ALASKA DEPARTMENT OF FISH AND GAME

STAFF COMMENTS

INTERIOR / EASTERN ARCTIC REGION PROPOSALS 43-46, 55, 56, 59, 60, 93-99, 104-107, 119, 122, 123, 139, 154, 171, 179, 182-185, 192, 195, and 207

ALASKA BOARD OF GAME MEETING

FAIRBANKS, ALASKA

MARCH 15-22, 2024

The following staff comments were prepared by the Alaska Department of Fish and Game for use at the Alaska Board of Game meeting, March 15-22, 2024 in Fairbanks, 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 43 – 5 AAC 85.055. Hunting seasons and bag limits for Dall sheep.

PROPOSED BY: Upper Tanana/Fortymile Fish and Game Advisory Committee

WHAT WOULD THE PROPOSAL DO?

This proposal seeks to change all general season sheep harvest tickets in the Interior Region (Region III), which includes Units 12, 19, 20, 21, 24, 25, 26B, and 26C, to registration permits. Alternatively, the proposal seeks to change all general season sheep harvest tickets in Unit 12 to registration permits. The proposal would also limit opportunity by only allowing a hunter to obtain a registration permit once every two years.

WHAT ARE THE CURRENT REGULATIONS?

Table 1. The bag limit and season dates for all Region III Units where a general season harvest ticket is required. Drawing hunts, current registration hunts, and areas with no open season are not included.

Unit/Area	Bag Limit	Open season (Permit/Hunt#)	
		Resident	Nonresident
Unit 12 remainder, 19A, 19B, 19C, 19D, 19E, 20, 25B, 25C. 25D remainder, 24A remainder, 24B remainder, 25A remainder, 26B remainder, and 26C	One ram with full-curl horn or larger	1–5 August (Harvest ticket, Youth hunt)	
	One ram with full-curl horn or larger every 4 regulatory years		1–5 August (Harvest ticket, Youth hunt)
	One ram with full-curl horn or larger	10 August–20 September (Harvest ticket)	
	One ram with full-curl horn or larger every 4 regulatory years		10 August–20 September (Harvest ticket)
Unit 19C	One ram with full-curl horn or larger	10 August–20 September (Harvest ticket)	
Unit 24A, 25A, and 26B within the Dalton Highway Corridor Management Area	One ram with full-curl horn or larger	1–5 August (Harvest ticket, Youth hunt)	
	One ram with full-curl horn or larger every 4 regulatory years		1–5 August (Harvest ticket, Youth hunt)
	One ram with full-curl horn or larger	10 August–5 October (Harvest ticket)	

	One ram with full-curl horn or larger every 4 regulatory years		10 August–5 October (Harvest ticket)
Unit 24B within the John River drainage upstream Till Creek and that portion within the Glacier River drainage, Unit 26B -within Gates of the Arctic National Park	Three sheep	1 August–30 April (Harvest ticket)	
Unit 25A within the Eastern Brooks Range Management Area	One ram with full-curl horn or larger	1–5 August (Harvest ticket, Youth hunt)	

Table 2. Customary and Traditional Use findings and Amounts Reasonably Necessary for Subsistence for Region III Units.

Unit (Sheep)	Customary & Traditional use finding	Amount Reasonably Necessary for Subsistence
12 - portion within the TMA[a]	negative	-
19	positive	1–5
20 - within TMA and DMA[b]	negative	-
23, 24, 25A, and 26 Brooks Range	positive	75–125
25B and 25C	negative	-

[a] TMA=Tok Management Area

[b] DMA = Delta Management Area (Also Known as the Delta Controlled Use Area)

There is no C&T finding for that portion of Unit 12 outside of the TMA.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? There would be no general season harvest ticket hunts for sheep in Region III. Resident hunters would not be able to hunt more frequently than every other year, however if drawn for a sheep permit in the region or elsewhere in the state, this change would not prohibit the hunter from using the drawing permit. It is unclear what the change would do for nonresidents, who already have a bag limit of one sheep every four regulatory years

BACKGROUND: Sheep hunting in Region III has predominately been managed using the conservative full-curl ram harvest management strategy. The full-curl strategy is conservative because it focuses harvest pressure on: 1) older-aged animals, 2) males-only, and 3) a small

segment of the population. Dall sheep rams on average become full-curl at eight years of age or older, and previous research has shown that these older rams have naturally higher mortality rates than younger aged rams. Therefore, when hunters harvest a full-curl ram, this has a lower impact on the population compared to harvesting a younger ram because there is a higher likelihood the older ram would have died of natural causes. Additionally, limiting harvest to males-only reduces the impact of harvest on the overall population because male survival rates have a lower impact on population growth compared to female survival rates. Finally, the full-curl strategy is extremely conservative because full-curl animals compose a very small proportion of most sheep populations. As a result, the number of animals that are legally available to hunters is a small proportion of the population and this imposes a self-limit on overharvest of the population. Taken collectively, the full-curl harvest strategy limits harvest to only older-aged rams and is thus a conservative, self-limiting strategy that allows for maximum hunter opportunity while simultaneously preventing overharvest and has minimum impacts on population growth.

Minimum count surveys throughout Region III suggest there has been a 40-70% decline in sheep populations since the most recent highs which occurred during 2010-2012. The decline in abundance mirrors the declines reported by the National Park Service in Denali and Gates of the Arctic National parks, as well as reported declines in sheep numbers throughout the Yukon Territory and British Columbia. Severe weather, including prolonged springs and icing events, likely caused a near collapse of recruitment in some years, as well as increased adult mortality (Rattenbury et al. 2018, Van de Kirk et al. 2020).

Weather-related sheep population declines are not without precedent. For example, Murie (1944) reported a robust population of Dall sheep in Denali National Park in 1928, but record snow fall and harsh winter conditions during the winters of 1928/1929 and 1931/1932 resulted in a sharp reduction in sheep abundance. A more contemporary example was observed in Unit 20A where sheep populations and harvest in this unit was high until a weather-related population decline during the winter of 1992/1993. Managers chose to maintain the hunt structure as a general season harvest ticket hunt open to both residents and nonresidents. Although it took on the order of 15-20 years to rebuild, sheep populations and harvest returned to pre-decline levels, and it is unlikely that the conservative harvest of full-curl rams during this period slowed the population recovery.

Since 2000, total sheep harvested in Region III units has averaged 68% (range: 52% - 76%) of the total statewide take. Although there is a liberal 42-day general season spanning August 10 - September 20, more than half of the harvest occurs within the first 10 days of the season. Horn morphometric work by the department has demonstrated that on a statewide basis for the years 2016-2021, between 57%–66% of the rams harvested each year were legally available for harvest at least one previous hunting season after attaining 360 degrees of curl. Sheep hunters have ample opportunity to hunt after the first 10 days of the season and avoid either real or perceived overcrowding. Sheep hunter participation in Region III peaked in 1989 with 1,777 reported hunters and has averaged 1,358 (Range: 1,557 -1,038) for the years 2000-2022. The high of 1,557 hunters in 2008, coincided with the implementation of a draw hunt system for

sheep hunting in units 13D and 14A south and east of the Matanuska River. There was a substantial drop in hunter participation in 2022 (n=1038), which suggests that hunters are either self-regulating during the current low sheep population levels and/or were impacted by recent federal (e.g. Federal Subsistence Board closure of sheep hunting in portions of the Brooks Range) or state closures (e.g. 19C closure for non-residents). Success rates for resident sheep hunters in Region III between 2000-2022 has averaged 29.7% (Range: 34.2% - 18.6%). For comparison, success rates for resident moose hunters in Region III between 2000 and 2022 have averaged 23.1% (range: 29.6% - 17.9%). Since 2000 the percentage of resident hunters participating in consecutive general harvest sheep seasons in Region III has ranged from 15.5% to 32.8%. Success rates for hunters who participate in consecutive years does not differ significantly from hunters who do not.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal. This proposal would reduce resident, and potentially, nonresident sheep hunting opportunities throughout Region III. There are positive customary and traditional use findings and corresponding ANS ranges for sheep in some of the affected units in this proposal and the board may wish to consider whether reasonable opportunity would be provided under a registration permit hunt structure that does not allow hunting every year. In addition, there are monetary and hunting privilege consequences for not reporting on registration permits. Adoption of this proposal would not change the nonresident hunter bag limit of one ram every four years; however, it would prohibit unsuccessful nonresidents from hunting sheep in consecutive years.

There is no biological concern with the current hunt management structure and the full-curl bag limit. However, a registration permit hunt which restricts sheep hunting opportunity to every other year in Region III may reduce the number of hunters in the field and improve success rates, due to less competition. Alternatively, there may be no reduction in people in the field if hunting partners strategize on obtaining their individual permits every other year. Lastly, units outside of Region III, particularly neighboring regions II and IV could see an increase in competition from sheep hunters who were displaced from Region III that wish to hunt sheep every year.

There are not currently any other registration hunts in the state that prevent hunters from obtaining a permit in consecutive years. Adoption of the proposal will create a new administrative challenge and the department may have some difficulty tracking hunters from year to year. This change appears to mimic existing drawing hunt regulations which prevent a hunter from obtaining the same drawing permit two years in a row, however the same regulations do not currently exist for any registration permits.

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

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PROPOSAL 44 – 5 AAC 85.055. Hunting seasons and bag limits for Dall sheep.

PROPOSED BY: Jeff Pralle

WHAT WOULD THE PROPOSAL DO? Reduce the sheep bag limit for resident hunters in Units 12, 19, 20, 24, 25, 26B and 26C to one ram with full-curl horns or larger every two regulatory years.

WHAT ARE THE CURRENT REGULATIONS?

Table 1. The bag limit and season dates for all Region III Units where a general season harvest ticket is required. Drawing hunts, current registration hunts, and areas with no open season are not included.

Unit/Area	Bag Limit	Open season (Permit/Hunt#)	
		Resident	Nonresident
Unit 12 remainder, 19A, 19B, 19C, 19D, 19E, 20, 25B, 25C. 25D remainder, 24A remainder, 24B remainder, 25A remainder, 26B remainder, and 26C	One ram with full-curl horn or larger	1–5 August (Harvest ticket, Youth hunt)	
	One ram with full-curl horn or larger every 4 regulatory years		1–5 August (Harvest ticket, Youth hunt)
	One ram with full-curl horn or larger	10 August–20 September (Harvest ticket)	
	One ram with full-curl horn or larger every 4 regulatory years		10 August–20 September (Harvest ticket)
Unit 19C	One ram with full-curl horn or larger	10 August–20 September (Harvest ticket)	
Unit 24A, 25A, and 26B within the Dalton Highway Corridor Management Area	One ram with full-curl horn or larger	1–5 August (Harvest ticket, Youth hunt)	
	One ram with full-curl horn or larger every 4 regulatory years		1–5 August (Harvest ticket, Youth hunt)
	One ram with full-curl horn or larger	10 August–5 October (Harvest ticket)	
	One ram with full-curl horn or larger every 4 regulatory years		10 August–5 October (Harvest ticket)

Unit 24B within the John River drainage upstream Till Creek and that portion within the Glacier River drainage, Unit 26B -within Gates of the Arctic National Park	Three sheep	1 August–30 April (Harvest ticket)
Unit 25A within the Eastern Brooks Range Management Area	One ram with full-curl horn or larger	1–5 August (Harvest ticket, Youth hunt)

Table 2. Customary and Traditional Use findings and Amounts Necessary for Subsistence for Region III Units.

Unit (Sheep)	Customary & Traditional use finding	Amount Necessary for Subsistence
12 - portion within the TMA[a]	negative	-
19	positive	1–5
20 - within TMA and DMA[b]	negative	-
23, 24, 25A, and 26 Brooks Range	positive	75–125
25B and 25C	negative	-

[a] TMA=Tok Management Area

[b] DMA = Delta Management Area (Also Known as the Delta Controlled Use Area)

There is no C&T finding for that portion of Unit 12 outside of the TMA.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Resident hunters would only be allowed to harvest a Dall sheep once every 2 years in Region III.

BACKGROUND: Sheep hunting in Region III has predominately been managed using the conservative full-curl ram harvest management strategy. The full-curl strategy is conservative because it focuses harvest pressure on: 1) older-aged animals, 2) males-only, and 3) a small segment of the population. Dall sheep rams on average become full-curl at eight years of age or older, and previous research has shown that these older rams have naturally higher mortality rates than younger aged rams. Therefore, when hunters harvest a full-curl ram, this has a lower impact on the population compared to harvesting a younger ram because there is a higher likelihood the older ram would have died of natural causes. Additionally, limiting harvest to males-only reduces the impact of harvest on the overall population because male survival rates have a lower impact on population growth compared to female survival rates. Finally, the full-

curl strategy is extremely conservative because full-curl animals compose a very small proportion of most sheep populations. As a result, the number of animals that are legally available to hunters is a small proportion of the population and this imposes a self-limit on overharvest of the population. Taken collectively, the full-curl harvest strategy limits harvest to only older-aged rams and is thus a conservative, self-limiting strategy that allows for maximum hunter opportunity while simultaneously preventing overharvest and has minimum impacts on population growth.

Minimum count surveys throughout Region III suggest there has been a 40-70% decline in sheep populations since the most recent highs which occurred during 2010–2012. The decline in abundance mirrors the declines reported by the National Park Service in Denali and Gates of the Arctic National parks, as well as reported declines in sheep numbers throughout the Yukon Territory and British Columbia. Severe weather, including prolonged springs and icing events, likely caused a near collapse of recruitment in some years, as well as increased adult mortality (Rattenbury et al. 2018, Van de Kirk et al. 2020).

Weather-related sheep population declines are not without precedent. For example, Murie (1944) reported a robust population of Dall sheep in Denali National Park in 1928, but record snowfall and harsh winter conditions during the winters of 1928/1929 and 1931/1932 resulted in a sharp reduction in sheep abundance. A more contemporary example was observed in Unit 20A where sheep populations and harvest in this unit was high until a weather-related population decline during the winter of 1992/1993. Managers chose to maintain the hunt structure as a general season harvest ticket hunt open to both residents and nonresidents. Although it took on the order of 15-20 years to rebuild, sheep populations and harvest returned to pre-decline levels, and it is unlikely that the conservative harvest of full-curl rams during this period slowed the population recovery.

Since 2000, total sheep harvested in Region III Units has averaged 68% (range: 52% - 76%) of the total statewide take. Although there is a liberal 42-day general season spanning August 10 - September 20, more than half of the harvest occurs within the first 10 days of the season. Horn morphometric work by the department has demonstrated that on a statewide basis for the years 2016-2021, between 57%–66% of the rams harvested each year were legally available for harvest at least one previous hunting season after attaining 360 degrees of curl. Sheep hunters have ample opportunity to hunt after the first 10 days of the season and avoid either real or perceived overcrowding. Sheep hunter participation in Region III peaked in 1989 with 1,777 reported hunters and has averaged 1,358 (Range: 1,557 -1,038) for the years 2000-2022. The high of 1,557 hunters in 2008, coincided with the implementation of a draw hunt system for sheep hunting in Units 13D and 14A south and east of the Matanuska River. There was a substantial drop in hunter participation in 2022 (n=1038), which suggests that hunters are either self-regulating during the current low sheep population levels and/or were impacted by recent federal (e.g. Federal Subsistence Board closure of sheep hunting in portions of the Brooks Range) or state closures (e.g. 19C closure for non-residents). Success rates for resident sheep hunters in Region III between 2000-2022 has averaged 29.7% (Range: 34.2% - 18.6%). For comparison, success rates for resident moose hunters in Region III between 2000 and 2022 has

averaged 23.1% (Range: 29.6% - 17.9%). Since 2000 the percentage of resident hunters participating in consecutive general harvest sheep seasons in Region III has ranged from 15.5% to 32.8%. Success rates for hunters who participate in consecutive years does not differ significantly from hunters who do not.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal. This proposal would reduce resident sheep hunting opportunities throughout Region III. There is a positive customary and traditional use finding and corresponding ANS for sheep in some of the affected Units in this proposal and the board may wish to consider if reasonable opportunity would be provided for if the bag limit for sheep is changed to one sheep every two regulatory years. Adoption of this proposal would not change the nonresident hunters bag limit of one ram every four years. Currently, there is no C&T finding in Unit 12 for sheep outside of the TMA. If any portion of this hunt occurs outside of the TMA, the board may wish to make a C&T finding for sheep in those areas.

