WP24-28/29 Executive Summary	
General Description	Proposal WP24-28 requests a reduction in the caribou harvest limit across the range of the Western Arctic caribou herd to four caribou per year, only one of which may be a cow. *Submitted by: The Western Arctic Caribou Herd Working Group* Proposal WP24-29 requests a reduction in the caribou harvest limit in Unit 23 to four caribou per year, only one of which may be a cow. *Submitted by: The Northwest Arctic Subsistence Regional Advisory Council*
Proposed Regulation	Units 21D, remainder; 24B, remainder; 24C; 24D; and all caribou hunt areas within Units 22, 23, and 26A: four caribou per year, only one of which may be a cow See page ** for full regulations.
OSM Preliminary Conclusion	**Take No Action** on Proposal WP24-29. **Support** Proposal WP24-28 **with modification** to exclude that portion of Unit 26A north and east of a line running from the east/north bank of Wainwright Inlet to the headwaters of the Ketik River, to the headwaters of the Awuna River to the Colville River at Umiat then east to the Dalton Highway at Sagwon.
OSM Conclusion	**Take No Action** on Proposal WP24-29. **Support** Proposal WP24-28 **as modified by the Western Interior, Seward Peninsula, Northwest Arctic and North Slope Councils** to exclude the eastern portion of Unit 26A from the harvest limit reductions and to change the harvest limit to **15 caribou/year**, only one of which may be a cow. Specifically, the harvest limit reductions will apply to Unit 26A, west of the Coleville River drainage upstream from the Nuka River and drainages of the Chucki Sea, south and west of and including the Kuk and Kugrua river drainages (**Map 5**).
Yukon-Kuskokwim Delta Subsistence Regional Advisory Council	**Support as modified by OSM** (preliminary conclusion)
Western Interior Alaska Subsistence Regional Advisory Council	**Winter 2024** **Support as modified by the Western Interior, Seward Peninsula, Northwest Arctic and North Slope Councils** to exclude the eastern portion of Unit 26A from the harvest limit

	reductions and to change the harvest limit to **15 caribou/year**, only one of which may be a cow. **<u>Fall 2023</u>** **Support with modification** to exclude the eastern portion of Unit 26A from the harvest limit reductions.
Seward Peninsula Subsistence Regional Advisory Council	**<u>Winter 2024</u>** **Support as modified by the Western Interior, Seward Peninsula, Northwest Arctic and North Slope Councils** to exclude the eastern portion of Unit 26A from the harvest limit reductions and to change the harvest limit to **15 caribou/year**, only one of which may be a cow. **<u>Fall 2023</u>** **Defer to winter 2024 meeting**
Northwest Arctic Subsistence Regional Advisory Council	**<u>Winter 2024</u>** **Support** Proposal WP24-28 **as modified by the Western Interior, Seward Peninsula, Northwest Arctic and North Slope Councils** to exclude the eastern portion of Unit 26A from the harvest limit reductions and to change the harvest limit to **15 caribou/year**, only one of which may be a cow. **<u>Fall 2023</u>** **Defer to winter 2024 meeting**
Eastern Interior Alaska Subsistence Regional Advisory Council	**Support**
North Slope Subsistence Regional Advisory Council Recommendation	**<u>Winter 2024</u>** **Support** Proposal WP24-28 **as modified by the Western Interior, Seward Peninsula, Northwest Arctic and North Slope Councils** to exclude the eastern portion of Unit 26A from the harvest limit reductions and to change the harvest limit to **15 caribou/year**, only one of which may be a cow. **<u>Fall 2023</u>** **Defer to winter 2024 meeting**
Interagency Staff Committee Comments	See page ** for full comments.
ADF&G Comments	**Support with modification**
Written Public Comments	**None**

STAFF ANALYSIS
WP24-28/29

ISSUES

Wildlife Proposal WP24-28, submitted by the Western Arctic Caribou Herd Working Group, requests a reduction in the caribou harvest limit across the range of the Western Arctic caribou herd (WACH) to four caribou per year, only one of which may be a cow. Specific areas include Units 21D, remainder; 24B, remainder; 24C; 24D; and all caribou hunt areas within Units 22, 23, and 26A.

Wildlife Proposal WP24-29, submitted by the Northwest Arctic Subsistence Regional Advisory Council (Northwest Arctic Council), requests a reduction in the caribou harvest limit in Unit 23 only, to four caribou per year, only one of which may be a cow.

DISCUSSION

WP24-28

The Western Arctic Caribou Herd Working Group (WACH Working Group) at its annual meeting in December 2022 assigned the management level "Preservative, Declining" to the herd based on the most recent census (within the range of 130,000-200,000) and adult cow survival rate of less than 80%. The WACH Working Group sees the need to address the current decline of the herd by limiting the harvest of both bulls and cows to help the herd recovery. Data received by the WACH Working Group from an Alaska Department of Fish & Game (ADF&G) biologist illustrated that there has been continued decline in the Western Arctic Caribou Herd (WACH).

WP24-29

The WACH has continued to decline with the most recent estimate being 164,000 caribou. The Northwest Arctic Council is greatly concerned about the precipitous decline of the WACH and feels that action is needed to slow the decline and prevent the herd from reaching a point of no return. The Northwest Arctic Council feels that the harvest recommendations proposed by the WACH Working Group are a starting point for the conservation of the WACH while still allowing some harvest. The Northwest Arctic Council recognizes that federally qualified subsistence users are already facing food insecurities, but this large reduction of caribou harvest is a means to help protect the caribou herd over the long term, while still allowing some harvest.

Existing Federal Regulation

Note: These are the codified Federal regulations. The 2022-2024 Federal regulations included a temporary closure to caribou hunting from Aug. 1-Sept 30, except by federally qualified subsistence users hunting under these regulations in the Bureau of Land Management managed lands between the Noatak and Kobuk Rivers and within Noatak National Preserve.

Unit 21D—Caribou

Unit 21D, remainder— 5 caribou per day, as follows: Calves may not be taken.	
Bulls may be harvested.	*July 1-Oct. 14.* *Feb. 1-June 30.*
Cows may be harvested.	*Sep. 1-Mar. 31.*

Unit 22—Caribou

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 - 5 caribou per day by State registration permit. Calves may not be taken.	*Oct. 1-Apr. 30.* *May 1-Sep. 30, a season may be announced.*
Units 22A, that portion north of the Golsovia River drainage, 22B remainder, that portion of Unit 22D in the Kuzitrin River drainage (excluding the Pilgrim River drainage), and the Agiapuk River drainages, including the tributaries, and Unit 22E, that portion east of and including the Tin Creek drainage - 5 caribou per day by State registration permit. Calves may not be taken.	*July 1–June 30.*
Unit 22A, remainder - 5 caribou per day by State registration permit. Calves may not be taken	*July 1-June 30, season may be announced.*
Unit 22D, that portion in the Pilgrim River drainage - 5 caribou per day by State registration permit. Calves may not be taken	*Oct. 1-Apr. 30.* *May 1-Sep. 30, season may be announced*
Units 22C, 22D remainder, 22E remainder - 5 caribou per day by State registration permit. Calves may not be taken	*July 1-June 30, season may be announced*

Unit 23−Caribou

Unit 23—that portion which includes all drainages north and west of, and including, the Singoalik River drainage—5 caribou per day by State registration permit as follows:	
Bulls may be harvested	*July 1–June 30*

Cows may be harvested. However, cows accompanied by calves may not be taken July 15–Oct. 14.	*July 15–Apr. 30*
Unit 23, remainder—5 caribou per day by State registration permit as follows:	
Bulls may be harvested	*July 1–June 30*
Cows may be harvested. However, cows accompanied by calves may not be taken July 31–Oct. 14.	*July 31–Mar. 31*

Federal public lands within a 10-mile-wide corridor (5 miles either side) along the Noatak River from the western boundary of Noatak National Preserve upstream to the confluence with the Cutler River; within the northern and southern boundaries of the Eli and Agashashok River drainages, respectively; and within the Squirrel River drainage are closed to caribou hunting except by federally qualified subsistence users hunting under these regulations.

Unit 24—Caribou

Unit 24B remainder - 5 caribou per day, as follows: Calves may not be taken.

Bulls may be harvested.	*July 1-Oct. 14.*
	Feb. 1-June 30.
Cows may be harvested.	*July 15-Apr. 30.*

Units 24C, 24D - 5 caribou per day, as follows: Calves may not be taken.

Bulls may be harvested.	*July 1-Oct. 14.*
	Feb. 1-June 30.
Cows may be harvested	*Sep. 1-Mar. 31.*

Unit 26—Caribou

Unit 26A - that portion of the Colville River drainage upstream from the Anaktuvuk River, and drainages of the Chukchi Sea south and west of, and including the Utukok River drainage - 5 caribou per day by State registration permit as follows: Calves may not be taken

Bulls may be harvested	*July 1-Oct. 14.*
	Dec. 6-June 30.
Cows may be harvested; however, cows accompanied by calves may not be taken July 16-Oct. 15	*July 16-Mar. 15.*

Noatak National Preserve is closed to caribou hunting from Aug. 1-Sep. 30 for the 2022-24 regulatory cycle, except by federally qualified subsistence users hunting under these regulations.

Unit 26A remainder - 5 caribou per day by State registration permit as follows: Calves may not be taken

Bulls may be harvested	*July 1-Oct. 15.*
	Dec. 6-June 30.
Up to 3 cows per day may be harvested; however, cows accompanied by calves may not be taken July 16-Oct. 15	*July 16-Mar. 15.*

Proposed Federal Regulation

Note: These are the codified Federal regulations. The 2022-2024 Federal regulations included a temporary closure to caribou hunting from Aug. 1-Sept 30, except by federally qualified subsistence users hunting under these regulations in the Bureau of Land Management managed lands between the Noatak and Kobuk Rivers and within Noatak National Preserve.

Unit 21D—Caribou

Unit 21D, remainder— ~~*5 caribou per day*~~ ***4 caribou per year, only 1***

***may be a cow**, as follows: Calves may not be taken.*

Bulls may be harvested.	*July 1-Oct. 14.* *Feb. 1-June 30.*
Cows may be harvested.	*Sep. 1-Mar. 31.*

Unit 22—Caribou

*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 - ~~5 caribou per day~~ **4 caribou per year, only 1 may be a cow** by State registration permit. Calves may not be taken.*	*Oct. 1-Apr. 30.* *May 1-Sep. 30, a season may be announced.*
*Units 22A, that portion north of the Golsovia River drainage, 22B remainder, that portion of Unit 22D in the Kuzitrin River drainage (excluding the Pilgrim River drainage), and the Agiapuk River drainages, including the tributaries, and Unit 22E, that portion east of and including the Tin Creek drainage - ~~5 caribou per day~~ **4 caribou per year, only 1 may be a cow** by State registration permit. Calves may not be taken.*	*July 1–June 30.*
*Unit 22A, remainder - ~~5 caribou per day~~ **4 caribou per year, only 1 may be a cow** by State registration permit. Calves may not be taken*	*July 1-June 30, season may be announced.*
*Unit 22D, that portion in the Pilgrim River drainage - ~~5 caribou per day~~ **4 caribou per year, 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*
*Units 22C, 22D remainder, 22E remainder - ~~5 caribou per day~~ **4 caribou per year, only 1 may be a cow** by State registration permit. Calves may not be taken*	*July 1-June 30, season may be announced*

Unit 23−Caribou

*Unit 23—that portion which includes all drainages north and west of, and including, the Singoalik River drainage— ~~5 caribou per day~~ **4 caribou per year, only 1 may be a cow** by State registration permit as follows:*	
Bulls may be harvested	*July 1–June 30*

Cows may be harvested. However, cows accompanied by calves may not be taken July 15–Oct. 14.	*July 15–Apr. 30*

Unit 23, remainder— ~~*5 caribou per day*~~ ***4 caribou per year, only 1 may be a cow*** *by State registration permit as follows:*

Bulls may be harvested	*July 1–June 30*
Cows may be harvested. However, cows accompanied by calves may not be taken July 31–Oct. 14.	*July 31–Mar. 31*

Federal public lands within a 10-mile-wide corridor (5 miles either side) along the Noatak River from the western boundary of Noatak National Preserve upstream to the confluence with the Cutler River; within the northern and southern boundaries of the Eli and Agashashok River drainages, respectively; and within the Squirrel River drainage are closed to caribou hunting except by federally qualified subsistence users hunting under these regulations.

Unit 24—Caribou

Unit 24B remainder - ~~*5 caribou per day*~~ ***4 caribou per year, only 1 may be a cow*** *as follows: Calves may not be taken.*

Bulls may be harvested.	*July 1-Oct. 14.* *Feb. 1-June 30.*
Cows may be harvested.	*July 15-Apr. 30.*

Units 24C, 24D - ~~*5 caribou per day*~~ ***4 caribou per year, only 1 may be a cow*** *as follows: Calves may not be taken.*

Bulls may be harvested.	*July 1-Oct. 14.* *Feb. 1-June 30.*
Cows may be harvested	*Sep. 1-Mar. 31.*

Unit 26—Caribou

*Unit 26A - that portion of the Colville River drainage upstream from the Anaktuvuk River, and drainages of the Chukchi Sea south and west of, and including the Utukok River drainage - ~~5 caribou per day~~ **4 caribou per year, only 1 may be a cow** by State registration permit as follows: Calves may not be taken.*

Bulls may be harvested	*July 1-Oct. 14.*
	Dec. 6-June 30.
Cows may be harvested; however, cows accompanied by calves may not be taken July 16-Oct. 15	*July 16-Mar. 15.*

*Unit 26A remainder - ~~5 caribou per day~~ **4 caribou per year, only 1 may be a cow** by State registration permit as follows: Calves may not be taken.*

Bulls may be harvested	*July 1-Oct. 15.*
	Dec. 6-June 30.
*~~Up to 3 cows per day~~ **Only 1 cow** may be harvested; however, cows accompanied by calves may not be taken July 16-Oct. 15*	*July 16-Mar. 15.*

Existing State Regulation

Unit 21D—Caribou

21D remainder	*Residents—5 caribou per day, however, calves may not be taken.*	
	Bulls	*July 1-Oct. 14* *Feb. 1-June 30.*
	Cows	*Sep. 1-Mar. 31.*
	Nonresidents—1 bull; however, calves may not be taken	*Aug. 1-Sep. 30*

Unit 22—Caribou

22A, north of the Golsovia River drainage	*Residents—Twenty caribou total, up to 5 per day by permit.*	
	Bulls RC800	*No closed season*
	Cows RC800	*July 1-Mar. 31.*
	Nonresidents—1 bull	*Aug. 1-Sep. 30*
22A, remainder	*Residents— Twenty caribou total, up to 5 per day by permit. Bulls may not be taken Oct. 15- Jan 31, and cows may not be taken Apr 1- Aug 31. RC800*	*May be announced*
	Nonresidents—1 bull	*May be announced*
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)	*Residents— Twenty caribou total, up to 5 per day by permit.*	
	Bulls RC800	*Oct. 1-Apr. 30*
	Cows RC800	*Oct. 1-Mar 31.*
	Residents— Twenty caribou total, up to 5 per day by permit. Cows may not be taken Apr 1- Aug 31. RC800	*May be announced*
	Nonresidents—1 bull	*May be announced*
22B, remainder	*Residents— Twenty caribou total, up to 5 per day by permit.*	
	Bulls RC800	*No closed season*
	Cows RC800	*July 1-Mar. 31.*
	Nonresidents—1 bull	*Aug. 1-Sep. 30*
22C	*Residents— Twenty caribou total, up to 5 per day by permit. Bulls may not be taken Oct 15-Jan 31, and cows may not be taken Apr 1-Aug 31. RC800*	*May be announced*
	Nonresidents—1 bull	*May be announced*

22D, Pilgrim River drainage	*Residents— Twenty caribou total, up to 5 per day by permit.*	
	Bulls RC800	*Oct. 1-Apr. 30*
	Cows RC800	*Oct. 1-Mar. 31.*
	Residents— Twenty caribou total, up to 5 per day by permit. Cows may not be taken Apr 1-Aug 31. RC800	*May be announced*
	Nonresidents—1 bull; however, calves may not be taken	*May be announced*
22D, in the Kuzitrin River drainage (excluding the Pilgrim River drainage) and the Agiapuk River drainage	*Residents— Twenty caribou total, up to 5 per day by permit.*	
	Bulls RC800	*No closed season*
	Cows RC800	*July 1-Mar. 31.*
	Nonresidents—1 bull	*Aug. 1-Sep. 30*
22D, remainder	*Residents— Twenty caribou total, up to 5 per day by permit. Bulls may not be taken Oct 15- Jan 31, and cows may not be taken Apr 1 – Aug 31. RC800*	*May be announced.*
	Nonresidents—1 bull	*Aug. 1-Sep. 30*
22E, east of and including the Sanaguich River drainage	*Residents— Twenty caribou total, up to 5 per day by permit.*	
	Bulls RC800	*No closed season*
	Cows RC800	*July 1-Mar. 31.*
	Nonresidents—1 bull	*Aug. 1-Sep. 30*
22E, remainder	*Residents— Twenty caribou total, up to 5 per day by permit. Bulls may not be taken Oct 15- Jan 31,*	*May be announced*

	and cows may not be taken Apr 1 – Aug 31. RC800	
		May be announced
	Nonresidents—1 bull	

Unit 23—Caribou

23, north of and including the Singoalik River drainage	*Residents—5 caribou per day by permit.*	
	Bulls RC907	*No closed season*
	Cows RC907	*Jul. 15-Apr. 30*
	Nonresidents—1 bull	*Aug. 1-Sep. 30*
23 remainder	*Residents—5 caribou per day by permit.*	
	Bulls RC907	*No closed season*
	Cows RC907	*Sep. 1-Mar. 31.*
	Nonresidents—1 bull	*Aug. 1-Sep. 30*

Unit 24—Caribou

24B remainder	*Residents—5 caribou per day, however, calves may not be taken.*	
	Bulls	*July 1-Oct 14* *Feb 1-June 30*
	Cows	*July 15-Apr. 30.*
	Nonresidents—1 bull, however, calves may not be taken	*Aug. 1-Sep. 30*
24C and 24D	*Residents—5 caribou per day, however, calves may not be taken.*	
	Bulls	*July 1-Oct 14* *Feb 1-June 30*
	Cows	*Sep. 1-Mar. 31.*

	Nonresidents—1 bull, however, calves may not be taken	*Aug. 1-Sep. 30*

Unit 26—Caribou

26A, the Colville River drainage upstream from the Anaktuvuk River, and drainages of the Chukchi Sea south and west of, and including the Utukok River drainage	*Residents—5 caribou per day by permit.*	
	Bulls RC907	*July 1-Oct. 14* *Feb. 1-June 30.*
	Cows RC907	*Jul. 15-Apr. 30*
	Nonresidents—1 bull	*July 15-Sep. 30*
26A remainder	*Residents—5 caribou per day by permit. RC907*	*July 1-July 15* *Mar 16-June 30.*
	5 caribou per day three of which may be cows by permit; cows with calves may not be taken. RC907	*July 16-Oct 15.*
	3 cows per day by permit. RC907	*Oct 16-Dec 31*
	5 caribou per day three of which may be cows by permit. RC907	*Jan 1-Mar 15*
	Nonresidents—1 bull; however, calves may not be taken	*July 15-Sep. 30*

Extent of Federal Public Lands

Federal public lands comprise approximately 55.7% of Unit 21D and consist of 29.3% U.S. Fish and Wildlife Service (USFWS) managed lands and 26.4% Bureau of Land Management (BLM) managed lands.

Federal public lands comprise approximately 43.5% of Unit 22 and consist of 28.1% BLM managed lands, 12.4% National Park Service (NPS) managed lands, and 3% USFWS managed lands.

Federal public lands comprise approximately 70.5% of Unit 23 and consist of 39.6% NPS managed lands, 21.8% BLM managed lands, and 9.1% USFWS managed lands.

Federal public lands comprise approximately 64.4% of Unit 24 and consist of 21.8% NPS managed lands, and 21.8% USFWS managed lands, and 20.8% BLM managed lands.

Federal public lands comprise approximately 67.5% of Unit 26 and consist of 45.2% BLM managed lands, 17.3% USFWS managed lands, and 5% NPS managed lands.

Federal public lands comprise approximately 72.7% of Unit 26A and consist of 66% BLM managed lands, 6.6% NPS managed lands, and 0.01% USFWS managed lands.

Customary and Traditional Use Determinations

Residents of Units 21B, 21C, 21D, and Huslia have a customary and traditional use determination for caribou in Unit 21D.

Residents of Units 21D west of the Koyukuk and Yukon Rivers, 22 (except residents of St. Lawrence Island), 23, 24, Kotlik, Emmonak, Hooper Bay, Scammon Bay, Chevak, Marshall, Mountain Village, Pilot Station, Pitka's Point, Russian Mission, St. Marys, Nunam Iqua, and Alakanuk have a customary and traditional use determination for caribou in Unit 22A.

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 Unit 22 remainder.

Residents of Units 21D west of the Koyukuk and Yukon Rivers, 22, 23, 24 including residents of Wiseman but not other residents of the Dalton Highway Corridor Management Area, 26A, and Galena have a customary and traditional use determination for caribou in Unit 23.

Only resident zone communities can hunt in National Parks and Monuments. The resident zone communities for Kobuk Valley National Park and Cape Krusenstern National Monument include all NANA Regional Corporation communities (all Unit 23 communities except Point Hope). Resident zone communities for Gates of the Arctic National Park include Alatna, Allakaket, Ambler, Anaktuvuk Pass, Bettles/Evansville, Hughes, Kobuk, Nuiqsut, Shungnak, and Wiseman.

Residents of Unit 24, Galena, Kobuk, Koyukuk, Stevens Village, and Tanana have a customary and traditional use determination for caribou in Unit 24.

Residents of Unit 26, Anaktuvuk Pass, and Point Hope have a customary and traditional use determination for caribou in Unit 26A.

Regulatory History

See **Appendix 1**

Current Events

2024-26 Federal Wildlife Proposals

The Northwest Arctic Council and North Slope Subsistence Regional Advisory Council (North Slope Council) submitted Proposals WP24-30 and WP24-31, respectively, to close caribou hunting to non-federally qualified users in Unit 23 from Aug. 1-Oct. 31.

2023-24 Alaska Board of Game Proposals

The Alaska Board of Game (BOG) considered multiple proposals addressing the WACH during their Western Arctic/Western Region meeting in January 2024. State Proposal 2 requested reduction of the caribou bag limit across the range of the WACH under State regulations. The BOG adopted Proposal 2 with modification to makes it applicable to the northwestern portion of Unit 23 and the southwestern portion of Unit 26A. Specific areas include Unit 23 north of and including the Singoalik River drainage and Unit 26A west of the Coleville River drainage upstream from the Nuka River and drainages of the Chukchi Sea, south and west of an including the Kuk and Kugrua River drainages (**Image 1**). Additionally, the BOG changed the resident bag limit to 15 caribou per year by registration permit only, only one of which may be a cow.

