

## WP26–53 Executive Summary

<b>General Description</b>	Wildlife Proposal WP26-53 requests to change caribou seasons in portions of Units 22B and 22D to year-round, may-be-announced seasons. <i>Submitted by the Alaska Department of Fish and Game.</i>
<b>Proposed Regulation</b>	<p><b>Unit 22—Caribou</b></p> <p><i>Unit 22A, remainder; Unit 22B, that portion west of Golovnin Bay and west of a line along the west bank of the Fish and Niukluk Rivers to the mouth of the Libby River, and excluding all portions of the Niukluk River drainage upstream from and including the Libby River drainage; Unit 22D, that portion in the Pilgrim River drainage; Units 22C, 22D remainder, 22E remainder —15 caribou, only 1 may be a cow by State registration permit. Calves may not be taken</i>      <i>July 1-June 30, season may be announced.</i></p> <p><i>Unit 22B, that portion west of Golovnin Bay and west of a line along the west bank of the Fish and Niukluk Rivers to the mouth of the Libby River, and excluding all portions of the Niukluk River drainage upstream from and including the Libby River drainage —15 caribou, only 1 may be a cow by State registration permit. Calves may not be taken</i>      <i>Oct. 1-Apr. 30.</i>  <i>May 1-Sep. 30, season may be announced.</i></p> <p><i>Unit 22D, that portion in the Pilgrim River drainage —15 caribou, only 1 may be a cow by State registration permit. Calves may not be taken</i>      <i>Oct. 1-Apr. 30.</i>  <i>May 1-Sep. 30, season may be announced.</i></p> <p><i>Units 22C, 22D remainder, 22E remainder —15 caribou, only 1 may be a cow by State registration permit. Calves may not be taken</i>      <i>July 1-June 30, season may be announced.</i></p>
<b>OSM Preliminary Conclusion</b>	<b>Neutral</b> on Proposal WP26-53
<b>Western Interior Alaska Subsistence Regional Advisory Council</b>	

**WP26–53 Executive Summary**

<b>Seward Peninsula Subsistence Regional Advisory Council Recommendation</b>	
<b>Northwest Arctic Subsistence Regional Advisory Council</b>	
<b>Interagency Staff Committee Comments</b>	
<b>ADF&amp;G Comments</b>	
<b>Written Public Comments</b>	<b>None.</b>

## Draft Wildlife Analysis WP26-53

### ISSUE

Wildlife Proposal WP26-53, submitted by the Alaska Department of Fish and Game (ADF&G), requests to change caribou seasons in portions of Units 22B and 22D to year-round, may-be-announced seasons.

Specifically, they are requesting to combine the current seasons of Oct. 1–Apr. 30 and May 1–Sep. 30, season may be announced to one year-round (July 1–June 30) may be announced season in both hunt areas. The specific hunt areas include Units 22B, that portion west of Golovnin Bay and west of a line along the west bank of the Fish and Niukluk Rivers to the mouth of the Libby River and excluding all portions of the Niukluk River drainage upstream from and including the Libby River drainage (22B West) and 22D, that portion in the Pilgrim River drainage (22D Pilgrim).

### Proponent Statement

The proponent states this change is necessary due to reindeer herding recently being renewed in Units 22B West and 22D Pilgrim. Shifting to may be announced seasons will prevent accidental take of reindeer but will allow the in-season manager to open the area should caribou be confirmed in the area. Since caribou from the Western Arctic Caribou Herd (WACH) have not been documented in these hunt areas since 2015, this proposal should have no impact on either the wildlife population or federally qualified subsistence users. This proposal will also create consistency between Federal and State seasons, making the regulations easier to understand.

### Current Federal Regulations

#### Unit 22—Caribou

*Unit 22A, remainder—15 caribou, only 1 may be a cow by State registration permit. Calves may not be taken*

*July 1-June 30, season may be announced.*

*Unit 22B, that portion west of Golovnin Bay and west of a line along the west bank of the Fish and Niukluk Rivers to the mouth of the Libby River, and excluding all portions of the Niukluk River drainage upstream from and including the Libby River drainage—15 caribou, only 1 may be a cow by State registration permit. Calves may not be taken*

*Oct. 1-Apr. 30.*

*May 1-Sep. 30, season may be announced.*

<i>Unit 22D, that portion in the Pilgrim River drainage—15 caribou, only 1 may be a cow by State registration permit. Calves may not be taken</i>	<i>Oct. 1-Apr. 30. May 1-Sep. 30, season may be announced.</i>
<i>Units 22C, 22D remainder, 22E remainder—15 caribou, only 1 may be a cow by State registration permit. Calves may not be taken</i>	<i>July 1-June 30, season may be announced.</i>