There is no biological concern with the current hunt management structure and the full curl bag limit. However, changing the bag limit for residents to one ram with full-curl horn or larger every two regulatory years in Region III may reduce the number of hunters in the field and improve success rates, due to less competition. Alternatively, there may be no reduction in success rates if accomplished resident sheep hunters are prohibited from participation. It is unclear from the proposals if the one full-curl ram every two year bag limit in Region III would prohibit resident sheep hunters from participating in hunts in other regions or if hunters who harvest a sheep outside of Region III units would be prohibited from hunting in Region III units the next year. Lastly, units outside of Region III, particularly neighboring regions II and IV could see an increase in competition from sheep hunters who were displaced from Region III that wish to hunt sheep every year.

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

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PROPOSAL 45 – 5 AAC 85.055. Hunting seasons and bag limits for Dall sheep.

PROPOSED BY: Spencer Pape, Seth Kroenke, Jeff Rost and Jon Burrows

WHAT WOULD THE PROPOSAL DO? Reduce the sheep bag limit for resident hunters in Units 12, 19, 20, 24, 25, 26B and 26C to one ram with full-curl horn or larger every four regulatory years.

WHAT ARE THE CURRENT REGULATIONS?

Table 1. The bag limit and season dates for all Region III Units where a general season harvest ticket is required. Drawing hunts, current registration hunts, and areas with no open season are not included.

Unit/Area	Bag Limit	Open season (Permit/Hunt#)	
		Resident	Nonresident
Unit 12 remainder, 19A, 19B, 19C, 19D, 19E, 20, 25B, 25C. 25D remainder, 24A remainder, 24B remainder, 25A remainder, 26B remainder, and 26C	One ram with full-curl horn or larger	1–5 August (Harvest ticket, Youth hunt)	
	One ram with full-curl horn or larger every 4 regulatory years		1–5 August (Harvest ticket, Youth hunt)
	One ram with full-curl horn or larger	10 August–20 September (Harvest ticket)	
	One ram with full-curl horn or larger every 4 regulatory years		10 August–20 September (Harvest ticket)
Unit 19C	One ram with full-curl horn or larger	10 August–20 September (Harvest ticket)	
Unit 24A, 25A, and 26B within the Dalton Highway Corridor Management Area	One ram with full-curl horn or larger	1–5 August (Harvest ticket, Youth hunt)	
	One ram with full-curl horn or larger every 4 regulatory years		1–5 August (Harvest ticket, Youth hunt)
	One ram with full-curl horn or larger	10 August–5 October (Harvest ticket)	
	One ram with full-curl horn or larger every 4 regulatory years		10 August–5 October (Harvest ticket)
Unit 24B within the John River drainage upstream Till Creek and that portion within the Glacier River drainage, Unit 26B -within Gates of the Arctic National Park	Three sheep	1 August–30 April (Harvest ticket)	
Unit 25A within the Eastern Brooks Range Management Area	One ram with full-curl horn or larger	1–5 August (Harvest ticket, Youth hunt)	

Table 2. Customary and Traditional Use findings and Amounts Necessary for Subsistence for Region III Units.

Unit (Sheep)	Customary & Traditional use finding	Amount Necessary for Subsistence
12 - portion within the TMA[a]	negative	-
19	positive	1–5
20 - within TMA and DMA[b]	negative	-
23, 24, 25A, and 26 Brooks Range	positive	75–125
25B and 25C	negative	-

[a] TMA=Tok Management Area

[b] DMA = Delta Management Area (Also Known as the Delta Controlled Use Area)

There is no C&T finding for that portion of Unit 12 outside of the TMA.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Resident hunters would only be allowed to harvest a Dall sheep once every 4 years in Region III.

BACKGROUND: Sheep hunting in Region III has predominately been managed using the conservative full-curl ram harvest management strategy. The full-curl strategy is conservative because it focuses harvest pressure on: 1) older-aged animals, 2) males-only, and 3) a small segment of the population. Dall sheep rams on average become full-curl at eight years of age or older, and previous research has shown that these older rams have naturally higher mortality rates than younger aged rams. Therefore, when hunters harvest a full-curl ram, this has a lower impact on the population compared to harvesting a younger ram because there is a higher likelihood the older ram would have died of natural causes. Additionally, limiting harvest to males-only reduces the impact of harvest on the overall population because male survival rates have a lower impact on population growth compared to female survival rates. Finally, the full-curl strategy is extremely conservative because full-curl animals compose a very small proportion of most sheep populations. As a result, the number of animals that are legally available to hunters is a small proportion of the population and this imposes a self-limit on overharvest of the population. Taken collectively, the full-curl harvest strategy limits harvest to only older-aged rams and is thus a conservative, self-limiting strategy that allows for maximum hunter opportunity while simultaneously preventing overharvest and has minimum impacts on population growth.

Minimum count surveys throughout Region III suggest there has been a 40-70% decline in sheep populations since the most recent highs which occurred during 2010–2012. The decline in abundance mirrors the declines reported by the National Park Service in Denali and Gates of the Arctic National parks, as well as reported declines in sheep numbers throughout the Yukon Territory and British Columbia. Severe weather, including prolonged springs and icing events,

likely caused a near collapse of recruitment in some years, as well as increased adult mortality (Rattenbury et al. 2018, Van de Kirk et al. 2020).

Weather-related sheep population declines are not without precedent. Murie (1944) reported a robust population of Dall sheep in Denali National Park in 1928, but record snowfall and harsh winter conditions during the winters of 1928/1929 and a corresponding sharp reduction in sheep abundance in 1931/1932. A more contemporary example occurred in Unit 20A where sheep populations and harvest in this unit was high until a weather-related population decline during the winter of 1992/1993. Managers chose to maintain the hunt structure as a general season harvest ticket hunt open to both residents and nonresidents. Although it took about 15-20 years to rebuild, sheep populations and harvest returned to pre-decline levels. It is unlikely that the conservative harvest of full-curl rams during this period slowed the population recovery.

Since 2000, total sheep harvested in Region III units has averaged 68% (range: 52% - 76%) of the total statewide take. Although there is a 42-day general season spanning August 10 - September 20, more than half of the harvest occurs within the first 10 days of the season. Horn morphometric work by the department has demonstrated that on a statewide basis for the years 2016-2021, between 57%–66% of the rams harvested each year were legally available for harvest at least one previous hunting season after attaining 360 degrees of curl. Sheep hunters have ample opportunity to hunt after the first 10 days of the season and avoid either real or perceived overcrowding. Sheep hunter participation in Region III peaked in 1989 with 1,777 reported hunters and has averaged 1,358 (Range: 1,557 -1,038) for the years 2000-2022. The high of 1,557 hunters in 2008, coincided with the implementation of a draw hunt system for sheep hunting in units 13D and 14A south and east of the Matanuska River. There was a substantial drop in hunter participation in 2022 (n=1038), which suggests that hunters are either self-regulating during the current low sheep population levels and/or were impacted by recent federal (e.g. Federal Subsistence Board closure of sheep hunting in portions of the Brooks Range) or state closures (e.g. 19C closure for non-residents). Success rates for resident sheep hunters in Region III between 2000-2022 has averaged 29.7% (range: 18.6% - 34.2%). For comparison, success rates for resident moose hunters in Region III between 2000 and 2022 have averaged 23.1% (range: 17.9% - 29.6%). Since 2000 the percentage of resident hunters participating in consecutive general harvest sheep seasons in Region III has ranged from 15.5% to 32.8%. Success rates for hunters who participate in consecutive years does not differ significantly from hunters who do not.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal. This proposal would reduce resident sheep hunting opportunities throughout Region III. There is a positive customary and traditional use (C&T) finding and corresponding ANS for sheep in some of the affected units in this proposal and the board may wish to consider if reasonable opportunity would be provided if the bag limit for sheep is changed to one sheep every four regulatory years. Currently, there is no C&T finding in some Region III units listed in this proposal. If any portion of the hunts affected by this proposal occurs in those areas, the board may wish to make C&T findings for sheep in those areas. Adoption of this proposal would not change the nonresident hunters bag limit of one ram every four years.

There is no biological concern with the current hunt management structure and the full curl bag limit. However, changing the bag limit for residents to one ram with full-curl horn or larger every four regulatory years in Region III may reduce the number of hunters in the field and improve success rates, due to less competition. Alternatively, there may be no reduction in success rates if accomplished resident sheep hunters are prohibited from participation. It is unclear from the proposals if the one full-curl ram every four year bag limit in Region III would prohibit resident sheep hunters from participating in hunts in other regions or if hunters who harvest a sheep outside of Region III units would be prohibited from hunting in Region III units the next three years. Lastly, units outside of Region III, particularly neighboring regions II and IV could see an increase in competition from sheep hunters who were displaced from Region III that wish to hunt sheep every year.

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

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PROPOSAL 46 – 5 AAC 85.055. Hunting seasons and bag limits for Dall sheep and 5 AAC 92.057. Special provisions for Dall sheep and mountain goat drawing permit hunts.

PROPOSED BY: Dan Montgomery

WHAT WOULD THE PROPOSAL DO? Change all harvest ticket sheep hunting in Units 12, 19, and 20 to drawing permit for residents and nonresidents. Under this proposal, 80% of the permits would be allocated to residents and 20% would be allocated to nonresidents. Second degree of kindred non-residents would be allocated 10% of the 20% (For example: if 100 permits were available, 80 would go to residents, 18 would go to guided non-residents, and 2 would go to second degree of kindred non-residents). Once sheep populations recover to 75% of the last count completed before 2020, the hunt structure would revert to a harvest ticket.

WHAT ARE THE CURRENT REGULATIONS?

Unit/Area	Bag Limit	Open season (Permit/Hunt#)	
		Resident	Nonresident
Units 12, 20 remainder, Units 19A, 19B, 19C, 19D	One ram with full-curl horn or larger	1–5 August (Harvest ticket, Youth hunt)	
	One ram with full-curl horn or larger every 4 regulatory years		1–5 August (Harvest ticket, Youth hunt)
	One ram with full-curl horn or larger	10 August–20 September (Harvest ticket)	

	One ram with full-curl horn or larger every 4 regulatory years		10 August–20 September (Harvest ticket)
Unit 12, 20D within the Tok Management Area	One ram with full-curl horn or larger every 4 regulatory years	10-25 August (Draw Permit DS102)	10-25 August (Draw Permit DS102)
	One ram with full-curl horn or larger every 4 regulatory years	26 August-220 September (Draw Permit DS103)	26 August-220 September (Draw Permit DS103)
Unit 20A, 20D portions within Delta Controlled Use Area	One ram with full-curl horn or larger	10-25 August (Draw Permit DS203)	
	One ram with full-curl horn or larger every 4 regulatory years		26 August-220 September (Draw Permit DS203)
	One ram with full-curl horn or larger	10-25 August (Draw Permit DS204)	
	One ram with full-curl horn or larger every 4 regulatory years		26 August-220 September (Draw Permit DS204)
Unit 20D, 20E north of the Alaska Highway; and north and west of the north bank of the Middle Fork of the Fortymile River upstream from and including the Joseph Creek drainage	One ram with full-curl horn or larger every 4 regulatory years		10 August 1 20 September (Draw Permit DS206)
Unit 19 C	One ram with 3/4 curl horn or smaller; excluding rams with both tips broken.	1 October - 30 April (Registration Permit RS380)	

Table 2. Customary and Traditional Use findings and Amounts Necessary for Subsistence Uses for Region III Units.

Unit (Sheep)	Customary & Traditional use finding	Amounts Necessary for Subsistence Uses
12 - portion within the TMA[a]	negative	-
19	positive	1–5
20 - within TMA and DMA[b]	negative	-

[a] TMA=Tok Management Area

[b] DMA = Delta Management Area (Also Known as the Delta Controlled Use Area)

There is no C&T finding for that portion of Unit 12 outside of the TMA.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If the proposal were adopted, there would no longer be general harvest ticket hunts for Dall sheep for GMUs 12, 19 and 20. Nonresidents hunting with Alaska licensed guides would receive 20% of the permits and would be required to have a guide-client contract in place before they apply for the permit. Guides would have to be registered for the area the year their hunters are applying and the year the hunt will occur. Nonresidents hunting with resident relatives within the second-degree of kindred would receive 10% of the nonresident permits. Because of existing drawing permit hunt conditions where state hunters may not receive the same permit two years in a row, regardless of whether the resident hunter was successful in harvesting a sheep or not, they would not be able to hunt sheep in the same area two years in a row.

BACKGROUND: Sheep hunting in Region III has predominately been managed using the conservative full-curl ram harvest management strategy. The full-curl strategy is conservative because it focuses harvest pressure on: 1) older-aged animals, 2) males-only, and 3) a small segment of the population. Dall sheep rams on average become full-curl at 8 years of age or older, and previous research has shown that these older rams have naturally higher mortality rates than younger aged rams. Therefore, when hunters harvest a full-curl ram, this has a lower impact on the population compared to harvesting a younger ram because there is a higher likelihood the older ram would have died of natural causes. Additionally, limiting harvest to males-only reduces the impact of harvest on the overall population because male survival rates have a lower impact on population growth compared to female survival rates. Finally, the full-curl strategy is extremely conservative because full-curl animals compose a very small proportion of most sheep populations. As a result, the number of animals that are legally

available to hunters is a small proportion of the population and this imposes a self-limit on overharvest of the population. Taken collectively, the full-curl harvest strategy limits harvest to only older-aged rams and is thus a conservative, self-limiting strategy that allows for maximum hunter opportunity while simultaneously preventing overharvest and has minimum impacts on population growth.

Because of the conservative full curl harvest strategy, rigorous population estimates for sheep are not necessary. Minimum counts only provide a crude snapshot of population performance. Variation estimates and correction factors accounting for sightability and varying survey conditions do not exist. In most units that have an open harvest ticket hunt, minimum count surveys are employed to monitor population performance over time. These surveys are not conducted over the entire available sheep habitat within each unit, but rather in trend count areas that have been established in each unit. For example, in Unit 20A, the minimum count survey area is 11.5% of the approximate 1739 mi2 of habitat. Attempts are made to complete these counts annually, but because of adverse weather and/or limited pilot availability, that is not always possible.

Minimum count surveys throughout Region III suggest there has been a 40-70% decline in sheep populations since the most recent highs which occurred during 2010–2012. The decline in abundance mirrors the declines reported by the National Park Service in Denali and Gates of the Arctic National parks, as well as reported declines in sheep numbers throughout the Yukon Territories and British Columbia. Severe weather, including prolonged springs and icing events, likely caused a near collapse of recruitment in some years, as well as increased adult mortality (Rattenbury et al. 2018, Van de Kirk et al. 2020).

From a historical perspective it is important to remember that weather related sheep population declines are not without precedent. Murie (1944) reported a robust population of Dall's Sheep in Denali National Park in 1928, but record snow fall and harsh winter conditions during the winters of 1928/1929 and a corresponding sharp reduction in sheep abundance in 1931/1932. A more contemporary example occurred in Unit 20A where sheep populations and harvest in this unit was high until a weather-related population decline during the winter of 1992/1993. Managers chose to maintain the hunt structure as a general season harvest ticket hunt open to both residents and nonresidents. Although it took about 15–20 years to rebuild, sheep populations and harvest returned to pre-decline levels. It is unlikely that the conservative harvest of full-curl rams during this period slowed the population recovery.