The BOG took no action on Proposals 4 and 5 due to action taken on Proposal 2. State Proposals 36 and 37 requested the same reduction of the caribou bag limit in Unit 23 under State regulations. the BOG adopted Proposal 36 with modification to include Unit 22 and changed the resident bag limit to 15 per year only one of which can be cow for both Unit 22 and Unit 23. The BOG took no action on Proposal 37 due to action taken on Proposal 2.

The BOG rejected Proposal 3, which requested closing the nonresident caribou hunt across the range of the WACH. Proposal 38 requested closing the nonresident caribou hunt in Unit 23 only. The BOG adopted Proposal 38 as amended to open a nonresident drawing hunt with up to 300 permits available, effective in regulatory year 2025.

The BOG will consider Proposal 139 (same as Proposal 2) for Units 21D and 24, and Proposal 140 (same as Proposal 3) for Units 21D and 24 at their Interior/Eastern Arctic Region meeting in March 2024.

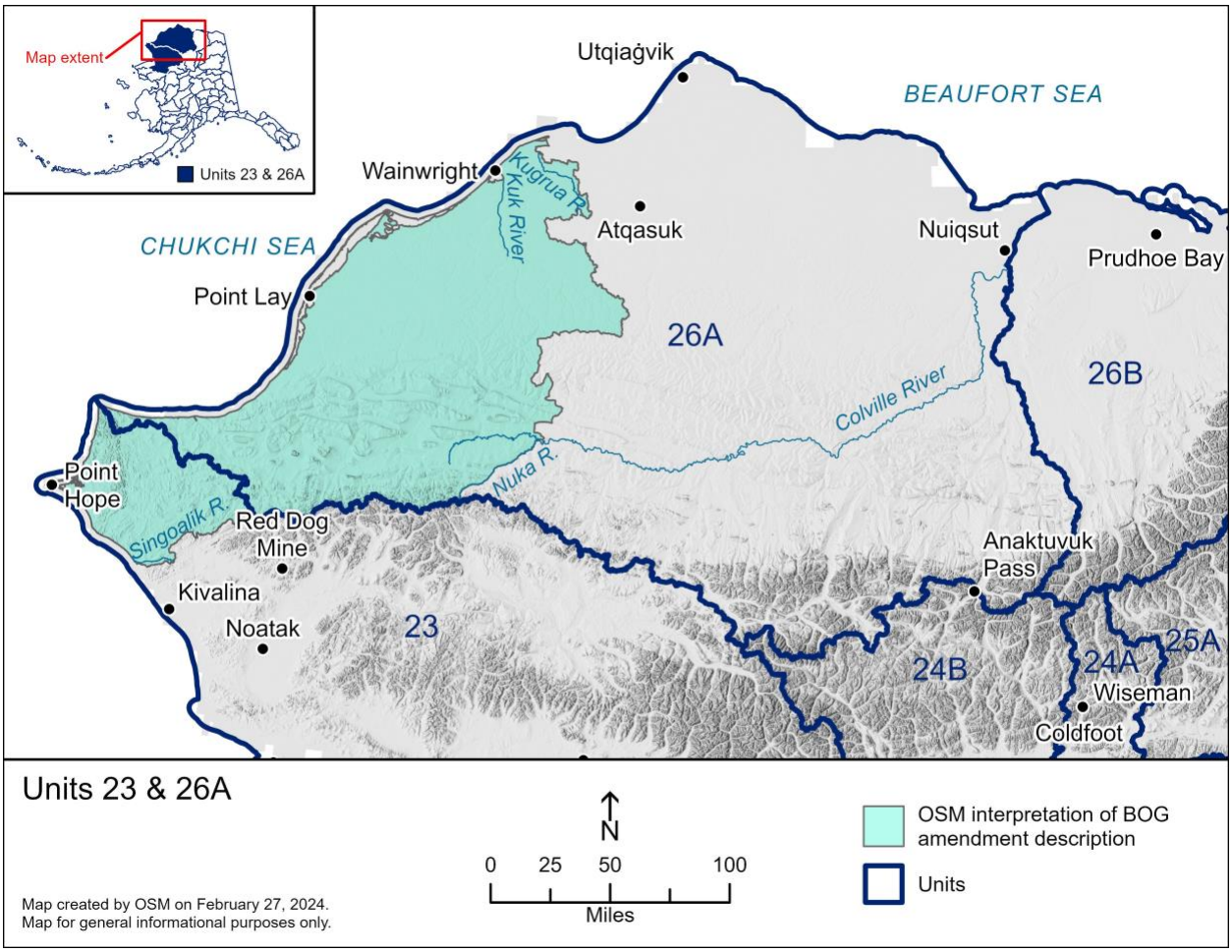


Image 1. OSM's interpretation of modification to State Proposal 2.

Public Listening Session

A public listening session on these proposals was held February 22, 2024 via teleconference to receive additional public testimony on WP24-28/29. Four people testified, including a Northwest Arctic Council member from Kotzebue, residents of Unalakleet and Anaktuvuk Pass, and a member of the Western Arctic Caribou Herd Working Group. The Council member emphasized the need for studies to understand what is happening with the Western Arctic Herd. He said that he's learned that agencies don't do anything for the people when a resource is lost. The Council has asked for reductions to harvest of the Western Arctic Herd in the past when they knew there was reason for concern, and the Board has not always listened.

The resident of Unalakleet took issue with continuing harvest by non-locals and felt that this should come to an end given the conservation situation. He also felt that regulations should be aligned with the State limit so that everyone can take the same amount. The resident from Anaktuvuk Pass explained how central caribou are to the community's existence. She stated that the proposed reduced harvest limit could cause starvation.

The Western Arctic Caribou Herd Working Group member wanted to make sure that everyone realizes the proposed harvest limit is per hunter, rather than per household. In many cases, the fact that each hunter could take four would mean there might not be hardship as a result. The main difference is the limit on cows that can be taken. It is very important to conserve cows. It will also be very important to report your harvest so that ADF&G can understand what is happening with the herd.

The Northwest Arctic Council member added that there are means to hunt for others such as proxy hunting, which is known as using a designated hunter under Federal subsistence regulations.

WSA22-05/06

Temporary Wildlife Special Action WSA22-05, submitted by the Northwest Arctic Council, requested a reduction in the caribou harvest limit in Unit 23 to four caribou per year, only one of which may be a cow for the remainder of the 2022-24 regulatory cycle (see regulatory history, **Appendix 1**).

Temporary Wildlife Special Action WSA22-06, submitted by the Western Interior Subsistence Regional Advisory Council (Western Interior Council), requested a reduction in the caribou harvest limit across the range of the WACH to four caribou per year, only one of which may be a cow for the remainder of the 2022-24 regulatory cycle. Specific areas include Units 21D, remainder; 24A, remainder; 24B, remainder; 24C; 24D; and all caribou hunt areas within Units 22, 23, and 26A (see regulatory history, **Appendix 1**).

A public hearing was held for WSA22-05/06 on April 26, 2023, in Kotzebue, and for WSA22-06 only on May 2, 2023, via teleconference. In addition, consultations with tribes and Alaska Native Claims Settlement Act (ANCSA) corporations were held on May 15, 2023, via teleconference. Summaries of these hearings and consultations are presented here.

April 26, 2023 public hearing summary (WSA22-05 and WSA22-06)

The Office of Subsistence Management (OSM) held a public hearing on WSA22-05 and WSA22-06 on April 26, 2023, in person in Kotzebue and via teleconference. Fourteen people testified. The majority of participants spoke in favor of the need for conservation of caribou but in opposition to the four caribou per year harvest limit as proposed in the special action request. Speakers, almost unanimously, stressed that caribou is their dietary staple and an integral aspect of their cultural identity. They stated that the limit, as proposed, would disrupt a basic aspect of the subsistence economy, the ability to harvest for others who can't hunt for themselves.

Climate change was acknowledged as a reason for changing caribou migration patterns. However, other phenomena were discussed. The effects of sport hunters and their use of airplanes is a major cause of concern because it is perceived as a disruption to caribou migration patterns. A couple of speakers said that migrations are interrupted when sport hunters don't follow local conservation practices such as letting the caribou leaders pass so the rest of the herd will follow. Speakers told of other local conservation practices and indigenous ways of showing respect, including letting caribou pass in the spring when they are skinny, not hunting cows in times of low numbers and using all parts of the caribou they harvest. One person noted that caribou population crashes are part of Indigenous Knowledge, and these practices are enacted during these times.

One of the most pervasive themes was the short amount of time between the Northwest Arctic Council's request submission and public hearing, and the lack of village outreach. The lack of outreach is a major point of contention because, the participants said, those are the people who are the hunters and who make their living off the land. Most speakers talked about the high cost of living in the region and that residents are not able to just stop hunting. Participants from the North Slope stated that this proposal is not relevant for them because they harvest from the Teshekpuk herd and not the WACH.

As noted, many participants spoke of the need to take conservation measures to preserve the WACH. The Kobuk Valley National Park Subsistence Resource Commission suggested changing the limit to five bulls per day and no cows so that harvesting for others can be sustained. One speaker, an elder, did not overtly support the proposal but candidly shared his thoughts as to how conservation of the herd should be addressed. He stated that local hunting patterns have changed because of the presence of sport hunters who prefer to take bulls and disrupt migration routes. He said this led to the need for local hunters to shift to cow harvest. He expressed extreme concern that the use of semi-automatic weapons has taken the place of bolt action rifles among local hunters. He observed that some people shoot into the herd and may kill several caribou and that they don't harvest all of them. He acknowledged natural fluctuation in caribou herd numbers and said that local people are going to have to "tighten their belts." Like other speakers, he feels that the prohibition of fly-in hunting would allow for the restoration of caribou migration routes. He sincerely requested that all agencies come to the table to address local concerns and bring their data to find a viable solution to conserving the WACH.

May 2, 2023 public hearing summary (WSA22-06 only)

OSM held another public hearing on WSA22-06 on May 2, 2023, via teleconference. Forty-five people provided testimony. The vast majority of testifiers were from North Slope communities and strongly opposed the request. One person from Ambler supported the request, stressing the importance of protecting cows and the need for conservation now to ensure the herd's preservation into the future. Several commenters did not provide an explicit position.

The primary reason people opposed the request was because the proposed harvest limit reduction would not be enough to provide for people's subsistence uses, potentially resulting in starvation across North Slope communities. Many testifiers stated four caribou per year was not enough to feed their families or share with others in their community, including elders, widows, and people unable to hunt for themselves. One testifier commented that his family uses 30-50 caribou each year, while another stated four caribou would only last her family one month. People also emphasized that caribou are vital for their survival; they rely on caribou both nutritionally and culturally. For example, caribou sinew is used to construct whaling boats. Several testifiers stressed that subsistence users only take what they need and harvest sustainably; they should not be criminalized for feeding their families; sport hunters should be restricted first. Additionally, store-bought food is prohibitively expensive and not as healthy as caribou.

Another reason people opposed the request was because most caribou harvested in Unit 26A are from the Teshekpuk (TCH) or Central Arctic caribou (CACH) herds, not the WACH. As the TCH and CACH populations are not declining like the WACH, this harvest limit reduction would be an unnecessary restriction on subsistence uses. Many also commented that the timing of the public hearing was terrible because many of the region's caribou hunters were out whaling. Several others expressed a need for meaningful tribal consultation on the request.

Several testifiers agreed that some conservation measures were needed to address the decline of the WACH, but that the requested restrictions were too drastic, too soon, and did not allow sufficient time or opportunity for input by the subsistence users who would be most affected by these restrictions. Others expressed frustration at the Western Interior Council dictating what harvest regulations should be outside of their area in the North Slope region.

A representative from ADF&G commented that a similar proposal will be addressed by the Alaska Board of Game (BOG) in January 2024 and that outlying subunits occupied by other herds such as the TCH and CACH should be considered for removal from this request.

Following this public hearing, the Western Interior Council indicated via e-mails that they would like to withdraw this request. While Councils cannot formally withdraw special action requests outside of a public forum, the chair spoke to the Board about this issue when they meet to consider this request on June 8th.

May 15, 2023 Tribal and ANCSA consultation summary (WSA22-05 and WSA22-06)

Participants in the Tribal teleconference included representatives of the Inupiat Community of the Arctic Slope (ICAS), Naqsragmiut Tribal Council of Anaktuvuk Pass, and the Arctic Slope Community Foundation.

Participants said that four caribou per household for the year is not enough because hunters harvest for those who cannot hunt, not just their household. They stated that caribou is a staple food, but it is more than that, it is cultural identity and is healthier than store-bought food. Some participants discussed the conflict they face, in that they know WACH caribou needs to be conserved but they also need caribou in order to live. One person described Traditional/Indigenous Knowledge and on-going user conflict, "We know not to overharvest for 10,000 years and now it's all regulated for us. Just difficult to follow your regulations with over 1,000 super cub planes coming to harvest the same caribou."

Discussion of management topics included a request for the State to be at the table with villages and Federal managers to discuss and work out how to conserve the herd. Participants stated that they do not harvest the WACH and asked if enforcement would be herd-specific. OSM staff replied that law enforcement makes no distinction between herds; enforcement occurs according to harvest regulations in specific units and areas.

Participants asked about the timing of the special action and OSM staff replied that the Board is meeting to address it on June 8, 2023. Because this is a temporary special action, if the Board adopted the proposal, it would only last for one regulatory cycle and would end in June 2024. The conflict that hunters face was voiced again when a participant said that he knew he was going against himself but wondered if the closure should last for two cycles in order to save the herd because, he said, "…if we lose them, everything falls apart."

Participants in the Alaska Native Claims Settlement Act (ANCSA) teleconference included representatives of the Inupiat Community of the Arctic Slope (ICAS), Naqsragmiut Tribal Council of Anaktuvuk Pass, and NANA Regional Corporation.

The NANA Corporation representatives stated that NANA does not have an official position on the proposal but wanted to share concerns voiced by NANA shareholders. In general, shareholders have expressed deep and overwhelming worry and a heavy sense of concern. The main concern is that people do not know how they would feed their families and their communities if this special action is adopted. The fast speed of the process and the timing of the public hearings was cited as problematic because communities and families have not had time to discuss the situation among themselves. People expressed worry about shifting harvests away from caribou because other resources are also in decline. The use of the entire caribou for many purposes is also an issue; people will not just lose food, but the ability to make clothing, tools, and art from caribou.

Harvesting caribou for others is a central aspect of Inupiat culture and economy. The ability to harvest for others is a major concern. Participants requested clarification on the designated hunter permit. OSM staff replied that on Federal public lands, any federally qualified user can be a designated hunter for another federally qualified user. One participant asked how law enforcement would deal with several designated hunters in one boat with only their allowed limit of caribou on board. OSM staff replied that it would be permissible as permitted by State or Federal regulations. During the public hearings on April 26 and May 2, 2023, many participants expressed concerns about access to designated hunter permits. OSM staff has contacted U.S. Fish and Wildlife Service Refuge and National Park Service colleagues to identify exactly how to obtain designated hunter permits in hub communities and villages. Per their request, OSM staff has provided preliminary information to NANA representatives.

Participants asked how OSM came to the harvest limit proposed in WSA22-05/06. OSM staff replied that it was proposed by the Western Arctic Caribou Herd Working Group in regulatory proposals, but the special action request were submitted by the Northwest Arctic and Western Interior Councils.. The Chair of the Western Interior Council, Jack Reakoff, explained further that the Western Interior Council proposal was prompted by the drastic decline of the WACH and the immediate need to conserve caribou cows.

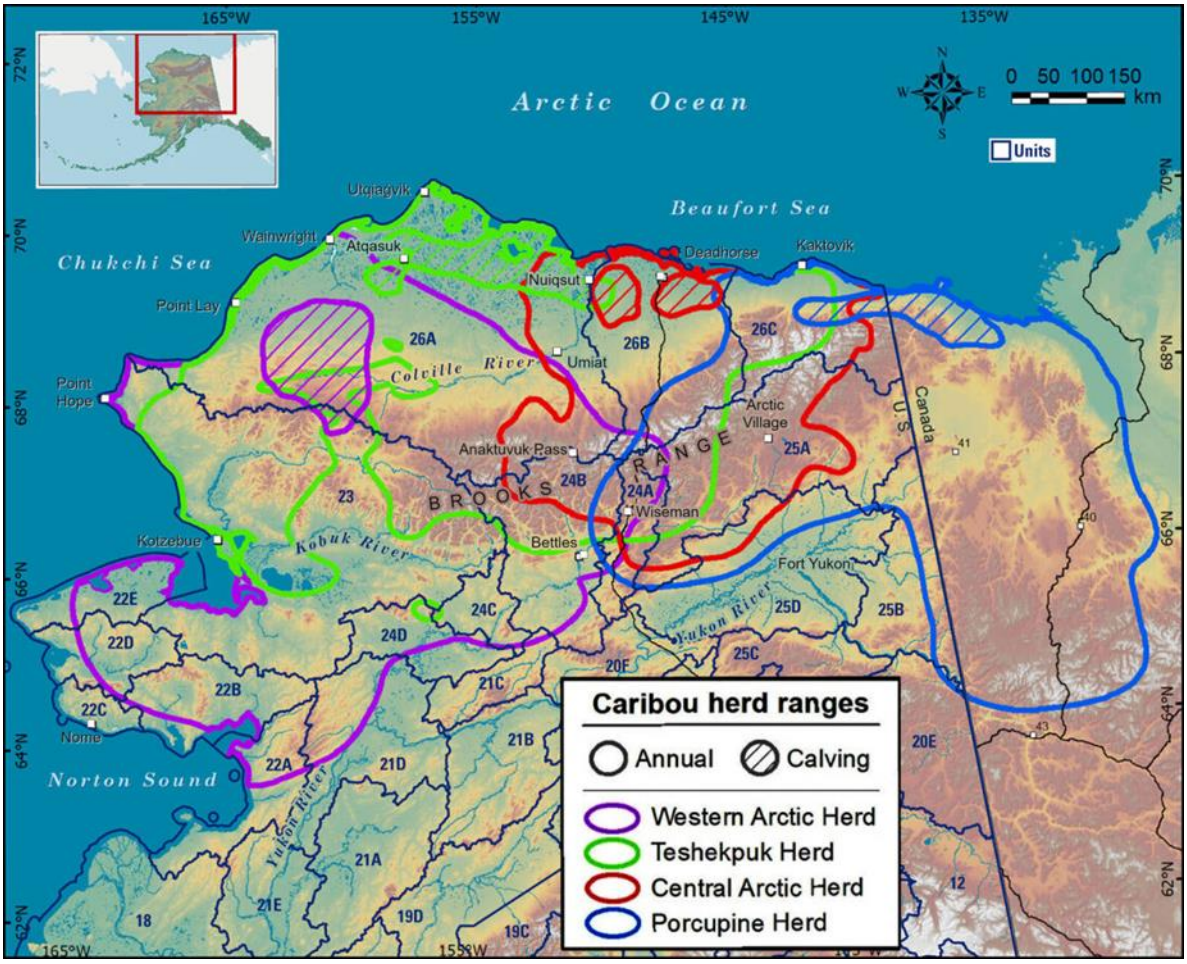
Biological Background

The TCH, WACH, and CACH have ranges that overlap in Units 23, 26A, 24A, and 24B (**Map 1**), and there can be considerable mixing of herds during the fall and winter (Prichard et al. 2020). As the current wildlife proposals focuses on conservation concerns for the WACH, this analysis will focus on the WACH. The TCH primarily occupies Unit 26A, and this analysis will briefly consider TCH biology and range. The CACH, which mostly occurs in Unit 26B, (Dau 2011, 2015; Lenart 2011; Parrett 2011, 2015c, 2015d), will not be considered further in this analysis.

Caribou abundance naturally fluctuates over decades (Gunn 2003; WACHWG 2011). Gunn (2003) reports the mean doubling rate for Alaskan caribou as 10 ± 2.3 years. Although the underlying mechanisms causing these fluctuations are uncertain, climatic oscillations (i.e., Arctic and Pacific Decadal Oscillations) may play an important role (Gunn 2003; Joly et al. 2011). Climatic oscillations can influence factors such as snow depth, icing, forage quality and growth, wildfire occurrence, insect levels, and predation, which all contribute to caribou population dynamics (Joly et al. 2011). Density-dependent reduction in forage availability, resulting in poorer body condition may exacerbate caribou population fluctuations (Gunn 2003).

Caribou calving generally occurs from late May to mid-June (Dau 2013; Cameron et al. 2018). Weaning generally occurs in late October and early November before the breeding season (Taillon et al. 2011). Calves may stay with their mothers through their first winter, which improves calves' access to food and body condition (Holand et al. 2012). Calves orphaned after weaning (October) have greater chances of survival than calves orphaned before weaning (Russell et al. 1991; Joly 2000; Holand et al. 2012, Rughetti and Festa-Bianchet 2014).

Caribou feed on a wide variety of plants including lichens, fungi, sedges, grasses, forbs, and twigs of woody plants. Arctic caribou depend primarily on lichens during the fall and winter, but during summer they feed on leaves, grasses, and sedges (Joly and Cameron 2018; Miller 2003).



Map 1. Herd overlap and ranges of the WACH, TCH, CACH, and PCH (Prichard et al. 2020).

Western Arctic Caribou Herd

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. In the spring, most mature cows move north to calving grounds in the Utukok Hills, while bulls and immature cows lag behind and move toward summer range in the Wulik Peaks and Lisburne Hills (**Map 2**; Dau 2011; WACHWG 2011, 2019). After calving, cows and calves move west toward the Lisburne Hills where they mix with the bulls and non-

maternal cows. During the summer, the herd moves rapidly to the Brooks Range. Calving locations of individuals average 35 miles apart from one year to the next, and 90% of females calved within one week from the previous year (Joly et al. 2021). The WACH has used the same general calving grounds for more than 100 years (Cameron et al. 2020).

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 demonstrate low fidelity to wintering grounds (Joly et al. 2021). Rut occurs during fall migration (Dau 2011, WACHWG 2011). The fall migration is more variable and shows less fidelity to specific migration routes than the spring migration, when caribou still showed a fidelity to certain regions within the herd's range (Joly et al. 2021).

In recent years, the timing of fall migration has been less predictable (Joly et al. 2021). Reasons for changes in migration phenology are unknown. However, Cameron et al. (2021) found that WACH migrated in response to snow events and cold temperatures but would pause migration when they encountered snow free areas or warmer temperatures. This corresponds with Traditional Ecological Knowledge, which has observed caribou migrating in response to weather (NWARAC 2021b). Caribou migrations are also closely related to the population size and density of the herd (Burch 1972, Joly et al. 2021b).

The proportion of caribou using certain migration paths also varies each year (**Figure 1**, Baltensperger and Joly 2019; Joly and Cameron 2020). Changes in migration paths are likely influenced by multiple factors including food availability, snow depth, rugged terrain, and dense vegetation (Nicholson et al. 2016; Fullman et al. 2017). If caribou travelled the same migration routes every year, their food resources would likely be depleted (NWARAC 2016a). Anthropogenic factors can also influence migration paths. Radio collared caribou data has shown that the Red Dog Mine Road, near Kivalina, has delayed the fall migration along the coast with some caribou turning around rather than crossing the road (Wilson et al. 2016, WACHWG 2021).