## Proposed Federal Regulations

### Unit 22—Caribou

<i><b>Unit 22A, remainder; Unit 22B, that portion west of Golovnin Bay and west of a line along the west bank of the Fish and Niukluk Rivers to the mouth of the Libby River, and excluding all portions of the Niukluk River drainage upstream from and including the Libby River drainage; Unit 22D, that portion in the Pilgrim River drainage; Units 22C, 22D remainder, 22E remainder —15 caribou, only 1 may be a cow by State registration permit. Calves may not be taken</b></i>	<i>July 1-June 30, season may be announced.</i>
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<del><i>Unit 22B, that portion west of Golovnin Bay and west of a line along the west bank of the Fish and Niukluk Rivers to the mouth of the Libby River, and excluding all portions of the Niukluk River drainage upstream from and including the Libby River drainage—15 caribou, only 1 may be a cow by State registration permit. Calves may not be taken</i></del>	<del><i>Oct. 1-Apr. 30. May 1-Sep. 30, season may be announced.</i></del>
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<del><i>Unit 22D, that portion in the Pilgrim River drainage—15 caribou, only 1 may be a cow by State registration permit. Calves may not be taken</i></del>	<del><i>Oct. 1-Apr. 30. May 1-Sep. 30, season may be announced.</i></del>
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<del><i>Units 22C, 22D remainder, 22E remainder—15 caribou, only 1 may be a cow by State registration permit. Calves may not be taken</i></del>	<del><i>July 1-June 30, season may be announced.</i></del>
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## Current State Regulations

**Note:** These are the regulations for the 2025/26 regulatory year.

### Unit 22–Caribou

<i>Unit 22B, west of Golovnin Bay, west of the west banks of Fish and Niukluk rivers below the Libby River (excluding the Libby River drainage and Niukluk River drainage above the mouth of the Libby River)</i>	<i>Residents- Fifteen caribou total, only one of which may be a cow by permit available online at <a href="http://hunt.alaska.gov">http://hunt.alaska.gov</a> or in person in Nome and license vendors within Unit 22 beginning June 20</i>	<i>RC800</i>	<i>May be announced</i>
	<i>Residents- Fifteen caribou total, up to 5 per day. Cows may not be taken Apr 1–Aug 31. Permit available online at <a href="http://hunt.alaska.gov">http://hunt.alaska.gov</a> or in person in Nome and license vendors within Unit 22 beginning June 20</i>		<i>May be announced</i>
	<i>Nonresidents- One bull</i>	<i>HT</i>	<i>May be announced</i>
<i>Unit 22D, Pilgrim River drainage</i>	<i>Residents- Fifteen caribou total, only one of which may be a cow by permit available online at <a href="http://hunt.alaska.gov">http://hunt.alaska.gov</a> or in person in Nome and license vendors within Unit 22 beginning June 20</i>	<i>RC800</i>	<i>May be announced</i>
	<i>Residents- Fifteen caribou total, up to 5 per day. Cows may not be taken Apr 1–Aug 31. Permit available online at <a href="http://hunt.alaska.gov">http://hunt.alaska.gov</a> or in person in Nome and license vendors within Unit 22 beginning June 20</i>	<i>RC800</i>	<i>May be announced</i>
	<i>Nonresidents- One bull</i>	<i>HT</i>	<i>May be announced</i>

## **Extent of Federal Public Lands**

Unit 22B is comprised of approximately 42% Federal public lands that consist of 40% Bureau of Land Management (BLM) and 2% National Park Service (NPS) managed lands.

Unit 22D is comprised of approximately 24% Federal public lands that consist of 13% BLM and 11% NPS managed lands.

## **Customary and Traditional Use Determination**

Rural residents of Units 21D west of the Koyukuk and Yukon Rivers, 22 (excluding residents of St. Lawrence Island), 23, and 24 have a customary and traditional use determination for Caribou in Units 22B, 22C, 22D, and 22E.

## **Regulatory History**

In 2003, the Federal Subsistence Board (Board) adopted WP03-40 as modified by the Seward Peninsula Subsistence Regional Advisory Council (Council), establishing a caribou season in the eastern portion of Unit 22E. The modification added Unit 22D, that portion in the Kougarok, Kuzitrin, Pilgrim, American, and Agiapuk river drainages to the new hunt area, while also aligning Federal and State regulations. This proposal was adopted with input from the Reindeer Herders Association, as it provided protection for reindeer herds in the area while still providing subsistence opportunity.

In 2005, the Alaska Board of Game (BOG) adopted Proposal 33 which established an area in Unit 22B where the season for caribou would be closed during the summer months to protect reindeer herds in the area. Due to an error in the hunt area descriptor, in 2007 the BOG adopted Proposal 16 as amended that established the Unit 22B West hunt area as it currently exists in regulation.

In 2006, the Board adopted WP06-37 as modified by the Seward Peninsula Council, which changed the season dates for caribou in Units 22B West and 22D Pilgrim. The seasons in these two areas changed from July 1–June 30 to Oct. 1–Apr. 30 with a May 1–Sep. 30 may be announced season. This change was adopted to protect reindeer in these areas from being accidentally harvested as caribou. This also aligned Federal regulations with the recently changed State regulations.

