishes the Unit 13 Wolf Predation Control Area has been in place since RY2001, although Unit 13C was not added until RY2005 and Unit 13D was not added until RY2022. Wolf control occurs in the winter, when snow conditions allow for effective tracking and removal of wolves. Wolf control is not activated in a subunit until moose composition and minimum count surveys are completed and moose population status is assessed in November, for a wolf control start date of January 1. Starting control in January also gives trappers from October 15 to December 31 to trap without competing with control activities. The current trapping and control seasons are set in consideration of allocation between trappers and SDA pilots.

The current Intensive Management plan is for moose in Unit 13; objectives are set for moose and wolves. Nelchina caribou are not included in the current plan. In most years the majority of the Nelchina caribou herd leaves Unit 13 in the winter, although that may change because caribou numbers have declined which may change the distribution of wintering caribou. Even so, Nelchina caribou calve in Unit 13A, spend most of the summer in 13A and 13E, spend some time in the summer and fall in 13B, and often migrate through 13C, but adult survival during these portions of the year is generally very high.

**DEPARTMENT COMMENTS:** The department is **NEUTRAL** on the allocation of wolves between user groups, and recommends the board adopt a range rather than a single number objective to allow for flexibility in determining when to stop control efforts. The department has no biological concern for the wolf population at the proposed level or below that level. The department is not concerned about the sustainability of the wolf population and would consider a goal of 0 wolves in the predation control area biologically sustainable as wolves have high reproductive rates, readily disperse, and the control area has sufficient refugia within and around it to allow rapid recolonization. It is reasonable to assume, however, that a decrease in wolf abundance in Unit 13 could potentially have an impact on herd recovery, especially if portions of the herd choose to winter in Unit 13. That said, reducing the minimum number of wolves in Unit 13 from a range of 135-165 to 100 is not likely to have a measurable effect on Nelchina caribou population recovery. The Intensive Management plan in question is for moose, not caribou, and if

the proposal is adopted it is not likely to have a measurable effect on the population recovery of the Nelchina caribou herd. The department recommends the board amend the proposal to allow department staff to conduct wolf control. Conditions, access and interest from the public have been sufficient to reduce wolf numbers when the program is active, however there may be a time when it is appropriate for the department to conduct wolf removal and at the moment the option for department removal is not in the plan. If the board wants to create an intensive management plan to benefit the Nelchina caribou herd the department recommends the board create, with input from the department, a separate plan with appropriate predator and prey objectives and methods of removing specific predators that suppress caribou herd numbers, and that the plan include the ability for department staff to conduct control efforts which includes the removal of bears and wolves.

**COST ANALYSIS:** Adoption of this proposal is not expected to increase costs for the department.

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