

**ALASKA DEPARTMENT OF FISH AND GAME**  
**STAFF COMMENTS FOR PROPOSALS**  
**WESTERN ARCTIC / WESTERN REGION PROPOSALS 1, 2, 26 & 34**  
**ALASKA BOARD OF GAME MEETING**  
**KOTZEBUE, ALASKA**  
**JANUARY 26-29, 2024**



The following staff comments were prepared by the Alaska Department of Fish and Game for use at the Alaska Board of Game meeting, January 26-29, 2024 in Kotzebue, 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 1 - 5AAC 85.055 Hunting seasons and bag limits for Dall sheep.** Establish an archery-only registration hunt for Dall sheep in Unit 23 and 26A.

**PROPOSED BY:** Paul Forward

**WHAT WOULD THE PROPOSAL DO?** This proposal would create an archery-only registration hunt for Dall sheep in Units 23 and 26A east and west of the Etluk River to include the DeLong and Schwatka mountains within 23 and 26A. The bag limit would be one ram with full-curl horn or larger, season dates would be August 10 – September 20, permits would only be available in person at license vendors, and harvest would have to be reported within 48 hours.

**WHAT ARE THE CURRENT REGULATIONS?** The current Dall sheep hunting regulations can be found in 5 AAC 85.055 and in the 2023–2024 Alaska Hunting Regulations.

Opportunity for all residents and nonresidents in Units 23 and 26A (that portion west of the Etluk River drainage) is currently closed.

There is a positive customary and traditional use finding (C&T) for Dall Sheep in Unit 26A. Amounts Reasonably Necessary for Subsistence (ANS) ranges are as follows:

- Units 23 and 26A west of the Etluk River (DeLong Mountains): 0-9
  
- Units 23 and 26A east of the Etluk River (Schwatka Mountains): 2-4
  
- GMUs 23, 24, 25A, and 26 (Brooks Range): 75-125

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** If adopted, this proposal would create a resident only, archery-only registration hunt for sheep when the season first reopens with a bag limit of one full-curl ram or larger, with season dates of August 10 – September 20. Permits would only be available in person and successful hunters would be required to report within 48 hours of taking a sheep.

Having a bow hunting requirement would also require all hunters who wanted to participate in this hunt to have access to bow hunter education. Hunter education is not currently a requirement in Unit 26A. Many subsistence hunters do not bow hunt but instead use firearms as their main method of hunting.

**BACKGROUND:** Unit 26A and Unit 23 sheep are managed as a single population, so data and background listed throughout will be applicable to both areas, area specific information will be noted. Sheep hunts in this portion of the Brooks Range are managed cooperatively with the National Park Service (NPS) as most of the land in the area is federal public lands.

Sheep hunting in Unit 23 and in Unit 26A west of the Etluk River was closed in 2014 by emergency order, and the general season hunt was closed in that portion of Unit 26A east of the Etluk River excluding Gates of the Arctic National Park. In 2015, the Board of Game adopted regulations to continue the hunting season closures in Unit 23 and in Unit 26A west of the Etluk River drainage due to conservation concerns over persistently low population numbers. The hunting season closure was and is broadly supported by local residents, who asked the

department for a full hunting season closure rather than exploring more restrictive hunt management under the Tier II system.

The department conducted Dall sheep abundance and composition surveys in collaboration with the NPS from 2016-2019. These abundance surveys conducted in the Baird (Deacy and Schertz 2021) and central De Long Mountains utilized a distance sampling methodology. The estimates from these surveys can be found in Tables 1 and 2. These surveys showed a similar dramatic decline in lab to ewe-like ratios in both the Baird and De Long Mountains. The NPS conducted surveys in 2015 in the Western Baird Mountains in Western Arctic Park Lands and Gates of the Arctic (Rattenbury 2015). These surveys showed similar declines and poor lamb recruitment in the Western Baird Mountains (Rattenbury 2014).