Since 2000, total sheep harvested in Region III units has averaged 68% (range: 52% - 76%) of the total statewide take. Although there is a 42-day general season spanning August 10 - September 20, more than half of the harvest occurs within the first 10 days of the season. Horn morphometric work by the department has demonstrated that on a statewide basis for the years 2016-2021, between 57%–66% of the rams harvested each year were legally available for harvest at least one previous hunting season after attaining 360 degrees of curl. Sheep hunters have ample opportunity to hunt after the first 10 days of the season and avoid either real or perceived overcrowding. Sheep hunter participation in Region III peaked in 1989 with 1,777 reported hunters and has averaged 1,358 (Range: 1,557–1,038) for the years 2000–2022. The

high of 1,557 hunters in 2008, coincided with the implementation of a draw hunt system for sheep hunting in units 13D and 14A south and east of the Matanuska River. While total number of hunters substantially decreased after the implementation of draw hunts in this area, success rates did not substantially increase. There was a substantial drop in hunter participation in 2022 (n=1038), which suggests that hunters are either self-regulating during the current low sheep population levels and/or were impacted by recent federal (e.g. Federal Subsistence Board closure of Sheep hunting in portions of the Brooks Range) or state closures (e.g. 19C closure for non-residents). Success rates for resident sheep hunters in Region III between 2000-2022 have averaged 29.7% (range: 18.6% - 34.2%). For comparison, success rates for resident moose hunters in Region III between 2000 -2022 has averaged 23.1% (range: 17.9% - 29.6%). Since 2000 the percentage of resident hunters participating in consecutive general harvest sheep seasons in Region III has ranged from 15.5% to 32.8%. Success rates for hunters who participate in consecutive years do not differ significantly from hunters who do not.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this allocative proposal. This proposal would reduce resident and nonresident sheep hunting opportunity throughout units 12, 19, 20. There is a positive customary and traditional use (C&T) finding for sheep in some of the affected units in this proposal. By making all hunting opportunity occur through drawing permits, this proposal would eliminate all subsistence opportunity in Unit 19 and in those areas of units 12 and 20 outside of the TMA and DMA while still providing nonresident opportunity and nonsubsistence resident opportunity. Currently, there is no C&T finding in Units 12 and 20 outside of the TMA and DMA. If any portion of the hunts affected by this proposal occurs in those areas, the board may wish to make C&T findings for sheep in the affected areas. The board may also wish to consider if reasonable opportunity for subsistence uses would be provided for in Unit 19 where there is a positive C&T finding for sheep if the hunt structure shifts to a drawing permit.

There is no biological concern with the current hunt management structure and full curl bag limit. However, changing the available permits for residents and non-residents in units 12, 19, 20 may reduce the number of hunters in the field depending on the ultimate number of permits allocated. Game management units that continue to operate under a harvest ticket could see an increase in competition from displaced hunters wishing to hunt sheep every year.

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

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Proposals 47-54

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PROPOSAL 55 – 5 AAC 92.108 Identified big game prey populations and objectives.
Establish a positive Intensive Management finding for Moose in Unit 19C.

PROPOSED BY: McGrath Advisory Committee

WHAT WOULD THE PROPOSAL DO? This proposal would establish a positive intensive management (IM) finding for moose in Unit 19C.

WHAT ARE THE CURRENT REGULATIONS? Currently moose have a negative IM finding in Unit 19C.

(1) consider the following criteria when identifying big game prey populations that are important for providing high levels of human consumptive use:

(A) harvest size: the average annual historic human harvest meets or exceeds values as follows:

(i) caribou: 100;

(ii) deer: 500;

(iii) moose: 100;

(B) accessibility to harvest;

(C) utilization for meat: a population that is used primarily for food; and

(D) level of hunter demand: as reflected by total hunter effort, number of applications for permits, or other indicators;

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If this proposal were adopted, there would be a positive IM finding for moose in Unit 19C.

BACKGROUND: Moose currently have a negative IM finding in Unit 19C. Harvest has increased and harvest reporting has improved with the implementation of a registration permit (RM653) in the Farewell area beginning in regulatory year (RY) 20. Current harvest is above 100 moose annually with an average of 124 moose taken between RY13 – RY22. On average, residents harvested 57 moose and nonresidents harvested 67 moose annually over that same 10-year period. In RY22, 183 moose were harvested with 73 taken by residents and 110 by nonresidents. In RY23, the board adopted a proposal to change all nonresident hunting in Unit 19C from a registration permit to a drawing permit and capped the number of permits available for issuance at 100, thereby limiting the nonresident harvest. This limit could result in the number of moose harvested annually to drop below the 100 required in 5 AAC 92.106 for the positive IM finding.

The department does not conduct population estimates in Unit 19C but does conduct composition surveys. The current 2-year average bull cow ratio is 27 bulls:100 cows. This ratio has declined in recent years but was as high as 40 bulls:100 cows in 2018. Calf to cow ratios are chronically low in this area with a 2-year average of 16 calves:100 cows.

At the March 1998 Interior Region Board of Game meeting the board discussed adopting an IM finding for Unit 19C and ultimately adopted a negative IM finding; one reason given was the

lack of access in Unit 19C. Unit 19C is primarily accessed by plane from one large landing strip which makes access from the Anchorage area relatively easy. This could explain why nonresident harvest has been higher than resident harvest. It is important to note that moose are not a guide-required species which opens a variety of hunting options to nonresident hunters.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal. Harvest by all hunters is above 100 moose annually and the unit may fit the criteria found in 5 AAC 92.106 for a positive IM finding. If the board adopts this proposal, they may also wish to establish IM population and harvest objectives for Unit 19C. Unit 19C encompasses 6,758 mi^2 with approximately 3,000 mi^2 of moose habitat.

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

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PROPOSAL 56 – 5 AAC 92.108 Identified big game prey populations and objectives.

PROPOSED BY: Alaska Department of Fish and Game

WHAT WOULD THE PROPOSAL DO? This proposal would create separate intensive management (IM) population and harvest objectives for Units 19A and 19B and create population and harvest objectives for Unit 19E.

WHAT ARE THE CURRENT REGULATIONS?

5 AAC 92.108. Identified big game prey populations and objectives….

Moose…

	Finding	Population Objective	Harvest Objective
19(A) and 19(B)	Positive	13,500 - 16,500	750 – 950
GMU 19(C)	Negative		
GMU 19(D)-East	Positive	6,000 - 8,000	400 – 600
GMU 19(D)-remainder	Positive	4,000 - 6,000	250 – 600

There is a positive customary and traditional use finding for moose in Unit 19. In Unit 19, that portion outside of the Lime Village Management Area, there is an amounts reasonably necessary for subsistence uses (ANS) range of 400-700 animals, including 175-225 in Units 19A and 19E, and 20-24 in Unit 19B.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If this proposal is adopted, the Unit 19A and 19B IM combined population and harvest objectives would be separated and new population and harvest objectives would be determined for the

newly created Unit 19E, which used to be a portion of Unit 19A. The following recommended population objectives for Units 19A, 19B, and 19E are based on proportioning the population objectives established in regulation for 19A and 19B combined, and by the geographic areas of the subunits (19A, 19B, and 19E). The harvest objectives are based on a 4% harvest rate for each of the respective areas.

5 AAC 92.108. Identified big game prey populations and objectives….

Moose…

	Finding	Population Objective	Harvest Objective
GMU 19(A)	**Positive**	**4,300 – 5,300**	**175-225**
GMU 19(B)	**Positive**	**5,900 – 7,200**	**235 - 290**
GMU 19(C)	Negative		
GMU 19(D)-East	Positive	6,000 - 8,000	400 – 600
GMU 19(D)-remainder	Positive	4,000 - 6,000	250 – 600
GMU 19(E)	**Positive**	**3,300 - 4,000**	**130 - 160**

BACKGROUND: In 2021, the board split Unit 19A into 2 smaller subunits, Unit 19A and Unit 19E. This split created several administrative errors including in 5 AAC 92.108. Currently the IM population and harvest objectives are 13,500 – 16,500 and 750 – 950 moose respectively for Unit 19A and Unit 19B combined. This leaves Unit 19E which has an ongoing wolf control program without a positive IM finding, or IM population and harvest objectives.

Unit 19A (5,703 mi^2) has an increasing moose population with 5,510 moose or approximately 1.0 moose/mi^2. Harvest is conducted using a Tier II hunt structure (TM680) with 200 permits issued annually. There is also an overlapping federal hunt (FM1901) with 100 permits issued annually. Average annual harvest over the last 10 years is 125 moose with 100 taken under the State Tier II hunt and 25 through the federal hunt. Apportioned to the size of the new Unit 19A, the population objective would be 4,300 – 5,300 moose and, using a 4% harvest rate, the harvest objective would be 175 – 225.

Unit 19B (7,714 mi^2) has no trend data available, however we estimate there are approximately 4,600 moose in the Unit. Harvest is conducted with a general season harvest ticket which is available to both residents and nonresidents. Annual average harvest over the last 10 years is 32 moose per year with 25 taken by nonresidents and 7 by residents. Apportioned to the size of Unit 19B, the population objective would be 5,900 – 7,200 moose and, using a 4% harvest rate, the harvest objective would be 235 – 290.

Unit 19E (4,269) has a slowly increasing moose population with 2,924 moose or approximately 0.7 moose/mi^2. Harvest in Unit 19E is conducted using a registration permit (RM682) with 30 permits issued annually and a tier II hunt (TM684) with 14 permits issued annually. Average annual harvest since implementation of RM682 in regulatory year (RY) 19 has been 7 moose. Prior to that moose hunting was closed in this area. Over the last 10 years only two moose per year have been harvested in the TM684 area. Apportioned to the size of Unit 19E, the population objective would be 3,300 – 4,000 moose and, using a 4% harvest rate, the harvest objective would be 130 – 160.

DEPARTMENT COMMENTS: The department **SUPPORTS** this proposal with amendments to the population findings and objectives noted above in bold and underlined, as they clarify the IM population and harvest objectives for Units 19A, 19B and 19E. Unit 19E currently has an active IM program, however there are no IM population or harvest objectives for the unit. The low level of harvest over the last 10 years in Unit 19E is due to a closure in most of the unit and only a very limited Tier II hunt in the remainder of the unit. However, in the mid 1990s when much more opportunity was available, harvest in Unit 19E may have been around 150 moose per year. If the board decides to retain combined IM population and harvest objectives for Units 19A, 19B and 19E, the department requests a clear delineation of what the objectives are for each subunit.

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

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Proposals 57-58

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PROPOSAL 59 – 5 AAC 85.045 Hunting seasons and bag limits. Lengthen TM680 by opening the season 5 days earlier.

PROPOSED BY: Central Kuskokwim Fish and Game Advisory Committee

WHAT WOULD THE PROPOSAL DO? This proposal would open the TM680 moose hunting season in Unit 19A on August 25th with no change to the bag limit or number of permits available.

WHAT ARE THE CURRENT REGULATIONS? Currently the TM680 hunt runs from Sept 1–Sept 20 with a bag limit of one antlered bull and up to 300 permits are available.

There is a positive customary and traditional use finding for moose in Unit 19, with an amount reasonably necessary for subsistence uses range of 400-700; including 175-225 in Units 19A and 19E, and 20-24 in Unit 19B (5 AAC 99.025(8)).

Units 19A and 19B combined have a positive Intensive Management (IM) finding with a population objective of 13,500 – 16,500 and a harvest objective of 750 – 950.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If this proposal were adopted, the season would open August 25 instead of September 1 which would add an additional 7 days to the season, and a likely negligible increase in harvest.

BACKGROUND: The TM680 hunt has been in place since regulatory year (RY) 06. Since that time, the moose population in Unit 19A has increased from approximately 2,000 moose to 5,500 moose. The department has issued about 200 permits annually since RY06 and during that time moose harvest increased from roughly 50 moose to 100 moose annually.

With an any antlered bull bag limit, bull-to-cow ratios have remained in the low 20s since RY16. In RY22 the department estimated 10 bulls per 100 cows. However, that same year calf-to-cow ratios were high at 48 calves per 100 cows. Harvest success rates have not changed significantly in recent years and with the high calf-to-cow ratio, the bull to cow ratio appears to be sufficient. It is likely that bulls are in different locations during surveys in November than they are during the hunt and the rut, resulting in possible systematic undercounting of bulls during the November survey period.

Harvest chronology is divided into four, five-day periods which show that 29% of all moose are taken in the first 10 days of the season, while 71% are taken during the last 10 days of the season (Table 1). Based on this pattern, additional days at the beginning of the season are expected to result in little additional harvest.

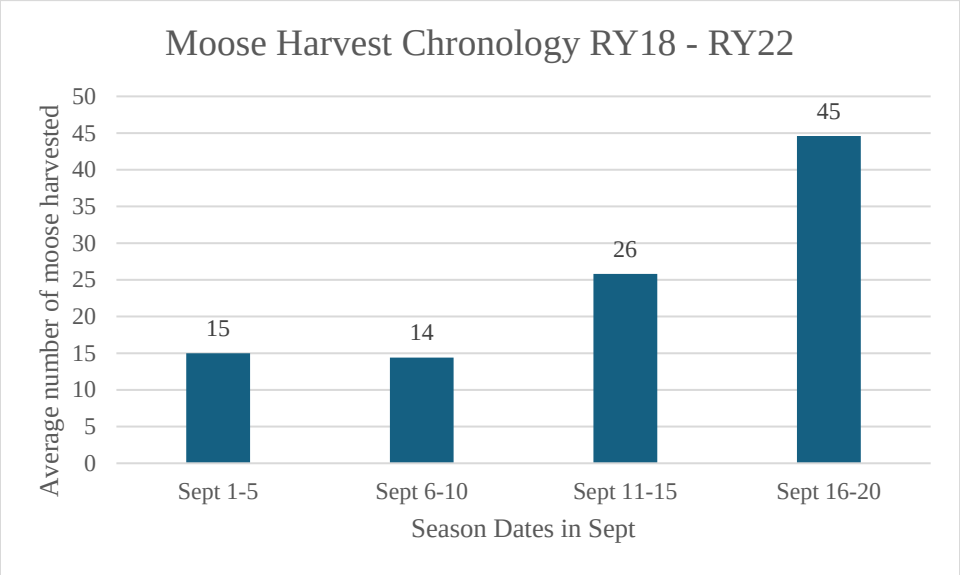

Figure 1. Harvest chronology of moose taken under TM680.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal. While the bull to cow ratio is low in Unit 19A, this is possibly a result of systematic undercounting of bulls during the November survey period. Adding days to the beginning of the season will create additional subsistence opportunity but will not likely result in a significant amount of additional harvest or biological concern because the department issues a limited number of permits for the hunt.

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

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PROPOSAL 60 – 5 AAC 92.123 Intensive management plans. Allow aerial predator control in a portion of Unit 19C.

PROPOSED BY: McGrath Fish and Game Advisory Committee

WHAT WOULD THE PROPOSAL DO? This proposal would create a new intensive management (IM) plan in a portion of Unit 19C.

WHAT ARE THE CURRENT REGULATIONS? There is currently no IM plan in Unit 19C.

There is a positive customary and traditional use finding for moose in Unit 19. In Unit 19, that portion outside of the Lime Village Management Area, there is an amounts reasonably necessary for subsistence uses (ANS) range of 400-700 animals, including 175-225 in Units 19A and 19E, and 20-24 in Unit 19B.

Unit 19C has a negative IM finding in 5 AAC 92.108.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If this proposal were adopted there would be an IM plan in a portion of Unit 19C which would authorize the take of wolves using aircraft beginning in regulatory year (RY) 24.

BACKGROUND: Unit 19C currently has a negative finding for moose. However, the board will also be considering Proposal 55 to create a positive finding for the Unit at this Interior and Northeast Arctic Region meeting (Fairbanks, March 2024).

Access to moose hunting in Unit 19C is almost exclusively conducted with aircraft. Most of the unit is very lightly hunted with the exception of the Farewell RM653 hunt area. In this area there is a unique combination of good access, an extensive trail network and a high density of moose during the hunting season. Due to these factors, the Farewell area attracts the majority of the hunters in Unit 19C.

During the period RY13-RY22, an average of 228 hunters took 124 moose per year. Residents (avg. 123 hunters) harvested 57 moose annually and nonresidents (avg. 104 hunters) harvested 67 moose annually. Effort has increased considerably in recent years and in RY22, 337 hunters took 183 moose with 156 resident hunters taking 73 moose, and 181 nonresident hunters taking 110 moose. Nonresidents now make up the majority of the hunters in Unit 19C. In RY23, the board adopted a proposal to change all nonresident hunting in Unit 19C from a registration permit to a drawing permit and capped the number of permits available for issuance at 100, thereby limiting the nonresident harvest. This limit could result in the number of moose harvested annually to drop below the 100 required in 5 AAC 92.106 for the positive IM finding.