In 2016, the BOG adopted Proposal 140 as amended at their Statewide Regulations meeting. The original proposal requested to close cow harvest from Apr. 1–Aug. 31 and to limit caribou harvest to 20 caribou total per person per year in Unit 22. The BOG amended the proposal to keep the season open for April rather than close it as the original proposal requested. The other amendment to the proposal was to require a registration permit with the newly requested harvest limit.

Several Board actions in the last decade affected caribou harvest in Unit 22 but did not change seasons or harvests that would affect reindeer in these two areas under consideration. The Board adopted a modified WP16-37 in 2016, restricting caribou harvest limits and seasons in numerous units of the WACH range due to conservation concerns. However, no changes were made to Units 22B West and

22D Pilgrim other than prohibiting calf harvest. The Board also adopted WP18-48 in 2018 that required the use of State registration permits to hunt caribou under Federal regulations in all WACH range units.

In January 2024, the BOG adopted Proposal 2 to reduce the State harvest limit of caribou within the WACH range to 15 caribou per year, only one of which may be a cow. In April 2024, the Board adopted WP24-28, as modified by six Regional Advisory Councils, to reduce the harvest limit of caribou within the WACH range to 15 caribou per year, only one of which may be a cow in line with the recently changed State regulations.

In December 2024, ADF&G closed these two areas to caribou hunting with Emergency Order (EO) R5-8-24 (ADF&G 2024). This EO closed both resident and nonresident seasons in the two areas to protect reindeer and because collared WACH caribou have not been present in these two portions of Unit 22 since 2015. In July 2025, ADF&G issued EO R5-03-25, which continued the closure through Regulatory Year 2026 (ADF&G 2025).

### **Current Events**

ADF&G anticipates submitting a regulatory proposal during the next Western Arctic/Western Region cycle to change the caribou hunts in Units 22B West and 22D Pilgrim to may-be-announced seasons in codified State regulations (Henslee 2025, pers. comm.).

Proposal WP26-01 requests to move authority to manage Federal hunts currently delegated to Federal in-season managers through Delegation of Authority Letters (DALs) into unit-specific regulations for many hunts across Alaska and to rescind the associated DALs. The delegated authority to the BLM Anchorage Field Office manager for in-season management of Unit 22 caribou is included in this proposal.

Proposed language from WP26-01 regarding the management of the concerned hunts: *“The BLM Anchorage Field Office manager after coordination with ADF&G, OSM, and the Chair of the affected Council(s) is authorized within the regulatory parameters set by the Board, to announce a season between May 1 and Sept. 30.”*

### **Biological Background**

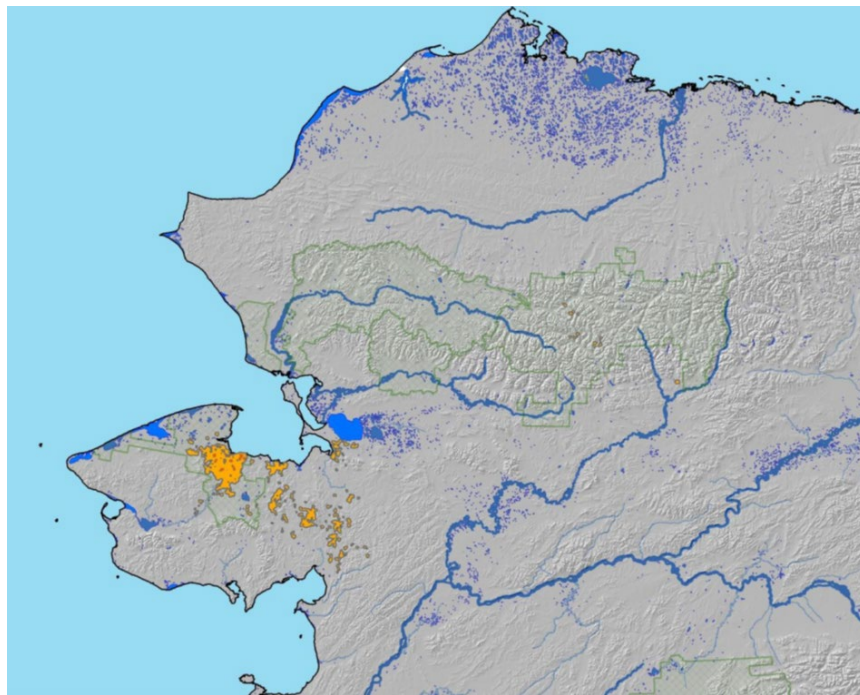
The WACH has historically been the largest caribou herd in Alaska and has a home range of approximately 157,000 square miles in northwestern Alaska (**Figure 3**; Dau 2011; WACHWG 2011, 2019). Except for summer periods, little individual site-specific fidelity is observed from year to year, especially during the winter (Joly et al. 2021). The winter range fluctuates year to year as the WACH demonstrates low fidelity to wintering grounds (Joly et al. 2021).

The WACH wintered on the Seward Peninsula in the early 2000s when the herd was very large (**Figure 1**). However, since 2015, the WACH has not migrated to the Seward Peninsula for the winter (**Figure 2**, Joly 2024). In recent years, the timing of fall migration has been less predictable (Joly et al.