The WACH Working Group consists of a broad spectrum of stakeholders, including subsistence users, sport hunters, conservationists, hunting guides, reindeer herders and transporters. The Group is also technically supported by NPS, USFWS, BLM, and ADF&G personnel. The WACH Working Group developed a WACH Cooperative Management Plan in 2003 and revised it in 2011 and 2019 (WACHWG 2011, 2019). The WACH Management Plan identifies nine plan elements: cooperation, population management, habitat, regulations, reindeer, knowledge, education, human activities, and changing climate, as well as associated goals, strategies, and management actions. As part of the population management element, the WACH Working Group developed a guide to herd management determined by population size, population trend, and harvest rate. Population sizes guiding management level determinations were based on recent (since 1970) historical data for the WACH (WACHWG 2011, 2019). Revisions to recommended harvest levels under liberal and conservative management were made in 2015 (WACHWG 2015) and 2019 (WACHWG 2019a, **Table 1**).

The WACH population declined rapidly in the early 1970s, bottoming out at about 75,000 animals in 1976. Aerial photocensuses have been used since 1986 to estimate population size. The WACH population increased throughout the 1980s and 1990s, peaking at 490,000 animals in 2003 (**Figure 2**). From 2003-2016, the herd declined at an average annual rate of 7.1% 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 2017a). However, part of this increase may have been due to improved photographic technology as ADF&G switched from film to higher resolution digital cameras. The 2019 population estimate was 244,000 caribou (Hansen 2019a). No photocensus was completed in 2020, but in 2021, the population estimate was 188,000 caribou with a 95% confidence interval of +/- 11,855 and a minimum count of 180,374. This is approximately a 24% decline from the 2019 population estimate (WACHWG 2021). The 2022 population estimate was 164,000 caribou with a 95% confidence interval of +/- 7,271 and a minimum count of 161,034, representing an additional 12% decline (**Figure 2**, WACHWG 2022). The population declined an additional 7.6%, to approximately 152,000 caribou in 2023 (WACHWG 2023).

Between 1982 and 2011, the WACH population was within the liberal management level prescribed by the WACH Working Group (**Figure 2, Table 1**). In 2013, the herd population estimate fell below the population threshold for liberal management of a decreasing population (265,000), slipping into the conservative management level. In 2020, as no photocensus was completed, the WACH Working Group voted to maintain the herd's status at the conservative declining level (WACH Working Group 2020). The 2021 population estimate fell below the population threshold for conservative management of a decreasing population (200,000). The WACH Working Group voted to place the herd in the preservative declining level in 2021, 2022, and 2023 (WACHWG 2021, 2022, 2023).

Between 1970 and 2023, the bull:cow ratio exceeded Critical Management level of 30 bulls:100 cows identified in the 2019 WACH Management Plan (**Figure 3**). (Note: Previous management plans identified 40 bulls:100 cows as the critical management level). However, the average annual number of bulls:100 cows was greater during the period of population growth (54:100 between 1976–2001) than during the recent period of decline (44:100 between 2004-2016). However, in 2017 the bull:100 cow ratio was the highest since 1998 at 54 bulls:100 cows. In 2021, that ratio fell slightly to 47 bulls:100 cows and was 50 bull:100 cows in 2023 (**Figure 3,** WACHWG 2021, 2023). Additionally, Dau (2015) states that while trends in bull:cow ratios are accurate, actual values should be interpreted with caution due to sexual segregation during sampling and the inability to sample the entire population, which likely account for more annual variability than actual changes in composition.

Although factors contributing to the 2003-present decline are not known with certainty, increased adult cow mortality, and decreased calf recruitment and survival played a role (Dau 2011, WACHWG 2022). Since the mid-1980s, adult mortality has slowly increased while recruitment has slowly decreased (**Figure 4**, Dau 2013). Prichard (2009) developed a population model specifically for the WACH using various demographic parameters and found adult cow survival to have the largest impact on population size, followed by calf survival and then parturition rates.

Calf production has likely had little influence on the population trajectory (Dau 2013, 2015). Between 1990 and 2003, the June calf:cow ratio averaged 66 calves:100 cows/year. Between 2004 and 2017, the June calf:cow ratio averaged 72 calves:100 cows/year. In June 2018, 86 calves:100 cows were observed, which approximates the highest parturition level ever recorded for the herd (86 calves:100 cows in 1992) (Dau 2016a, WACH Working Group 2021). The 5-year period from 2015-2019 had the highest (83%) parturition rate of any period since monitoring began. In 2023, the June calf:cow ratio was 77 calves:100 cows. The long-term average (1992-2023) is 70 calves:100 cows/year (**Figure 5**, WACHWG 2023, NWARAC 2023).

Decreased calf survival through summer and fall and recruitment into the herd may have contributed to the recent population decline (Dau 2013, 2015). Fall calf:cow ratios indicate calf survival over summer. Between 1976 and 2017, the fall calf:cow ratio ranged from 35 to 59 calves:100 cows/year, averaging 47 calves:100 cows/year (**Figure 5**).

Similarly, the ratio of short yearlings (SY, 10-11 months old caribou) to adults provides a measure of overwintering calf survival and recruitment. Between 1998 and 2023, SY:adult ratios ranged from 9-26 and averaged 17 SY:100 adults/year (**Figure 5**). SY:100 adult ratios were high from 2016-2018, ranging from 21-23 SY:100 adults (Dau 2016b, NWARAC 2019a, NWARAC 2023). The 2023 SY:100 adult ratio was on par with the long-term average at 17 SY:100 adults (WACHWG 2023). Over the past eight years the short yearling ratio has been at or above the long-term average. Thus, recruitment does not appear to be a major driver of herd decline.

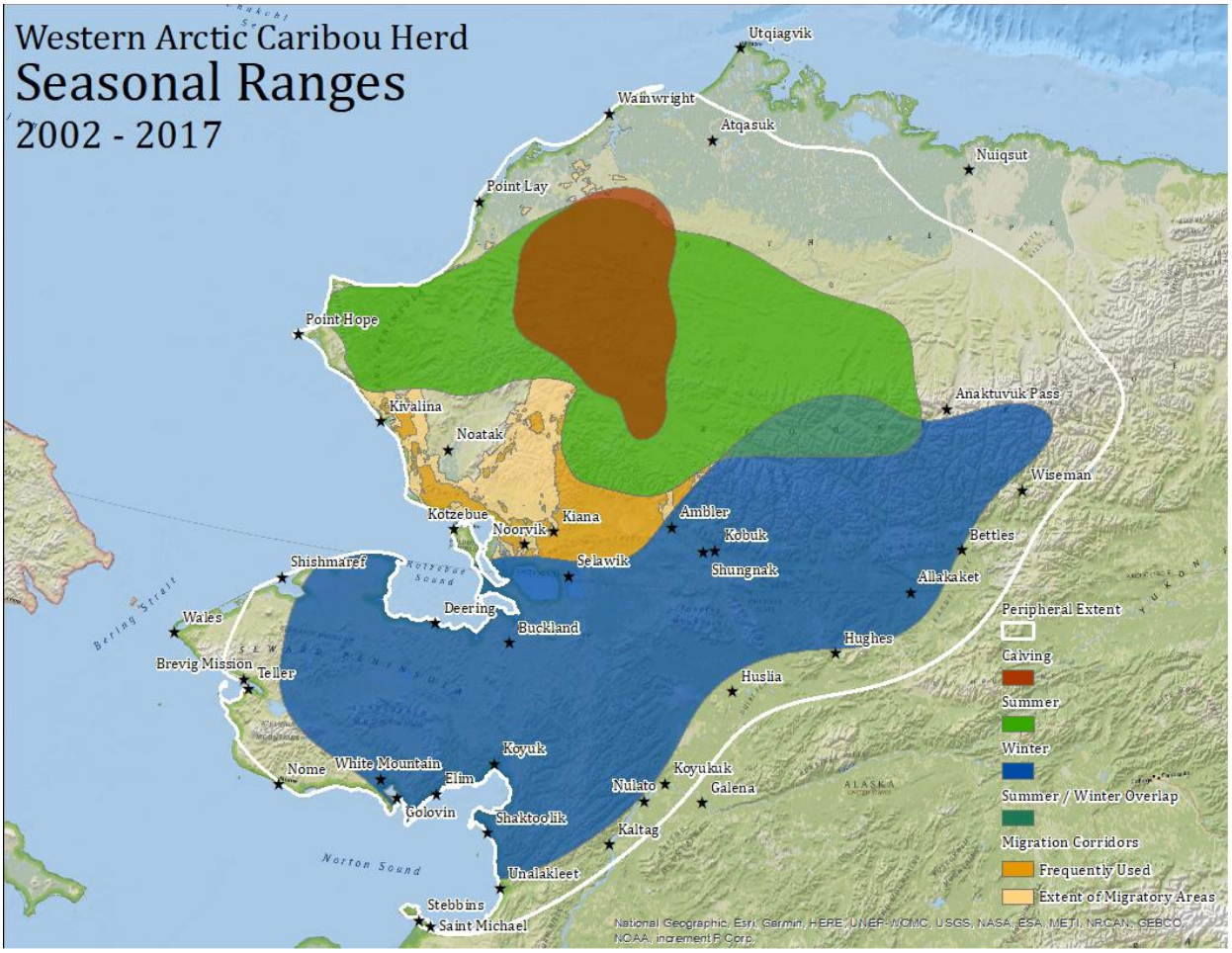
Cow mortality affects the trajectory of the herd (Dau 2011, 2013, Prichard 2009, NWARAC 2019a), and is likely the factor driving the herd's decline (WACHWG 2023). Prichard (2009) and Dau (2015) suggest that harvest levels and rates of cows can greatly impact population trajectory. The long-term mortality rate of radio-collared adult cows averaged 19% from 1987-20230 (WACHWG 2022). The annual mortality rate increased from an average of 15% between 1987 and 2003 to 23% from 2004-2014 (**Figure 4,** Dau 2011, 2013, 2014, 2015). Mortality rates declined in 2015 and 2016, but then increased sharply in 2017. However, the increased mortality rate in 2017 may have been due to a low and aging sample size as few caribou were collared in the previous two years (Prichard et al. 2012, NWARAC 2019a) and/or difficult weather conditions (Gurarie et al. 2020).

Prior to 2019, ADF&G and NPS deployed collars on caribou at Onion Portage via boat in September. Only seven collars total were deployed in both 2017 and 2018 due to fewer caribou migrating through Onion Portage at predictable times. ADF&G and NPS began deploying collars using net gun techniques via helicopter in April 2019 (Joly and Cameron 2021). Since 2018, estimated mortality rates have remained above the long-term average, ranging from 23-36%. The mortality rate was high in 2023 at 31% (WACHWG 2023).

Estimated mortality includes all causes of death including hunting (Dau 2011). Over half of cow mortality is attributed to predation, while 5-29% has been attributed to hunting each year since 2006 (WACHWG 2023). Dau (2015) states that cow mortality estimates are conservative due to exclusion of unhealthy (i.e. diseased) and yearling cows from collaring. These mortality estimates are influenced by the age at which

individuals were collared (which is unknown), sample size and how long the collars have been on individuals (Dau 2015, Prichard et al. 2012).

Increased predation, hunting pressure, deteriorating range condition (including habitat loss and fragmentation), climate change, fall and winter icing events, and disease may be contributing factors to the population decline (Joly et al. 2011; Dau 2014, 2015). Joly et al. (2007) documented a decline in lichen cover in portions of the wintering areas of the WACH, which continued through at least 2015 (BLM, unpublished data).



Map 2. Western Arctic Caribou Herd seasonal range map, 2002-2017 (image from WACHWG 2019a).

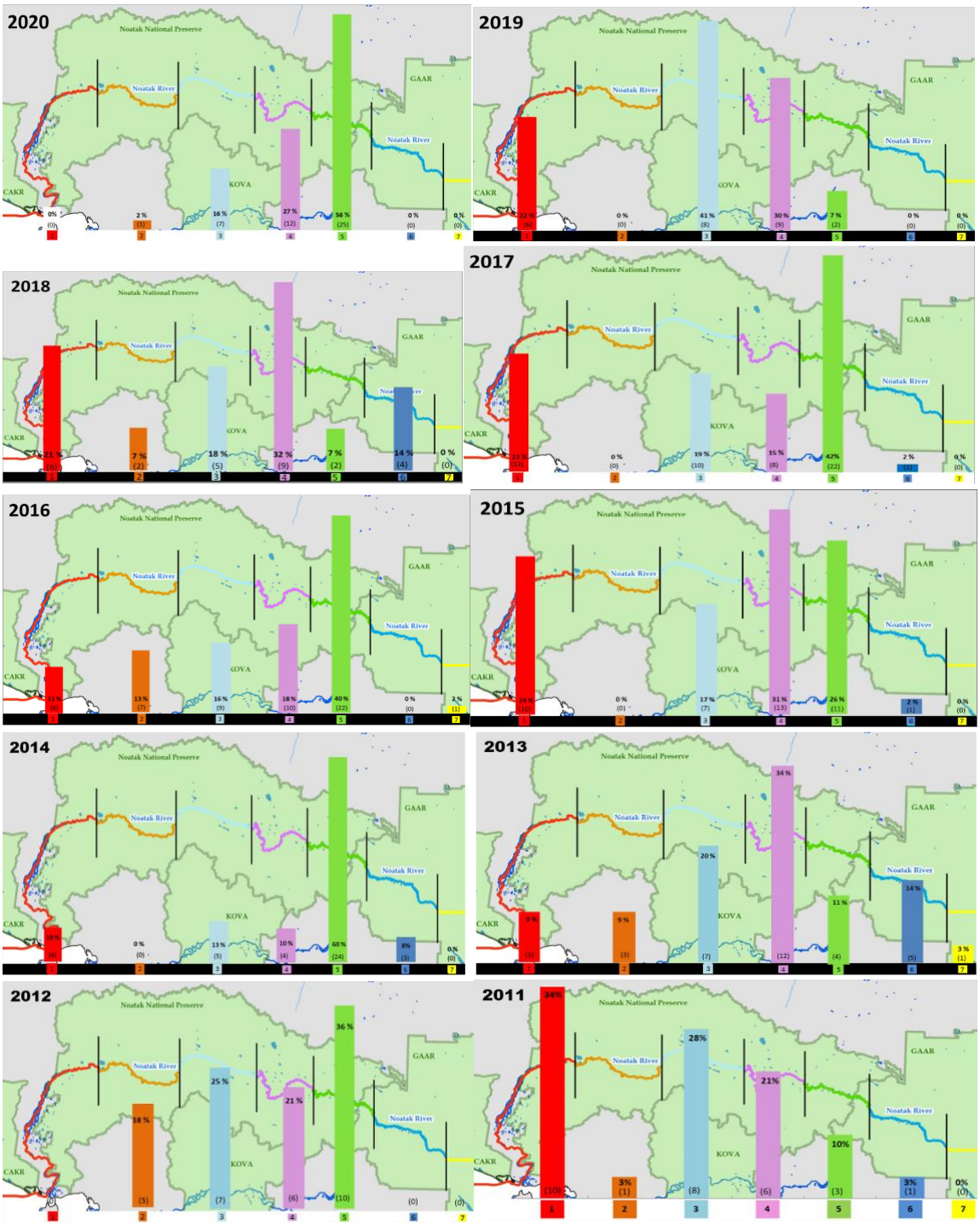


Figure 1. 2011-2020 distribution of caribou crossing the Noatak River during fall. Histograms depict where collared female caribou crossed the Noatak River, generally from north to south, on their fall migration. Relative percentages (top number) and the absolute number (middle number) of caribou are provided. The river is divided into seven (lowest number) color-coded segments which are displayed in the background. The middle five segments are 100 river kilometers long, while the westernmost segment (red) is 200 km (before extending into the Chukchi Sea) and the easternmost (yellow) runs as far east as WACH caribou are known to migrate (Joly and Cameron 2021).

Table 1. WACH management levels using herd size, population trend, and harvest rate (**WACHWG 2019b**).

Management and Harvest Level	Population Trend			Harvest Recommendations May Include:
	Declining Adult Cow Survival <80% Calf Recruitment <15:100	**Stable** Adult Cow Survival 80%-88% Calf Recruitment 15-22:100	**Increasing** Adult Cow Survival >88% Calf Recruitment >22:100	
Liberal	Pop: 265,000+ Harvest: 14,000+	Pop: 230,000+ Harvest: 14,000+	Pop: 200,000+ Harvest: 14,000+	• Reduce harvest of bulls by nonresidents to maintain at least 30 bulls:100 cows • No restriction of bull harvest by resident hunters unless bull:cow ratios fall below 30 bulls:100 cows
Conservative	Pop: 200,000-265,000 Harvest: 10,000-14,000	Pop: 170,000-230,000 Harvest: 10,000-14,000	Pop: 150,000-200,000 Harvest: 10,000-14,000	• Encourage voluntary reduction in calf harvest, especially when the population is declining • No cow harvest by nonresidents • Restriction of bull harvest by nonresidents • Limit the subsistence harvest of bulls only when necessary to maintain a minimum 30:100 bull:cow ratio
Preservative	Pop: 130,000-200,000 Harvest: 6,000-10,000	Pop: 115,000-170,000 Harvest: 6,000-10,000	Pop: 100,000-150,000 Harvest: 6,000-10,000	• No harvest of calves • Limit harvest of cows by resident hunters through permit hunts and/or village quotas • Limit the subsistence harvest of bulls to maintain at least 30 bulls:100 cows • Harvest restricted to residents only, according to state and federal law. Closure of some federal public lands to non-qualified users may be necessary
Critical	Pop: <130,000 Harvest: <6,000	Pop: <115,000 Harvest: <6,000	Pop: <100,000 Harvest: <6,000	• No harvest of calves • Highly restrict the harvest of cows through permit hunts and/or village quotas • Limit the subsistence harvest of bulls to maintain at least 30 bulls:100 cows • Harvest restricted to residents only, according to state and federal law. Closure of some federal public lands to non-qualified users may be necessary

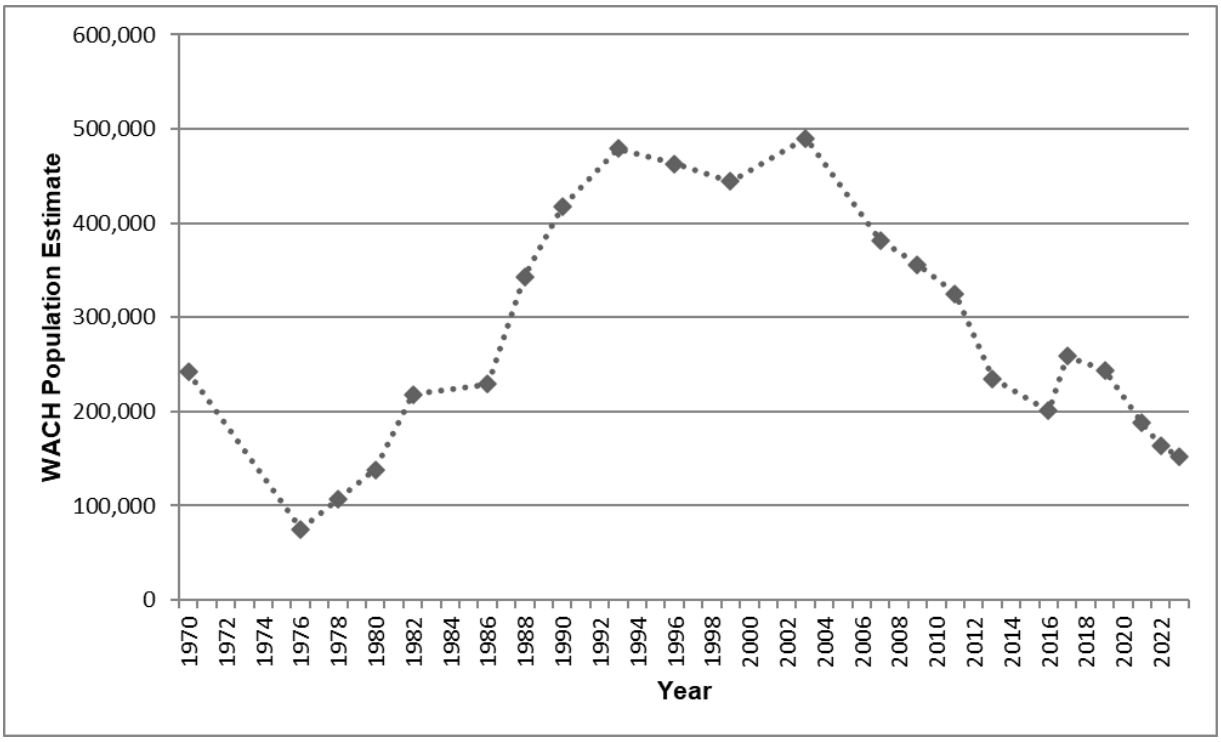


Figure 2. The WACH population estimates from 1970–2023. Population estimates from 1986–2023 are based on aerial photographs of groups of caribou that contained radio-collared animals (Dau 2011, 2013, 2014; Parrett 2016, 2017a; Hansen 2019a; WACHWG 2023)**.**

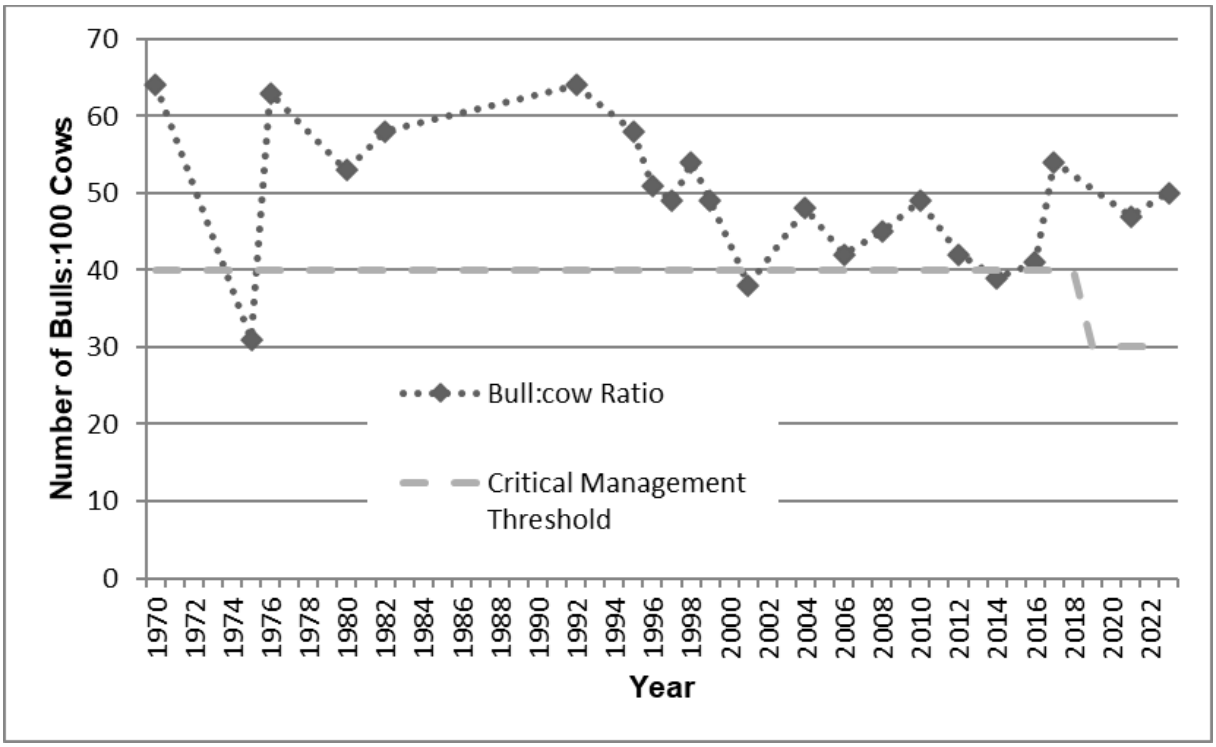


Figure 3. Bull:cow ratios for the WACH (Dau 2015; ADF&G 2017c; Parrett 2017a; WACHWG 2023).