The department does not conduct population estimates in Unit 19C, but does conduct composition surveys. The current 2-year average bull cow ratio is 27 bulls:100 cows. This ratio

has declined in recent years but was as high as 40 bulls:100 cows in 2018. Fall calf to cow ratios are chronically low in this area with a 2-year average of 16 calves:100 cows. The low calf to cow ratio is indicative of summer bear predation and wolf control alone may not have a substantive effect on the overall population.

At the March 1998 Interior Region Board of Game meeting, the board discussed adopting an IM finding for Unit 19C and ultimately adopted a negative IM finding; one reason given was the lack of access in Unit 19C. Unit 19C is primarily accessed by plane, from one large landing strip which makes access from the Anchorage area relatively easy. This could explain why nonresident harvest is higher than resident harvest. It is important to note that moose are not a guide-required species for nonresident hunts. This provides a variety of hunting options for nonresident hunters.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal. The areas north of the Alaska Range are conducive to aerial wolf take and pilots in the Unit 19D wolf control program would be likely to participate in this program. Unit 19C is remote with no logistical support; however, McGrath is only an hour away with fuel and lodging available. Moose movements are an important factor in Unit 19C with seasonal movements to and from the surrounding mountains in the spring and fall. Most moose remain in Unit 19C for the winter however and removing wolves may increase winter survival in the Unit. If the board passes this proposal, the department will complete a feasibility assessment, an intensive management plan with specific program goals and objectives, and an operational plan which includes how to achieve those goals and objectives. If the board adopts this proposal, the department will need time to conduct the feasibility assessment and develop the operation plan. Therefore, conducting control activities in RY24 is unrealistic.

COST ANALYSIS: Adoption of this proposal would result in additional costs for the department.

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Proposals 61-92

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PROPOSAL 93 – 5 AAC 85.020 Hunting seasons and bag limits for brown bear. Lengthen the season for brown bear in Units 19B and 19C.

PROPOSED BY: Drew Hilterbrand

WHAT WOULD THE PROPOSAL DO? This would change the start of the general brown bear season for residents and nonresidents in Units 19B and 19C from September 1 to August 10, an increase of 22 days.

WHAT ARE THE CURRENT REGULATIONS?

Units 19B and 19C

Residents and nonresidents:

- One brown bear
- September 1 – May 31
- Cubs and sows with cubs may not be taken.
- No resident locking tag is required.
- All bears harvested must be sealed.

Unit 19B (Aniak River drainage) RB601 Registration permit

Residents

- One brown bear
- August 10 – June 30
- Cubs and sows with cubs may not be taken.
- No resident locking tag is required.

There is a positive customary and traditional use (C&T) finding for brown bears in Unit 19B and an Amount Reasonably Necessary for Subsistence Uses of five brown bears in Units 19A and 19B downstream of and including the Aniak River drainage. There is a negative C&T finding for brown bears in Unit 19C (5AAC 99.025(3)).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If this proposal were adopted the general brown bear season would open on August 10 in Units 19B and 19C, which is currently the opening date for brown bears in Units 19A, 19D and 19E, as well as the sheep hunting seasons in Unit 19B and 19C and caribou hunting season in 19C.

BACKGROUND: Brown bear harvest in Units 19B and 19C is stable with an average of 35 bears taken per year during RY18 – RY22 (where RY 18= July 1, 2018 through June 30, 2019). Average age and skull size for brown bears in this time period were 6.5 years and 20.7 inches respectively, with an average harvested sex ratio of approximately 36% females. Most brown bear harvest (88%) occurs in the fall, and 78% are taken by nonresidents.

Based on the extrapolation of bear densities in similar habitats, the brown bear population in Unit 19B and Unit 19C is estimated at 560 and 260 bears, respectively. Cubs and sows with cubs may not be harvested, ensuring adequate protection of brown bears in these subunits.

In Units 19B and 19C brown bears have historically been targeted for trophy value compared to Units 19A, 19D, and 19E where harvest has generally been for other consumptive uses.

DEPARTMENT COMMENTS: The department **SUPPORTS** this proposal and there are no biological concerns. Sheep and caribou seasons open August 10 and opening the brown bear season at the same time will likely result in additional bears being harvested. However, this will

not have a significant impact on the bear population and is not a tool to reduce predation on ungulates. The passage of this proposal would simply provide additional general hunting opportunity.

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

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PROPOSAL 94 – 5 AAC 85.020 Hunting seasons and bag limits for brown bear. Lengthen the season for brown bear in Unit 19C by 52 days.

PROPOSED BY: Anthony Marchini

WHAT WOULD THE PROPOSAL DO? This proposal would lengthen the brown bear season for residents and nonresidents in Unit 19C to start August 10 and end June 30, lengthening the hunting season by a total of 52 days.

WHAT ARE THE CURRENT REGULATIONS?

Unit 19C

Residents and nonresidents:

- One brown bear
- September 1–May 31
- Cubs and sows with cubs may not be taken.
- No resident locking tag is required.
- All bears harvested must be sealed.

There is a negative Customary and Traditional Use finding for brown bears in Unit 19C (5AAC 99.025(3)).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If this proposal were adopted, the general brown bear season would open on August 10 and close June 30 in Unit 19C. This would place it in alignment with brown bear season dates in Units 19A, 19D and 19E, as well as the sheep hunting and caribou hunting opening dates in Unit 19C.

BACKGROUND: Brown bear harvest in Unit 19C is stable with an average of 22 bears taken per year during RY18 – RY22 (where RY 18= July 1, 2018 through June 30, 2019). Average age and skull size was 6 years and 20.3 inches respectively, with an average harvested sex ratio of approximately 39% females. Most brown bear harvest (77%) occurs in the fall and 74% are taken by nonresidents.

Based on the extrapolation of bear densities in similar habitats, the brown bear population in Unit 19C is estimated at 260 bears. However, observations of brown bears during other surveys and

from hunters in the field indicate an increasing population. Cubs and sows with cubs may not be harvested, ensuring adequate protection of brown bears in this subunit.

DEPARTMENT COMMENTS: The department **SUPPORTS** this proposal and there are no biological concerns. Sheep and caribou seasons open August 10 and opening the brown bear season at the same time will likely result in additional bears being harvested. However, this will not have a significant impact on the bear population and is not a tool to reduce predation on ungulates. Passage of this proposal would simply provide additional general bear hunting opportunity. If the board chooses to pass this proposal, they may wish to consider keeping Units 19B and 19C aligned for consistency and to simplify regulations for the public.

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

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PROPOSAL 95 – 5 AAC 85.020 Hunting seasons and bag limits for brown bear. Lengthen the season for brown bear in Unit 19C by 52 days.

PROPOSED BY: Jake Lamphier

WHAT WOULD THE PROPOSAL DO? This proposal would lengthen the brown bear season for residents and nonresidents in Unit 19C by 52 days, to start August 10 and end June 30.

WHAT ARE THE CURRENT REGULATIONS?

Unit 19C

Residents and nonresidents:

- One brown bear
- September 1–May 31
- Cubs and sows with cubs may not be taken.
- No resident locking tag is required.
- All bears harvested must be sealed.

There is a negative customary and traditional use finding for brown bears in Unit 19C (5AAC 99.025(3)).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If this proposal were adopted, the general brown bear season would open on August 10 and close June 30 in Unit 19C. This would place it in alignment with brown bear season dates in Units 19A, 19D and 19E, as well as the sheep hunting and caribou hunting opening dates in Unit 19C.

BACKGROUND: Brown bear harvest in Unit 19C is stable with an average of 22 bears taken per year during RY18 – RY22 (where RY 18= July 1, 2018 through June 30, 2019). Average age

and skull size were 6 years and 20.3 inches respectively, with an average harvested sex ratio of approximately 39% females. Most brown bear harvest (77%) occurs in the fall and 74% are taken by nonresidents.

Based on the extrapolation of bear densities in similar habitats, the brown bear population in Unit 19C is estimated at 260 bears. However, observations of brown bears during other surveys and from hunters in the field indicate an increasing population. Cubs and sows with cubs may not be harvested, ensuring adequate protection of brown bears in this subunit.

DEPARTMENT COMMENTS: The department **SUPPORTS** this proposal and there are no biological concerns. Sheep and caribou seasons open August 10 and opening the brown bear season at the same time will likely result in additional bears being harvested. However, this will not have a significant impact on the bear population and is not a tool to reduce predation on ungulates. Passage of this proposal would simply provide additional general bear hunting opportunity. If the board chooses to pass this proposal, they may wish to consider keeping Units 19B and 19C aligned for consistency and to simplify regulations for the public.

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

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PROPOSAL 96 – 5 AAC 85.020 Hunting seasons and bag limits for brown bear. Lengthen the season for brown bear in Unit 19C.

PROPOSED BY: Spencer Pape, Seth Kroneke, Jeff Rost

WHAT WOULD THE PROPOSAL DO? This proposal would lengthen the brown bear season for residents and nonresident in Unit 19C to start August 10, adding 22 days to the current hunting season.

WHAT ARE THE CURRENT REGULATIONS?

Unit 19C

Residents and nonresidents:

- One brown bear
- September 1–May 31
- Cubs and sows with cubs may not be taken.
- No resident locking tag is required.
- All bears harvested must be sealed.

There is a negative customary and traditional use finding for brown bears in Unit 19C (5AAC 99.025(3)).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If this proposal were adopted, the general brown bear season would open on August 10 in Unit 19C adding 22 days to the current season. This is the opening date for brown bear in Units 19A, 19D and 19E, as well as the sheep hunting and caribou hunting seasons in Unit 19C.

BACKGROUND: Brown bear harvest in Unit 19C is stable with an average of 22 bears taken per year during RY18 – RY22 (where RY 18= July 1, 2018 through June 30, 2019). Average age and skull size were 6 years and 20.3 inches respectively, with an average harvested sex ratio of approximately 39% females. Most brown bear harvest (77%) occurs in the fall and 74% are taken by nonresidents.

Based on the extrapolation of bear densities in similar habitats, the brown bear population in Unit 19C is estimated at 260 bears. However, observations of brown bears during other surveys and from hunters in the field indicate an increasing population. Cubs and sows with cubs may not be harvested, ensuring adequate protection of brown bears in this subunit.

DEPARTMENT COMMENTS: The department **SUPPORTS** this proposal and there are no biological concerns. Sheep and caribou seasons open August 10 and opening the brown bear season at the same time will likely result in additional bears being harvested. This will not have a significant impact on the bear population and is not a tool to reduce predation on ungulates. Passage of this proposal would simply provide additional general bear hunting opportunity. If the board chooses to pass this proposal, they may wish to consider keeping Units 19B and 19C aligned for consistency and to simplify regulations for the public.

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

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PROPOSAL 97 –5 AAC 85.020. Hunting seasons and bag limits for brown bear. Lengthen the brown bear hunting season and increase the bag limit for brown bears in Unit 19C.

PROPOSED BY: Steve Johnson

WHAT WOULD THE PROPOSAL DO? This proposal would lengthen the brown bear season by 52 days for residents and nonresidents in Unit 19C to start August 10 and end June 30. This proposal would also increase the bag limit from one to two brown bears per regulatory year.

WHAT ARE THE CURRENT REGULATIONS?

Brown bear regulations in Unit 19C are as follows:

Residents and nonresidents:

- One brown bear
- September 1–May 31
- Cubs and sows with cubs may not be taken.

- No resident locking tag is required.
- All bears harvested must be sealed.

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 bears in Unit 19C.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If this proposal were adopted, the general brown bear season would open on August 10 in Unit 19C, which is the opening date for brown bears in Units 19A, 19D and 19E, and sheep and caribou hunting seasons in 19C. Additionally, the season would close on June 30 which is the closing date for brown bears in Units 19A, 19D and 19E.

The bag limit of brown bears would increase from one to two bears per regulatory year in Unit 19C and brown bear hides (with claws attached) and skulls could be sold after sealing.

BACKGROUND: Brown bear harvest in Unit 19C is stable with an average of 22 bears taken per year during RY18 – RY22 (where RY 18= July 1, 2018 through June 30, 2019). Average age and skull size were 6 years and 20.3 inches, respectively, with an average harvested sex ratio of approximately 39% females. Most brown bear harvest (77%) occurs in the fall and 74% are taken by nonresidents.

Based on the extrapolation of bear densities in similar habitats, the brown bear population in Unit 19C is estimated at 260 bears. However, observations of brown bears during other surveys and from hunters in the field indicate an increasing population. Cubs and sows with cubs may not be harvested, ensuring adequate protection of brown bears in this subunit.

Two-bear bag limits are available to hunters in nearby Units 19A, 19D, 19E, and 21. The harvest data from these units were used to determine potential additional harvest if this proposal is adopted. The reported annual harvest since RY12 in Units 19A, 19D, 19E and 21 shows that most hunters do not take more than 1 bear per year. Three of 35 hunters in Unit 19A, 0 of 24 hunters in Unit 19D and two of 57 hunters in Unit 21 harvested two bears/year.

DEPARTMENT COMMENTS: The department **SUPPORTS** this proposal and there are no biological concerns. Sheep and caribou seasons open August 10 and opening the brown bear season at the same time will likely result in additional bears being harvested. Hunters rarely harvest two bears in units with a two-bear bag limit and this change will not likely result in a substantial increase in harvest. If adopted these combined changes will not have a significant impact on the bear population and are not a tools to reduce predation on ungulates. Passage of this proposal would simply provide additional general bear hunting opportunity. If the board chooses to pass this proposal, they may wish to consider keeping Units 19B and 19C aligned for consistency and to simplify regulations for the public.

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

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PROPOSAL 98 – 5 AAC 85.020 Hunting seasons and bag limits for brown bear. Lengthen the season for brown bear in Unit 19C by 52 days.

PROPOSED BY: Kyle Virgin

WHAT WOULD THE PROPOSAL DO? This proposal would lengthen the brown bear season for residents and nonresidents in Unit 19C to start August 10 and end June 30, lengthening the hunting season by a total of 52 days.

WHAT ARE THE CURRENT REGULATIONS?

Unit 19C

Residents and nonresidents:

- One brown bear
- September 1–May 31
- Cubs and sows with cubs may not be taken.
- No resident locking tag is required.
- All bears harvested must be sealed.

There is a negative customary and traditional use finding for brown bears in Unit 19C (5AAC 99.025(3)).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If this proposal were adopted the general brown bear season would open on August 10 and close June 30 in Unit 19C. This would place it in alignment with brown bear season dates in Units 19A, 19D and 19E, as well as the sheep hunting and caribou hunting opening dates in Unit 19C.

BACKGROUND: Brown bear harvest in Unit 19C is stable with an average of 22 bears taken per year during RY18 – RY22 (where RY 18= July 1, 2018 through June 30, 2019). Average age and skull size were 6 years and 20.3 inches, respectively, with an average harvested sex ratio of approximately 39% females. Most brown bear harvest (77%) occurs in the fall and 74% are taken by nonresidents.

Based on the extrapolation of bear densities in similar habitats, the brown bear population in Unit 19C is estimated at 260 bears. However, observations of brown bears during other surveys and from hunters in the field indicate an increasing population. Cubs and sows with cubs may not be harvested, ensuring adequate protection of brown bears in this subunit.

DEPARTMENT COMMENTS: The department **SUPPORTS** this proposal and there are no biological concerns. Sheep and caribou seasons open August 10 and opening the brown bear season at the same time will likely result in additional bears being harvested. This will not have a significant impact on the bear population and is not considered a tool to reduce predation on ungulates. Passage of this proposal would simply provide additional general bear hunting opportunity. If the board chooses to pass this proposal, they may wish to consider keeping Units 19B and 19C aligned for consistency and to simplify regulations for the public.

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

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PROPOSAL 99 – 5 AAC 85.020 Hunting seasons and bag limits for brown bear. Lengthen the season for brown bear by 22 days in Unit 19C.

PROPOSED BY: Jeff Pralle

WHAT WOULD THE PROPOSAL DO? This proposal would lengthen the brown bear season for residents and nonresidents in 19C to start August 10, adding 22 days to the current hunting season.

WHAT ARE THE CURRENT REGULATIONS?

Unit 19C

Residents and nonresidents:

- One brown bear
- September 1–May 31
- Cubs and sows with cubs may not be taken.
- No resident locking tag is required.
- All bears harvested must be sealed.