2021). Caribou migrations are also closely related to the population size and density of the herd (Burch 1972, Joly et al. 2021), which may have influenced the change in the WACH's wintering location.

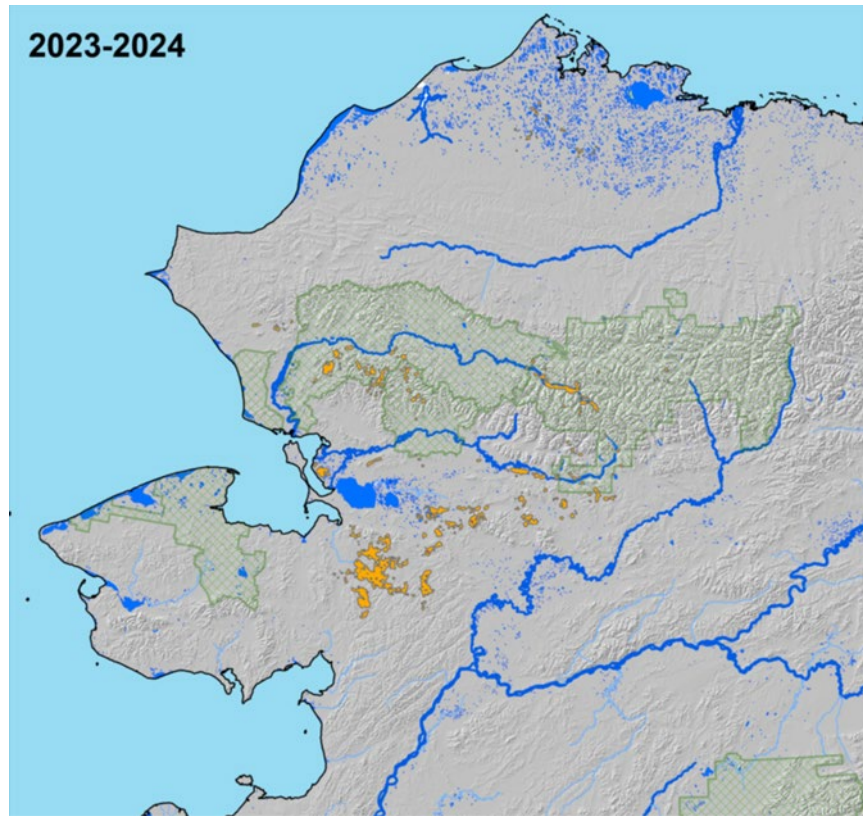
The WACH population declined rapidly in the early 1970s, bottoming out at about 75,000 animals in 1976. The WACH population increased throughout the 1980s and 1990s, peaking at 490,000 animals in 2003 (**Figure 4**). From 2003-2016, the herd declined from approximately 490,000 caribou to 200,928 caribou (Dau 2011, 2014; Caribou Trails 2014; Parrett 2016). In 2017, the herd increased to an estimated 259,000 caribou (Parrett 2017). However, part of this increase may have been due to improved photographic technology as ADF&G switched from film to higher resolution digital cameras. Since 2017, the WACH population has continued to decline to approximately 152,000 caribou in 2023 (WACHWG 2023). No photocensus was completed in 2024, but one is planned for 2025 (WACHWG 2024).

In April 2025 the ADF&G and the NPS collared 25 adult cow caribou on the northern Seward Peninsula to track the movements of remnant caribou herds across the Seward Peninsula (Hughes 2025, pers. comm.). The project has been a long-time request of the Council because its members, as well as other subsistence users, have consistently reported observations of resident caribou herds in the region (SPRAC 2023b).