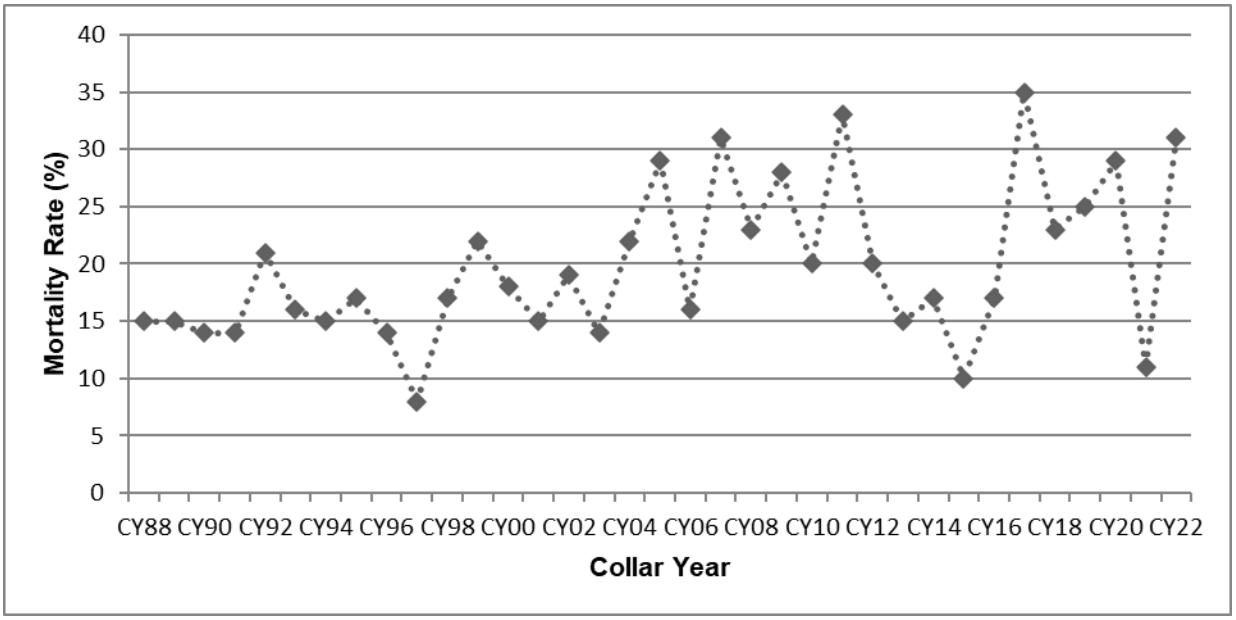


Figure 4. Mortality rate of radio-collared cow caribou in the WACH (Dau 2013, 2015, 2016b; NWARAC 2019a; WACHWG 2020, 2021). Collar Year = 1 Oct-Sep 30. Note: Prior to 2019, collars were deployed via boat in Onion Portage from September to October. Starting in 2019 collars were deployed via net gun techniques in spring (Joly and Cameron 2021).

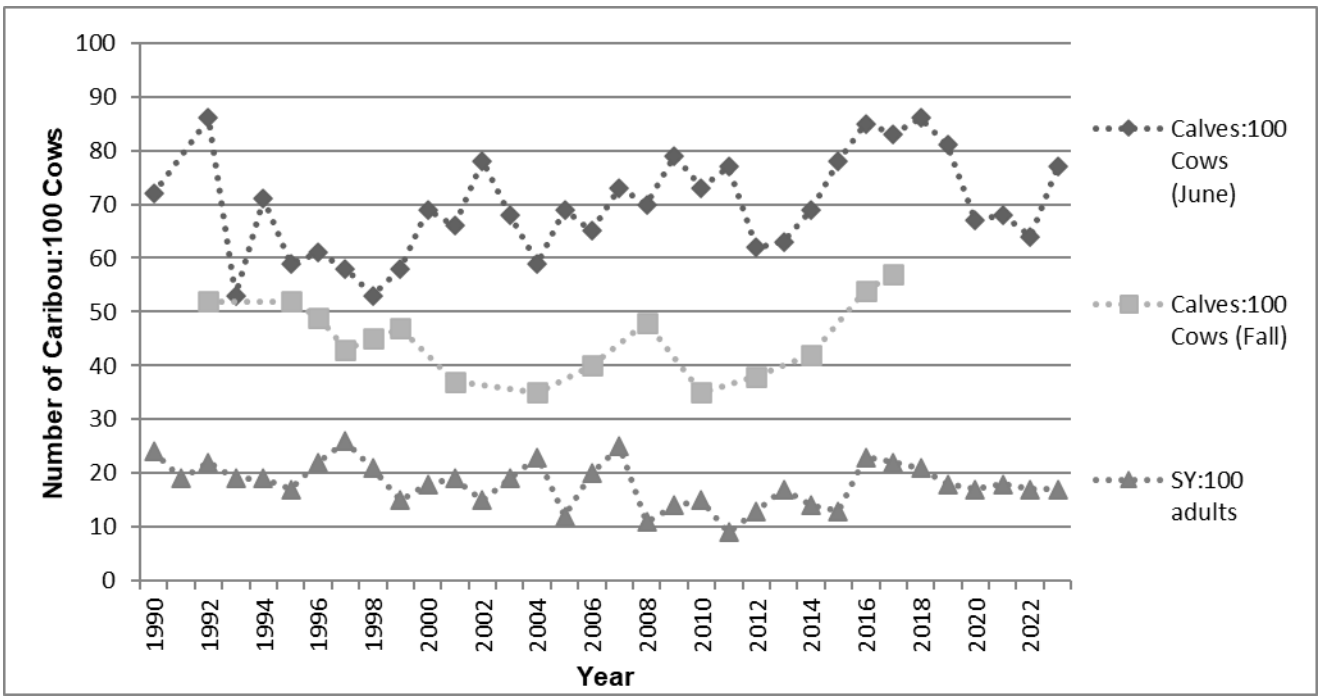


Figure 5. Calf:cow and short yearling (SY):adult ratios for the WACH (Dau 2013, 2015, 2016a; ADF&G 2017c; Parrett 2017a; NWARAC 2019a, 2023; WACHWG 2023). Short yearlings are 10-11 months old caribou.

Teshekpuk Caribou Herd

The TCH calving and summering areas overlap with the eastern portion of the National Petroleum Reserve–Alaska (NPR–A). Most of the TCH moves toward Teshekpuk Lake in May to calve in early June. The primary calving grounds of the TCH (approximately 1.8 million acres) occur to the east, southeast and northeast of Teshekpuk Lake (**Figure 6**, Person et al. 2007; Wilson et al. 2012). From late June through July cows and bulls move to seek relief from insects (**Figure 6**, Carroll 2007; Parrett 2007). Fall and winter movements are more variable, although most of the TCH winters on the coastal plain (Carroll 2007). The TCH winters in four relatively distinct areas: the coastal plain between Atqasuk and Wainwright; the coastal plain west of Nuiqsut; the central Brooks Range; and the shared winter ranges with the WACH in the Noatak, Kobuk, and Selawik River drainages (**Figure 6**, Parrett 2021).

State management objectives for the TCH include (Parrett 2021):

- Maintain a population of at least 15,000 caribou, recognizing that caribou numbers naturally fluctuate.
- Provide a harvest of at least 900 caribou in a sustainable manner.
- Maintain a population with a range of 25–35 bulls:100 cows, depending upon population level.
- Obtain harvest estimates with sufficient data such that a 15% change in annual harvest is detectable.

Since 1984, the minimum population of the TCH has been estimated from aerial photocensuses and radio-telemetry data. Interpretation of population estimates is difficult due to movements and range overlap among caribou herds, which results in both temporary and permanent immigration and emigration (Person et al. 2007). For example, the minimum count in 2013 contained an unknown number of CACH caribou (Parrett 2015a). Following the 2013 census, ADF&G made the decision to manage the TCH based on the minimum count because the bulk of the animals that were estimated rather than counted were with the WACH at the time of the photocensus (Parrett 2015b, pers. comm.).

The TCH population has far exceeded the management objective of 15,000 caribou since 2008 (Parrett 2021). The TCH population increased from an estimated 18,292 caribou (minimum estimate 11,822) in 1984 to 68,932 caribou (minimum estimate 64,106) in 2008. From 2008 to 2014, the population declined by almost half to 39,000 caribou (Parrett 2015a). In 2017, the minimum count was 56,255 with a population estimate of 55,614 (SE = 2,909). The total minimum count for the 2022 photocensus was 51,225 caribou and the population estimate was 61,593 animals (95% CI: 52,188-70,998) (Daggett 2023, pers. comm.).

In 2013 and 2016, the bull:cow ratio was 39 bulls:100 cows and 28 bulls:100 cows, respectively (Parrett 2011, 2013, 2015a; Parrett 2017a, pers. comm.). Comparison of bull:cow and calf:cow ratios from 1991-2000 with later years is not possible due to changes in methodology. The calf:cow ratio increased from 18 calves:100 cows between 2009-2013 to 48 calves:100 cows in 2016 (Parrett 2013, 2015a; Parrett 2017a, pers. comm.). In addition, the number of SY:adults declined from an average of 20 SY:100 adults between 1999 and 2008 to an average of 14 SY:100 adults from 2009-2014 (Parrett 2013) and increased in 2016 to 29 SY:100 adults (Parrett 2017a, pers. comm.). From 2018-2021, the SY:adult ratio returned to

an average of 14 SY:100 adults. In the most recent survey in 2023, the ratio decreased to 6.8 SY:100 adults (Daggett 2023, pers. comm.).

The annual mortality of adult radio collared females from the TCH has remained close to the long term (1991-2012) average of 14.5% (range 8–25%) (Parrett 2011, 2015a; Caribou Trails 2014). In 2016, there was high adult female survival (92%), high yearling recruitment (29 yearlings:100 adults), high calf production (81%), and a high fall calf:cow ratio (48 calves:100 cows) (Parrett 2017a, pers. comm.; Klimstra 2017). Parturition rates from 2018-2022 peaked at 85% in 2020 and have since declined to 45% in 2022 (Daggett 2023, pers. comm.).

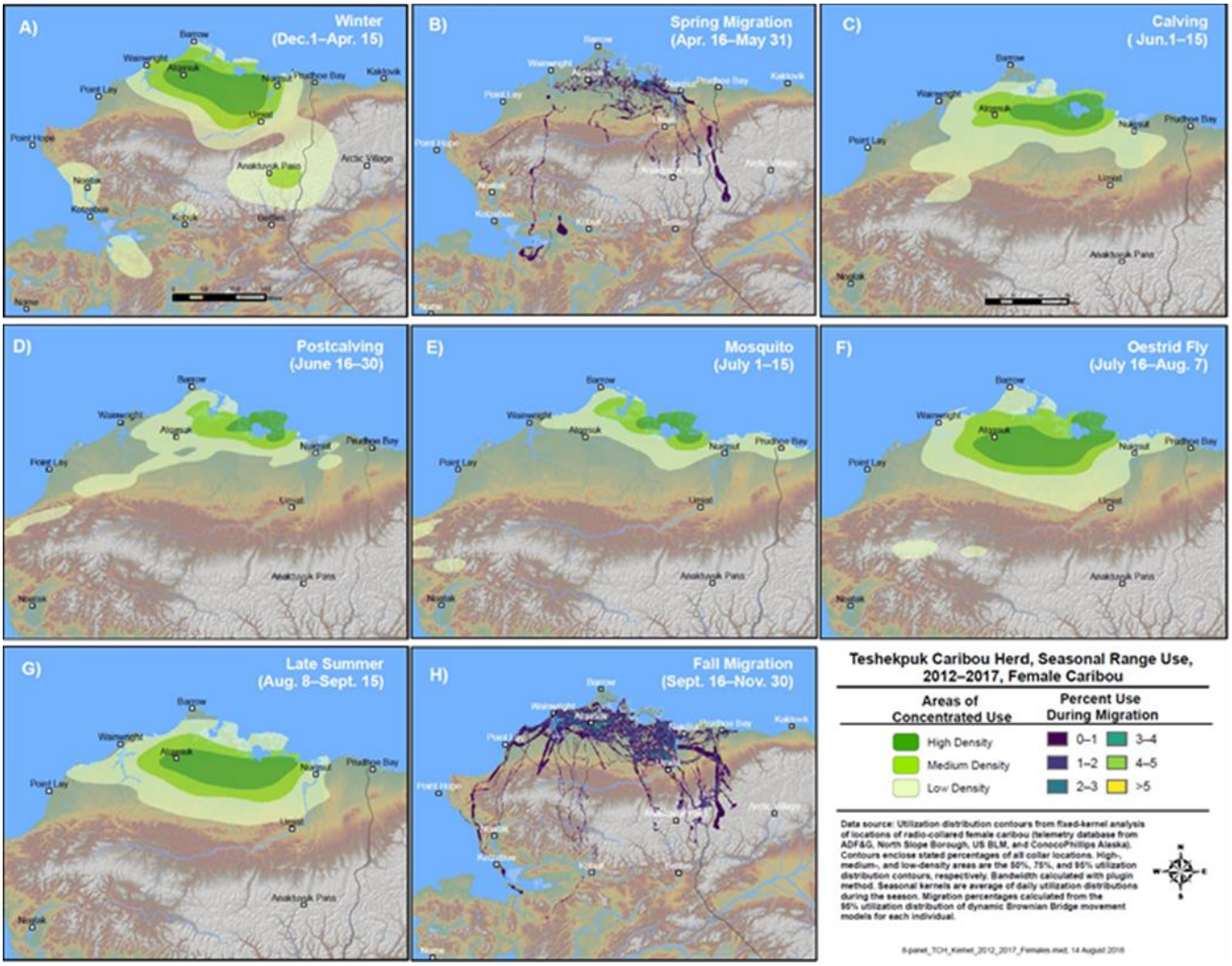


Figure 6. Seasonal ranges, 2012–2017, for satellite collared female caribou of the TCH Alaska (Parrett 2021). Note: Utqiaġvik was known as Barrow until 2016**.**

Cultural Knowledge and Traditional Practices

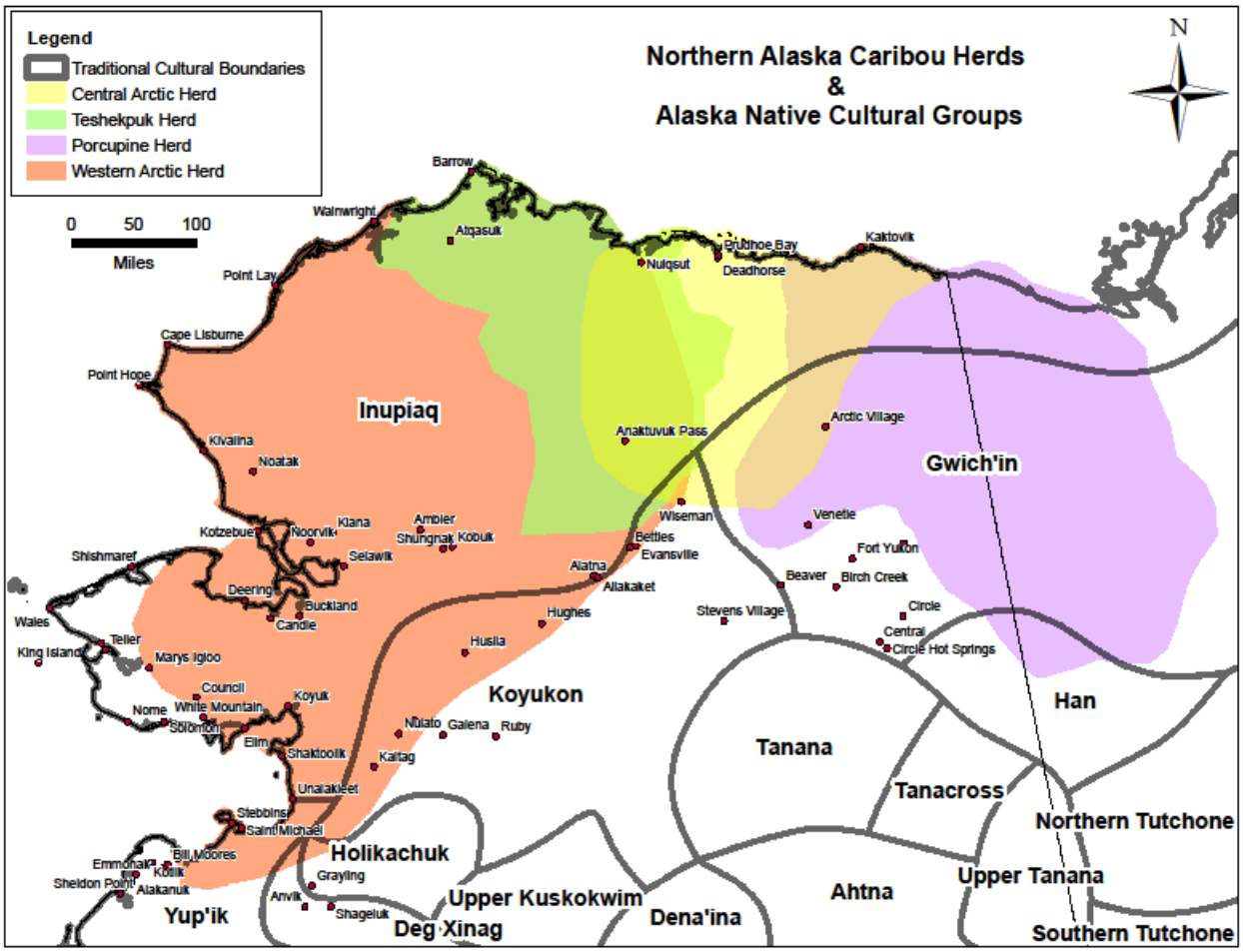
The potential effects of this proposal span the traditional territory the Iñupiat of the North Slope, Northwest Arctic and the Seward Peninsula, Yup'ik communities in the southern portion of the Seward Peninsula and northern portion of the Yukon region, and the Koyukon Athabascans of the Western Interior (**Map 3**). However, caribou are encountered less frequently by communities on the edges of the WACH's range, particularly during times of population decline (Burch 2012).

Because the communities that would be most directly affected by this proposal are located in traditional Iñupiaq territory, this section focuses on their cultural uses of caribou. 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 at this location, which is still used today (Anderson 1968, 1988), and even older archaeological deposits dated to approximately 11,000 years ago occur in the Kivalina River drainage (Buvit et al. 2019).

Iñupiat values are based on the perspective that the human-animal relationship is reciprocal. Maintaining the reciprocal relationship requires respectful human behavior toward animals that is guided by a system of rules. Three of the primary rules are 1) that humans must harvest animals who give themselves, 2) they must not waste any part of animals they harvest, and 3), in times of low animal populations, people must intentionally limit their harvest (Burch 1984, 1994, 1995; ADF&G 1992).

Failure to follow these rules or treating animals with disrespect will prevent animals from returning. Northwest Arctic Council members have testified about the decline in local availability of caribou, which has meant that many people have gone without caribou in recent years (NWARAC 2023). This proposal reflects the practice of intentional harvest limitation in order to maintain respectful and reciprocal relations between humans and caribou. At the Northwest Arctic Council meeting in October 2022, one Council member explained:

> Caribou is, I know they're going down. My son got caribou. I have caribou. So, he gave away to elders. And I always tell him don't get any more, I'll stop him when we have enough caribou because a family, my size, there's six of us in the family, and four caribou is enough for the whole year, and I always tell my son that's enough. When you get four caribou, that's good. The caribou herd is going down, we're not going to hunt this spring. And young men now, now days, if you teach them right, they'll listen, and I'm glad my son is doing that. Because I know the caribou is going down and we have to respect that (NWARAC 2022: 20).



Map 3. Map depicting the overlap of northern Alaska caribou herds and traditional territories of Alaska Native cultural groups.

Human population of the region

Decision-making on WACH harvest limits may incorporate demographic data for communities within the core range of the WACH. **Table 2** highlights total population and the number of households for those regions with the highest documented harvest of caribou within the range of the WACH (U.S. Census 2020). **Table 3** shows the number of households harvesting caribou in the most recent ADF&G, Division of Subsistence surveys (CSIS 2023).

Table 2. Population and number of households in the Northwest Arctic Borough, North Slope Borough (excluding Kaktovik), and Nome Census Area (U.S. Census 2020). Kaktovik is excluded from the North Slope data because it is in Unit 26C, beyond the range of the WACH. Note that the Unit 24 community of Anaktuvuk Pass is within the North Slope Borough.

Census Area	Total Population	Number of Households
Northwest Arctic Borough	7,793	1,756
North Slope Borough, excluding Kaktovik	10,748	2,042
Nome Census Area	10,046	2,714

Census Area	Total Population	Number of Households
Total	**28,587**	**6,512**

Table 3. The number of households (in areas with a customary and traditional use determination for caribou within the units included in this proposal) harvesting caribou in the most recent survey years, calculated based on ADF&G, Division of Subsistence data (CSIS 2023). Villages were not all surveyed in the same year. Note that totals for Unit 22 do not include Nome, for which no caribou subsistence survey data are available. Caribou survey data for Nunam Iqua and Kotlik date to 1980 and were deemed too old for inclusion. Some communities in Unit 26A harvest primarily from the Teshekpuk Herd. These numbers do not reflect recent lack of availability of caribou for many communities, and therefore may over-estimate the number of households currently harvesting caribou.

Unit	Estimated Number of Households Harvesting Caribou in Most Recent Subsistence Survey Years
Unit 18 communities with C&T	12
Tanana (20E) and Stevens Village (25D)	4
Unit 21 (excluding communities in 21A; no C&T)	3
Unit 22 (excluding Nome; no data)	289
Unit 23	784
Unit 24 (excluding Anaktuvuk Pass)	38
Unit 26A and Anaktuvuk Pass	795
Total	**1,925**

Many gaps in the data remain, including the number of individuals (rather than households) harvesting caribou during past survey years and the number of potential caribou permit holders per household or in total. Of note, Wolfe et al. (2010) demonstrated that households producing more food in rural subsistence communities in Alaska were characterized by their inclusion of "multiple working-age males." Estimates of the number of potential permit holders may take into consideration the number of men of working age as one factor, as hunting has traditionally been dominated by men in Iñupiaq regions, although there are important exceptions to this pattern, as not all men of working age participate in the subsistence economy, and some women are active hunters (Satterthwaite-Phillips et al. 2016).