There is a negative customary and traditional use finding for brown bears in Unit 19C (5AAC 99.025(3)).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If this proposal were adopted, the general brown bear season would open on August 10 in Unit 19C adding 22 days to the current season. This is the opening date for brown bear in Units 19A, 19D and 19E, as well as the sheep hunting and caribou hunting seasons in Unit 19C.

BACKGROUND: Brown bear harvest in Unit 19C is stable with an average of 22 bears taken per year during RY18 – RY22 (where RY 18= July 1, 2018 through June 30, 2019). Average age and skull size were 6 years and 20.3 inches, respectively, with an average harvested sex ratio of

approximately 39% females. Most brown bear harvest (77%) occurs in the fall and 74% are taken by nonresidents.

Based on the extrapolation of bear densities in similar habitats, the brown bear population in Unit 19C is estimated at 260 bears. However, observations of brown bears during other surveys and from hunters in the field indicate an increasing population. Cubs and sows with cubs may not be harvested, ensuring adequate protection of brown bears in this subunit.

DEPARTMENT COMMENTS: The department **SUPPORTS** this proposal and there are no biological concerns. Sheep and caribou seasons open August 10 and opening the brown bear season at the same time will likely result in additional bears being harvested. This will not have a significant impact on the bear population and is not a tool to reduce predation on ungulates. Passage of this proposal would simply provide additional general bear hunting opportunity. If the board chooses to pass this proposal, they may wish to consider keeping Units 19B and 19C aligned for consistency and to simplify regulations for the public.

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

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Proposals 100-103

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PROPOSAL 104 – 5 AAC 92.010 (l). Harvest tickets and reports. Remove the harvest ticket requirement for black bears in Unit 19D.

PROPOSED BY: McGrath Fish and Game Advisory Committee

WHAT WOULD THE PROPOSAL DO? This proposal would remove the harvest ticket requirement for black bears in Unit 19D.

WHAT ARE THE CURRENT REGULATIONS? Hunters in Unit 19D must obtain a black bear harvest ticket prior to hunting. Sealing is only required if a hunter wishes to sell the hide and skull or transport them out of state.

There is a positive customary and traditional use finding for black bears in Unit 19, with an Amount Reasonably Necessary for Subsistence of 30-50 black bears per regulatory year (5 AAC 99.025(B)).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? There would be no requirement for a harvest ticket to hunt black bears in Unit 19D. Sealing would only be required if a hunter sold the hide and skull or transported them out of state.

BACKGROUND: Harvest tickets for each species expire June 30, at the end of every regulatory year. There is no closed season for black bear in Unit 19. However, if a hunter is in the field on June 30, they could not legally harvest a black bear on July 1 unless they obtained a harvest

ticket for the new regulatory year prior to deploying to the field. The current harvest ticket requirement also necessitates that hunters must keep track of their harvest tickets across license years, from the fall to the spring. The number of black bears harvested in Unit 19D is low, and black bear harvest ticket data contribute little to the department's management of bears. Although sealing is not required, many hunters do seal their bears.

During RY18–RY22, an annual average of 15 black bears were reported by hunters in Unit 19D and 78 percent of these bears were males. The black bear population in Unit 19D is estimated at 3,000–6,000 bears based on extrapolated densities of similar habitats from other surveys. Based on our estimated sustainable harvest rate of 8%, 240–480 bears can be sustainably harvested from Unit 19D annually. The current harvest rate is far below this level.

In Unit 19D nonresident hunters must seal bears to transport them home and during RY18–RY22, 34 percent of hunters who harvested black bears in Unit 19D were nonresidents.

DEPARTMENT COMMENTS: The department **SUPPORTS** this proposal. There are no biological concerns for black bears and eliminating the harvest ticket requirement will significantly simplify the requirements for hunters.

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

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PROPOSAL 105 – 5 AAC 92.044. Permit for hunting bear with the use of bait or scent lures. Establish a fall bear baiting season in Unit 21A.

PROPOSED BY: McGrath Fish & Game Advisory Committee

WHAT WOULD THE PROPOSAL DO? This proposal seeks to allow the harvest of brown bears over bait from April 15–June 30 and open a fall bait season for both black and brown bears from August 10 – October 31 in Unit 21A.

WHAT ARE THE CURRENT REGULATIONS? Brown bear regulations in Unit 21A are as follows: Residents may harvest two brown bears per regulatory year and nonresidents may harvest one brown bear per regulatory year from August 10 – June 30. Brown bears may not be taken over bait and cubs and sows with cubs may not be taken. No resident locking tag is required, and all bears taken in the general hunt and those intended for sale must be sealed.

Black bear regulations in Unit 21A are as follows: All hunters may take 3 black bears per regulatory year and there is a spring bait season from April 15 – June 30. Cubs and sows with cubs may not be taken.

There are positive customary and traditional use findings for black bears in Unit 21 and for brown/grizzly bears in Units 21 and 22 (5 AAC 99.025(2-3)). For brown/grizzly bears, the Amount Reasonably Necessary for Subsistence (ANS) is 20 to 25 bears. There is currently no ANS for black bears in Unit 21.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Harvest of brown and black bears at registered bait stations in Unit 21A from April 15 – June 30 would be allowed and a new fall bait season for both would be opened from August 10 – October 31.

BACKGROUND: Brown bears are widely distributed throughout Unit 21A with varying densities. The board first approved harvest of brown bears at black bear bait stations in nearby Units 21D in 2012 and 21C in 2017. Reported harvest of brown bears in Unit 21A is low, with harvest averaging 1 bear per year from RY18 – RY22 (where RY18 = July 1, 2018 through June 30, 2019). The department estimates a population of 390 bears in Unit 21A and 21E combined, based on extrapolated densities of similar habitats from other areas. Cubs and sows with cubs cannot be harvested, ensuring adequate protection of brown bears in these subunits.

In Unit 21A, a total of two black bear bait stations have been registered since 2012. There is no sealing requirement or a harvest ticket for black bears in unit 21A. Considering only two black bear station were registered during RY12–RY22, it is reasonable to assume that both bear baiting interest and harvest is very low at bait stations.

DEPARTMENT COMMENTS: The department **SUPPORTS** the additional opportunity because there are no biological concerns for brown or black bears in Unit 21A, and is **NEUTRAL** regarding aspects of this proposal concerning methods for taking brown bear in Unit 21A. Adoption of this proposal will likely result in a few additional bears being harvested. This will not have a significant impact on the bear population and is not a tool to reduce predation on ungulates. Passage of this proposal would simply provide additional general hunting opportunity. If the board adopts this proposal, the department recommends aligning the seasons and bag limits in Units 19A, 19D, 19E, 21A, and 21E for consistency and to simplify regulations for the public. To simplify regulations, if the board adopts this proposal it should also consider allowing the take of brown bears at bait stations in Unit 21A the same day the person has flown, provided the hunter is 300 feet from the plane.

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

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PROPOSAL 106 – 5 AAC 92.044. Permit for hunting bear with the use of bait or scent lures. Allow the take of brown bears over bait from April 15 – June 30 in Unit 21E.

PROPOSED BY: Grayling, Anvik, Shageluk, & Holy Cross (GASH) Fish & Game Advisory Committee

WHAT WOULD THE PROPOSAL DO? This proposal seeks to allow the harvest of brown bears over bait in Unit 21E.

WHAT ARE THE CURRENT REGULATIONS?

Brown bear regulations in Unit 21E are as follows: Residents may harvest two brown bears per regulatory year and nonresidents may harvest one brown bear per regulatory year from Aug 10 –

June 30. Brown bears may not be taken over bait and cubs and sows with cubs may not be taken. No resident locking tag is required, and all brown bears taken during the general hunt, and all brown bears intended for sale must be sealed.

There are positive customary and traditional use findings for black bears in Unit 21 and for brown/grizzly bears in Units 21 and 22 (5 AAC 99.025(2-3)). For brown/grizzly bears, the Amount Reasonably Necessary for Subsistence (ANS) is 20 to 25 bears. There is currently no ANS for black bears in Unit 21.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Harvest of brown bears at registered bait stations in Unit 21E would be allowed.

BACKGROUND: Brown bears are widely distributed throughout Unit 21E with varying densities. The board first approved harvest of brown bears at black bear bait stations in nearby Units 21D in 2012 and 21C in 2017. Reported harvest of brown bears in Unit 21E is low, with harvest averaging three bears per year (43% male) from RY18 – RY22 (where RY18 = July 1, 2018 through June 30, 2019). Population surveys have not been conducted in Unit 21E. The department estimates there is a population of 390 bears in Unit 21A and 21E, combined, based on extrapolated densities of similar habitats from other areas. Cubs and sows with cubs may not be harvested, ensuring adequate protection of brown bears in these subunits.

In Unit 21E, a total of three black bear bait stations have been registered since 2012. There is no sealing requirement or a harvest ticket for black bears in unit 21E, but with the low annual average harvest (i.e., three bears per year) and only three black bear stations registered (RY12–RY22) harvest is low at bait stations.

DEPARTMENT COMMENTS: The department **SUPPORTS** the additional opportunity because there are no biological concerns for brown or black bears in Unit 21E, and is **NEUTRAL** regarding aspects of this proposal concerning methods for taking brown bears in Unit 21E. Passage of this proposal will likely result in a few additional bears being harvested. This will not have a significant impact on the bear population and is not a tool to reduce predation on ungulates. Passage of this proposal would simply provide additional general hunting opportunity. If the board passes this proposal, the department recommends aligning the seasons and bag limits in Units 19A, 19D, 19E, 21A, and 21E for consistency and to simplify regulations for the public. To simplify regulations, if the board adopts this proposal, it should also consider allowing the take of brown bears at bait stations in Unit 21A the same day the person has flown, provided the hunter is 300 feet from the plane.

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

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PROPOSAL 107 – 5 AAC 92.044. Permit for hunting bear with the use of bait or scent lures. Establish a spring and fall bear baiting season in Unit 21E.

PROPOSED BY: Blair Hickson

WHAT WOULD THE PROPOSAL DO? This proposal seeks to allow harvest of brown and black bears at registered bait stations and establish a fall bait season from August 10 – October 15 in Unit 21E.

WHAT ARE THE CURRENT REGULATIONS? Brown bear regulations in Unit 21E are as follows: residents may harvest two brown bears per regulatory year and nonresidents may harvest one brown bear per regulatory year from Aug 10 – June 30. Brown bears may not be taken over bait and cubs and sows with cubs may not be taken. No resident locking tag is required, and all bears taken in the general hunt and those intended for sale must be sealed.

There is a spring baiting season for black bears from April 15 – June 30.

There are positive customary and traditional use findings for black bears in Unit 21 and for brown/grizzly bears in Units 21 and 22 (5 AAC 99.025(2-3)). For brown/grizzly bears, the Amount Reasonably Necessary for Subsistence (ANS) is 20 to 25 bears. There is currently no ANS for black bears in Unit 21.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Harvest of brown and black bears at registered bait stations in Unit 21E would be allowed during the spring bait season and a fall bait season would be added from August 10 – October 15 during which both black and brown bears could be taken.

BACKGROUND: Brown bears are widely distributed throughout Unit 21E with varying densities. The board first approved harvest of brown bears at black bear bait stations in nearby Units 21D in 2012 and 21C in 2017. Reported harvest of brown bears in Unit 21E is low, with harvest averaging 3 bears per year (43% male) from RY18 – RY22 (where RY18 = July 1, 2018 through June 30, 2019). Population surveys have not been conducted in Unit 21A. The department estimated a population of 390 bears in Unit 21A and 21E combined based on extrapolated densities of similar habitats from other areas. Cubs and sows with cubs may not be harvested, ensuring adequate protection of brown bears in these subunits.

In Unit 21E a total of three black bear bait stations have been registered since 2012. There is no sealing requirement or a harvest ticket for black bears in unit 21E, but with the low annual average harvest (i.e., three bears per year) and only three black bear stations registered (RY12–RY22) harvest is low at bait stations.

DEPARTMENT COMMENTS: The department **SUPPORTS** the additional opportunity because there are no biological concerns for brown or black bears in Unit 21E, and is **NEUTRAL** regarding aspects of this proposal concerning methods to take brown bears in Unit 21E. Passage of this proposal will likely result in a few additional bears being harvested. This will not have a significant impact on the bear population and is not a tool to reduce predation on ungulates. Passage of this proposal would simply provide additional general hunting opportunity. If the board passes this proposal the department would recommend aligning the seasons and bag limits in Units 19A, 19D, 19E, 21A, and 21E for consistency and to simplify regulations for the public. To simplify regulations, if the board adopts this proposal it should also consider allowing

the take of brown bears at bait stations in Unit 21A the same day the person has flown, provided the hunter is 300 feet from the plane.

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

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Proposals 108-118

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PROPOSAL 119 – 5 AAC 85.055. Hunting seasons and bag limits for Dall sheep. Set the sheep bag limit in Unit 12 for resident hunters based on the age of the ram harvested.

PROPOSED BY: Paul Forward

WHAT WOULD THE PROPOSAL DO? Alter the annual bag limit for hunters who harvest rams under eight years of age.

WHAT ARE THE CURRENT REGULATIONS?

5 AAC 85.055(2)(6)

Units and Bag Limits	**Resident Open Season (Subsistence and General Hunts)**	**Nonresident Open Season**
(2)		
…		
Units 12, 13, and 20, those portions known as the Tok Management Area		
…		
1 ram with full-curl horn or larger every 4 regulatory years, by drawing permit only; up to 120 permits may be issued	Aug. 10-Sept. 20	Aug. 10-Sept. 20
…		
(6)		
…		
Remainder of Unit 12		

…
RESIDENT HUNTERS

1 ram with full-curl horn or larger, by youth hunt only; or	Aug.1-Aug.5
1 ram with full curl horn or larger	Aug.10-Sept.20

The board has made a negative customary and traditional use (C&T) finding for sheep in the Tok Management Area (TMA). There is no C&T finding for that portion of Unit 12 outside of the TMA.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?

Units and Bag Limits (2)	**Resident Open Season (Subsistence and General Hunts)**	**Nonresident Open Season**
…		
Units 12, 13, and 20, those portions known as the Tok Management Area		
…		
1 ram with full-curl horn or larger every 4 regulatory years, by drawing permit only; **harvest of a ram 8 years old or older and the hunter will be eligible to hunt sheep the next season; harvest a 7 year old ram, the hunter will be ineligible to hunt sheep for the next 2 seasons; harvest a 6 year or younger ram, and the hunter will be ineligible to hunt sheep for the next 3 seasons**; up to 120 permits may be issued	Aug. 10-Sept. 20	Aug. 10-Sept. 20

…
(6)

…

Remainder of Unit 12

…

RESIDENT HUNTERS

1 ram with full-curl horn or larger, by youth hunt only; **harvest of a ram 8 years old or older and the hunter will be eligible to hunt sheep the next season; harvest a 7 year old ram, the hunter will be ineligible to hunt sheep for the next 2 seasons; harvest a 6 year or younger ram, and the hunter will be ineligible to hunt sheep for the next 3 seasons**; or	Aug.1-Aug.5
1 ram with full curl horn or larger; **harvest of a ram 8years old or older and the hunter will be eligible to hunt sheep the next season; harvest a 7 year old ram, the hunter will be ineligible to hunt sheep for the next 2 seasons; harvest a 6 year or younger ram, and the hunter will be ineligible to hunt sheep for the next 3 seasons**	Aug.10-Sept.20

BACKGROUND: From regulatory year (RY)19 to RY21, a total of 1,240 hunters reported pursuing sheep in Unit 12, resulting in the harvest of 376 rams. Overall success rates averaged 30%, with an average nonresident success rate of 61%, and an average resident success rate of 26%. Higher success of nonresident (guided) hunters is similar to previous years. A declining trend in sheep counts during aerial surveys in Unit 12 has corresponded with decreased success

rates. This trend is part of a statewide pattern that is generally attributed to poor winter/spring weather conditions.