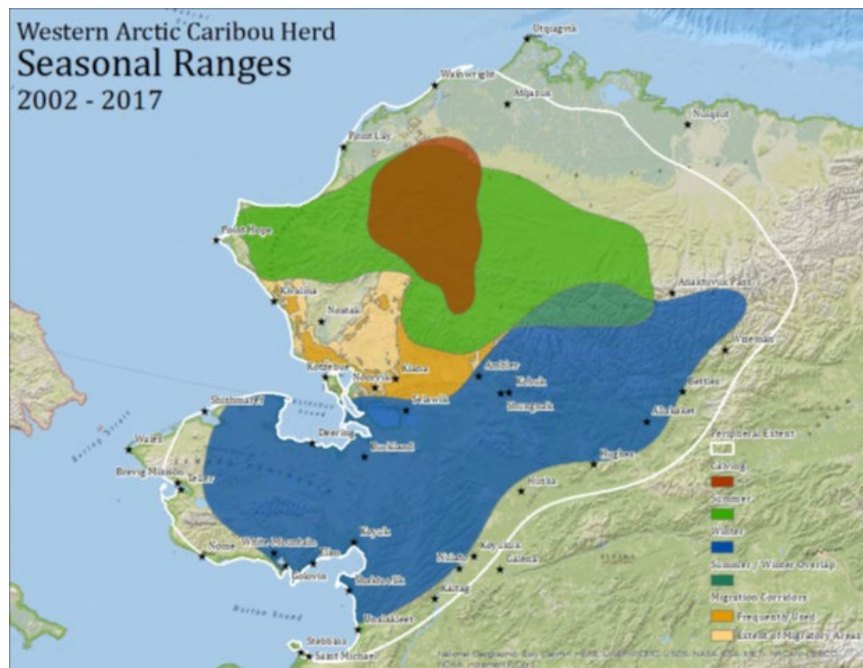


**Figure 1.** Map of winter range use of collared WACH animals during winter 2013/14 (July 2014).

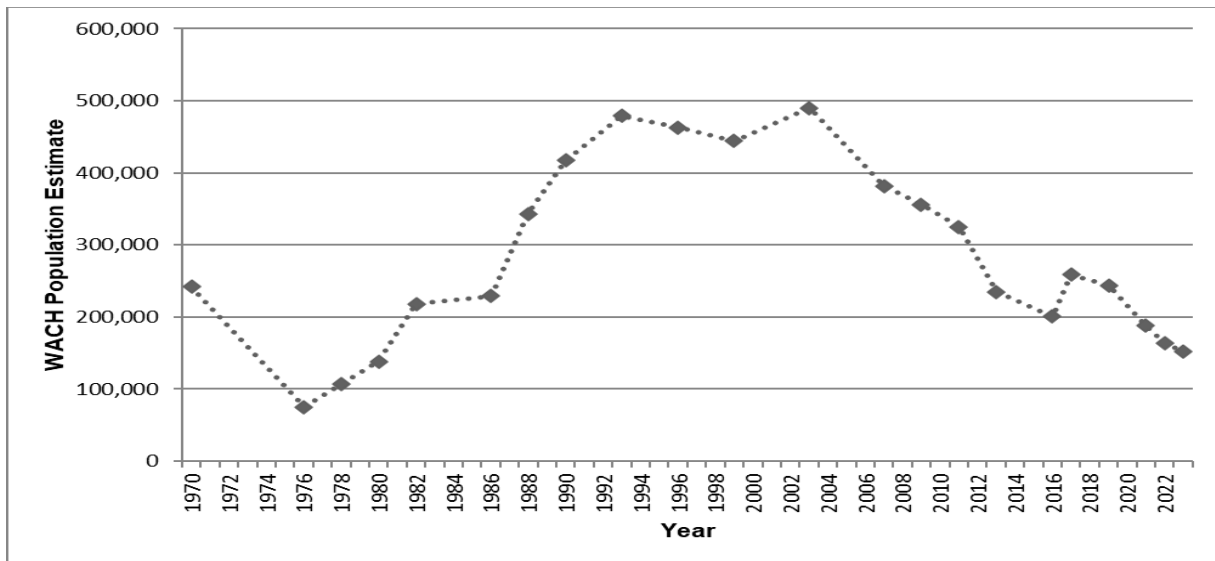




**Figure 2.** Map of winter range use of collared WACH animals during winter 2023/24 (Joly and Cameron 2024).



**Figure 3.** Western Arctic Caribou Herd seasonal range map, 2002-2017 (image from WACHWG 2019).



**Figure 4.** The WACH population estimates from 1970–2023. Population estimates from 1986–2023 are based on aerial photographs of groups of caribou that contained radio-collared animals (Dau 2011, 2013, 2014; Parrett 2016, 2017; Hansen 2019; WACHWG 2023).

### Cultural Knowledge and Traditional Practices

Caribou have been a significant resource for the Iñupiat for thousands of years. Archaeological deposits at the Onion Portage site on the Kobuk River document 10,000 years of caribou hunting (Anderson 1968, 1988). The oldest sites on the Seward Peninsula are the Trail Creek caves near Deering, which date to approximately 7120 B.C. and show evidence of caribou use (Conger and Magdanz 1990). Residents of the Seward Peninsula hunted caribou by driving them into lakes, river crossings, and corrals (BSNC 2021). The animals provided the people of the Seward Peninsula food and raw materials for clothing and bedding (Ray 1984). Burch asserts that a distinctive herd occurred on the Seward Peninsula, but this resident herd began to decline in the late 1850s or early 1860s and was gone from the region by 1890 (Burch 2012).

With the disappearance of caribou from the Seward Peninsula at the end of the 19th century, along with an absence of other ungulates and a lack of marine mammals, residents of the region faced a “drastically depleted resource base” (Schneider et al. 2005). Sheldon Jackson introduced reindeer from Russia to the Seward Peninsula in the early 1890s in an attempt to introduce a stable food supply; he also hoped to transition local residents into a herding, market-based economy (Finstad et al. 2006). Though the number of reindeer fluctuated over time, their population reached an estimated peak of 641,000 throughout Western Alaska in the 1930s (Dau 2000, Schneider et al. 2005). Herding became an important part of the Seward Peninsula’s social structure and economy (Dau 2000, Schneider et al. 2005).