Unequal distribution of harvest effort

This proposal seeks a reduced harvest limit for the WACH, and past subsistence harvest estimates can inform consideration of reduced limits. ADF&G, Division of Subsistence has conducted periodic subsistence surveys for communities within the range of the WACH between 1982 and 2018. These data have limitations, such as the fact that communities are often surveyed only once every ten years, not each survey year is representative of typical subsistence use, and even in representative years, harvest numbers are estimates only. Nonetheless, subsistence surveys do provide valuable information on historical baseline harvest levels.

While wildlife regulations allot harvest limits on an individual basis, not all members of a community harvest and distribute wild foods at equal levels. Generally, many more people use

caribou than harvest caribou because of the Iñupiaq cultural value of harvesting and sharing subsistence foods to provide for those who do not have a hunter in the household. As first posited by Wolfe (1987) and supported by decades of ADF&G, Division of Subsistence research, it is common for 30% of the households in rural Alaskan communities to harvest 70% of a community's total annual harvest measured in edible pounds of food (Magdanz et al. 2005: 41, Wolfe et al. 2010).

At their March 7-8, 2023 meeting, the Northwest Arctic Council discussed what they called "super hunters," hunters that provide for a large number of families, and who would need designated hunter permits under a reduced harvest limit scenario:

> We kind of named them as super hunters because a lot of families will -- five families will pull together gas and grub and whatever necessary for three boats to go out and hunt for six or seven families; that's why we call them super hunters, because they're providing for a lot of people that can't, you know, can't afford the gas, can't afford the boats, or don't have a boat, or an elder, that's one of the reasons why we kind of labeled them as super hunters but we need to ensure that they have this paperwork provided to them if they are going to do that" (NWARAC 2023:110).

Tables 4-7 compare the estimated number of caribou harvested in each community distributed over all households with harvest *only per households that actually harvested caribou*. Note that while harvest limits are individual, rather than household based, ADF&G, Division of Subsistence data on the percentage of a community harvesting caribou is only available on a household basis. The average number of potential permit-holders per household is unknown.

Although Anaktuvuk Pass is located on the edge of Unit 24, it is included in the table for Unit 26A communities because of cultural continuity with the North Slope Region. However, as an inland community, Anaktuvuk Pass relies more heavily on caribou than coastal North Slope communities that have access to marine mammals (Brown et al. 2016). Despite important differences between communities, taken as a whole, residents of Unit 23 and residents of Unit 26A and Anaktuvuk Pass together have similar levels of average estimated per household harvest (4.6 and 4.8 caribou, respectively) and similar average estimated harvest per households that successfully hunted caribou (8.1 and 8.8 caribou, respectively) (**Tables 4** and **5**).

In terms of harvest per household successfully harvesting caribou, the highest average in Unit 23 was 12.2 caribou per household in Shungnak (**Table 4**), and the highest average in Unit 26 and Anaktuvuk Pass was 16 caribou, in Anaktuvuk Pass (**Table 5**). The estimated number of households harvesting caribou in the most recent survey years was 784 in Unit 23 and 795 in Unit 26A and Anaktuvuk Pass, for a total of 1,579 households (**Table 3**, CSIS 2023).

Note the significant difference between the two measures of caribou harvest (distributed across all households vs. only those households harvesting caribou) for both Units 23 and 26A. In considering how such numbers compare to the proposed reduction to four caribou per year per permit holder, it is worth noting that some "super households" that harvest for the wider community are likely to have multiple hunters, each of whom could hold a permit (Wolfe 1987).

In Unit 22 communities (excluding Nome, for which no data are available), the average estimated per household harvest was 1.2 caribou, while the estimated harvest per harvesting household was 4.6 caribou, with a high of 6.7 caribou in Shishmaref (**Table 6**). The estimated number of households harvesting caribou in the most recent survey years was 289 for Unit 22 (**Table 3**, CSIS 2023).

The availability of the WACH within the traditional territories of the interior Athabascans is more variable; harvest of caribou in these communities depends on the proximity of migrations to each village (Brown et al. 2004). In Unit 24 communities (excluding Anaktuvuk Pass), the average harvest per household was 0.8 caribou, and the average harvest per harvesting household was 3.1 caribou (**Table 7**).

No table is included for Unit 21D, remainder communities, where caribou harvest has only been documented for Galena in surveys conducted in the last 15 years. In that community, households harvesting caribou took an average of 2.5 caribou per household (CSIS 2023). Nor is a table included for Unit 18 communities, or Stevens Village and Tanana, which also have a customary and traditional use determination in portions of the WACH range. These communities historically have very low harvest levels (CSIS 2023). However, lower caribou harvest, reflecting intermittent and marginal availability, does not mean that caribou are not important to these communities.

When considering the per household caribou harvest levels shown in **Tables 4**-**7**, it is not surprising that the most vocal participants in the recent public hearings and tribal consultations are from the high-harvesting regions: residents of northwest Alaska in Unit 23, residents of the North Slope in Unit 26A and Anaktuvuk Pass.

Caribou harvest is affected by multiple factors: harvest limits, availability of animals, shifting migration routes, the need to share with nearby communities, human population size, community location, and the availability of other resources. The numbers in the tables cited in this section are approximations and do not tell the entire story of caribou harvest or need in these communities.

Multiple considerations and pressures determine how many caribou are harvested when a successful hunt is made. For example, in Unit 23, residents of some communities have had to "greatly increase their expenditure of money and effort to maintain…harvest levels" (Dau 2015:14-30). This is due in part to having to travel farther, more frequently, and for longer durations to find caribou (Halas 2015; Gonzalez et al. 2018), which is made even more expensive by rising fuel prices. A reduced harvest limit may make such large investments untenable for some hunters, who would otherwise have provided for the wider community. Although designated hunter permits could ameliorate this outcome, these permits currently present bureaucratic and logistical challenges to rural residents. They also only apply to Federal public lands, so hunters would need to distinguish land status, and Federal lands are not easily accessible to all communities. They also only apply to Federal public lands, so hunters would need to distinguish land status, and Federal lands are not easily accessible to all communities.

Harvest data from comprehensive subsistence household surveys are not sufficiently up to date to provide accurate information on the full impact that the WACH's decline and altered migration pattern may already be having on caribou availability and harvest levels. These surveys are not collected every year in every community. Currently, ADF&G Division of Subsistence is conducting surveys of caribou harvest in

Selawik, Shungnak, Noatak, Deering, and Kobuk. This research is scheduled to be completed in 2024 (Cold 2021).

Table 4. For communities in Unit 23, this table shows the estimated average number of caribou harvested (1) per household, and (2) per household successfully harvesting caribou for all surveys conducted periodically between 1986 and 2018. Calculated based on data from ADF&G, Division of Subsistence Community Subsistence Information System (CSIS 2023) and ADF&G, Division of Subsistence Technical Papers (Mikow et al. 2014., Mikow and Kostick 2016). Survey years with key data missing were excluded.

Community	Estimated Number of Caribou per Household	Estimated Number of Caribou per Households that Successfully Harvested Caribou
Ambler	5.3	10.5
Buckland	7.4	11.2
Deering	5.6	11.0
Kiana	4.2	6.8
Kivalina	2.9	5.5
Kobuk	4.8	7.2
Kotzebue	2.1	5.7
Noatak	3.8	6.7
Noorvik	4.0	6.8
Point Hope	1.1	3.6
Selawik	5.9	10.0
Shungnak	7.6	12.2
Average	**4.6**	**8.1**

Table 5. For communities in Unit 26A and Anaktuvuk Pass, this table shows the estimated average number of caribou harvested (1) per household, and (2) per household successfully harvesting caribou for all surveys conducted periodically between 1985 and 2014. Calculated based on data from ADF&G, Division of Subsistence Community Subsistence Information System (CSIS 2023). Survey years with key data missing were excluded.

Community	Estimated Number of Caribou per Household	Number of Caribou per Households that Successfully Harvested Caribou
Anaktuvuk Pass	7.6	16.0
Atqasuk	3.7	5.8
Nuiqsut	4.7	7.3
Point Lay	4.7	7.2
Utqiaġvik	2.1	6.6
Wainwright	6.2	10.1
Average	**4.8**	**8.8**

Table 6. For communities in Unit 22, this table shows the average estimated number of caribou harvested (1) per household, and (2) per household successfully harvesting caribou for all surveys conducted periodically between 1989 and 2018. Calculated based on data from ADF&G, Division of Subsistence Community Subsistence Information System (CSIS 2023). Survey years with key data missing were excluded. Note that this table does not include survey data for Nome, which are not available.

Community	Estimated Number of Caribou per Household	Estimated Number of Caribou per Households that Successfully Harvested Caribou
Brevig Mission	0.8	5.1
Elim	2.0	4.0
Golovin	<0.1	1.0
Koyuk	3.6	6.1
Saint Michael	0.3	3.5
Shaktoolik	2.7	5.2
Shishmaref	3.0	6.7
Stebbins	0.1	6.3
Teller	0.2	2.9
Unalakleet	2.3	6.3
Wales	<0.1	3.4
White Mountain	1.2	4.5
Average	**1.2**	**4.6**

Table 7. For communities in Unit 24, this table shows the average estimated number of caribou harvested (1) per household, and (2) per household successfully harvesting caribou for all surveys conducted periodically between 1982 and 2011. Calculated based on data from ADF&G, Division of Subsistence Community Subsistence Information System (CSIS 2023). Survey years with key data missing were excluded.

Community	Estimated Number of Caribou per Household	Estimated Number of Caribou per Households that Successfully Harvested Caribou
Alatna	1.6	4.1
Bettles	1.2	4.1
Bettles/Evansville	0.2	2.3
Evansville	0.2	1.6
Coldfoot	0.4	1.6
Hughes	0.4	5.3
Huslia	1.4	4.3
Wiseman	0.8	1.3
Average	**0.8**	**3.1**

Cow harvest

In addition to harvest numbers, constraints on whether cows or bulls are harvested must also be taken into consideration. In the fall and prior to freeze-up, bulls have traditionally been preferred because they are fatter than cows (Georgette and Loon 1993; NWARAC 2023). After freeze-up, cows are preferred, because bulls are typically skinnier and in rut by then; the meat smells bad and is of poor quality (Braem et al. 2015; NWARAC 2023).

In some—but not all—survey years, ADF&G, Division of Subsistence data in the CSIS contains a breakdown of caribou harvest by male, female, or sex unknown. In Unit 23, in surveys conducted periodically between 1964 and 2018 for which this information exists, an average of 60% of the harvest was male and 30% was female, with 10% being unknown (**Appendix 2**). In Unit 26A and Anaktuvuk Pass, in surveys conducted periodically between 1985 and 2014 for which information is available, an average of 70% of caribou harvested were male, 25% were female, and 5% were of unknown sex (**Appendix 2**). However, there was wide variability between years and communities in the breakdown of the harvest by sex.

Factors contributing towards increased harvest pressure on cows

Harvest of caribou by federally qualified subsistence users may be shifting towards cows due to the delayed migration of caribou into Unit 23 community hunting areas, as recently noted by a Northwest Arctic Council member (NWARAC 2023). However, current harvest report data on cow vs. bull harvest by federally qualified subsistence users are not available. With the delayed migration, caribou have been arriving in some Unit 23 communities after the rut season has begun, at which point bulls are considered inedible. The local preference is to avoid hunting bulls for many months after the rut. The Western Arctic Caribou Herd Working Group has identified limiting cow harvest as the highest priority for WACH conservation (WACH Working Group 2022, 2023). The proposed harvest limit includes a significant limitation on cow harvest; an alternative incremental approach would begin with only limiting cow harvest, an option described in the "Alternatives Considered" section of this analysis.

Council rationale for proposing a reduced harvest limit

The Northwest Arctic Council has identified multiple factors that may be negatively affecting the WACH population and local people's ability to harvest caribou. Climate change, delayed caribou migration, development, increased predation by bears and wolves and/or a combination of these factors has led to difficulty for caribou-dependent communities in Unit 23 (Dau 2015, Braem et al. 2015, NWARAC 2020, 2021). Reducing their harvest is one of the few actions Unit 23 communities can take to attempt to slow the WACH population decline. The requests to intentionally reduce caribou harvest reflect Iñupiaq values and the hope of intentionally limiting harvest to contribute to the recovery of the caribou population upon which communities depend.

During discussion of this proposal and an identical Special Action Request at their March 7-8, 2023 meeting, members of the Northwest Arctic Council discussed their rationale for supporting the reduced harvest limit. Council members emphasized the importance of acting pre-emptively and acknowledged

that local residents would have to make sacrifices for the preservation of the herd, including taking fewer cows:

> We don't want to hit rock bottom with the caribou herd. If we lose that, if we go beyond what we have now we don't even know if we can get our caribou back (NWARAC 2023: 59).
>
> We have to do something to try to preserve this herd even if it means a lot less than what we were getting before. [A] limit to hunting of the cows is the only way because they're the ones who…can bring this herd back. It's one of the things that we have to sacrifice (NWARAC 2023: 54).

One Council member from Kotzebue discussed the need for action parallel to the regulatory process to educate the young people in Northwest Arctic communities about the importance of saving the caribou population. Another Council member from Kotzebue emphasized that restricting harvest by federally qualified subsistence users would demonstrate local will to self-limit harvest in order to protect the WACH (NWARAC 2023).

The two public hearings and the tribal consultations on WSA22-05/06 showed the conflict faced by participants (see summaries in "Current Events"). The affected communities who rely on the Western Arctic Caribou Herd are aware that conservations measures are needed. However, they are concerned about drastic harvest limit reductions and have asked for a decision-making process that is community-based and allows adequate time for input and consultation with federally qualified subsistence users. At the Federal Subsistence Board meeting on WSA22-05/06, the Chair of the Northwest Arctic Council acknowledged that local reaction to the proposed harvest limit had been strongly negative but emphasized that some conservation action would ultimately need to be taken by federally qualified subsistence users (NWARAC 2023).

Harvest History

Western Arctic Caribou Herd harvest

The WACH Working Group provides recommendations on herd management, including harvest levels. Currently, the WACH is within the "preservative declining" level, which prescribes a harvest of 6,000-10,000 caribou (Table 1). The current recommended harvest rate at the preservative declining level is 5% at 200,000 and 4.6% at 130,000. As the 2023 population estimate was 152,000 caribou, the harvestable surplus is currently 7,296 caribou (4.8% of 152,000) (NWARAC 2023; WACHWG 2023).
Of particular concern is the overharvest of cows, which may have occurred since 2010/11 (Dau 2015). Dau (2015:14-29) states, "even modest increases in the cow harvest above sustainable levels could have a significant effect on the population trajectory of the WACH." During the 2023 WACH Working Group meeting, an ADF&G biologist suggested the current harvestable surplus of cows is close to zero, and presented modeled estimates for the 2024 WACH population with and without cow harvest (140,000 vs. 146,000). He stressed the need to conserve cows because they are the reproductive potential of the herd (WACHWG 2023).

Caribou harvest by local hunters is estimated from community harvest surveys (Appendix 2), if available, and from models developed by A. Craig with ADF&G's Division of Wildlife Conservation Region V.

These models incorporate factors such as community size, availability of caribou, and per capita harvests for each community, which are based on mean values from multiple community harvest surveys (Dau 2015). While these models accurately reflect harvest trends, they do not accurately reflect actual harvest numbers (Dau 2015). Caribou harvest by nonlocal residents and nonresidents are based on harvest reports from harvest tickets and registration permits (Dau 2015). Hunters considered local by ADF&G are functionally identical to federally qualified subsistence users (e.g. residents of St. Lawrence Island are technically federally qualified subsistence users, but do not frequently harvest Western Arctic caribou). From 1999–2018, the rangewide average estimated total harvest from the WACH was 14,103 caribou/year, ranging from 11,729-16,219 caribou/year (Hansen 2020 and 2021a, pers. comm.), but has generally been estimated at 12,000 +/- 1,750 caribou per year since 1996 (WACHWG 2021, WACHWG 2019b). Additionally, harvest estimates do not include wounding loss, which may be hundreds of caribou (Dau 2015). Year-specific harvest estimates have not been generated since 2018, in part because they are not very accurate (Hansen 2021a, pers. comm., WACHWG 2021). While all of these harvest estimates are above the preservative harvest level specified in the WACH Management Plan and indicate unsustainable harvest levels, actual harvest is unknown and could be much lower due to caribou being unavailable for harvest near local communities.

Local hunters account for approximately 95% of the total WACH harvest and residents of Unit 23 account for approximately 58% of the total harvest on average (ADF&G 2017c). Comparison of caribou harvest by community from household survey data (**Appendix 2**) with **Figure 1** demonstrates that local community harvests parallel WACH availability rather than population trends. For example, Ambler only harvested 325 caribou when the WACH population peaked in 2003 but harvested 685 caribou in 2012 when most of the WACH migrated through eastern Unit 23. Similarly, Noatak only harvested 66 caribou in 2010 when no GPS-collared caribou migrated through western Unit 23. Harvest increased substantially (360 caribou) the following year when 37% of the GPS-collared caribou (and thus, a greater proportion of the WACH) migrated through western Unit 23 (**Appendix 2**).

Between 1998 and 2020, annual reported caribou harvest in Unit 23 ranged from 168-814 caribou (Hansen 2021a, pers. comm.). Over the same time period, reported harvest by non-federally qualified users ranged from 131-657 caribou. The lowest reported harvest occurred in 2016 when all Federal public lands in Unit 23 were closed to non-federally qualified users, but before harvest reporting was required for federally qualified subsistence users. Regardless, local compliance with reporting mandates is considered low but increasing. In 2017 and 2018, registration permits became required under State and Federal regulations, respectively, which is reflected in the greater number of reported caribou harvest by federally qualified subsistence users. However, compliance with reporting caribou harvest still remains too low to accurately estimate total caribou harvest. On average, 76% of WACH caribou harvested by nonlocals are harvested in Unit 23 (Dau 2015). Between 2016, when Federal lands closures began, and 2020, reported caribou harvest by non-local hunters in Unit 23 averaged 254 caribou (WinfoNet 2018, 2019, Hansen 2021a pers. comm.).

From 1999-2013, 72% of nonlocal hunters on average accessed the WACH by plane. Most nonlocal harvest (85-90%) occurs between August 25 and October 7. Most local subsistence hunters harvest

WACH caribou whenever they are available using boats, 4-wheelers, and snowmachines (Dau 2015, Fix and Ackerman 2015). In Unit 23, caribou have historically been available during fall migration, but this has no longer been the case in recent years; caribou migration has occurred later in fall, resulting in subsistence harvest also occurring later, which in turn contributes to food insecurity.

The caribou harvest in Unit 21D averages 0-10 caribou/year (Dau 2009, 2013, 2016, pers. comm.).

Unit 26A and Teshekpuk Caribou Herd harvest

Reliance on caribou from a particular herd within Unit 26A varies by community. Residents of Atqasuk, Utqiagvik, and Nuiqsut, harvest caribou primarily from the TCH while residents from Anaktuvuk Pass, Point Lay, Point Hope and Wainwright harvest caribou primarily from the WACH (Person 2023). Weather, distance of caribou from the community, terrain, and high fuel costs are some of the factors that can affect the availability and accessibility of caribou. Residents of Nuiqsut, which is on the northeast corner of Unit 26A, harvest approximately 11% of their caribou from the CACH (Table 7, Parrett 2013).

Range overlap between the three caribou herds, frequent changes in the wintering distribution of the TCH and WACH, and annual variation in the community harvest survey effort and location make it difficult to determine the proportion of the TCH, WACH, and CACH in the harvest. Knowledge of caribou distribution at the time of the reported harvest is sometimes used to estimate the proportion of the harvest from each herd. A general overview of the relative utilization based on estimated harvest of each caribou herd by community for regulatory year 2010/11, is presented in **Table 8** (Parrett 2011, Dau 2011, and. Lenart 2011). The percentage of caribou harvested from different herds by community has varied ≤ 2% for all communities between 2008/09, 2009/10, and 2010/11.

Harvest from the TCH is difficult to estimate because of very poor reporting, variation in community survey effort and location, widely varying wintering distribution of the TCH, and mixing of caribou herds. Most of the harvest occurs from July-October by local hunters in Unit 26A. Very low levels of TCH harvest occur in Units 23, 24, and 26B. Non-locals and non-residents account for less than 3% of the TCH harvest (Parrett 2013). Parrett (2013) estimated 3,387 TCH caribou were harvested in Unit 26A by local communities in each of 2010/11 and 2011/12 regulatory years and that previously reported harvest estimates (Parrett 2009) were biased high due to oversampling (**Table 8**). This estimated harvest is well above State objectives.

Table 8. Estimated caribou harvest of the Teshekpuk, Western Arctic and Central Arctic caribou herds during the 2010/2011 regulatory years in Unit 26A by federally qualified users (Parrett 2013, Dau 2013). Note: Due to the mixing or the herds, annual variation in the community harvest surveys and missing data, the percentages for each community do not add up to 100%.

Community	Human population[a]	Per capita caribou harvest[bc]	Approximate total community harvest	Estimated annual TCH harvest (%)	Estimated annual WACH harvest (%)	Estimated annual CACH harvest (%)
Anaktuvuk Pass	331	1.8	582	174 (30)	431 (80)	
Atqasuk	234	0.9	215	210 (98)	6 (2)	
Barrow	4,290	0.5	2,145	2,123 (97)	62 (3)	
Nuiqsut	411	1.1	468	403 (86)	3 (1)	36 (11)
Point Lay	191	1.3	247	49 (20)	120 (40)	
Point Hope	704		894	0	894 (100)	
Wainwright	559	1.3	710	426 (60)	48 (15)	
Total Harvest				3,387	1564	36

[a] Population estimates averaged from the 2010 U.S. Census and 2012 Alaska Department of Commerce, Division of Community and Regional Affairs data

[b] Citations associated with per-capita caribou harvest assessment by community can be found in Table 5 (Parrett 2011).

[c] Sutherland (2005)

Alternatives Considered

Modify to adjust harvest limits to reflect different harvest levels across the WACH range

Reducing the harvest to four caribou per year per permit holder throughout the range of the herd would impact some communities much more profoundly than others. For example, the Unit 24B community of Anaktuvuk Pass, where the estimated average number of caribou harvested yearly by successfully harvesting households is 16 (**Table 5**) (and where true "super households" may take and share more caribou per year), would face greater impacts than communities in Unit 22, where the baseline average estimated number of caribou taken by households that successfully harvest is 4.6, according to subsistence surveys (**Table 6**).

One alternative considered was to reduce harvest limits by a consistent percentage (e.g. approximately 25%) of baseline harvest levels, as documented in past subsistence surveys for each community. Under this scenario, the harvest limit in Unit 22 could be set at three caribou per year, while the harvest limit in Unit 24B, remainder could be set at twelve caribou per year.