Dall sheep in this area are managed using the conservative full-curl ram harvest management strategy. The full-curl strategy is conservative because it focuses harvest pressure on: 1) older-aged animals, 2) males-only, and 3) a small segment of the population. Dall sheep rams on average become full-curl at eight years of age or older, and previous research has shown that these older rams have naturally higher mortality rates than younger aged rams. Therefore, when hunters harvest a full-curl ram, this has a lower impact on the population compared to harvesting a younger ram because there is a higher likelihood the older ram would have died of natural causes. Additionally, limiting harvest to males-only reduces the impact of harvest on the overall population because male survival rates have a lower impact on population growth compared to female survival rates. Finally, the full-curl strategy is extremely conservative because full-curl animals compose a very small proportion of most sheep populations. As a result, the number of animals that are legally available to hunters is a small proportion of the population and this imposes a self-limit on overharvest of the population and has minimum impacts on population growth..

The TMA spans portions of Units 12, 20D, and 13C. There is also a federal season and bag limit in the southern portion of Unit 12, which would result in a different bag limit for federally qualified sheep hunters in Wrangel St. Elias National Park and Preserve.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal due to a number of factors and there are no biological concerns with the current hunt management structure and full-curl bag limit. Adoption of this proposal encourages hunters to harvest rams based on age, which is extremely difficult to determine in the field and often results in hunters harvesting rams that are less than full curl. There are administrative challenges associated with aging and processing of harvest data, including the difficulty of tracking successful hunters through time to ensure they are in compliance with the new bag limit. Furthermore, changing the frequency in which a hunter is eligible to hunt based on the age of a ram harvested in the previous season is unlikely to have any effect on future population trends in abundance. Additionally, altering the annual bag limit for sheep within Unit 12 is allocative. Currently, there is no C&T finding in Unit 12 for sheep outside of the TMA. If any portion of this hunt occurs outside of the TMA, the board may wish to make a C&T finding for sheep in those areas.

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

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Proposals 120-121

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PROPOSAL 122 – 5 AAC 85.056. Hunting seasons and bag limit for wolf. Change the closing date of the wolf hunting season in Units 12 and 20E from April 30 to June 15.

PROPOSED BY: Upper Tanana/Fortymile Fish and Game Advisory Committee

WHAT WOULD THE PROPOSAL DO? This proposal would change the closing date of the wolf hunting season in Units 12 and 20E from April 30 to June 15, extending the season by 46 days.

WHAT ARE THE CURRENT REGULATIONS? Wolf hunting regulations are as follows:

5 AAC 85.056(a)

Units and Bag Limits	**Resident Open Season (Subsistence and General Hunts)**	**Nonresident Open Season**
(2)		
…		
Units 12, 20 and 25(C)		
10 wolves as follows: Units 12, remainder of 20, and 25(C)	Aug. 1–Apr. 30	Aug. 1–Apr. 30
…		

Wolves in Units 12 and 20 have a positive customary and traditional use finding, but the board has not set an amount reasonably necessary for subsistence uses (ANS) for wolves in Unit 12. The ANS in Unit 20 is 90% of the harvestable portion of the population (5 AAC 99.025(11), 5 AAC 99.025 (13)(L)).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Wolf hunting season in Units 12 and 20E would end 46 days later, on June 15. This season extension is unlikely to increase the annual take of wolves in these units. Concerns of female with pup harvest increase the later the hunting season goes into the spring/summer season.

BACKGROUND: The current management objectives for wolves in Units 12 and 20E were developed to align with the wolf population objectives for the Upper Yukon–Tanana Predator Control program (UYTPCP), which encompasses northern Unit 12 and all of Unit 20E. Wolf take under the UYTPCP has been suspended since spring of 2018, and there are no plans to allow future take of wolves under this program at this time. The Unit 12 and 20E wolf populations have remained well above population objectives of at least 100 wolves in Unit 12 and no less than 60 wolves in Unit 20E during Regulatory Year (RY) 2018 (where RY18 = 1 July 2018 – 30 June 2019) through RY22.

The closing date of wolf hunting season in Units 12 and 20E during RY18–RY19 was May 31. At the March 2020 Interior/Eastern Arctic Board of Game Meeting, the board aligned wolf

hunting seasons across most of the Interior and eastern Arctic, including Units 12 and 20E, to August 1–April 30. The closing date has remained April 30 in Units 12 and 20E since RY20.

During RY18–RY22, an average of 7 (range 5–11) and 14 (range 7–21) wolves were harvested by ground shooting in Units 12 and 20E, respectively. However, only one wolf was harvested during the months of April (RY18–RY22) and May (RY18–RY19) in Units 12 and 20E combined.

Based on past harvest patterns, this proposed season extension is unlikely to have an effect on the annual take of wolves in these units and it is not expected to aid in reducing the wolf population within the predation control area.

Pregnant female wolves generally begin denning and give birth to pups in early to mid-May in interior Alaska. Following birth, the female generally remains close to the den, but average daily distance from the den increases in late May and June, which could increase the likelihood of harvest of lactating females with dependent young.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal because there are no population-level conservation concerns.

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

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PROPOSAL 123 – 5 AAC 85.056. Hunting seasons and bag limit for wolf. Change the closing date of the wolf hunting season in Units 12 and 20E from April 30 to June 15.

PROPOSED BY: Jeff Burwell

WHAT WOULD THE PROPOSAL DO? This proposal would change the closing date of the wolf hunting season in Units 12 and 20E from April 30 to June 15, extending the season by 46 days.

WHAT ARE THE CURRENT REGULATIONS? Wolf hunting regulations are as follows:

5 AAC 85.056(a)

Units and Bag Limits	**Resident Open Season (Subsistence and General Hunts)**	**Nonresident Open Season**
(2)		
…		
Units 12, 20 and 25(C)		

10 wolves as follows: Units 12, remainder of 20, and 25(C)	Aug. 1–Apr. 30	Aug. 1–Apr. 30

…

Wolves in Units 12 and 20 have a positive customary and traditional use finding, but the board has not set an amount reasonably necessary for subsistence uses (ANS) for wolves in Unit 12. The ANS in Unit 20 is 90% of the harvestable portion of the population (5 AAC 99.025(11), 5 AAC 99.025 (13)(L)).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Wolf hunting season in Units 12 and 20E would end 46 days later, on June 15. This season extension is unlikely to increase the annual take of wolves in these units. Concerns of female with pup harvest increase the later the hunting seasons go into the spring/summer seasons.

BACKGROUND: The current management objectives for wolves in Units 12 and 20E were developed to align with the wolf population objectives for the Upper Yukon–Tanana Predator Control program (UYTPCP), which encompasses northern Unit 12 and all of Unit 20E. Wolf take under the UYTPCP has been suspended since spring of 2018, and there are no plans to allow future take of wolves under this program at this time. The Unit 12 and 20E wolf populations have remained well above population objectives of at least 100 wolves in Unit 12 and no less than 60 wolves in Unit 20E during Regulatory Year (RY) 2018 (where RY18 = 1July 2018– 30 June 2019) through RY22.

The closing date of wolf hunting season in Units 12 and 20E, during RY18–RY19, was May 31. At the March 2020 Interior/Easter-Arctic Meeting, the board aligned wolf hunting seasons across most of the interior and eastern-arctic, including Units 12 and 20E, to August 1–April 30. The closing date has remained April 30 in Units 12 and 20E since RY20.

During RY18–RY22, an average of 7 (range 5–11) and 14 (range 7–21) wolves were harvested by ground shooting in Units 12 and 20E respectively. However, only one wolf was harvested during the months of April (RY18–RY22) and May (RY18–RY19) in Units 12 and 20E, combined.

Based on past harvest patterns, this proposed season extension is unlikely to have an effect on the annual take of wolves in these units and it is not expected to aid in reducing the wolf population within the predation control area.

Pregnant female wolves generally begin denning and give birth to pups in early to mid-May in interior Alaska. Following birth, the female generally remains close to the den, but average daily distance from the den increases in late May and June, which could increase the likelihood of harvest of lactating females with dependent young.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal because there are no population-level conservation concerns.

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

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Proposals 124-138

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PROPOSAL 139 – 5 AAC 85.025 (a)(16)(19). Reduce the bag limit for caribou in the reminder portion of Unit 21D, the remainder portion of Unit 24B, and all of Units 24C and 24D. Reduce the bag limit for caribou in the reminder portion of Unit 21D, the remainder portion of Unit 24B, and all of Units 24C and 24D, from five caribou per day to four caribou per year, only one of which may be a cow.

PROPOSED BY: Western Arctic Caribou Herd Working Group

WHAT WOULD THE PROPOSAL DO? This proposal will reduce the bag limit in the Western Arctic Caribou Herd (WAH) range to four caribou per year, only one of which may be a cow in Units 21D and 24B, C, D.

WHAT ARE THE CURRENT REGULATIONS?

Units and Bag Limits	**Resident Open Season (Subsistence and General Hunts)**	**Nonresident Open Season**
5 AAC 85.025 (a) …		
(16) …		
Remainder of Unit 21(D)		
RESIDENT HUNTERS:		
5 caribou per day; as follows:		
up to 5 bulls per day; however, calves may not be taken;	July 1 – Oct. 14 Feb. 1 – June 30	
up to 5 cows per day; however, calves may not be taken;	Sept. 1 – Mar. 31	
NONRESIDENT HUNTERS:		

1 bull; however, calves may not be taken	Aug. 1 – Sept. 30

….

(19)
…

Remainder of 24(B)

RESIDENT HUNTERS:

5 caribou per day, as follows: up to 5 bulls per day; however calves may not be taken	July 1 - Oct. 14 Feb. 1 - June 30
up to 5 cows per day; however calves may not be taken	July 15 - Apr. 30

NONRESIDENT HUNTERS:

1 bull; however calves may not be taken	Aug. 1- Sept. 30

Units 24(C) and 24(D)

RESIDENT HUNTERS:

5 caribou per day, as follows: up to 5 bulls per day; however, calves may not be taken;	July 1 - Oct. 14 Feb. 1 - June 30
up to 5 cows per day; however calves may not be taken;	Sept. 1 - Mar. 31

NONRESIDENT HUNTERS:

1 bull; however, calves may not be taken	Aug. 1 - Sept. 30

…

There is a positive customary and traditional use finding for the WAH and the Teshekpuk Lake Herd in Units 21, 22, 23, 24 and 26. The amount reasonably necessary for subsistence for these herds combined is 8,000 to 12,000 caribou.

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Adoption of this proposal will reduce the bag limit from five caribou per day to four caribou per year, only one of which may be a cow, in Units 21D, and 24B, C, and D. This regulation provides an opportunity to harvest caribou when any of the large Arctic herds are present within these units, which are on the periphery of the core summer and migratory ranges. Use can be infrequent, with the predominant herd utilizing these units varying from year to year. Some communities within or adjacent to these units rely heavily on this resource (e.g. Anaktuvuk Pass), but other communities may have limited access (e.g. Huslia). This proposal would reduce the opportunity to harvest caribou from herds that are at or above population objectives like the Porcupine, Teshekpuk, or Central Arctic herds, as well as the Western Arctic Herd, which is in decline. Therefore, this proposal does not solely affect the harvest of WAH, and predominantly affects the other herds in the area that are at or above population objectives. The current regulation provides harvest from herds when they are present in the region, and generally results in very little harvest when any one of those herds are absent. While the WAH may not have harvestable surplus, these other herds do. If these herds with a harvestable surplus range into Units 21 and 24 this proposal would not allow harvest on that surplus.

BACKGROUND: The units affected by this proposal include Units 21D, 24B, 24C, and 24D which are on the periphery of the ranges of the Western Arctic, Teshekpuk, Central Arctic, and Porcupine herds. There are also four small non-migratory herds managed by the Galena Area Office, the Galena Mountain Herd (100-150 caribou), Wolf Mountain Herd (500-600 caribou), Ray Mountains Herd (800-1,000 caribou) and Hodzana Hills Herd (500-600 caribou). The regulations for the four small herds are not affected by this proposal.

When any of the large arctic herds increase, they expand their range into the Galena Management Area (GMA) units, and harvest opportunity increases. A static regulation (5 caribou/day) is a reasonable management strategy because it adapts to whichever herd may expand into the area at any given time, but it has no effect on a herd when it recedes and is mostly absent from the units.

Reported harvest of WAH for the last ten regulatory years (RY) of RY13-RY22 in Units 21D, 24B, 24C, and 24D, has averaged less than 2 caribou per year (Table 1). Subsistence household surveys conducted from 1985-1992 (Georgette 2016), reported an annual harvest of 103 caribou per year for all GMA communities combined, during a period of expansion for the WAH. Even during those years of expansion into the Galena Management Area, the GMA portion of the annual average harvest was likely less than 1% of the total estimated harvest of ~12,000 (Dau 2015) caribou harvested for the entire herd.

Table 1. Reported harvest of Western Arctic Caribou in Game Management Units 21D, 24B, 24C, and 24D, Regulatory Years 2013-2022.

YEAR	Resident	Non-Resident	Total
2013	0	1	1
2014	0	0	0
2015	0	1	1
2016	1	1	2

2017	0	0	0
2018	0	0	0
2019	1	0	1
2020	15	0	15
2021	0	0	0
2022	0	0	0

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal, for Units 21D, 24B, 24C, and 24D. Harvest from the WAH in these units is very low when the annual range does not include these Units, therefore it does not represent a significant source of harvest for the WAH. Harvest opportunity from other large expanding herds may be unnecessarily lost if the regulation is adopted.

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

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Proposals 140-153

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PROPOSAL 154 – 5 AAC 85.025 Hunting seasons and bag limit for caribou. Change the caribou bag limit for resident and nonresident hunters in Unit 26B remainder.

PROPOSED BY: Alaska Department of Fish & Game

WHAT WOULD THE PROPOSAL DO? This proposal would change the bag limit for caribou in remainder 26B to five caribou for resident hunters and two bulls for nonresident hunters.

WHAT ARE THE CURRENT REGULATIONS? The current regulations are:

Unit/Area	Bag Limit		Open season (Permit/Hunt#)	
			Resident	Nonresident
Unit 26B - northwest portion	5 caribou per day	bulls	no closed season (harvest ticket)	
		cows	1 July–15 May (harvest ticket)	
	One bull			1 August–15 September (harvest ticket)
Unit 26B – Remainder	4 bulls		1 July–30 April (harvest ticket)	
	One bull			1 August–15 September (harvest ticket)

There is a positive Intensive Management finding for the Central Arctic Herd and a population objective of 28,000 – 32,000 and a harvest objective of 1,400 – 1,600.

There is a positive customary and traditional use finding for caribou in Unit 26. The board established the following amounts reasonably necessary for subsistence (ANS) ranges:

Units 25(A), 25(B), 25(D), 26(B), and 26(C) (Porcupine Herd): ANS=1,250 – 1,550

Unit 26(B) (Central Arctic Herd): ANS=250 – 450

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Adopting this proposal would increase the bag limit for resident and nonresident hunters in Unit 26B remainder by increasing the resident bag limit from four bulls to five caribou and nonresident bag limit from one bull to two bulls.

Unit/Area	Bag Limit		Open season (Permit/Hunt#)	
			Resident	Nonresident
Unit 26B - northwest portion	5 caribou per day	bulls	no closed season (harvest ticket)	
		cows	1 July–15 May (harvest ticket)	
	One bull			1 August–15 September (harvest ticket)
Unit 26B - Remainder	~~4 bulls~~ **5 caribou**		1 July–30 April (harvest ticket)	
	~~One bull~~ **2 bulls**			1 August–15 September (harvest ticket)

BACKGROUND: The Central Arctic Herd (CAH) population has been steadily increasing since a low in 2016 of 22,630 (95% C.I. = 20,074–25,186). The population is currently estimated at 34,642 (95% C.I. = 32,419–36,866) individuals as of the 2022 photocensus. This is above the intensive management population objective of 28,000–32,000 caribou and the population is likely stable or slightly increasing based on high calving rates (83% average parturient rate from 2019 - 2023), early summer calf survival rates (84% in 2023), and high annual adult female survival (88% of collared individuals survived from July 2022 – July 2023).

Since the CAH is above the management objective, this herd could be harvested at 5% (1% of which could be cows); with a harvestable surplus of around 1,400 caribou about 350 of those

could be cows. Based on harvest records, the estimated harvestable surplus of 1,400 caribou has not been met in the last five years (annual harvest average = 420 caribou (range = 225 – 616) between 2018 to 2022 in 26B; Table 1). While animals of the Porcupine Caribou Herd occasionally occupy Unit 26B, caribou in the unit during hunting season are almost exclusively CAH.