Table 1. Baird Mountain sheep minimum counts 2009-2014 and estimates 2017 and 2019.

| Year | Sheep Minimum Count & Estimated Abundance |
|------|---|
| 2009 | 823                                       |
| 2011 | 587                                       |
| 2014 | 309                                       |
| 2017 | 233 (95%CI:183-313)                       |
| 2019 | 174 (95%CI: 141-230)                      |

Table 2. De Long Mountains sheep minimum counts 2011-2018.

| Year | Sheep Minimum Count & Estimated Abundance |
|------|---|
| 2011 | 1436                                      |
| 2014 | 359                                       |
| 2017 | 434 95%CI: 359-540)                       |
| 2018 | 161 (95%CI: 110-236)                      |

There are three state general season hunts currently open in Unit 26A. They are: Unit 26A east of and including the Etivluk River drainage, excluding the Gates of the Arctic National Park; Unit 26A private lands within the Gates of the Arctic National Park; and Unit 26A remainder. There were also two registration hunts RS388 and RS389, and a drawing hunt (DS384) that correspond to each of the hunt areas listed above. There was an emergency order in 2014 to close RS388,

RS389, and DS384 and the general season hunts in Unit 26A west of the Etivluk River drainage, excluding Gates of the Arctic National Park as well as the general season hunt in Unit 26A on private lands within Gates of the Arctic National Park (Figure 1). Note RS388 and DS384 are the same hunt areas.

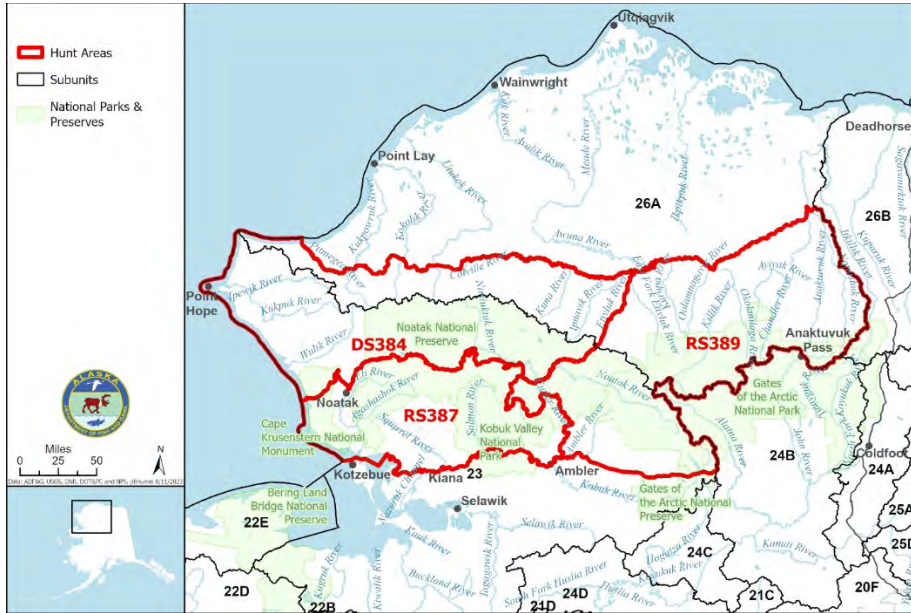


Figure 1. The Unit 26A and Unit 23 hunts that were closed in 2014 and 2015 along with their corresponding general season hunts. DS383 is the same hunt area as RS388.

In 2015 the Board of Game adopted a proposal to close RS389, RS387 and DS384 (same hunt area as RS388) and the general season hunts in Unit 26A west of the Etivluk River drainage, and in Unit 23 to allow the sheep population to recover after extensive declines were documented in 2014 and 2015 due to icing events that reduced the population by 50-80%.

From 2013-2017 an average of 0.8 sheep were harvested per year. Between 2018-2022 the sheep harvest of all state managed hunts combined in Unit 26A declined to an average of about 0.4 sheep per year. All the state hunts that are currently open have full curl bag limits except for the hunt that occurs on private lands within Gates of the Arctic National Park. This hunt has a bag limit of 3 sheep per year. The harvest from 2012-2016 is outlined in Table 3.

**Table 3. Sheep harvest summary from 2012-2016 in units 23 and 26A.**

| Year | Unit 23 | Unit 26A | Total Harvest |
|------|---------|----------|---------------|
| 2012 | 3       | 4        | 7             |
| 2013 | 2       | 0        | 2             |

|      |   |   |   |
|------|---|---|---|
| 2014 | 0 | 1 | 1 |
| 2015 | 0 | 0 | 0 |
| 2016 | 0 | 0 | 0 |

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Dall sheep are managed using the conservative full-curl ram harvest management strategy. The full-curl strategy focuses harvest pressure on males-only and thereby a small segment of the population. 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. Additionally, 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 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 conservative.