After the disappearance of caribou at the end of the 19th century, Iñupiaq Elders predicted that they would return to the Seward Peninsula in time (BSNC 2021). Caribou were largely absent from the Seward Peninsula until the mid-1990s, when the growing Western Arctic herd began using areas where caribou had not been present for a century. In the winter of 2000/01, 225,000 to 250,000 caribou overwintered on the peninsula (Figure 1, Finstad et al. 2006). Prior to that influx, caribou as a species did not figure prominently in local harvests, although hunters from some local communities traveled long distances eastward to hunt caribou (Eisler 1978, Sobelman 1985).

As the distance to travel to find caribou lessened, interest and harvests of caribou increased. The WACH presence continued seasonally (and variably) until recent years. The return of overwintering caribou was devastating to many reindeer herders on the Seward Peninsula, because when the caribou migrated north, their reindeer joined the herds. Many herders lost their entire herds in this way (Schneider et al. 2005, SPRAC 2023a). Caribou and reindeer herds also hybridized on the Seward Peninsula (SPRAC 2023b).

ADF&G has not documented collared WACH caribou in the region since 2015 (Figure 2). However, the Seward Peninsula Council and subsistence users have reported the presence of small groups of caribou or feral reindeer that may be present year-round on the Seward Peninsula, and particularly in the northern portion of the region (SPRAC 2023b). These groups have been observed near Midnight Mountain, Igloo Creek, Serpentine, and Kuzitrin Lake, in the Bendeleben Mountains (SPRAC 2022, SPRAC 2023a & 2023b), and near Council and the Pilgrim Bridge (Hughes 2025, pers. comm.), which includes areas in Unit 22B and 22D. Additionally, subsistence surveys conducted by ADF&G Division of Subsistence for four communities in Units 22B and 22D around 2015 indicate that residents harvested caribou (Gonzalez et al. 2018, Mikow et al. 2018, ADF&G 2025, Table 1). All four communities harvested their caribou on the Seward Peninsula (Gonzalez et al. 2018, Mikow et al. 2018). The communities have not been surveyed since (ADF&G 2025).

**Table 1.** The percentage of surveyed households harvesting caribou, and the number of caribou harvested, for select communities in Units 22B and 22D.

Community	Year	Unit	Percentage of Surveyed Households Harvesting Caribou	Estimated Number of Caribou Harvested
Brevig Mission	2015	22D	19%	90
Koyuk	2016	22B	46%	143
Teller	2015	22D	17%	29
White Mountain	2015	22B	19%	65

## Harvest History

As the WACH abundance fluctuates, so does their range. As the WACH expanded their winter range further onto the Seward Peninsula and into Units 22B and 22D, they were harvested opportunistically. Prior to 2014, when only a harvest ticket was required for hunting south of the Yukon River, few caribou were reported harvested in either unit. But starting in 2016 (which coincided with the

establishment of State permit RC800), more caribou were reported harvested in both subunits (**Table 1**). Total reported harvest ranged from 45–288 caribou/year and averaged 103 caribou/year from 2016–2023. This is much higher than the average for 2004–2015 of 3. Most of this difference can be attributed to increased harvest reporting because of the 2016 registration permit requirement. But as WACH abundance continued to decline, and caribou overwintered off the Seward Peninsula, reported harvest in Units 22B and 22D fell in concert. This trend was also true in Units 22B West and Unit 22D Pilgrim, the hunt areas of concern for this analysis. From 2008–2023, reported harvest in these hunt areas ranged from 0–20 caribou/year and averaged 3 caribou/year (**Table 2**). The greatest amount of harvest occurred in 2016; then harvest quickly dropped to zero by 2022 as the herd’s overall range contracted as its population shrank.

**Table 1.** Units 22B and 22D reported caribou harvest from 2004–2023. Local residents are defined as residents of Unit 22 (Carson 2025, pers. comm.).

Regulatory Year	Local Resident	Non-local AK Resident	Nonresident	Total
2004	0	0	0	0
2005	0	0	0	0
2006	0	1	2	3
2007	0	5	7	12
2008	0	3	4	7
2009	4	9	16	29
2010	1	13	24	38
2011	6	22	38	66
2012	3	18	32	53
2013	0	2	12	14
2014	14	2	31	47
2015	3	16	26	45
2016	288	13	15	316
2017	185	11	11	207
2018	45	3	3	51
2019	65	6	2	73
2020	57	11	7	75
2021	53	10	9	72
2022	56	6	12	74
2023	75	16	13	104
Average	43	8	13	64

**Table 2.** Reported caribou harvest in Units 22B West and 22D Pilgrim, the hunt areas affected by this proposal from 2008–2023 (Carson 2025, pers. comm.) **Note:** This table contains some harvest data for Unit 22B outside of the Unit 22B West hunt area that could not be separated out of the harvest reports.