Table 1: Central Arctic caribou hunter statistics in 26B from 2018 to 2022 by Alaska residency, successful or unsuccessful hunts, and number of caribou harvested.

	Resident Hunters			Non-resident Hunters		
Year	Successful	Unsuccessful	Harvest	Successful	Unsuccessful	Harvest
2018	104	201	120	105	100	105
2019	117	203	139	161	107	161
2020	210	225	274	154	53	154
2021	189	258	243	289	175	289
2022	211	338	264	350	219	351*

*One illegal take of a caribou by a non-resident was reported in 2022.

In the past, harvest has shown to have little effect on this population but harvesting a few cows could help slow the growth of this herd. Regardless of herd growth concerns, there is currently a harvestable surplus of both bull and cow caribou available. Additionally, this proposal would align the nonresident bag limit with Units 26C, 25A, 25B, and 25D.

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** this proposal but is neutral on the allocation between resident and nonresident hunters. There is a harvestable surplus of caribou in the CAH that is not currently being utilized. The CAH continues to grow and increasing the harvest has the potential to slow the growth of this herd which would be consistent with the management objectives.

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

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Proposals 155-170

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PROPOSAL 171 – 5 AAC 85.045 Hunting Seasons and Bag limits. Require a registration permit to hunt moose instead of general season harvest ticket for all general season, harvest ticket moose hunts in Game Management Units (GMUs) 20A, 20B, 20C, 20F and 25C.

PROPOSED BY: Alaska Department of Fish and Game

WHAT WOULD THE PROPOSAL DO? This proposal would require moose hunters in Units 20A, 20B, 20C, 20F and 25C to get a registration permit instead of a general season harvest ticket.

WHAT ARE THE CURRENT REGULATIONS?

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	
…		
NONRESIDENT HUNTERS:		
1 bull with 50-inch antlers or antlers with 4 or more brow tines on one side; or		Sept. 1 - Sept. 25
…		
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;	Sept. 1 - Sept. 25	
…		
NONRESIDENT HUNTERS:		
1 bull with 50-inch antlers or antlers with 4 or more brow tines on one side; or		Sept. 1 - Sept. 25
…		
Unit 20(B), that portion within Creamer's Refuge		
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
…		
Unit 20(B), that portion within the Minto Flats Management		

Area		
RESIDENT HUNTERS: 1 bull; or	Aug. 21 - Aug. 27 (Subsistence hunt only)	
1 bull with spike-fork antlers or 50-inch antlers or antlers with 3 or more brow tines on one side; or …	Sept. 8 - Sept. 25	
Unit 20(B), the drainage of the Middle Fork of the Chena River		
1 bull; or	Sept. 1 - Sept. 25	Sept. 1 - Sept. 25
1 bull, by bow and arrow only	Sept. 26 - Sept. 30	Sept. 26 - Sept. 30
Unit 20(B), that portion of the Salcha River drainage up-stream from and including Goose Creek		
1 bull; or	Sept. 1 - Sept. 25	Sept. 1 - Sept. 25
or 1 bull, by bow and arrow only	Sept. 26 - Sept. 30	Sept. 26 - Sept. 30
Unit 20(B), that portion south-east of the Moose Creek dike within one-half mile of each side of the Richardson High-way		
RESIDENT HUNTERS; 1 bull;	Sept. 1 - Sept. 15	
NONRESIDENT HUNTERS: 1 bull with 50-inch antlers or antlers with 4 or more brow tines on one side		Sept. 5 - Sept. 15

Remainder of Unit 20(B)		
RESIDENT HUNTERS: 1 bull;	Sept. 1 - Sept. 15	
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(C)		
RESIDENT HUNTERS: 1 bull, by youth hunt only; or	Aug. 25 - Aug. 31	
1 bull	Sept. 1 - Sept. 25	
NONRESIDENT HUNTERS: 1 bull with 50-inch antlers or antlers with 4 or more brow tines on one side;		Sept. 1 - Sept. 25
Unit 20(F), that portion drained by the Yukon River downstream from, but not including, the Hess Creek and Tanana River drainages		
1 bull per regulatory year;	Sept. 5 - Sept. 25; Dec. 1 - Dec. 15	No open season.
Unit 20(F), that portion drained by the Tanana River		
1 bull	Sept. 5 - Sept. 25	No open season.
Remainder of Unit 20(F) 1 bull	Sept. 1- Sept. 15	No open season.
Unit 25(C)		
RESIDENT HUNTERS: 1 bull	Sept. 1 - Sept. 15	
NONRESIDENT HUNTERS:		

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

Some of these subunits have been identified as providing for high levels of harvest for human consumptive use, and the following are the Intensive Management findings and objectives (5 AAC 92.108):

Population	**Finding**	**Population Objective**	**Harvest objective**
Moose			
GMU 20A	Positive	10,000 – 15,000	500 – 900
GMU 20B	Positive	12,000 – 15,000	600 – 1,500
GMU 20C – outside Denali	Negative		
GMU 20F	Negative		
GMU 25C	Negative		

There are positive customary and traditional using findings for moose in Units 20A, 20B, 20C, 20F and 25C outside the Fairbanks Nonsubsistence Area (5 AAC 99.025(8)):

Area	**Amounts Reasonably Necessary for Subsistence Uses**
20A, that portion outside the Fairbanks Nonsubsistence Area (NSA)	50 – 75
20B, that portion outside the Minto Management Area	75 – 100
20B, that portion within the Minto Management Area	20 – 40
20C and 20F	100 – 130
25C, that portion outside the Fairbanks NSA	8 – 15

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? Requiring hunters to obtain a registration permit instead of a harvest ticket would greatly improve reporting and provide managers with more accurate harvest and effort data. In addition, reporting is required for registration permits and carries monetary and potential loss of hunting privilege consequences for not reporting.

BACKGROUND: The Fairbanks area units 20A, 20B, 20C, 20F and 25C, have some of the highest hunter effort and harvest in the state. During 2018-2022 an average of 5,088 hunters harvested 1,200 moose from these units, annually. Units 20A, 20B and 20C are designated Intensive Management units and are managed for high levels of harvest. Units 20F and 25C both

have low density moose populations but are highly accessible and have "any bull" bag limits. The department would like to switch from harvest tickets in these units to one single registration permit. Managing hunts with registration permits allows the department to collect more reliable harvest and effort data to help maximize moose hunting opportunity and harvest. Issuing one permit for all five GMUs makes it easier for hunters to have the proper paperwork because a single registration permit would be valid in all five of the affected GMUs. Hunters would also be able to obtain these permits at any ADF&G office and permits would be available online.

DEPARTMENT COMMENTS: The department submitted and **SUPPORTS** this proposal. More accurate and timely harvest and hunter effort data will improve the department's ability to maximize harvest opportunity and meet intensive management objectives. A move to a registration permit would represent a reduction to subsistence opportunity; if the board adopts this proposal it may wish to consider if reasonable opportunity is being provided.

COST ANALYSIS: Adoption of this proposal would result in additional costs for the department.

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Proposals 172-178

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PROPOSAL 179– 5 AAC 85.045. Hunting seasons and bag limits for moose. Shift the resident moose season to later in September.

PROPOSED BY: Alan Horstman

WHAT WOULD THE PROPOSAL DO? This proposal would move the resident moose season in Unit 20B from September 1–15 to September 15– 30.

WHAT ARE THE CURRENT REGULATIONS?

Unit 20(B), that portion of the Salcha River drainage downstream of Goose Creek and upstream from and including Butte Creek.

- The resident moose season is Sept. 1–Sept. 15 with a bag limit of one bull moose.
- The nonresident moose season is Sept. 5–Sept. 15 with a bag limit of one bull moose.

Unit 20(B), that portion southeast of the Moose Creek dike within one-half mile of each side of the Richardson Highway

- The resident moose season is Sept. 1–Sept. 15 with a bag limit of one bull moose.
- The nonresident moose season is Sept. 5–Sept. 15 with a bag limit of one bull moose.

Remainder of Unit 20(B)

- The resident moose season is Sept. 1–Sept. 15 with a bag limit of one bull moose.
- The nonresident moose season is Sept. 5–Sept. 15 with a bag limit of one bull moose.

There are positive customary and traditional use findings for moose in Unit 20(B). The amounts reasonably necessary for subsistence uses (ANS) outside the Minto Management Area is 75 –

100 moose, and the ANS inside the Minto Management Area is 20 – 40 moose (5 AAC 99.025(8)).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? If adopted, this proposal would shift the resident moose season later into September. This shift would cause the entire moose hunting season to occur during the peak period of the moose rut and would likely increase harvest due to vulnerability of the bulls during that period of the breading season.

BACKGROUND: The most recent population estimate in Unit 20B was 12,479 moose in 2020. The bull:cow ratio at that time was 24 bulls:100 cows. The Intensive Management (IM) population objective for Unit 20B is 12,000–15,000 moose and a harvest objective of 600-1,500 moose. The department's management objective is for a bull:cow ratio of 30:100. From 2018–2022 an average of 2,141 hunters harvested 338 bull moose during the general season harvest ticket hunt.

DEPARTMENT COMMENTS: The department **OPPOSES** this proposal. Shifting this season would likely increase harvest because the season would be during the peak of rut when bulls are more susceptible to harvest. The most recent population estimate in Unit 20B indicates the bull:cow ratio is below objectives, therefore an increase in harvest is not warranted. Unit 20B currently has high hunter densities and having a late season hunt, such as the one proposed, would likely increase the number of hunters even more.

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

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Proposals 180-181

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PROPOSAL 182 – 5 AAC 85.020. Hunting seasons and bag limits for brown bear. Lengthen the brown bear hunting season in Units 20A, 20B, and 25C by two weeks.

PROPOSED BY: Fairbanks Fish and Game Advisory Committee

WHAT WOULD THE PROPOSAL DO? This proposal would extend the brown bear season in Units 20A, 20B and 25C from May 31 to June 15. This would allow hunters 15 more days of brown bear baiting in the spring.

WHAT ARE THE CURRENT REGULATIONS?

Unit 20A, Unit 25C and remainder of Unit 20B (5 AAC 85.020)

Resident and nonresident hunters:

- One brown bear every regulatory year, September 1–May 31.
- Cubs and sows with cubs may not be taken.
- Hunting brown bears over bait is legal, April 15–May 31.

- Hunters must salvage the entire hide (including claws attached) and skull of a brown bear.
- Sealing brown bears is required within 30 days of harvest.

Refer to the *2023–2024 Alaska Hunting Regulations* for specific details about brown bear hunting seasons, methods, salvage, and other requirements.

There is a positive customary and traditional use finding for brown bears in Units 20A and 20B outside the boundaries of the Fairbanks Nonsubsistence Area. The amounts necessary for subsistence uses is 1–3 brown bears (5 AAC 99.025(3)).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would increase hunting opportunity for brown bears in the spring by 15 days. It is likely to increase the brown bear harvest in these areas.

BACKGROUND: Brown bear hunting seasons and bag limits have been modified over the last decade in the Interior and Eastern Arctic Region (Region III) through resident tag fee exemptions, increased bag limits, longer seasons, and, in some units (including Units 20A, 20B and 25C) allowing the take of brown bears at registered bear bait stations. In the Fairbanks Management Area, the take of brown bears over bait was first allowed in Unit 20C during regulatory year (RY)12, followed by Units 20A and 20B in RY14 and Unit 25C in RY20. Most bear hunting seasons in Region III are August 10–June 30, with the exception of easily accessed and heavily hunted areas, including Unit 20A, central and western portions of Unit 20B (remainder) and Unit 25C which have shorter seasons. The average harvest of brown bears in Unit 20A during RY18-RY22 is 24 bears with five being harvested annually over bait. For Unit 20B the annual brown bear harvest during RY18-RY22 is 12 brown bears with six being harvested over bait annually. In Unit 25C, the average brown bear harvest during RY18-RY22 is three bears annually and less than one on average harvested over bait.

DEPARTMENT COMMENTS: The department **SUPPORTS** this proposal. The department has no biological concern with lengthening the brown bear baiting season by 15 days as harvest is not expected to increase enough to be detrimental to the bear population in the proposed area. During the 2024 Board of Game meeting the board will consider several proposals to extend brown bears seasons in these game management units. If the board is interested in providing more brown bear hunting opportunity in this area, the department recommends the board adopt only one of the proposals rather than all of them, so as to increase opportunity incrementally rather than at a large scale by, for example, increasing both spring and fall seasons. It would be the preference of the department if the board would consider one of the proposals to provide additional hunting opportunity.

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

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PROPOSAL 183 – 5 AAC 85.020. Hunting seasons and bag limits for brown bear. Lengthen the brown bear hunting season in Unit 20A by two weeks.

PROPOSED BY: Middle Nenana River Fish and Game Advisory Committee

WHAT WOULD THE PROPOSAL DO? This proposal would extend the brown bear season in Unit 20A from May 31 to June 15. This would allow hunters 15 more days of brown bear baiting in the spring.

WHAT ARE THE CURRENT REGULATIONS?

Unit 20A (5 AAC 85.020)

Resident and nonresident hunters:

- One brown bear every regulatory year, September 1–May 31.
- Cubs and sows with cubs may not be taken.
- Hunting brown bears over bait is legal, April 15–May 31.
- Hunters must salvage the entire hide (including claws attached) and skull of a brown bear.
- Sealing brown bears is required within 30 days of harvest.

Refer to the *2023–2024 Alaska Hunting Regulations* for specific details about brown bear hunting seasons, methods, salvage, and other requirements.

There is a positive customary and traditional use finding for brown bears in Units 20A and 20B outside the boundaries of the Fairbanks Nonsubsistence Area. The amounts reasonably necessary for subsistence uses is 1–3 brown bears (5 AAC 99.025(3)).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would increase hunting opportunity for brown bears in the spring by 15 days. If adopted, brown bear harvest may increase in this area.

BACKGROUND: Brown bear hunting seasons and bag limits have been modified over the last decade in Region III through resident tag fee exemptions, increased bag limits, longer seasons, and, in some units (including Units 20A, 20B and 25C) allowing the take of brown bears at registered bear bait stations. In the Fairbanks area, the take of brown bears over bait was first allowed in Unit 20C during regulatory year (RY)12, followed by Units 20A and 20B in RY14 and Unit 25C in RY20. Most bear hunting seasons in Region III are August 10–June 30, with the exception of easily accessed and heavily hunted areas, including Unit 20A, central and western portions of Unit 20B (remainder) and Unit 25C which have shorter seasons. The average harvest of brown bears in Unit 20A during RY18-RY22 is 24 bears with five being harvested annually over bait.

DEPARTMENT COMMENTS: The department **SUPPORTS** this proposal. The department has no biological concern with lengthening the brown bear baiting season by 15 days as harvest is not expected to increase enough to be detrimental to the bear population in the proposed area. During the 2024 Board of Game meeting the board will consider several proposals to extend brown bears seasons in this game management unit. If the board is interested in providing more brown bear hunting opportunity in this area, the department recommends the board adopt only

one of the proposals rather than all of them, so as to increase opportunity incrementally rather than at a large scale by, for example, increasing both spring and fall seasons. It would be the preference of the department if the board would consider one of the proposals to provide additional hunting opportunity.

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

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PROPOSAL 184 – 5 AAC 85.020. Hunting seasons and bag limits for brown bear. Lengthen the brown bear hunting season in Unit 20A by three weeks.

PROPOSED BY: Mylinda Cizmowski

WHAT WOULD THE PROPOSAL DO? This proposal would open the brown bear season in Unit 20A on August 10 instead of September 1. This would allow hunters 22 more days of brown bear hunting season in the fall.

WHAT ARE THE CURRENT REGULATIONS?

Unit 20A (5 AAC 85.020)

Resident and nonresident hunters:

- One brown bear every regulatory year, September 1–May 31.
- Cubs and sows with cubs may not be taken.
- Hunting brown bears over bait is legal, April 15–May 31.
- Hunters must salvage the entire hide (including claws attached) and skull of a brown bear.
- Sealing brown bears is required within 30 days of harvest.

Refer to the *2023–2024 Alaska Hunting Regulations* for specific details about brown bear hunting seasons, methods, salvage, and other requirements.