This alternative was rejected because it is likely untenable. Communities' search and use areas are not neatly confined to single management units, and disparate harvest limits may motivate hunters to travel to adjacent units, altering patterns of use. Furthermore, subsistence survey data on caribou harvest are estimates only, and caution should be used when employing this information to adjust harvest limits on a fine scale.

If levels of past harvest, as documented in subsistence surveys, were to be used to reduce harvest levels by a consistent percentage for each community, this would be best carried out via community hunt systems or quotas and would entail additional analysis that is well beyond the scope of this proposal. Such an approach would entail working closely with communities to distribute and track permits. After the WACH declined to an estimated low of 75,000 in 1976, ADF&G set the harvest limit at one bull per year by registration permit and distributed a limited quota of permits among communities, an approach that was then incrementally liberalized in subsequent years (Davis et al. 1985).

Modify to limit cow harvest only

Another alternative considered would maintain the current harvest limits, with the stipulation that only one of the caribou harvested per year per permit holder could be a cow. This alternative would allow "super households" more flexibility to provide for multiple people over the proposed reduction while still conserving cows, although overall harvest of the WACH may not be reduced. This would represent an incremental approach to conservation, with limits to bull harvest being an option for future implementation. However, the degree of WACH decline may warrant limits on harvest of both cows and bulls at this time.

Modify to reduce the harvest limit, but at a level higher than proposed

Yet another alternative considered would modify this proposal to reduce the current harvest limits, but at a more liberal level than the proposed limit of four caribou per year per permit holder. One option would be to set the individual hunter harvest limit at eight caribou per year, only one of which may be a cow. This alternative would allow some flexibility to super households while conserving cows. For example, a harvest limit of eight caribou per year per permit holder would be largely consistent with the average baseline harvest by households that successfully harvested caribou in communities within Units 23 and 26A and Anaktuvuk Pass combined, as documented in past subsistence surveys (see "Cultural Knowledge and Traditional Practices" section of this analysis). Households that harvest at high levels for the wider community and only have one permitted hunter, including households in Anaktuvuk Pass, would still face harvest reductions (although a designated hunter permit would offer a path for additional harvest). Households with two permit holders could harvest up to 16 caribou per year. This incremental approach would allow communities to adjust to reduced harvest limits in a more gradual manner. However, the degree of WACH decline may warrant greater reduction in harvest limits at this time.

Modify to exclude Units 21D, remainder and 24B, C, and D

As written, the proposal would include Units 21D, remainder, 24B, remainder, 24C, and 24D. As shown in the Cultural Knowledge and Traditional Practices section of this analysis, average baseline harvest by the communities located in these units occurs at levels below the recommended limit of four caribou per year, with the important exception of the Unit 24B community of Anaktuvuk Pass, which relies heavily on caribou. However, baseline harvest levels and search and use areas for all communities with customary and traditional use determinations for these units would need to be taken into account when considering excluding these units from reduced harvest limits (see the "Customary and Traditional Use Determinations" section of this analysis). Additionally, this alternative was rejected because although harvest levels are lower on the edges of the WACH range overall, caribou migration patterns fluctuate and during years when caribou are available, harvest may be higher.

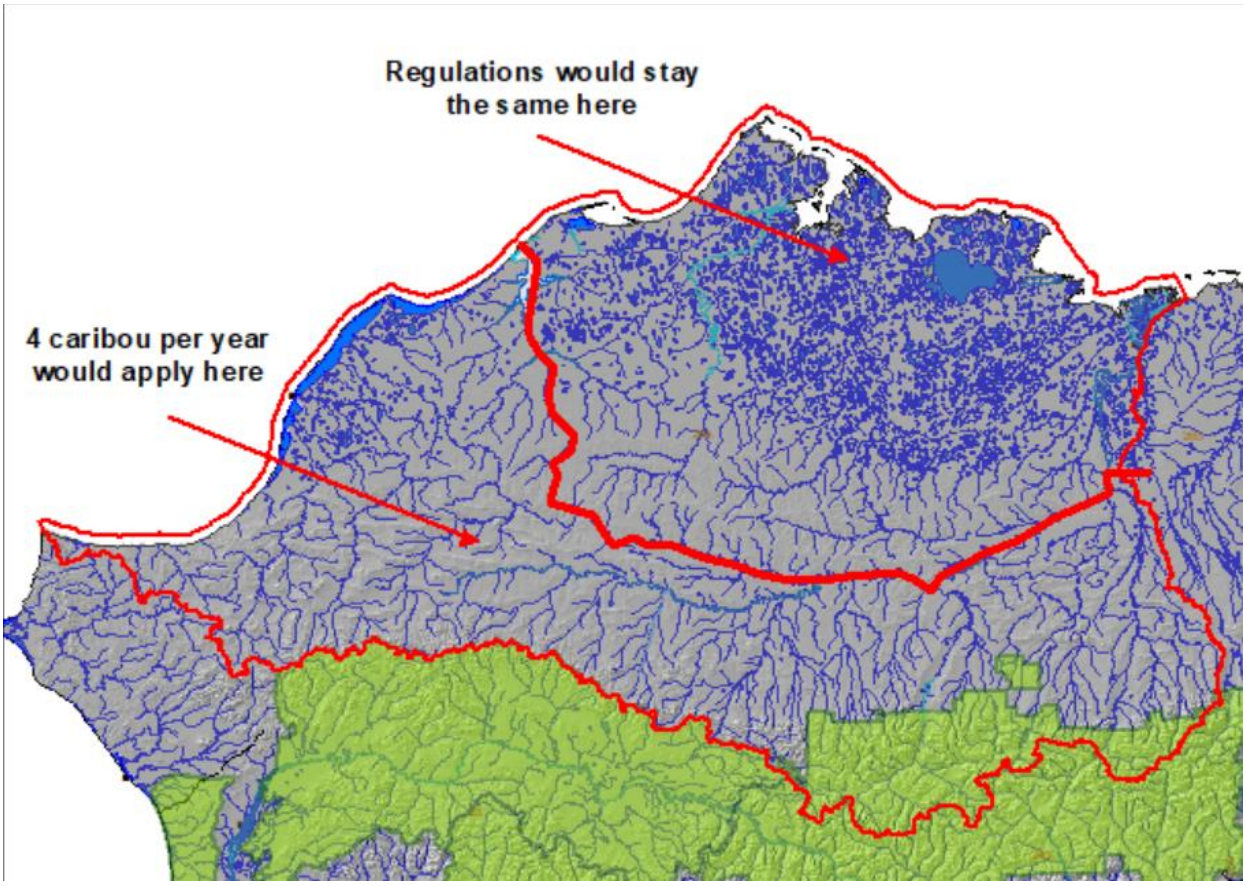
Modify to exclude Unit 26A remainder

Another alternative to consider would be to exclude all of Unit 26A remainder from the hunt areas affected by the proposed harvest limit reductions. Adoption of WP24-28, as written, may cause unnecessary hardship and restrictions for subsistence users in the northeastern portions of Unit 26A that are primarily occupied by Teshekpuk (not Western Arctic) caribou. This alternative could reduce hardships and unnecessary restrictions for subsistence users in the portions of Unit 26A where caribou harvest is primarily from the TCH but it would not reduce WACH harvest in those areas.

Modify to exclude a portion of 26A remainder

Another similar alternative recommended by Selawik NWR and the Western Arctic National Parklands, would be to modify hunt area descriptors and to exclude that portion of Unit 26A north and east of a line running from the east/north bank of Wainwright Inlet to the headwaters of the Ketik River, to the headwaters of the Awuna River to the Colville River at Umiat then east to the Dalton Highway at Sagwon (**Map 4**). This alternative could reduce hardships and unnecessary restrictions for subsistence

users in the portions of Unit 26A where caribou harvest is primarily from the TCH, as well as help conserve the WACH.



Map 4. Map of the portion of 26A remainder excluded for alternative recommended by Selawik NWR and the Western Arctic National Parklands.

Effects of the Proposal

If WP24-29 is adopted, the Federal caribou harvest limit in Unit 23 would be reduced from five caribou per day to four caribou per year, only one of which may be a cow. If WP24-28 is adopted, the same harvest limit reduction would occur across the entire range of the WACH, including Units 22, 23, 26A, and portions of Units 21D and 24. The decreased harvest limits and more restrictive cow harvest would reduce subsistence hunting opportunity and harvest under Federal regulations, but could help conserve the WACH and aid in its recovery, which, in turn, could provide more subsistence hunting opportunity in the future. Additionally, intentional harvest reduction to conserve the resource aligns with local cultural practices and values.

However, the BOG changed the resident bag limit to 15 caribou per year by registration permit only, only one of which may be a cow during its 2024 regulatory meetings, effective July 1, 2024. All Alaska residents could still harvest 15 caribou/year under State regulations on most Federal public lands, which could limit the impacts of adopting these requests on both the WACH and subsistence users. Federal regulations would also become more restrictive than State regulations. However, as only Federal regulations apply on National Park lands and National Monuments, harvest would likely decrease within Gates of the Arctic NP, Kobuk Valley NP, and Cape Krusenstern NM. Further, if adopted, the proposed closure of federal public lands in Unit 23 to caribou hunting by non-federally qualified users from Aug. 1-Oct. 31 (WP2430/31; see "Current Events") would mean that State regulations would no longer apply on federal public lands in Unit 23 during this time, strengthening the effects of these proposed harvest limits within Unit 23.

In recent years, no collared WACH caribou have migrated into Units 22 or 21D, remainder. Therefore, any regulation changes in these units are unlikely to affect WACH harvest. However, caribou movements and distributions are highly variable, and it is possible portions of the WACH will go there in the future (Joly et al. 2021). A resident caribou herd may be present in Unit 22 (SPRAC 2021, 2022), and harvest limit reductions under Federal regulations would curtail harvest from these caribou (although users would still be able to harvest 5 caribou/day under State regulations) which would be an added benefit of the proposal as the small size (~5000, SPRAC 2021, 2022, NPS unpublished data) of this caribou group cannot support a 5 caribou/day harvest limit. Additionally, the TCH and CACH occupies Unit 26A remainder and Unit 24B remainder. These herds have not experienced substantial population declines like the WACH. Therefore, reducing the harvest limits in Unit 26A remainder and Unit 24B remainder may not substantially affect WACH harvest or conservation and could unnecessarily restrict subsistence harvest from the TCH and CACH, although again, users would still be able to harvest 5 caribou/day under State regulations.

The reduced Federal harvest limits could also impact sharing networks, which are an important cultural component for subsistence users in these areas and contribute to food security. While four caribou per year may be enough for individuals and some families (NWARAC 2022), many families and elders depend on the "super households" (Wolfe 1987) to provide caribou meat. However, the use of designated hunter permits could dampen these effects and are intended to accommodate the cultural practice of harvesting for others. Designated hunter permits allow federally qualified subsistence users to hunt for others and allow designated hunters to possess two harvest limits at one time. However, it may take time

for hunters to embrace the use of these permits. Additionally, these permits only apply to Federal public lands, so users would need to distinguish land status and limit hunting to Federal lands only.

OSM PRELIMINARY CONCLUSION

Take No Action on Proposal WP24-29.

Support Proposal WP24-28 **with modification** to exclude that portion of Unit 26A north and east of a line running from the east/north bank of Wainwright Inlet to the headwaters of the Ketik River, to the headwaters of the Awuna River to the Colville River at Umiat then east to the Dalton Highway at Sagwon.

The modified regulations for Unit 26A should read:

Unit 26—Caribou

Unit 26A - ~~that portion of the Colville River drainage upstream from the Anaktuvuk River, and drainages of the Chukchi Sea south and west of, and including the Utukok River drainage~~ ***remainder***- *~~5 caribou per day~~* ***4 caribou per year, only 1 may be a cow*** *by State registration permit as follows: Calves may not be taken*

Bulls may be harvested	*July 1-Oct. 14.* *Dec. 6-June 30.*
Cows may be harvested; however, cows accompanied by calves may not be taken July 16-Oct. 15	*July 16-Mar. 15.*

Unit 26A ~~remainder~~ ***north and east of a line running from the east/north bank of Wainwright Inlet to the headwaters of the Ketik River, to the headwaters of the Awuna River to the Colville River at Umiat then east to the Dalton Highway at Sagwon*** *- 5 caribou per day by State registration permit as follows: Calves may not be taken*

Bulls may be harvested	*July 1-Oct. 15.* *Dec. 6-June 30.*
Up to 3 cows per day may be harvested; however, cows accompanied by calves may not be taken July 16-Oct. 15	*July 16-Mar. 15.*

Justification

OSM supports measures to reduce conservation concerns for the WACH. The lengthy and precipitous decline of the WACH warrants strong measures to aid in the recovery and conservation of this population. Current harvest rates, especially the taking of cows, could prolong or worsen the current decline, and hamper recovery efforts. Additionally, while causes of the decline are multi-faceted and uncertain, reducing human harvest is the most controllable factor.

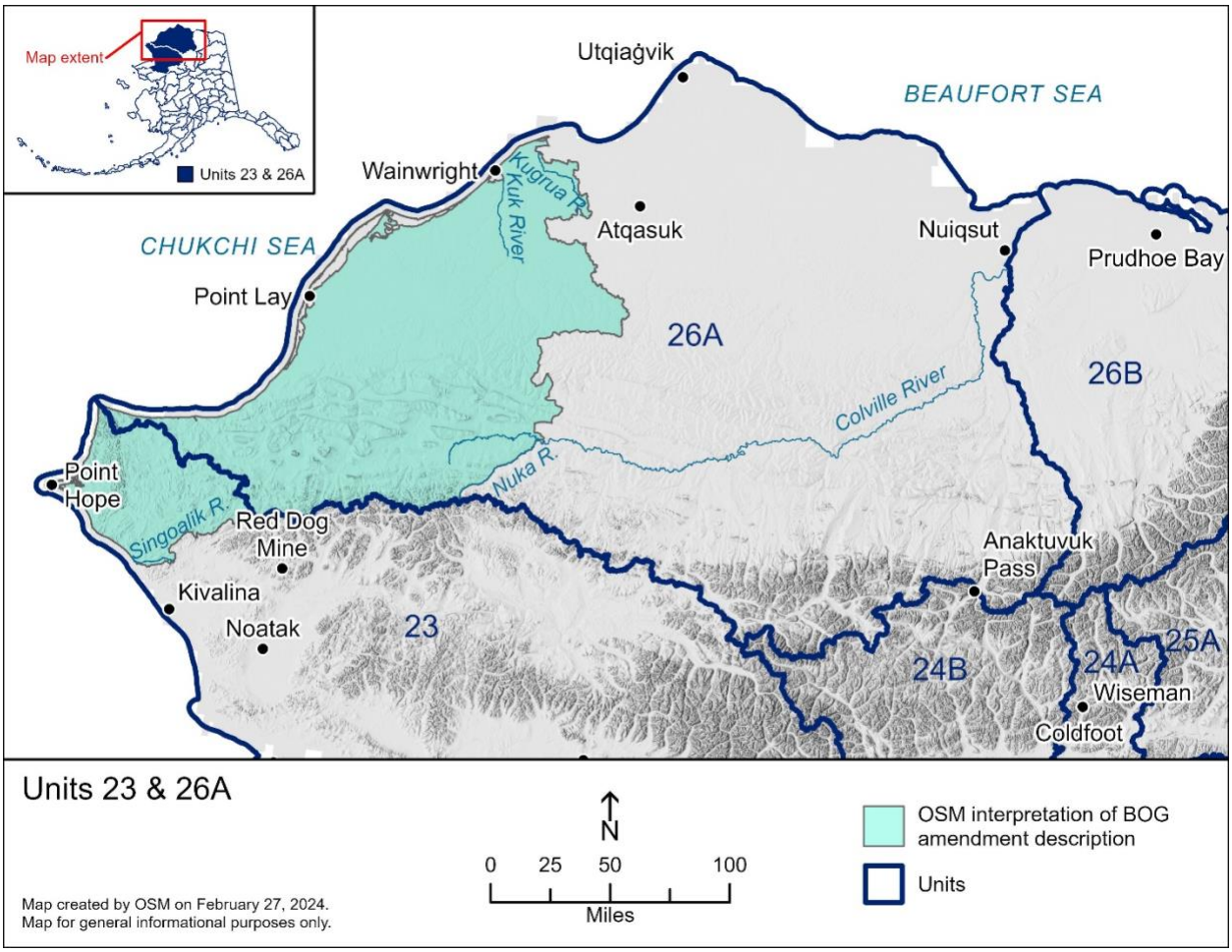
Excluding the areas where harvest is primarily from other caribou herds would help reduce the impact on sharing networks, which are an important cultural component for subsistence users in these areas and contribute to food security. The exclusion of the northeastern portion of Unit 26A (Map 4) may prevent unnecessary harvest limit restrictions as the TCH and CACH primarily occupy this area. These herds are above State population objectives and are currently not of conservation concern.

ANALYSIS ADDENDUM

OSM CONCLUSION

Take No Action on Proposal WP24-29.

Support Proposal WP24-28 **as modified by the Western Interior, Seward Peninsula, Northwest Arctic and North Slope Councils** to exclude the eastern portion of Unit 26A from the harvest limit reductions and to change the harvest limit to **15 caribou/year**, only one of which may be a cow. Specifically, the harvest limit reductions will apply to Unit 26A, west of the Coleville River drainage upstream from the Nuka River and drainages of the Chucki Sea, south and west of and including the Kuk and Kugrua river drainages (**Map 5**).



Map 5. The portion of western Unit 26A where the caribou harvest limit reductions will apply: Unit 26A, west of the Coleville River drainage upstream from the Nuka River and drainages of the Chucki Sea, south and west of and including the Kuk and Kugrua river drainages.

The modified regulations should read:

Unit 21D—Caribou

Unit 21D, remainder— ~~5 caribou per day~~ ***15 caribou, only 1 may be a cow*** *as follows: Calves may not be taken.*

Bulls may be harvested.	*July 1-Oct. 14.* *Feb. 1-June 30.*
Cows may be harvested.	*Sep. 1-Mar. 31.*

Unit 22—Caribou

*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 - ~~5 caribou per day~~ **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, a season may be announced.*
*Units 22A, that portion north of the Golsovia River drainage, 22B remainder, that portion of Unit 22D in the Kuzitrin River drainage (excluding the Pilgrim River drainage), and the Agiapuk River drainages, including the tributaries, and Unit 22E, that portion east of and including the Tin Creek drainage - ~~5 caribou per day~~ **15 caribou, only 1 may be a cow** by State registration permit. Calves may not be taken.*	*July 1–June 30.*
*Unit 22A, remainder - ~~5 caribou per day~~ **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 22D, that portion in the Pilgrim River drainage - ~~5 caribou per day~~ **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*
*Units 22C, 22D remainder, 22E remainder - ~~5 caribou per day~~ **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 23−Caribou

*Unit 23—that portion which includes all drainages north and west of, and including, the Singoalik River drainage—~~5 caribou per day~~ **15 caribou, only 1 may be a cow** by State registration permit as follows:*	
Bulls may be harvested	*July 1–June 30*
Cows may be harvested. However, cows accompanied by calves may not be taken July 15–Oct. 14.	*July 15–Apr. 30*
*Unit 23, remainder—~~5 caribou per day~~ **15 caribou, only 1 may be a cow** by State registration permit as follows:*	

Bulls may be harvested	*July 1–June 30*
Cows may be harvested. However, cows accompanied by calves may not be taken July 31–Oct. 14.	*July 31–Mar. 31*

Federal public lands within a 10-mile-wide corridor (5 miles either side) along the Noatak River from the western boundary of Noatak National Preserve upstream to the confluence with the Cutler River; within the northern and southern boundaries of the Eli and Agashashok River drainages, respectively; and within the Squirrel River drainage are closed to caribou hunting except by federally qualified subsistence users hunting under these regulations.

Unit 24—Caribou

Unit 24B remainder - ~~5 caribou per day~~ ***15 caribou, only 1 may be a cow****, as follows: Calves may not be taken.*

Bulls may be harvested.	*July 1-Oct. 14.* *Feb. 1-June 30.*
Cows may be harvested.	*July 15-Apr. 30.*

Units 24C, 24D - ~~5 caribou per day~~ ***15 caribou, only 1 may be a cow****, as follows: Calves may not be taken.*

Bulls may be harvested.	*July 1-Oct. 14.* *Feb. 1-June 30.*
Cows may be harvested	*Sep. 1-Mar. 31.*

Unit 26A—Caribou

Unit 26A - ~~that portion of the Colville River drainage upstream from the Anaktuvuk River, and drainages of the Chukchi Sea south and west of, and including the Utukok River drainage~~ ***west of the Coleville River drainage upstream from the Nuka River and drainages of the Chucki Sea, south and west of and including the Kuk and Kugrua river***

drainages *-* ~~*5 caribou per day*~~ ***15 caribou, only 1 may be a cow*** *by State registration permit as follows: Calves may not be taken*

Bulls may be harvested	*July 1-Oct. 14.* *Dec. 6-June 30.*
Cows may be harvested; however, cows accompanied by calves may not be taken July 16-Oct. 15	*July 16-Mar. 15.*
Noatak National Preserve is closed to caribou hunting from Aug. 1-Sep. 30 for the 2022-24 regulatory cycle, except by federally qualified subsistence users hunting under these regulations.	

Unit 26A remainder - 5 caribou per day by State registration permit as follows: Calves may not be taken

Bulls may be harvested	*July 1-Oct. 15.* *Dec. 6-June 30.*
Up to 3 cows per day may be harvested; however, cows accompanied by calves may not be taken July 16-Oct. 15	*July 16-Mar. 15.*

Justification

OSM supports the Councils' modification as it balances conservation with subsistence uses and is supported by local users. While this modification may not result in a total reduction of caribou harvest, it will conserve cows, which is most important in promoting herd recovery and preventing further population decline. A higher individual harvest limit also better supports the sharing networks that help federally qualified subsistence users meet their needs. Additionally, it aligns State and Federal regulations, reducing regulatory complexity and preventing Federal regulations from being more restrictive than State regulations.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Northwest Arctic, North Slope, Seward Peninsula, and Western Interior Alaska Subsistence Regional Advisory Councils

Winter 2024

The Councils supported WP24-28/29 with modification to exclude the eastern portion of Unit 26A from the harvest limit reductions and to change the harvest limit to **15 caribou/year**, only one of which may be a cow (**Map 5**).

The Councils developed a joint recommendation and justification at the winter 2024 all Council meeting supporting the modifications the Alaska Board of Game made on similar State regulatory proposals. A limit of 15 caribou per year represents a significant reduction from five per day. A harvest limit of 15 caribou per year would not represent a Federal subsistence priority, but it would prevent State regulations from being more restrictive than Federal regulations. A Federal subsistence priority is important and there should be cuts elsewhere before federally qualified subsistence users are further restricted. For example, the nonresident hunt should be eliminated, commercial services should be suspended, and predator control should increase.