**DEPARTMENT COMMENTS:** The department is **NEUTRAL** on the methods and means and allocative aspects of this proposal. While archery only sheep hunts have shown to contribute little to overall harvest when compared to unrestricted weapons hunts, the department is concerned about the hunting pressure and associated disturbance potentially compromising overwinter survival and/or reproductive success for some animals. Hunters could move animals out of productive habitat to escape terrain and compromise their ability to obtain sufficient body reserves for rut and overwinter survival. The board may wish to determine if the proposed changes will provide for a reasonable opportunity of success in harvesting sheep for subsistence uses.

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

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**PROPOSAL 2- 5AAC 85.025 (21). Hunting seasons and bag limits for caribou.** Reduce the caribou bag limit across the range of the herd to four caribou per year, only one of which may be a cow.

**PROPOSED BY:** Western Arctic Herd Working Group

**WHAT WOULD THE PROPOSAL DO?** Adoption of this proposal would reduce the resident bag limit in Unit 21D Remainder, 22, 23, 24B Remainder, 24C, 24D and 26A to four caribou per year, no more than one cow may be taken.

**WHAT ARE THE CURRENT REGULATIONS?** The current regulations for caribou within these units are as follows:

**5 AAC 85.025. Hunting seasons and bag limits for caribou.**

| <b>Units and Bag Limits</b>   | <b>Resident<br/>Open Season<br/>(Subsistence and<br/>General Hunts)</b>                        | <b>Nonresident<br/>Open Season</b> |
|---|--|------------------------------------|
| (17)<br>Unit 22(A), that portion<br>north of the Golsovia River<br>drainage   |  |                                    |
| RESIDENT HUNTERS:<br>5 caribou per day, by regi-<br>stration permit only, up to<br>20 caribou total; as follows:<br>up to 5 bulls per day<br>up to 5 cows per day   | July 1 - June 30<br>July 1 - Mar. 31   |                                    |
| NONRESIDENT HUNTERS:<br>1 bull  |  | Aug. 1 - Sept. 30                  |
| Unit 22(B), that portion<br>west of Golovnin Bay, and<br>west of a line along the<br>west bank of the Fish and<br>Niukluk Rivers to the mouth<br>of the Libby River, and ex-<br>cluding all portions of the<br>Niukluk River drainage<br>upstream from and includ-<br>ing the Libby River drainage  |  |                                    |
| RESIDENT HUNTERS:<br>5 caribou per day, by regis-<br>tration permit only, up to<br>20 caribou total; as follows:<br><br>up to 5 bulls per day<br><br>up to 5 cows per day<br><br>up to 5 caribou per day<br>during the period May 1 -<br>Sept. 30, a season<br>may be announced by emer-<br>gency order; however, cow<br>caribou may not be taken | Oct. 1 - Apr. 30<br><br>Oct. 1 - Mar. 31<br><br>(Season to be announced<br>by emergency order) |                                    |

April 1 - Aug 31

NONRESIDENT HUNTERS:  
1 bull; during the period Aug.  
1 - Sept. 30, a season may be  
announced by emergency order

(Season to be an-  
nounced by emergency  
order)

Remainder of Unit 22(B)

RESIDENT HUNTERS:  
5 caribou per day, by reg-  
istration permit only, up to  
20 caribou total; as follows:

up to 5 bulls per day

July 1 - June 30

up to 5 cows per day

July 1 - Mar. 31

NONRESIDENT HUNTERS:  
1 bull;

Aug. 1 - Sept. 30

Unit 22(D), that portion in  
the Pilgrim River drainage

RESIDENT HUNTERS:  
5 caribou per day, by reg-  
istration permit only, up to  
20 caribou total; as follows:

up to 5 bulls per day

Oct. 1 - Apr. 30

up to 5 cows per day

Oct. 1 - Mar. 31

up to 5 caribou per day;  
during the period  
May 1 - Sept. 30, a season  
may be announced by emer-  
gency order; however, cow  
caribou may not be taken  
April 1 - Aug. 31

(Season to be announced by  
emergency order)

NONRESIDENT HUNTERS:  
1 bull; during the period  
Aug. 1 - Sept. 30, a sea-  
son may be announced by  
emergency order