There is a positive customary and traditional use finding for brown bears in Units 20A and 20B outside the boundaries of the Fairbanks Nonsubsistence Area. The amounts reasonably necessary for subsistence uses is 1–3 brown bears (5 AAC 99.025(3)).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would increase hunting opportunity for brown bears in the fall by 22 days. It is likely to increase the brown bear harvest in this area.

BACKGROUND: Brown bear hunting seasons and bag limits have been modified over the last decade in Region III through resident tag fee exemptions, increased bag limits, longer seasons, and, in some units (including Units 20A), allowing the take of brown bears at registered bear bait stations. Most bear hunting seasons in Region III are August 10–June 30, with the exception of easily accessed and heavily hunted areas, including Unit 20A, central and western portions of

Unit 20B (remainder) and Unit 25C which have shorter seasons. The average harvest of brown bears in Unit 20A during regulatory years (RY) RY18-RY22 is 24 bears.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal. The department lacks data on the population size of brown bears in Unit 20A, therefore manages on harvest data. During the 2024 Board of Game meeting, the board will consider several proposals to extend brown bears seasons in this game management unit. If the board is interested in providing more brown bear hunting opportunity in this area, the department recommends the board adopt only one of the proposals rather than all of them, so as to increase opportunity incrementally rather than at a large scale by, for example increasing both spring and fall seasons. It would be the preference of the department if the board would consider one of the proposals to provide additional hunting opportunity.

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

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PROPOSAL 185 – 5 AAC 85.020. Hunting seasons and bag limits for brown bear. Lengthen the brown bear hunting season in Units 20A and 20B by 30 days.

PROPOSED BY: Tyrel Palmer

WHAT WOULD THE PROPOSAL DO? This proposal would extend the brown bear season in Units 20A and 20B from May 31 to June 30. This would allow hunters 30 more days of brown bear baiting in the spring.

WHAT ARE THE CURRENT REGULATIONS?

Unit 20A and remainder of Unit 20B (5 AAC 85.020)

Resident and nonresident hunters:

- One brown bear every regulatory year, September 1–May 31.
- Cubs and sows with cubs may not be taken.
- Hunting brown bears over bait is legal, April 15–May 31.
- Hunters must salvage the entire hide (including claws attached) and skull of a brown bear.
- Sealing brown bears is required within 30 days of harvest.

Refer to the *2023–2024 Alaska Hunting Regulations* for specific details about brown bear hunting seasons, methods, salvage, and other requirements.

There is a positive customary and traditional use finding for brown bears in Units 20A and 20B outside the boundaries of the Fairbanks Nonsubsistence Area. The amounts reasonably necessary for subsistence uses is 1–3 brown bears (5 AAC 99.025(3)).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED? This proposal would increase hunting opportunity for brown bears in the spring by 30 days. It is likely to increase the brown bear harvest in these areas.

BACKGROUND: Brown bear hunting seasons and bag limits have been modified over the last decade in Region III through resident tag fee exemptions, increased bag limits, longer seasons, and, in some units (including Units 20A and 20B) allowing the take of brown bears at registered bear bait stations. In the Fairbanks Area, the take of brown bears over bait was first allowed in Unit 20C during regulatory year (RY)12, followed by Units 20A and 20B in RY14. Most bear hunting seasons in Region III are August 10–June 30, with the exception of easily accessed and heavily hunted areas, including Unit 20A and central and western portions of Unit 20B (remainder) which have shorter seasons. The average harvest of brown bears in Unit 20A during RY18-RY22 is 24 bears with 5 being harvested annually over bait. For Unit 20B the annual brown bear harvest during RY18-RY22 is 12 brown bears with six being harvested over bait annually.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal. The department lacks data on the population size of brown bears in Unit 20A and 20B, therefore manages on harvest data. Both areas have a high density of hunters that hunt using bait in the spring. During the 2024 Board of Game meeting the board will consider several proposals to extend brown bears seasons in these game management units. If the board is interested in providing more brown bear hunting opportunity in this area, the department recommends the board adopt only one of the proposals rather than all of them, so as to increase opportunity incrementally rather than at a large scale by, for example, increasing both spring and fall seasons. It would be the preference of the department if the board would consider one of the proposals to provide additional hunting opportunity.

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

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Proposals 186-191

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PROPOSAL 192 – 5 AAC 85.045(11). Hunting seasons and bag limits for moose. Reauthorize the antlerless moose season in Unit 13A.

PROPOSED BY: Alaska Department of Fish and Game

WHAT WOULD THE PROPOSAL DO? This proposal reauthorizes the antlerless moose hunt in Unit 13A; this hunt must be re-authorized annually by the Board of Game (BOG) 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 13A for an October 1–31 and March 1–31 season. Hunters are prohibited from taking calves and cows accompanied by a calf.

Units and Bag Limits (11)	**Resident Open Season (Subsistence and General Hunts)**	**Nonresident Open Season**
Unit 13 1 moose per regulatory year, only as follows: …		
1 antlerless moose by drawing permit only in Unit 13(A); up to 200 permits may be 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 BOG has made a positive customary and traditional use finding for moose in all of Unit 13, with an amount reasonably necessary for subsistence 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 hunt in Unit 13A for the 2023 regulatory year (RY); this hunt is needed to keep the moose population within intensive management objectives and provide additional hunting opportunity for residents.

BACKGROUND: The Unit 13A antlerless hunt was established in March 2011 and the first Unit 13 antlerless hunt under this regulation took place in September 2012. Ten permits were issued annually for a single hunt area in the central portion of Unit 13A. The hunt area was extended beginning RY19 to include all of 13A-West, where bull-to-cow ratios are low, twinning rates are low, browse removal is relatively high, and the 3-year running average of moose abundance in Unit 13A has been at or above the upper end of the abundance objectives since 2011. 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 only 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 three bulls were harvested during the 2014 season, seven cows during the 2015 season, five cows during the 2016 season, six cows and two bulls during the 2017 season, seven cows during the 2018 season, and eight cows and two bulls during the 2019 season. Twenty permits

were issued for RY20, and 16 cows were harvested. Twenty-five permits were issued for RY21, and 22 cows were harvested. Twenty-five permits were issued for RY22; one bull and 19 cows were harvested.

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, near the higher end of the objectives in 2018 and 2019, above the midpoint of the objectives in 2020, and above objectives again in 2021. 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, providing additional sustainable harvest opportunity for the public.

DEPARTMENT COMMENTS: The department **SUPPORTS** this proposal. Antlerless moose hunts must be re-authorized annually by the board to comply with statutory requirements. These hunts are an essential management tool 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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Proposals 193-194

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PROPOSAL 195 - 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 re-authorized annually by the Board to comply with statutory requirements.

WHAT ARE THE CURRENT REGULATIONS? The current moose hunting regulations for Units 14A&B can be found in 5 AAC 85.045 and in the *2023–2024 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 30 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.

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 additional 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 November of 2023 provided an estimate of 6,657 (± 810; 80% CI) moose in Unit 14A. This is less than the 2020 population estimate of 7,112 however it is greater than the population objective of 6,000–6,500 moose. Twinning surveys conducted in the spring of 2023 showed a twinning rate of 20%: this is indicative of a population that should be managed for sustainability. The twinning rate has been increasing since 2021 which suggests that the population productivity is increasing as the population is being brought closer to the population objective.

The number of antlerless permits available was increased by the board in spring of 2011 from 400 to 1,000. Due to the heavy snows that same winter, there were no antlerless permits issued in 2012. Subsequent surveys indicated that the moose population was not adversely affected by the winter of 2011 and was continuing to grow. The number of permits issued has been increasing and was raised to the limit of 1,000 permits for the fall of 2017. In spring of 2018 the board increased the permit levels to 2,000 permits and 1,302 permits were issued for RY18 and 1,310 in RY19. In RY21 and RY22 the antlerless permits were reduced to 800, and in RY23 permits were reduced to 340. The success rate for hunters under the antlerless permits has remained steady at about 47% over the past 3 years.

The targeted moose hunt (AM415) that has been in place since 2012 in Units 14A&14B provides an additional tool to address public safety concerns related to moose-vehicle collision and nuisance management issues. 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. For the collision area issues, permits are issued as snow increases and moose become more prevalent along roadways. The winter of 2014 was very mild with almost no snow. As a result, only 20 permits were issued that year. No permits were issued in the winters of 2017–2023. 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; moose may also experience nutritional stress, particularly during severe winters. The number of antlerless moose harvested in recent years and the severity of the winters of last couple of years has arrested the growth of the herd

and may have led to a population reduction. Fewer antlerless permits will be offered for RY23 and future permit levels will be adjusted as more current population information is collected.

Browse surveys completed in the spring of 2016 demonstrated a removal rate of 37.13% (±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. These browse surveys were conducted at the end of a winter which had little snowfall and browsing appeared to be more evenly distributed than what would be found in a typical year.

Moose-vehicle collisions result in property damage and may result in human injury or death. During the last 5 years, an average of approximately 300 moose per year were killed due to moose-vehicle collisions in the Mat-Su Valley area. The department also receives periodic complaints from the public about crop depredation and aggressive behavior that can be mitigated by this hunt structure.

The department uses the targeted hunts to mitigate public safety concerns by issuing permits to selected hunters and assigning them to hunt areas that correspond with areas of high moose-vehicle collisions or reoccurring nuisance issues.

DEPARTMENT COMMENTS: The department **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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Proposals 196-206

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PROPOSAL 207– 5 AAC 92.990(30). Definitions

PROPOSED BY: Western Interior Regional Advisory Council

WHAT WOULD THE PROPOSAL DO? The proposal would change the legal definition of "full-curl horn" of a male (ram) Dall sheep for Game Management Units 12, 19, 20, 24, 25, 26B and 26C. Specifically, the criteria that a ram may be at least eight years of age as determined by horn growth annuli would be removed from the legal definition of a "full-curl horn."

WHAT ARE THE CURRENT REGULATIONS?

The "full-curl horn" of a male (ram) Dall sheep means that (5 AAC 92.990 (30)):

(A) the tip of at least one horn has grown through 360 degrees of a circle described by the outer surface of the horn, as viewed from the side, or

(B) both horn tips are broken; broken means the lamb tip is completely absent; horn tips that are chipped or cracked are not broken if any portion of the lamb tip is present; characteristics of the lamb tip include:

(i) a length of less than four inches,

(ii) the inside surface of the lamb tip is distinctly concave when compared to the remainder of the horn, and

(iii) the lamb tip is the section of a horn that is grown during the first six months of a sheep's life and is the section of horn distal of the first annulus, which is the swelling of the horn that forms during the first winter of life.

(C) the sheep is at least eight years of age as determined by horn growth annuli

The Board of Game has made negative customary and traditional use findings for Dall sheep in Unit 12, that portion within the Tok Management Area; Unit 20, that portion within the Tok Management Area and the Delta Management Area; and Units 25(B) and 25(C) (5 AAC 99.025(10)).

WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?

The definition of a “full-curl horn” of a male (ram) Dall sheep would become:

(A) the tip of at least one horn has grown through 360 degrees of a circle described by the outer surface of the horn, as viewed from the side, or

(B) both horn tips are broken; broken means the lamb tip is completely absent; horn tips that are chipped or cracked are not broken if any portion of the lamb tip is present; characteristics of the lamb tip include:

(i) a length of less than four inches,

(ii) the inside surface of the lamb tip is distinctly concave when compared to the remainder of the horn, and

(iii) the lamb tip is the section of a horn that is grown during the first six months of a sheep's life and is the section of horn distal of the first annulus, which is the swelling of the horn that forms during the first winter of life.

BACKGROUND: Sheep hunting in Region III has predominately been managed using the conservative full-curl ram harvest management strategy. The full-curl strategy is conservative

because it focuses harvest pressure on: 1) older-aged animals, 2) males only, and 3) a small segment of the population. Dall sheep rams on average become full-curl at 8 years of age or older, and previous research has shown that these older rams have naturally higher mortality rates than younger aged rams. Therefore, when hunters harvest a full-curl ram, this has a lower impact on the population compared to harvesting a younger ram because there is a higher likelihood the older ram would have died of natural causes. Additionally, limiting harvest to males only reduces the impact of harvest on the overall population because male survival rates have a drastically lower impact on population growth compared to female survival rates. Finally, the full-curl strategy is extremely conservative because full-curl animals compose a very small proportion of most sheep populations. As a result, the number of animals that are legally available to hunters is a small proportion of the population and this imposes a self-limit on overharvest of the population. Taken collectively, the full-curl harvest strategy limits harvest to only older-aged rams and is thus a conservative, self-limiting strategy that allows for maximum hunter opportunity while simultaneously preventing overharvest and has minimum impacts on population growth.

Minimum count surveys throughout Region III suggest there have been a 40% – 70% decline in sheep populations since the most recent highs which occurred during 2010 – 2012. The decline in abundance mirrors the declines reported by the National Park Service in Denali and Gates of the Arctic National parks, as well as reported declines in sheep numbers throughout the Yukon Territory and British Columbia. Severe weather, including prolonged springs and icing events, likely caused a near collapse of recruitment in some years as well as increased adult mortality (Rattenbury et al. 2018, Van de Kirk et al. 2020).

Weather-related sheep population declines are not without precedent. Murie (1944) reported a robust population of Dall sheep in Denali National Park in 1928, but record snowfall and harsh winter conditions during the winters of 1928/1929 and a corresponding sharp reduction in sheep abundance in 1931/1932. A more contemporary example occurred in Unit 20A where sheep populations and harvest in this unit were high until a weather-related population decline during the winter of 1992/1993. Managers chose to maintain the hunt structure as a general season harvest ticket hunt open to both residents and nonresidents. Although it took about 15-20 years to rebuild, sheep populations and harvest returned to pre-decline levels. It is unlikely that the conservative harvest of full-curl rams during this period slowed the population recovery.

Since 2000, total sheep harvested in Region III Units has averaged 68% (range: 52% – 76%) of the total statewide take. Although there is a 42-day general season spanning August 10 - September 20, more than half of the harvest occurs within the first 10 days of the season. Sheep hunters have ample opportunity to hunt after the first 10 days of the season and avoid either real or perceived overcrowding. Sheep hunter participation in Region III peaked in 1989 with 1,777 reported hunters and has averaged 1,358 (Range: 1,557 – 1,038) for the years 2000 – 2022. The high of 1,557 hunters in 2008, coincided with the implementation of a draw hunt system for sheep hunting in GMU's 13D and 14A south and east of the Matanuska River. There was a substantial drop in hunter participation in 2022 (n=1038), which suggests that hunters are either self-limiting their hunt participation during the current low in sheep population levels and/or

were impacted by recent federal (e.g. Federal Subsistence Board closure of sheep hunting in portions of the Brooks Range) or state closures (e.g. 19C closure for non-residents). Success rates for resident sheep hunters in Region III between 2000 – 2022 has averaged 29.7% (Range: 18.6% - 34.2%). For comparison, success rates for resident moose hunters in Region III between 2000 and 2022 have averaged 23.1% (range: 17.9% - 29.6%). Since 2000 the percentage of resident hunters participating in consecutive general harvest sheep seasons in Region III has ranged from 15.5% to 32.8%. Success rates for hunters who participate in consecutive years do not differ significantly from hunters who do not.

In Region III, between 2007–2023, for sheep hunts managed under the current definition of full-curl, an average of 11.1% range (6.5% - 15.6%) of the rams harvested were less than 360°, and with a lamb tip present (i.e., not double broomed), were ≥ 8 years of age (legal take). During that same period, an average of 4.3 % range (0.7% - 8.3 %) of the harvest were rams with an age less than 8, with a lamb tip present, and with less than 360° of horn curl (illegal take). Horn morphometric work by ADF&G has demonstrated that on a statewide basis for the years 2016-2021, between 57% – 66% of the rams harvested each year were legally available for harvest at least one previous hunting season after attaining 360 degrees of curl.

DEPARTMENT COMMENTS: The department is **NEUTRAL** on this proposal. There is no biological concern with the current hunt management structure and the full curl bag limit as currently defined. It is unclear if removing the age component from the legal definition would reduce the overall number of sublegal take, which is currently low (annual average of 4.3%). Furthermore, the department has no data on which of the three current criteria, or combination thereof, individual hunters use in the field to ultimately determine when to harvest a ram. However, if field-determined age is a criteria often used, this proposal may reduce sublegal ram harvest.

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

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Proposals 208-211