Hunters do not always try to get fifteen caribou per year, but it is important to have the option so that "super hunters" can continue to provide for those in need. The exclusion of the eastern portion of Unit 26A is due to the reliance of North Slope residents on the Teshekpuk and Central Arctic herds, and this harvest limit would unnecessarily restrict harvest on these herds. The higher harvest limit may actually contribute to greater reduction of cow harvest because fewer hunters filling their individual harvest limit would be needed to provide caribou for communities. The allowance of one cow is meant for accidental harvest, to avoid criminalizing hunters. Although some Council members would like to see greater reductions, they support this harvest limit currently. The Councils felt there may be additional causes of the herd decline that are not yet understood, and which should receive greater attention by researchers.

The modified regulations should read:

See OSM conclusion in the analysis addendum.

Yukon-Kuskokwim Delta Subsistence Regional Advisory Council

The Council **supported** WP24-28/29 **as modified by OSM**. The Council noted that the significant decline in the size of the herd requires conservation measures be implemented. The Council hopes a temporary reduction in harvest limits will help the herd recover so that subsistence users can continue harvesting the animals they need.

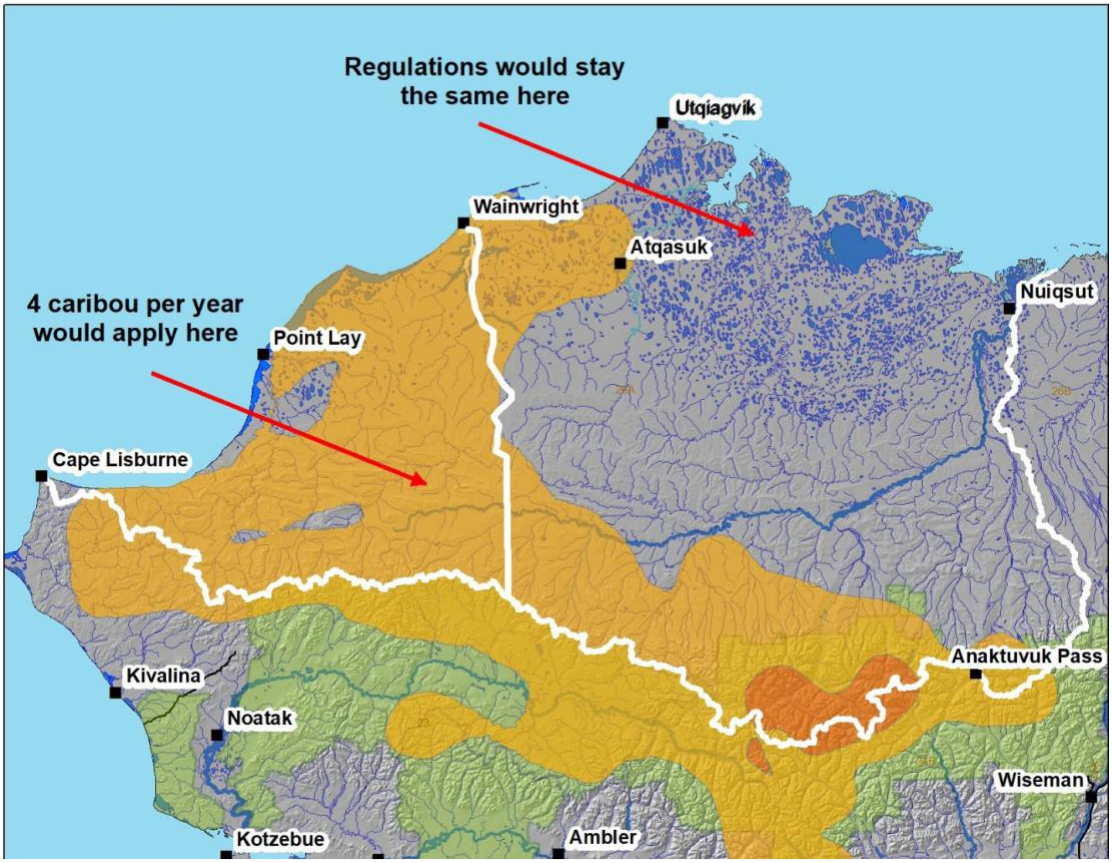
Eastern Interior Alaska Subsistence Regional Advisory Council

The Council **supported** WP24-28/29. The Council noted the precipitous decline of the Western Arctic herd and the conservation concerns that currently exist. The Council supports a temporary reduction in harvest until the herd has a chance to recover and recommends that the targeted harvest of cows be strongly discouraged by the Board and managers through public outreach.

Western Interior Alaska Subsistence Regional Advisory Council

Fall 2023

The Council **supported** WP24-28/29 **with modification** to exclude the eastern portion of Unit 26A from the harvest limit reductions. The Council is supportive of the exclusion of a portion of Unit 26A from this proposal as those areas are frequented by the Teshekpuk and Central Arctic Caribou Herds, which are not declining and are relied upon for subsistence needs by residents in the North Slope Region. The Council suggests that after receiving feedback from the North Slope Council, OSM work with the State to come up with an appropriate boundary and harvest limit to have congruency in regulations where it is warranted.



Map 4. Map of the portion of 26A remainder excluded for modification.

Seward Peninsula Subsistence Regional Advisory Council

Fall 2023

The Council **deferred** WP24-28/29 **to their winter 2024 meeting**. The Council would like to hold a discussion with the other affected Councils at the March 2024 All Council Meeting before making a recommendation.

Northwest Arctic Alaska Subsistence Regional Advisory Council

Fall 2023

The Council **deferred** WP24-28/29 **to their winter 2024 meeting.** This deliberate delay in providing a recommendation allows for a comprehensive review, incorporating valuable input from Tribal and ANCSA Corporations, insights gained from the Alaska Board of Game's decisions on similar State proposals, and discussions within the Western Arctic Caribou Herd Working Group at their meeting held during December 2023. In addition, to make the decision more inclusive and well-informed, the Council also requests meeting with the North Slope Council and other regions that rely on the Western Arctic Caribou Herd during the 2024 All-Council meeting. This will provide an opportunity to all affected Councils to discuss the proposal together and come up with a unified decision on how to move forward.

North Slope Alaska Subsistence Regional Advisory Council

Fall 2023

The Council **deferred** WP24-28/29 to their **winter 2024 meeting**. The Council would like to have further discussions with other affected regions and to allow for the Council to see how the Alaska Board of Game will act on similar proposals and the results from the Western Arctic Caribou Herd Working Group meeting.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee acknowledges the concerns expressed by the Northwest Arctic Subsistence Regional Advisory Council (Council) and the Western Arctic Caribou Herd Working Group (Working Group) about the decline of the Western Arctic Caribou Herd (WACH) population and we commend the proactive conservation measures being suggested. These proposals aim to protect the conservation and long-term survival of the WACH and ensure the continuation of subsistence uses of caribou resources. Based on long-term monitoring of the herd, it is clear that the WACH is in serious decline, and rural residents are concerned about their opportunity to harvest from the herd.

There are a few aspects affecting these proposals the Board may want to consider when deliberating on these proposals. First, recent changes to State regulations by the Alaska Board of Game in Units 21D, 22, 23, 24 and western 26A will allow all Alaska residents to harvest 15 caribou/year of which one may be a cow on most Federal public lands and on State lands. Therefore, adopting these proposals as written, would limit the impact to the WACH and subsistence users; Federal regulations would become more restrictive than State regulations. Additionally, if the proposed closure of Federal public lands in Unit 23 to caribou hunting by non-federally qualified users from Aug. 1-Oct. 31 is adopted (WP24-30/31), there would be an uneven distribution of harvest options available to federally qualified subsistence users, depending on where they live and on the units for which they have a customary and traditional use determination for caribou. Federally qualified subsistence users primarily harvesting from the WACH in Unit 23 would be limited to the more restrictive Federal hunting regulations, while other federally qualified subsistence users harvesting in other units could harvest under the more liberal State regulations.

The modification made by the Office of Subsistence Management is aligned with the State identified area of western 26A and with the modified recommendation made by the majority of the affected Regional Advisory Councils. This newly identified area as western 26A represents a compromise designed to protect further decline of the WACH, while also protecting hunting opportunities by rural Alaskans that harvest primarily from the Teshekpuk and Central Arctic Caribou Herds. These herds are above State population objectives and therefore, not currently of conservation concern.

The Interagency Staff Committee (ISC) acknowledges the need to take strong conservation measures as soon as possible to conserve the WACH and protect the long-term continuation of subsistence uses, and we commend the Regional Advisory Councils for taking proactive measures to aid in the recovery of the WACH. Limiting cow harvest is the primary strategy identified to achieve conservation goals and sustainability of the herd. However, the ISC also recognizes the need for more comprehensive harvest reporting from federally qualified subsistence users living within the range of the WACH. Without accurate harvest reporting, it will be difficult to gauge the effectiveness of any regulatory actions that the Board may adopt.

ALASKA DEPARTMENT OF FISH AND GAME COMMENTS

Alaska Department of Fish and Game Comments

Wildlife Proposal WP24-28/29

Wildlife Proposal 24-28 would reduce the caribou harvest limit across the range of the Western Arctic caribou herd (WAH) to four caribou per year, only one of which may be a cow. Specific areas include Game Management Units (Unit) 21D, remainder; 24B, remainder; 24C; 24D; and all caribou hunt areas within Game Management Units (Unit) 22, 23, and 26A.

Wildlife Proposal 24-29 would reduce the caribou harvest limit in Unit 23 to four caribou per year, only one of which may be a cow for the remainder of the 2022-24 regulatory cycle.

Position

The Alaska Department of Fish & Game (ADF&G) **SUPPORTS** with modification. Opportunity to harvest caribou will still be provided while an attempt to reduce harvest, specifically female harvest, is appropriate due to declining abundance. 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 one may be a cow in Unit 23. The Western Arctic Caribou Herd Working Group (WACHWG) followed suit a few weeks later during their December meeting drafting a similar proposal. The WACHWG 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 ADF&G recognizes and supports the readiness of these groups to take conservation measures to address the decline in abundance.

At the Alaska Board of Game (BOG) meeting in Kotzebue January 26-29 the BOG modified their proposals to reduce resident harvest of the WAH to 15 caribou a year, only one of which may be a cow, with season dates July 1 to June 30. This action encompasses Unit 22, Unit 23 and Unit 26A. The BOG heard from residents across the region over their concerns for the WAH and where conservation measures need not apply because of the predominance of adjacent caribou herds (Teshekpuk and Central Arctic) that are at higher population levels. This culminated in an amendment submitted by the North Slope Borough Department of Wildlife Management and Kotzebue residents that took everyone's concerns into account, and the BOG passed this amendment and subsequent proposal unanimously. The BOG will address the portions of the WAH range that fall within the Division of Wildlife Conservation's Region 3 purview at the upcoming March 15-22 meeting.

Background

The Western Arctic Caribou Herd 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 152,000 in 2023 (Figure 1). 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).

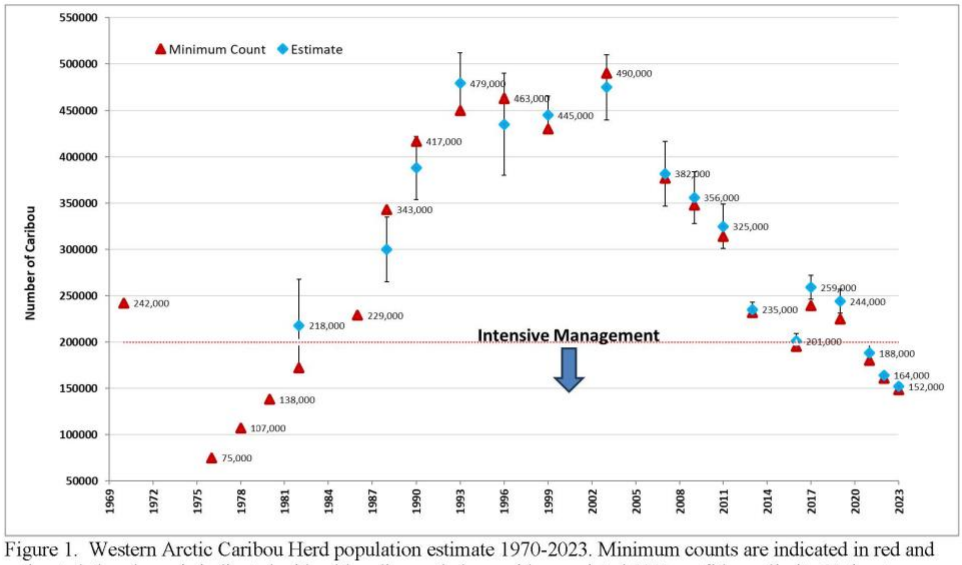


Figure 1. Western Arctic Caribou Herd population estimate 1970-2023. Minimum counts are indicated in red and estimated abundance is indicated with a blue diamond along with associated 95% confidence limits. Estimates are produced using an estimator described by Rivest et al (1998).

Resident 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 the harvest level locally. 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 to the herd by local users, the department has concluded the model is too course 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 WAHWG management plan (2019) for the 2023 population of 152,000 animals, is ~4.8% or ~7,300 animals (Figure 2.

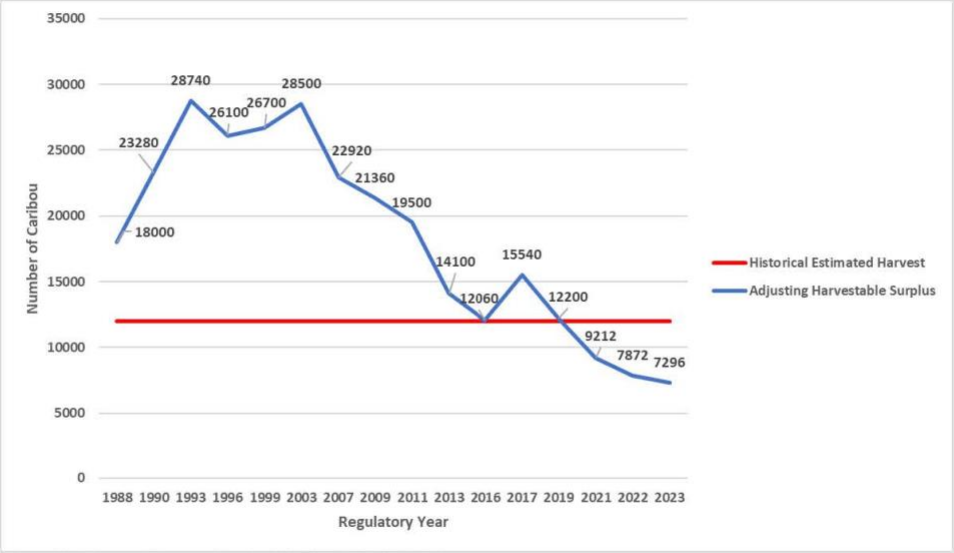


Figure 2: Harvestable surplus for the WAH 1988-2023

The best estimates indicate that even with a complete exclusion of harvest the WAH will likely continue to decline based on natural mortality rates. Of greatest importance is the reduction in cow harvest, the Department suggests that cow harvest should be maintained between 0 and 1% of the available cows (Figure 3). Based on 2023 survey data this would suggest that fewer than 750 cows should be harvested in the current regulatory year to prevent additional human caused decline. It is important to understand that the estimate of harvestable surplus (7,300) is far below the long-term estimated average harvest of ~12,000 caribou. Harvest levels in this herd are largely based on caribou availability to the approximately 40 communities that have traditionally hunted it.

In some years and seasons, including the late fall, winter/spring of 2023/4 caribou were available in large numbers to many communities. For many communities in Unit 23 access to the WAH occurred shortly following rut when mature bulls are considered "stink" or unpalatable for human consumption. Traditional harvest practices favor the taking of "fat meat" and harvesters avoid taking rutty bulls which has the tendency to shift harvest pressure to cows. Harvest data documenting the relationship between cow harvest and the harvestable surplus of cows is not yet available, however based on long-term patterns of harvest, it is a safe assumption that the surplus of cows specifically was exceeded several times over during the end of 2023 and beginning of 2024.

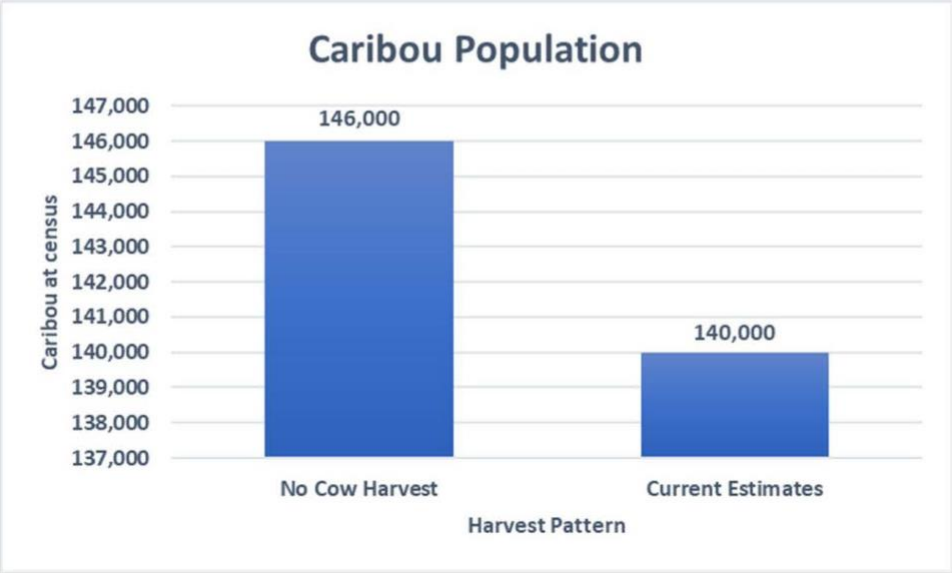


Figure 3. Projected 2024 WAH population based on all known data points, no cow harvest and 7300 bulls harvested vs a total harvest of 12,000 with 60% bulls and 40% cows.

Impact on Subsistence Users

If this proposal is passed, a reduction in bag limit may impact sharing patterns and the ability of non-harvesting households to meet their needs. However, if the WAH continues to experience sustained natural declines and cow harvest is not drastically reduced, the subsistence needs of local communities may continue to be unmet for many years to come.

Impact on Other Users

If adopted no impacts to other users are anticipated.

Opportunity Provided by State

State customary and traditional use findings: The Alaska Board of Game (BOG) has made positive customary and traditional use findings for Western Arctic and Teshekpuk Caribou in Units 21, 22, 23, 24 and 26.

Amounts Reasonably Necessary for Subsistence: Alaska state law requires the Board of Game to determine the amount of the harvestable portion of a game population that is reasonably necessary for customary and traditional uses. This is an ANS. The BOG does this by reviewing extensive harvest data from all Alaskans, collected either by ADF&G or from other sources.

ANS provides the BOG with guidelines on typical numbers of animals harvested for customary and traditional uses under normal conditions. Hunting regulations can be re-examined if harvests for customary and traditional uses consistently fall below ANS. This may be for many reasons: hunting regulations, changes in animal abundance or distribution, or changes in human use patterns, just to name a few.

The ANS for these two herds in Units 21, 22, 23, 24 and 26 is 8,000-12,000 animals. The seasons and bag limits for caribou are:

	Resident Open Season (Subsistence and General Hunts)
Unit 21D remainder Five caribou per day however calves may not be taken	Bulls: July 1 - Oct 14 Cows: Sept 1- Mar 31
Unit 22A, 22B Remainder, 22D (Kuzitrin River Drainage, excluding Pilgrim River Drainage and Agiapuk River Drainage), 22E Twenty caribou total, up to five per day, by registration permit only	Bulls: No Closed Season Cows: July 1 - Mar 31
Unit 22A Remainder, 22C, 22D Remainder, 22E Remainder Twenty caribou total, up to five per day, by registration permit only	Season May Be Announced
Unit 22B, 22D (Pilgrim River Drainage) Twenty caribou total, up to five per day, by registration permit only	*Bulls: Oct 1-Apr 30* *Cows: Oct 1 - Mar 31*

Unit 23, that portion north of and including the Singoalik River drainage	
Five caribou per day, by registration permit; however, calves may not be taken.	Bulls: No Closed Season Cows: July 15 - Apr 30
Unit 23 Remainder	
Five caribou per day, by registration permit; however, calves may not be taken.	Bulls: No Closed Season Cows: Sept 1 – March 31
Unit 26A, that portion of the Colville River drainage upstream from the Anaktuvuk River, and drainages of the Chukchi Sea south and west of, including the Utukok River drainage	
Five caribou per day, by registration permit; however, calves may not be taken	Bulls: July 1- Oct 14 Bulls: Feb 1 – June 30 Cows: July15 - Apr 30
Remainder of Unit 26A	
Five bulls per day, by registration Permit only;	July 1- July 15
Five caribou per day, by registration permit; however, no more than 3 cows per day; cows accompanied by calves may not be taken	July 16- Oct 15
Three cows per day per day, by Registration permit only	Oct 16- December 31
Five caribou per day, by registration Permit only ; however, no more than 3 cows per day;	Jan 1- Mar 15
Five bulls per day, by registration Permit only;	Mar. 16 – June 30

		Open Season (Permit/Hunt #)		
Unit/Area	Bag Limit	Resident[a]	Nonresident	
XXX	*XXX*	*XXXXXXXXXX*		*XXXX*
		(*Permit type*)	(*Permit type*)	

[a] Subsistence and General Hunts.

Conservation Issues

If the WAH continues to experience sustained natural declines and cow harvest is not drastically reduced, then the herd may not be capable of sustaining harvest at any level.

Enforcement Issues

Unreported harvest and illegal take could affect the ability for managers to effectively regulate harvest and recovery time for this herd could be protracted.

Appendix 1

Regulatory History

In 2013, an aerial photo census indicated significant declines in the TCH (Caribou Trails 2014), WACH (Dau 2011), and possibly the Central Arctic Caribou Herd (CACH) populations. In response, the Alaska Board of Game (BOG) adopted modified Proposal 202 (RC76) in March 2015 to reduce harvest opportunities for both residents and nonresidents within the range of the WACH and the TCH. These regulation changes – which included lowering bag limits, changing harvest seasons, modifying the hunt area descriptors, and restricting bull and cow harvest and prohibiting calf harvest – were adopted to slow or reverse the population decline. These regulatory changes took effect on July 1, 2015.

Four Special Actions, WSA15-03/04/05/06, submitted by the North Slope Regional Subsistence Advisory Council (North Slope Council) requested changes to caribou regulations in Units 23, 24, and 26. Temporary Special Action WSA15-03, requested designation of a new hunt area for caribou in Unit 23 where the harvest limit would be reduced from 15 caribou per day to 5 caribou per day, the harvest season be reduced for bulls and cows, and the take of calves would be prohibited. Temporary Special Action WSA15-04 requested designation of a new hunt area for caribou in Unit 24, the harvest seasons be reduced for bulls and cows, and the take of calves be prohibited.