Regulatory Year	Total Harvest
2008	0
2009	0
2010	10
2011	2
2012	0
2013	2
2014	1
2015	5
2016	20
2017	0
2018	1
2019	4
2020	5
2021	5
2022	0
2023	0

### Alternative(s) Considered

Another alternative considered was to delegate additional authority to the Federal in-season manager to define harvest areas. This would allow targeted openings of specific areas depending on caribou and reindeer distribution, optimizing subsistence opportunity with protection of reindeer herds. This alternative was not considered further because little is known about the remnant caribou population residing on the northern Seward Peninsula, and because collared WACH caribou have been absent from the requested area since 2015. More information on the resident caribou herd is needed to inform sustainable harvest management of them.

Another alternative considered was to defer this proposal until the BOG changes codified State regulations to make both of these areas may be announced seasons. This would prevent Federal regulations from being more restrictive than State regulations. This would also allow for more discussion with stakeholder groups and Federal agencies that permit reindeer herding on Federal public lands.

### Discussion and Effects

If this proposal is adopted, the caribou season in Units 22B West and 22D Pilgrim would be changed to a year-round, may-be-announced season. Therefore, federally qualified subsistence users would be

unable to harvest caribou in Units 22B West and 22D Pilgrim unless a season is opened. This should not substantially affect users' ability or opportunity to harvest caribou as WACH collar data show the herd has not occurred in this area since 2015, and the summer season has been a may be announced season since 2006. Also, the other hunt areas in Unit 22 which have an existing year-round season would not be affected by this proposal, affording continued opportunity to harvest caribou on the Seward Peninsula. However, harvest from the remnant caribou herd may be curtailed, although it does not appear the resident herd occupies the affected hunt areas. No impacts to the WACH or resident caribou herd population are expected from this proposal. However, incidental harvest of reindeer would be prevented.

Adopting this proposal would also create consistency between Federal and State regulations, reducing regulatory complexity and the need for users to distinguish land status in the field. While a State hunt is still in codified regulations, ADF&G has closed these two areas to the harvest of caribou by EO in 2024, and the State hunt will remain closed unless reopened by EO. If this proposal is adopted, all harvest of caribou would be closed in these areas unless specifically opened by the in-season managers.

If this proposal is not adopted, federally qualified subsistence users' harvest opportunity would not change, although reported harvest has not occurred in the area since 2021. As there is an active reindeer herding operation in this area, reindeer may be mistaken for caribou and inadvertently harvested. Federally qualified subsistence users attempting to harvest caribou in this hunt area would need to exercise additional caution to ensure reindeer are not mistakenly harvested.

## **OSM PRELIMINARY CONCLUSION**

**Neutral** on Proposal WP26-53.

### **Justification**

Title VIII of ANILCA prioritizes conservation of healthy wildlife populations and continuation of subsistence uses. The primary justification for this proposal is to prevent accidental harvest of reindeer and align with State regulations. As the impact of this proposal on subsistence users and wildlife populations is minimal, OSM is neutral on this proposal.

Specifically, adopting this proposal would slightly decrease subsistence opportunity by changing seasons in two hunt areas to may be announced. However, caribou have not been reported harvested in either hunt area in recent years, likely because caribou have not been present there. Adopting this proposal is also not expected to affect the conservation of caribou populations as the WACH has not occupied the Seward Peninsula since 2015 and the limited available information on the resident caribou herd indicates they occur further north.

## **LITERATURE CITED**

ADF&G. 2024. Hunting and Trapping Emergency Order 05-08-24. ADF&G. Nome, AK.

ADF&G. 2025. Hunting and Trapping Emergency Order 05-03-25. ADF&G. Nome, AK.

Anderson, D. D. 1968. A stone age campsite at the gateway to America. *Scientific American* 218(6): 24–33.

Anderson, D. D. 1988. Onion Portage: the archaeology of a stratified site from the Kobuk River, Northwest Alaska. *Anthropological papers of the University of Alaska*. 22 (1-2): 1-163.

BSNC (Bering Straits Native Corporation). 2021. Seward Peninsula Caribou Herd. October 1, 2021. <https://beringstraits.com/seward-peninsula-caribou-herd/>. Retrieved May 5, 2025.

Burch, E.S. 1972. The caribou/wild reindeer as a human resource. *American Antiquity* 37(3): 339–68. Burch, E.S. 2012. The history of caribou herds of Northwest Alaska, 1850-2000. Pages 161-210 in E. Hill, ed. *Iñupiaq ethnohistory: Selected Essays by Ernest S. Burch, Jr.* University of Alaska Press. Fairbanks, AK.

Burch, E.S. 2012. The history of caribou herds of Northwest Alaska, 1850-2000. Pages 161-210 in E. Hill, ed. *Iñupiaq ethnohistory: Selected Essays by Ernest S. Burch, Jr.* University of Alaska Press. Fairbanks, AK.

Caribou Trails. 2014. News from the Western Arctic Caribou Herd Working Group. Western Arctic Caribou Herd Working Group, Nome, AK. Issue 14. [http://westernarcticcaribou.org/wp-content/uploads/2014/07/CT2014\\_FINAL\\_lowres.pdf](http://westernarcticcaribou.org/wp-content/uploads/2014/07/CT2014_FINAL_lowres.pdf). Retrieved: June 23, 2015.