(Season to be an-  
nounced by emergency  
order)

Unit 22(D), that portion in





(18)

Unit 23, that portion north  
of and including the  
Singoalik River drainage

RESIDENT HUNTERS:  
5 caribou per day, by reg-  
istration permit only, as  
follows:

up to 5 bulls per day  
up to 5 cows per day

July 1 - June 30  
July 15 - Apr. 30

NONRESIDENT HUNTERS:  
1 bull

Aug. 1 - Sept. 30

Remainder of Unit 23

RESIDENT HUNTERS:  
5 caribou per day, by  
registration permit only,  
as follows:

up to 5 bulls per day  
up to 5 cows per day

July 1 - June 30  
Sept. 1 - Mar. 31

NONRESIDENT HUNTERS:  
1 bull

Aug. 1 - Sept. 30

...

(21)

Unit 26(A), that portion  
of the Colville River drain-  
age upstream from the  
Anaktuvuk River, and  
drainages of the Chukchi  
Sea south and west of,  
and including the Utukok  
River drainage

RESIDENT HUNTERS:  
5 caribou per day, by regis-  
tration permit only, as follows:

up to 5 bulls per day

July 1 - Oct. 14  
Feb. 1 - June 30

up to 5 cows per day

July 15 - Apr. 30

NONRESIDENT HUNTERS:

1 bull

July 15 - Sept. 30

Remainder of Unit 26(A)

RESIDENT HUNTERS:

5 bulls per day, by  
registration permit only

July 1 - July 15

5 caribou per day, by  
registration permit only;  
however, no more than  
3 cows per day; cows  
accompanied by calves  
may not be taken;

July 16 - Oct. 15

3 cows per day, by  
registration permit only

Oct. 16 - Dec. 31

5 caribou per day, by  
registration permit only;  
however, no more than  
3 cows per day;

Jan. 1 - Mar. 15

5 bulls per day, by  
registration permit only

Mar. 16 - June 30

NONRESIDENT HUNTERS:

1 bull

July 15 - Sept. 30

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There is a positive customary and traditional use finding for caribou in Units 21D Remainder, 22, 23, 24B Remainder, 24C, 24D and 26A. As mentioned above, several caribou herds migrate across these units, and positive customary and traditional use findings have been found for each. Caribou harvests in these units are subject to the following Amounts Reasonably Necessary for Subsistence (ANS) ranges:

Units 20(F), 21(B), 21(C), 21(D) and 24 (Galena Mountains Herd, Wolf Mountains Herd, Ray Mountains Herd): 150-200

Units 21,22,23,24, and 26 (Western Arctic Herd, Teshekpuk Lake Herd): 8,000-12,000