Temporary Special Action WSA15-05 requested that bull caribou harvest limit in Unit 26A be reduced from 10 caribou per day to 5 caribou per day, the cow harvest limit be reduced to 3 per day, the harvest seasons for bulls and cows be reduced, and the take of calves and cows with calves be prohibited. Compared to the new State caribou regulations, it requested 3 additional weeks to the bull harvest season (Dec. 6- Dec. 31). Temporary Special Action WSA15-06 requested designation of a new hunt area for caribou in Unit 26B where the harvest limit would be reduced from 10 caribou per day to 5 caribou per day, the harvest season would be shortened, and the take of calves would be prohibited.

The Federal Subsistence Board (Board) approved Temporary Special Actions WSA15-03/04/05/06 with modification to simplify and clarify the regulatory language; maintain the current hunt areas in Units 23 and 24; decrease the harvest limit from 15 to 5 caribou per day and shorten the cow and bull seasons throughout Unit 23; prohibit the harvest of cows with calves throughout the affected units; and reduce the harvest limit in Unit 26B remainder from 10 to 5 caribou per day and shorten the season. These special actions took effect on July 1, 2015.

In 2015, the Northwest Arctic Council submitted a temporary special action request (WSA16-01) to close caribou hunting on Federal public lands in Unit 23 to non-federally qualified users for the 2016/17 regulatory year. The Northwest Arctic Council stated that their request was necessary for conservation purposes but also needed because nonlocal hunting activities were negatively affecting subsistence harvests. In April 2016, the Board approved WSA16-01, basing its decision on the strong support of the Northwest Arctic and North Slope Councils, public testimony in favor of the request, as well as concerns over conservation and continuation of subsistence uses.

In 2016, the Board considered six proposals (WP16-37, WP16-48, WP16-49/52, WP16-61, and WP16-63) concerning WACH caribou regulations. The Board adopted WP16-48 with modification to allow the

positioning of a caribou, wolf, or wolverine for harvest in Unit 23 on BLM lands only. Proposal WP16-37 requested that Federal caribou regulations mirror the new State regulations across the ranges of the WACH and TCH (Units 21D, 22, 23, 24, 26A, and 26B). The Board adopted Proposal WP16-37 with modification to reduce the harvest limit to five caribou per day, restrict bull harvest during rut and cow harvest around calving, prohibit the harvest of calves and the harvest of cows with calves before weaning (mid-October), and to create a new hunt area in the northwest corner of Unit 23. The Board took no action on the remaining proposals (WP16-49/52, and WP16-61, and WP16-63) due to action taken on WP16-37.

In 2016, the BOG adopted Proposal 140 as amended to make the following changes to Unit 22 caribou regulations: establish a registration permit hunt (RC800), set an annual harvest limit of 20 caribou total, and lengthen cow and bull seasons in several hunt areas.

These State and Federal regulatory changes were the first time that harvest restrictions had been implemented for the WACH and TCH in over 30 years and were the result of extensive discussion and compromise among a variety of stakeholders. The requested restrictions were also supported by management recommendations outlined in the Western Arctic Herd Management Plan (WACH Working Group 2011).

In June 2016, the State submitted a special action request (WSA16-03) to reopen caribou hunting on Federal public lands in Unit 23 to non-federally qualified users, providing new biological information (e.g. calf recruitment, weight, body condition) on the WACH. The State specified that there was no biological reason for the closure and that it could increase user conflicts. In January 2017, the Board rejected WSA16-03 due to the position of all four affected Councils (Northwest Arctic, North Slope, Seward Peninsula, and Western Interior) as well as public testimony and Tribal consultation comments opposing the request. Additionally, the Board found the new information provided by the State to be insufficient to rescind the closure.

In January 2017, the BOG adopted Proposal 2, requiring registration permits for residents hunting caribou within the range of the Western Arctic and Teshekpuk herds in Units 21, 23, 24, and 26 (a similar proposal was passed for Unit 22 in 2016). ADF&G submitted the proposal in order to better monitor harvest and improve management flexibility. The BOG also rejected Proposal 3 (deferred Proposal 85 from 2016), which would have removed the caribou harvest ticket and report exception for residents living north of the Yukon River in Units 23 and 26A). Also in January 2017, the BOG rejected Proposal 45, which proposed requiring big game hunting camps to be spaced at least three miles apart along the Noatak, Agashashok, Eli, and Squirrel Rivers. The proposal failed as it would be difficult to enforce.

In March 2017, the Northwest Arctic and North Slope Councils submitted temporary special action requests (WSA17-03 and -04, respectively) to close caribou hunting on Federal public lands in Unit 23 and in Units 26A and 26B, respectively, to non-federally qualified users for the 2017/18 regulatory year. Both Councils stated that the intent of the proposed closures was to ensure subsistence use in the 2017/18 regulatory year, to protect declining caribou populations, and to reduce user conflicts. The Board voted to approve WSA17-03 with modification to close all Federal public lands within a 10 mile wide corridor (5 miles either side) along the Noatak River from the western boundary of Noatak National Preserve upstream to the confluence with the Cutler River; within the northern and southern boundaries of the Eli

and Agashashok River drainages, respectively; and within the Squirrel River drainage, to caribou hunting except by federally qualified subsistence users for the 2017/18 regulatory year. The Board considered the modification a reasonable compromise for all users, and that closure of the specified area was warranted in order to continue subsistence use. The Board rejected WSA17-04 due to recent changes to State regulations that should reduce caribou harvest.

In April 2018, the Board adopted Proposals WP18-46 with modification and WP18-48 (effective July 1, 2018). Proposal WP18-46 requested closing caribou hunting on Federal public lands in Unit 23 to non-federally qualified users (similar to WSA16-01 and WSA17-03). The Board adopted WP18-46 with the same modification as WSA17-03 (see above) as the Northwest Arctic, Western Interior, and Seward Peninsula Councils as well as the village of Noatak supported this modification and viewed the targeted closure as effectively addressing user conflicts and the continuation of subsistence uses. The Board also adopted WP18-48 to require State registration permits for caribou hunting in Units 22, 23, and 26A to improve harvest reporting and herd management, and to align with State regulations.

Also in 2018, the Board considered proposal WP18-57, which requested that caribou hunting on Federal public lands in Units 26A and 26B be closed to non-federally qualified users. This proposal was submitted by the North Slope Council to ensure continuation of subsistence, protect the caribou herds, and reduce user conflicts. The Board rejected WP18-57, choosing to allow time to evaluate the effects of recently implemented harvest restrictions. In addition, the Board expressed concern that closing Federal lands would shift users to State lands, increasing conflict.

In January 2020, the BOG adopted Proposal 20 to open a year-round resident season for caribou bull harvest in Unit 23 under State regulations. The BOG also adopted Proposal 24 as amended to remove the restriction on caribou calf harvest in Units 22, 23, and 26A. Proposal 28, which would have eliminated the caribou registration permit in Units 23 and 26A for North Slope resident hunters, was not adopted by the BOG, due to an ongoing need for harvest data.

In April 2020, the Board adopted Proposal WP20-46 to open a year-round bull season and permit calf harvest for caribou in Unit 23. Creating a year-round season for bulls was intended to allow for harvest of bulls when caribou migration had been delayed, alleviating harvest pressure on cows. The prohibition on calf harvest was lifted in order to permit taking of calves that had been orphaned or injured.

In 2021, the Northwest Arctic Council submitted Temporary Wildlife Special Action WSA21-01, which requested closing Federal public lands in Units 23 and 26A to caribou and moose hunting by non-federally qualified users from Aug. 1 - Sep. 30, 2021. The Council expressed concern about the late migration of caribou into and through Unit 23 and stated that the lack of fall harvest has resulted in empty freezers and stressed communities. The Council hoped a closure would reduce the impacts from transporters and non-local hunters on migrating caribou. In June 2021, the Board deferred action on this request and asked that Office of Subsistence Management (OSM) staff seek additional input on concerns related to caribou from the WACH Working Group, Federal land-managing agencies, local Fish and Game Advisory Committees, the ADF&G, Federal Subsistence Regional Advisory Councils, commercial guides and transporters, and subsistence users in the area.

In March 2022, the Board approved WSA21-01a (for caribou; WSA21-01b applied to moose) with modification to close Noatak National Preserve (including the Nigu River portion of the Preserve in Unit 26A) and BLM managed lands between the Noatak and Kobuk rivers in Unit 23 to caribou hunting by non-federally qualified users from August 1 through September 30 during the 2022-2023 and 2023-2024 regulatory years. The Board stated this modification was a reasonable compromise that provides for the continuation of subsistence uses and the conservation of the Western Arctic Caribou Herd, while precluding unnecessary restrictions on non-federally qualified users. The partial closure targets the areas of highest user conflicts and minimizes potential disruptions to caribou migration. The Board also expressed concern over the 24% WACH population decline over the past two years, which prompted the WACH Working Group to change the herd's management level to preservative declining.

In April 2022, the Board rejected Proposal WP22-47, which requested that caribou calf harvest be permitted in Unit 22 because four members of the Board felt this would supply new opportunity for federally qualified subsistence users and would align Federal and State regulations. The remaining four Board members opposed the proposal and felt with the herd in decline that it would be unwise to allow the harvest of caribou calves.

In June 2023, the Board voted to reject Wildlife Special Action requests WSA22-05 and WSA22-06, which requested to reduce the caribou harvest limit to 4 per year, only one may be a cow for the 2023/24 regulatory year in Unit 23 and across the range of the WACH, respectively. The Board stated that an immediate reduction to four caribou per year would be detrimental to subsistence needs. The Board acknowledged the need to focus on caribou conservation and that reductions in harvest limits may be needed in the future. Additionally, the Board suggested a more robust discussion of potential alternatives to the harvest limit reductions is essential. The Board stated that the Federal regulatory proposal process is the more appropriate avenue to allow an analysis to be written and reviewed by the public, all of the affected Councils, and our Federal and State agency partners in the range of the WACH, resulting in formal recommendations.

Controlled Use Areas

Noatak Controlled Use Area

In 1988, the Traditional Council of Noatak submitted a proposal to the BOG to create the Noatak Controlled Use Area (CUA) in order to restrict the use of aircraft in any manner for big game hunting from August 15-September 20 due to user conflicts (Fall 1990). The proposed Controlled Use Area extended five miles on either side of the Noatak River, from the mouth of the Eli River upstream to the mouth of the Nimiuktuk River, including the north side of Kivivik Creek (ADF&G 1988). The BOG adopted the proposal with modification to close a much smaller area extending from the Kugururok River to Sapun Creek from August 20-September 20.

The Controlled Use Area was expanded in 1994 and modified in 2017 (Betchkal 2015; Halas 2015; ADF&G 2017a). From 1994-2016, the Noatak Controlled Use Area consisted of a 10-mile-wide corridor (5 miles either side) along the Noatak River from its mouth to Sapun Creek with approximately 80 miles of the Controlled Use Area within Noatak National Preserve (NP) (**Map 5**, Betchkal 2015). The closure dates from 1994-2009 were August 25-September 15. In 2009 (effective 2010), the BOG adopted

Proposal 22 to expand the closure dates to August 15-September 30 in response to the timing of caribou migration becoming less predictable (ADF&G 2009). During the 2016/17 BOG regulatory cycle, the Noatak/Kivalina & Kotzebue AC proposed (Proposal 44) extending the upriver boundary of the Noatak Controlled Use Area to the Cutler River, citing increased user conflicts as their rationale (ADF&G 2017b). In January 2017, the BOG approved amended Proposal 44 to shift the boundaries of the Noatak Controlled Use Area to start at the mouth of the Agashashok River and end at the mouth of the Nimiuktuk River with approximately 105 miles within Noatak NP (**Map 5**, ADF&G 2017a).

In 1990, the Noatak Controlled Use Area was adopted under Federal regulations. In 1995, the Board adopted Proposal P95-50 to expand the time-period and area of the Controlled Use Area to August 25-September 15 and the mouth of the Noatak River upstream to the mouth of Sapun Creek, respectively, which aligned with State regulations as they existed at that time.

In 2008, Proposals WP08-50 and 51 requested modifications to the Noatak Controlled Use Area dates. These proposals were submitted in response to caribou migration occurring later in the season, to improve caribou harvest for subsistence users, and to decrease conflicts between local and nonlocal hunters. The Board deferred these proposals to the next regulatory cycle. In 2010, Proposals WP10-82, 83, and 85 requested similar date changes. The Board adopted WP10-85 to expand the time period during which aircraft are restricted in the Noatak Controlled Use Area to August 15-September 30, which aligned with the current State regulations.

Selawik National Wildlife Refuge: Area Not Authorized for Commercial Transporters and Guides

In 2011, Selawik National Wildlife Refuge (NWR) designated refuge lands in the northwest portion of the refuge as closed to big game hunting by commercial guides and transporters through their comprehensive conservation plan (USFWS 2011, 2014). These refuge lands are intermingled with private lands near the villages of Noorvik and Selawik (**Map 3**). The purpose of this closure was to minimize trespass on private lands and to reduce user conflicts (USFWS 2011).

At the winter 2021 meeting of the Northwest Arctic Council, a representative of Selawik National Refuge reported that only two hunters were brought into the refuge by air taxis and transporters in 2020. Because caribou are no longer abundant in Selawik National Wildlife Refuge in September, and because the non-resident moose season is already closed in Unit 23, the refuge no longer receives many fly-in hunters (NWARAC 2021a).

Noatak National Preserve Delayed Entry Controlled Use Area

In 2012, the NPS established a Special Commercial Use Area or “delayed entry zone” in the western portion of the Noatak NP (Halas 2015, Fix and Ackerman 2015). Within this zone, transporters can only transport nonlocal caribou hunters after a pre-determined date unless otherwise specified by the Western Arctic Parklands (WEAR) Superintendent in consultation with commercial operators, other agencies and local villages (Halas 2015). In 2020, the delayed entry end date was changed from September 15 to September 22 (NPS 2020) in response to requests from the Cape Krusenstern National Monument and Kobuk Valley National Park SRCs and the Native Village of Noatak (Atkinson 2021, pers. comm.). The

purpose of this zone is to allow a sufficient number of caribou to cross the Noatak River and establish migration routes, to limit interactions between local and nonlocal hunters, and to allow local hunters the first opportunity to harvest caribou in that area (**Map 5**, USFWS 2014; Halas 2015).

Aircraft in National Parks and Monuments

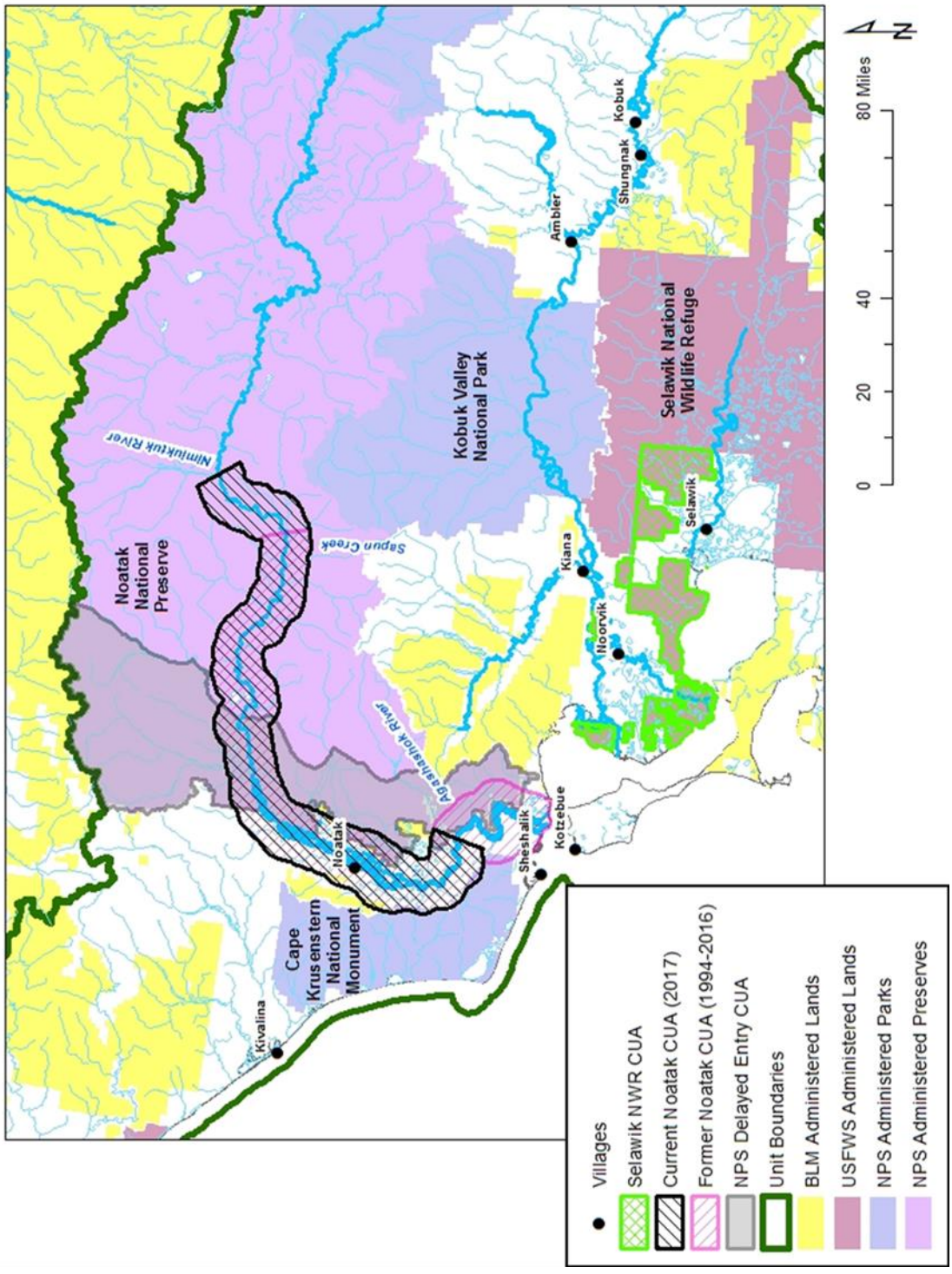
National parks and monuments in Unit 23 include Cape Krusenstern National Monument, Kobuk Valley National Park, and Gates of the Arctic National Park. The use of aircraft for access to or from lands and waters within a national park or monument for purposes of taking fish or wildlife within the national park or monument is prohibited, except in the case of exempted communities and individuals for the purpose of subsistence access. However, aircraft are allowed to access lands and waters in national parks and monuments for the purposes of engaging in any activity allowed by law other than the taking of fish and wildlife.

Anaktuvuk Pass Controlled Use Area

That portion of Unit 26A bounded by a line beginning at 153° 30′ W. long. on the game management boundary between Units 24 and 26A, north along 153° 30′ W. long. to 69° N. lat., east along 69° N. lat. to 152° 10′ W. long., south along 152° 10′ W. long. to 68° 30′ N. lat., east along 68° 30′ N. lat. to 150° 40′ W. long., south along 150° 40′ W. long. to the game management boundary between Units 24 and 26A, and westerly along the game management unit boundary to the point of origin at 153° 30′ W. long. From Aug 15 - Oct 15, the area is closed to the use of aircraft for caribou hunting, including transportation of caribou hunters, their hunting gear, and/or parts of caribou. However, this does not apply to transportation of caribou hunters, their gear, or caribou parts by aircraft between publicly owned airports in the controlled use area

Dalton Highway Corridor Management Area (DHCMA)

Units 20 and 24-26 extending five miles from each side of the Dalton Highway, including the drivable surface of the Dalton Highway, from the Yukon River to the Arctic Ocean, and including the Prudhoe Bay Closed Area. The area within the Prudhoe Bay Closed Area is closed to the taking of big game; the remainder of the DHCMA is closed to hunting; however, big game, small game, and fur animals may be taken in the area by bow and arrow only, and small game may be taken by falconry. Any hunter traveling on the Dalton Highway must stop at any check station operated by the department within the DHCMA.



Map 5. Federal and State controlled use areas in Unit 23.

Appendix 2

For survey years in which the sex of harvested caribou was documented, this table shows the percentage of male, female, and sex unknown caribou harvested in Unit 23 (CSIS 2023).

Community	Year	Estimated total number of caribou harvested	% Male	% Female	% Unknown
Ambler	2009	455	76%	24%	0%
	2012	685	69%	28%	2%
Buckland	2009	535	39%	35%	26%
	2016	693	56%	38%	6%
	2018	949	31%	48%	22%
Deering	2007	182	27%	31%	42%
	2013	404	19%	44%	38%
	2017	342	51%	44%	5%
Kiana	1999	487	84%	10%	6%
	2009	414	87%	5%	8%
Kivalina	2007	268	57%	37%	5%
	1964	256	50%	29%	21%
	1965	1010	28%	30%	42%
	1982	346	41%	47%	12%
	1983	564	29%	55%	15%
Kobuk	2004	134	76%	24%	0%
	2009	210	78%	17%	5%
	2012	119	73%	19%	8%
Kotzebue	2012	1804	61%	20%	20%
	2013	1680	76%	20%	4%
	2014	1286	75%	17%	8%
Noatak	1999	683	66%	30%	4%
	2002	410	88%	12%	0%
	2007	442	73%	23%	4%
	2016	337	64%	34%	2%
Noorvik	2002	987	71%	23%	6%
	2008	767	73%	15%	12%
	2012	851	64%	24%	12%
	2017	250	41%	56%	3%
Point Hope	2014	185	62%	24%	14%
Selawik	1999	1289	62%	37%	1%
	2006	933	73%	26%	1%
	2011	683	60%	39%	1%
Shungnak	1998	561	50%	49%	1%

Community	Year	Estimated total number of caribou harvested	% Male	% Female	% Unknown
	2008	407	43%	50%	7%
	2012	395	71%	27%	2%
Average		611	**60%**	**30%**	**10%**

For survey years in which the sex of harvested caribou was documented, this table shows the percentage of male, female, and sex unknown caribou harvested in Unit 26A and Anaktuvuk Pass (CSIS 2023). No data on the sex of harvested caribou is available for Wainwright.

Community	Year	Estimated total number of caribou harvested	% Male	% Female	% Unknown
Anaktuvuk Pass	2014	770	51%	39%	10%
	2011	616	57%	43%	0%
	2006	695	68%	32%	0%
	1993	574	55%	45%	0%
	1991	545	77%	23%	0%
	1990	591	55%	43%	2%
Atqasuk	2006	170	96%	4%	0%
	2005	202	84%	15%	1%
	2004	313	79%	17%	4%
	2003	189	79%	17%	4%
Kaktovik	1994	79	77%	23%	0%
	1992	159	69%	29%	3%
	1991	181	73%	24%	2%
	1990	114	52%	37%	11%
	1987	186	64%	33%	3%
	1986	178	59%	35%	6%
	1985	235	53%	33%	14%
Nuiqsut	2014	774	73%	21%	6%
	2006	363	93%	5%	3%
	2005	436	96%	4%	0%
	2004	429	83%	11%	6%
	2003	293	87%	7%	5%
	1994	258	73%	13%	14%
	1993	672	71%	22%	7%
Point Lay	2012	356	57%	42%	1%
Utqiaġvik	2014	4323	46%	29%	25%

Community	Year	Estimated total number of caribou harvested	% Male	% Female	% Unknown
Average		527	**70%**	**25%**	**5%**