Conger, A. O., & Magdanz, J. 1990. The Harvest of Fish and Wildlife in Three Alaska Communities: Brevig Mission, Golovin, and Shishmaref. TP 188 (Issue Technical Paper 188). ADF&G, Div. of Subsistence.

Dau, J. 2000. Managing reindeer and wildlife on Alaska's Seward Peninsula. *Polar Research* 19(1), 57–62.

Dau, J. 2011. Units 21D, 22A, 22B, 22C, 22D, 22E, 23, 24, and 26A caribou management report. Pages 187-250 in P. Harper, editor. Caribou management report of survey and inventory activities July 1, 2008–30 June 30, 2010. ADF&G. Juneau, AK.

Dau, J. 2013. Units 21D, 22A, 22B, 22C, 22D, 22E, 23, 24, and 26A caribou management report. Pages 201-280 in P. Harper, editor. Caribou management report of survey and inventory activities July 1, 2010–30 June 30, 2012. ADF&G. Juneau, AK.

Dau, J. 2014. Wildlife Biologist. Western Arctic Caribou herd presentation. Western Arctic Caribou Herd (WACH) Working Group Meeting, December 17-18, 2014. Anchorage, Alaska. ADF&G. Nome, AK.

Finstad, G. L., K.K. Kielland and W.S. Schneider. 2006. Reindeer herding in transition: Historical and modern day challenges for Alaskan reindeer herders. *Nomadic Peoples*, 10(2): 31–49.

Hansen, D.A. 2019. 2019 Western Arctic Caribou Herd – herd population status, other metrics. Presentation to Western Arctic Caribou Herd Working Group Technical Committee. December 10, 2019. <https://westernarcticcaribou.net/>.

Henslee, S. 2025. Unit 22 Area Biologist. Personal communication: phone call. Alaska Department of Fish and Game. Nome, AK.

Joly, K. 2014. Caribou vital sign annual report for the Arctic Network Inventory and Monitoring Program: September 2013 – August 2014. Natural Resource Data Series NPS/ARC/NRDS— 2014/729. National Park Service, Fort Collins, Colorado.

Joly, K., and M. D. Cameron. 2024. Caribou vital sign annual report for the Arctic Network Inventory and Monitoring Program: September 2023–August 2024. Science Report NPS/SR— 2024/213. National Park Service, Fort Collins, Colorado. <https://doi.org/10.36967/2306687>

Joly, K., A. Gunn, S. D. Côté, M. Panzacchi, J. Adamczewski, M. J. Sutor, and E. Gurarie. 2021. Caribou and reindeer migrations in the changing Arctic. *Animal Migrations* 8: 156-167. DOI: 10.1515/ami-2020-0110.

Parrett, L.S. 2016. Memorandum for distribution, dated August 25, 2016. Summary of Western Arctic Caribou Herd photocensus conducted July 1, 2016. ADF&G Division of Wildlife Conservation, Fairbanks, AK.

Parrett, L.S. 2017. WAH Caribou Overview. Western Arctic Caribou Herd Working Group Meeting. December 2017. <https://westernarcticcaribounet.files.wordpress.com/2017/12/2017-complete-wg-meeting-binder-dec-13-14-2017-for-webpost.pdf>. Retrieved December 20, 2017.

Ray, D.J. 1984. Bering Strait Eskimo. Pages 285-302 in Damas, D., ed. *Handbook of North American Indians. Arctic: Volume 5*. Smithsonian Institution. Washington, D.C.

SPRAC. 2022. Transcripts of the Seward Peninsula Subsistence Regional Advisory Council proceedings. October 4-5, 2022. Nome, AK. Office of Subsistence Management, USFWS. Anchorage, AK.

SPRAC. 2023a. Transcripts of the Seward Peninsula Subsistence Regional Advisory Council proceedings. November 1-2, 2023. Nome, AK. Office of Subsistence Management, USFWS. Anchorage, AK.

SPRAC. 2023b. Transcripts of the Seward Peninsula Subsistence Regional Advisory Council proceedings. March 22-23, 2023. Nome, AK. Office of Subsistence Management, USFWS. Anchorage, AK.

WACH (Western Arctic Caribou Herd) Working Group. 2011. Western Arctic Caribou Herd Cooperative Management Plan – Revised December 2011. Nome, AK.

WACH (Western Arctic Caribou Herd) Working Group. 2019. Western Arctic Caribou Herd Working Group Meeting. December 10-12, 2019. Anchorage, AK.

WACH (Western Arctic Caribou Herd) Working Group. 2023. Western Arctic Caribou Herd Working Group Meeting. December 13-14, 2023. Anchorage, AK.

WACH (Western Arctic Caribou Herd) Working Group. 2024. Western Arctic Caribou Herd Working Group Meeting. December 11-12, 2024. Anchorage, AK.