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

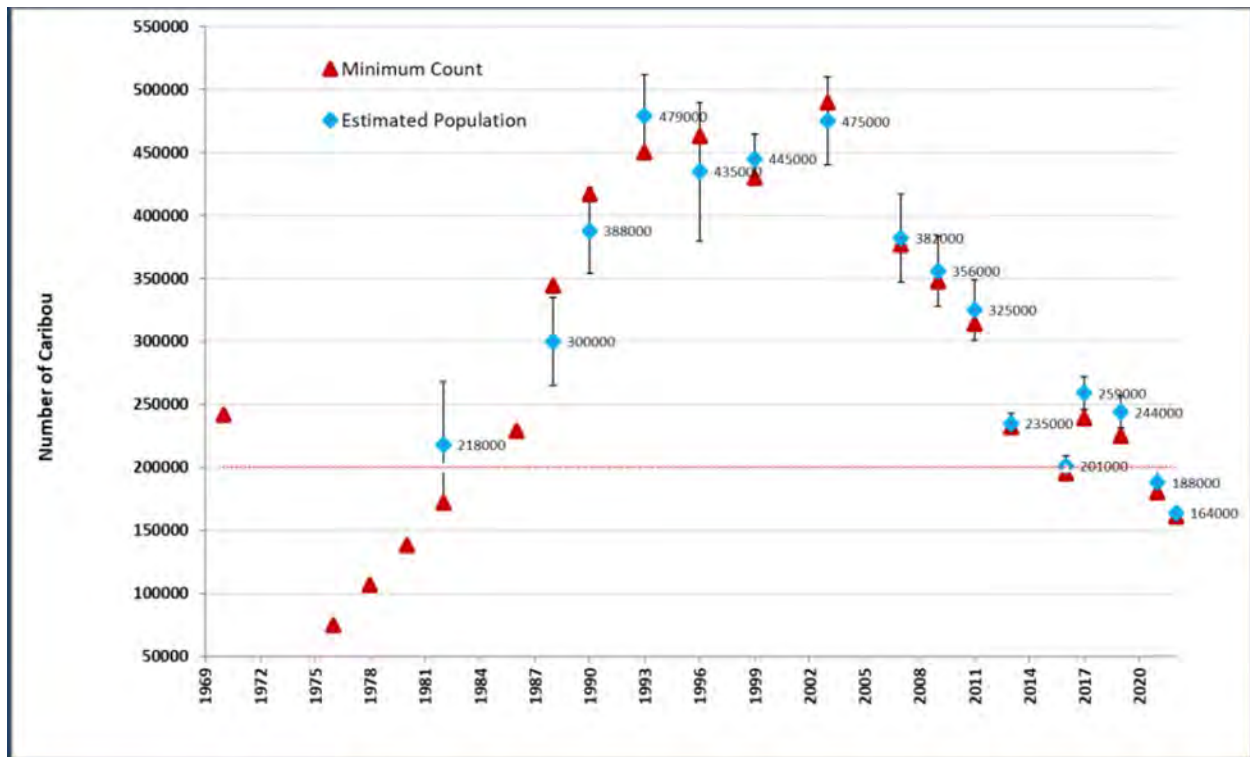
Unit 26(B) (Central Arctic Herd): 250 – 450

The Western Arctic Caribou herd (WAH) has a positive intensive management finding, with a population objective of at least 200,000 caribou and a harvest objective of 12,000-20,000.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** This proposal would reduce the caribou bag limit for resident hunters in Units 21D, 22, 23, 24B Remainder, 24C, 24D and 26A to a total of 4 per year, only one of which may be a cow. Based on the most recent patterns of distribution for the WAH, reductions to harvest would likely impact hunters in units 23 and 26A with little effect on harvest in the remaining units in most years.

**BACKGROUND:** The WAH is currently experiencing a long-term decline which started in 2003 and has resulted in a population level decrease from approximately 490,000 in 2003 to 164,000 in 2022, which is below the population objective. While caribou populations are known to fluctuate naturally based on a variety of environmental factors, this decline is of significant concern due to the importance of caribou to various user groups. The home range of the WAH covers approximately 157,000 square miles and caribou are generally considered the primary terrestrial food source for many communities within that range (WACHWG 2022).

The Alaska Department of Fish and Game Subsistence Section has gathered information on caribou harvests in many communities within the WAH range during select years since the early 1980s. Local harvest and use levels can fluctuate by year depending on several factors, including a community's access to the herd based on annual variations in migratory routes and timing and the availability of other subsistence resources to local households that year. However, the vast majority of households rely heavily on caribou to meet their wild food needs. In 2014, 89% of households in Anaktuvuk Pass used caribou, and animals were harvested by 40% of households. That year caribou made up 90% of all wild food harvests by edible weight for the community (Brown et al. 2014). In another example, in 2017 96% of households in Noatak used caribou, and 51% of households harvested caribou (Gonzalez et al. 2018). The differences in percentages of households harvesting caribou and households using caribou indicate that many families rely on caribou that are shared with them by others to meet their subsistence needs. Sharing caribou within and between communities across the region is a consistent use pattern seen across study years for communities within the WAH range. A reduction in bag limit will likely impact sharing patterns as heavy harvesting households will be more limited in their ability to harvest, and thus share, with non-harvesting households.



**Figure 1. Western Arctic Caribou Herd population estimate 1970-2022. Minimum counts are indicated in red and estimated abundance is indicated with a blue diamond along with associated 95% confidence limits. Estimates are produced using an estimator described by Rivest et al (1998).**

The importance of caribou conservation to local users was demonstrated by the Kotzebue Advisory Committee (AC) during a 2022 fall/winter meeting where they drafted a proposal to reduce the bag limit to 4 caribou per year, of which only 1 may be a cow and applied it to Unit 23 only. The Western Arctic Caribou Herd Working Group (WACHWG) followed suit a few weeks later during their December meeting drafting a similar proposal. The working group unanimously voted to use the same bag limit proposed by the Kotzebue AC but opted to include the entirety of the WAH range. The WACHWG is made up of various stakeholders including subsistence users from communities within the WAH range, hunters from outside the range of the herd, conservationists, hunting guides, reindeer herders and transporters. The combined proposals, (WSA22-05 and 06) coming from the NW Arctic and WI Subsistence Regional Advisory Committees show continued local support and understanding of the need for harvest reduction. The department recognizes and fully supports the readiness of these groups to reduce harvest and protect the WAH.

Harvest of the WAH is difficult to determine with limited harvest reporting across a wide geographic area. The department conservatively estimates that around 10% of the actual harvest is reported, recent attempts to increase reporting have included the establishment of registration hunts (RC800 and RC907) and outreach efforts focused on the need for harvest data. To fill in this data gap the department previously used a model to determine harvest by using subsistence

household surveys, and the local availability (distance, weather, etc.) to determine community harvest levels. This model has produced an average annual harvest of approximately 12,000 animals (Dau 2015). However, given changes to WAH distribution in recent years limiting access by local users, the department has concluded the model is too coarse to track short term change and the use of the model has been discontinued at this time. It is generally understood that harvest rates have decreased due to reduction in access, however the information is too limited to understand the rate of reduction.

The recommended harvest rate based on figures presented in Table 2 of the WACHWG management plan (2019) for the 2022 population of 164,000 animals is ~4.8% or 7,872 animals. This estimate of harvestable surplus is far below the long-term average harvest for this herd as well as the lower end of the ANS range for the WAH; continued efforts to understand actual harvest are ongoing. Between 2019-2023, ADF&G Subsistence and the Division of Wildlife Conservation (DWC) partnered with 8 different communities within units 22 and 23 to document caribou harvests and uses. Working with locally hired research assistants, staff conducted voluntary household surveys to document this information in each of 4 communities during alternating years, resulting in all communities being surveyed twice. Results of this study will be published by July 1, 2024. However, preliminary analyses indicate that in recent years Unit 22 communities have harvested fewer caribou than Unit 23 communities. This is likely because of less access to the herd. Harvests ranged from 13-365 caribou per community per year in Unit 22, and between 81-405 caribou per community year in Unit 23. While useful for understanding local harvests, this information cannot be used in place of annual harvest information for the entirety of the herd. As part of ongoing efforts to understand overall WAH harvests, ADF&G Subsistence hosted an interagency round-table discussion in October 2023 to generate ideas for collaboration on documenting harvests across the WAH range using household surveys. Conversations defining those research partnerships are ongoing, but ideally by 2025, researchers will pilot a large-scale effort to conduct household caribou harvest surveys in a larger portion of communities across the range of the WAH.

In recent years, harvest may have exceeded the harvestable surplus of the population. Reducing this harvest, particularly cow harvest, is an important step to slowing population decline. Estimated cow mortality is an important population metric and has remained above the long-term average since 2018. The change to 5 caribou per day to 4 per year, only one of which may be a cow, represents a significant reduction in harvest with an emphasis on reducing cow harvest.

The WAH ranges into and currently occupies portions of Unit 26A, which is why that subunit is included in this proposal. Residents of Unit 26A have demonstrated a history of reliance on caribou as an important subsistence resource similar to those use patterns in Unit 23. While the WAH has been known to occur within most of Unit 26A they are generally found in the western and southern portions of that unit. The Teshekpuk (TCH) and Central Arctic (CAH) herds can be found mixed with members of the WAH in Unit 26A during a portion of the year, especially during the winter and spring months. In contrast to the WAH which is in decline, the TCH and CAH herd are currently stable and able to support the current level of harvest.

**DEPARTMENT COMMENTS:** The department **SUPPORTS** this proposal for units 22 and 23 and recommends an amendment to retain the existing Unit 26A seasons and bag limits due to the stable populations of the other herds in Unit 26A. Many hunters in Unit 26A harvest caribou from the Teshekpuk Caribou herd and the Central Arctic herd and a modification is needed to address that difference. The department also requests the board delay action on the regulations for units 21D, 24B, 24C and 24D until the Interior Region Board of Game Meeting scheduled for January 2024 in Fairbanks.

If adopted, the board may wish to consider whether reasonable opportunity for subsistence exists under the proposed regulatory structure as well as how the proposed regulations would impact the customary and traditional harvest and use patterns of many subsistence users for caribou.

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

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**PROPOSAL 26 – 5 AAC 85.045. Hunting seasons and bag limits for moose.** Lengthen the nonresident moose hunting season in Unit 22E by 2 weeks to open on August 15.

**PROPOSED BY:** Justin Horton

**WHAT WOULD THE PROPOSAL DO?** The proposal would open the nonresident moose season 2 weeks earlier in 22E to open on August 15.

**WHAT ARE THE CURRENT REGULATIONS?** The nonresident moose hunting opportunity in Unit 22E is currently administered as a drawing permit (DM855), with season dates of September 1–15, a bag limit of one bull with 50-inch antlers or antlers with four or more brow tines on at least one side, and a total of up to 25 permits may be issued.

There is a positive customary and traditional use finding for moose in Unit 22 with an Amount Reasonably Necessary for Subsistence of 250–300 moose.

The Board of Game has identified moose in Unit 22 as qualifying for intensive management due to their importance for providing high levels of harvest for human consumptive use (5 AAC 92.108). The population objective for Unit 22 is 5,100-6,800 animals with a harvest objective of 300-680 moose.

**WHAT WOULD BE THE EFFECT IF THE PROPOSAL WERE ADOPTED?** The proposal would allow nonresident hunters to hunt moose in 22E beginning August 15. This proposal would not affect bag limits or the number of moose harvested by nonresidents, because harvest numbers are controlled through the number of permits issued. Allowing nonresidents to hunt moose in the area in August would also provide those nonresident hunters with the opportunity to potentially harvest brown bears or caribou in the area as well, most of which have typically moved on by the time the September moose hunt opens.

**BACKGROUND:** The moose population in the Unit 22D and 22E survey area is generally thought to have been stable over the past 10 years with the last population survey estimating the population to be 1,922 moose (95% CI: 1580-2263). This population estimate is below the management objective for the Unit 22D and Unit 22E area, but composition surveys completed in 2022 indicate the bull:cow ratios are at the management objective of 30B:100C.

The nonresident moose hunt in Unit 22E was managed with a quota under registration hunt RM855 during RY15-RY21, and in RY22 was changed to draw permit DM855 after additional hunting pressure from guided nonresident hunters in the area harvested the quota in a very short period of time, which made the hunt difficult to manage with questionable opportunity considering how short the hunt was, and the quota was exceeded in RY20. The nonresident harvest in Unit 22E has ranged from 7–13 moose (average 10 moose) since the registration permit was first implemented in RY15. After moose composition surveys completed in fall 2022 indicated a slight decline in bull:cow ratios in Unit 22E, the number of draw permits allocated in RY22 was 5 permits.

**DEPARTMENT COMMENTS:** The department is **NEUTRAL** on this proposal because the nonresident moose hunt in 22E is managed through a drawing permit and regulates the number of moose harvested through the number of permits issued so there would be no biological effect if this proposal were to be adopted. Brown bear hunting in the area is by drawing permit only, so a substantial increase in brown bear harvest by nonresident moose hunters is also not expected.

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

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**PROPOSAL 34 - 5AAC 85.055. Hunting seasons and bag limits for Dall sheep.** Create a resident only archery hunt for sheep in Unit 26A.

**PROPOSED BY:** Paul Forward

**WHAT WOULD THE PROPOSAL DO?** This proposal would create a resident only, archery registration hunt in 26A west of the Etivluk River. The bag limit would be one ram with full-curl horn or larger, season dates would be August 10 – September 20, permits would only be available in person at license vendors, and harvest would have to be reported within 48 hours.

**WHAT ARE THE CURRENT REGULATIONS?** There is currently no open season west of the Etivluk in Unit 26A.

These is a positive customary and traditional use finding (C&T) for Dall Sheep in Unit 26A. Amounts Reasonably Necessary for Subsistence (ANS) ranges are as follows:

- Units 23 and 26A west of the Etivluk River (DeLong Mountains): 0-9
- Units 23 and 26A east of the Etivluk River (Schwatka Mountains): 2-4

- GMUs 23, 24, 25A, and 26 (Brooks Range): 75-125

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

If adopted, this proposal would create an archery-only, resident registration hunt for sheep when the season first reopens with a bag limit of one full-curl ram or larger, with season dates of August 10 – September 20. Permits would only be available in person and successful hunters would be required to report within 48 hours of taking a sheep.

Having a bow hunting requirement would also require all hunters that want to participate in this hunt to have access to bow hunter education. Hunter education is not currently a requirement in Unit 26A. Many subsistence hunters do not bow hunt but use firearms as their main method of hunting.

**BACKGROUND:** Unit 26A and Unit 23 sheep are managed as a single population. Data and background listed throughout will be applicable to both areas, and specific information will be noted.

Sheep hunting in Unit 23 and in Unit 26A west of the Etivluk River was closed in 2014 by emergency order, and the general season hunt was closed in that portion of Unit 26A east of the Etivluk River excluding Gates of the Arctic National Park. In 2015, the Board of Game adopted regulations to continue the hunting season closures in Unit 23 and in Unit 26A west of the Etivluk River drainage due to conservation concerns over persistently low population numbers. The hunting season closure was and is broadly supported by local residents, who asked the department for a full hunting season closure rather than exploring more restrictive hunt management under the Tier II system.

The department conducted Dall sheep abundance and composition surveys in collaboration with the NPS from 2016-2019. These abundance surveys conducted in the Baird (Deacy and Schertz 2021) and central De Long Mountains utilized a distance sampling methodology. The estimates from these surveys can be found in Tables 1 and 2. These surveys showed a similar dramatic decline in lamb to ewe-like ratios in both the Baird and De Long Mountains. The NPS conducted surveys in 2015 in the Western Baird Mountains in Western Arctic Park Lands and Gates of the Arctic (Rattenbury 2015). These surveys showed similar declines and poor lamb recruitment in the Western Baird Mountains (Rattenbury 2014).

Table 1. Baird Mountain sheep minimum counts 2009-2014 and estimates 2017 and 2019.

| Year | Sheep Minimum Count & Estimated Abundance |
|------|---|
| 2009 | 823                                       |
| 2011 | 587                                       |
| 2014 | 309                                       |





Figure 1. The Unit 26A and Unit 23 hunts that were closed in 2014 and 2015 along with their corresponding general season hunts. DS384 has the same hunt area as RS388.

In 2015 the Board of Game adopted a proposal to close RS389, RS387 and DS384 (same hunt area as RS388) and the general season hunts in Unit 26A west of the Etivluk River drainage, and in Unit 23 to allow the sheep population to recover after extensive declines were documented in 2014 and 2015 due to icing events that reduced the population by 50-80%.

From 2013-2017 an average of 0.8 sheep were harvested per year. Between 2018-2022 the sheep harvest of all state managed hunts combined in Unit 26A declined to an average of about 0.4 sheep per year. All the state hunts that are currently open have full curl bag limits except for the hunt that occurs on private lands within Gates of the Arctic National Park. This hunt has a bag limit of 3 sheep per year. The harvest from 2012-2016 is outlined in Table 3.

**Table 3. Sheep harvest summary from 2012-2016 in units 23 and 26A.**

| Year | Unit 23 | Unit 26A | Total Harvest |
|------|---------|----------|---------------|
| 2012 | 3       | 4        | 7             |
| 2013 | 2       | 0        | 2             |
| 2014 | 0       | 1        | 1             |
| 2015 | 0       | 0        | 0             |
| 2016 | 0       | 0        | 0             |

Dall sheep are managed using the conservative full-curl ram harvest management strategy. The full-curl strategy focuses harvest pressure on males-only and thereby a small segment of the population. 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. Additionally, 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 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 conservative.

**DEPARTMENT COMMENTS:** The department is **NEUTRAL** on the methods and means and allocative aspects of this proposal. While archery only sheep hunts have shown to contribute little to overall harvest when compared to unrestricted weapons hunts, the department is concerned about the hunting pressure and associated disturbance potentially compromising overwinter survival and/or reproductive success for some animals. Hunters could move animals

out of productive habitat to escape terrain and compromise their ability to obtain sufficient body reserves for rut and overwinter survival. The board may wish to determine if the proposed changes will provide for a reasonable opportunity of success in harvesting sheep for subsistence uses.

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

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