

**Unit 23 Working Group**  
**May 4-5, 2016**  
**Meeting Binder**

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## Unit 23 Working Group May 4-5, 2016

Northwest Arctic Borough Assembly Chambers  
163 Lagoon Street, Kotzebue, Alaska

Wednesday, May 4  
9:00 a.m. – 5:00 p.m.

Thursday, May 5  
9:00 a.m. – 12:00 p.m.

**Public radio station KOTZ will broadcast the meeting.  
Tune to 89.9 FM or AM 720, or listen via the web at [www.kotz.org](http://www.kotz.org)**

### AGENDA

#### Meeting Topics

- Update on Western Arctic herd population, movement, and harvest data
- Update / Discussion on Alaska Board of Game and Federal Subsistence Board regulation proposals and actions
- Discuss 2015 hunting season & preparation for 2016 season
- Federal and state agency planning, permitting, management, and enforcement topics related to reducing hunting conflicts in Unit 23
- Education & outreach efforts
- Public comment session – By phone or at Assembly Chambers  
Wednesday, May 4, 3:00-4:00 p.m. Dial 1-888-223-4671
- Discussion of additional topics and recommendations raised by Working Group members

#### Wednesday, May 4

8:30 a.m. *Coffee/Refreshments*

9:00 a.m. **Welcome, Introductions –  
Review Agenda / Revise if necessary**

- List of Unit 23 Working Group members
- Summary of recommendations made by the Working Group at past meetings (*reached by group consensus*)

9:15 a.m. **Western Arctic Caribou Herd Population & Unit 23 Harvest Data**

Lincoln Parrett and Brandon Saito  
Alaska Department of Fish & Game (ADF&G)

Wednesday, May 4, continued

**10:15 a.m. Break**

**10:30 a.m. Unit 23 Caribou Harvest – Update on State & Federal Regulations, Recent Proposals and Changes**

- Alaska Board of Game – State Regulations  
Brandon Saito, ADF&G
- Federal Subsistence Board – Federal Regulations  
Jennifer Hardin, US Fish and Wildlife Service  
Office of Subsistence Management
- Working Group discussion

**12:00 p.m. Lunch**

**1:15 p.m. Federal Agency Management** – Agency presentations and Working Group comments/discussion. Includes report on NPS & BLM meeting with community of Noatak in July 2015.

- Bureau of Land Management – Squirrel River Management  
Alan Bittner, Bureau of Land Management
- Noatak National Preserve  
Lisa Fox, National Park Service
- Selawik National Wildlife Refuge  
Susan Georgette, US Fish and Wildlife Service

**2:45 p.m. Break**

**3:00 p.m. Working Group Discussion / Public Comment Opportunity**

- Discussion of 2015 hunting season and preparation for 2016
- PUBLIC COMMENTS: By phone, dial 1-888-223-4671 To participate in Kotzebue, please come to the NWAB Assembly Chambers. *(Time per comment may be limited, to ensure opportunity for those who want to speak.)*

**4:00 p.m. Break**

**4:15 p.m. State of Alaska – Permitting of guides/transporters**  
Valerie Baxter, Department of Natural Resources

**4:30 p.m. Big Game Commercial Services Board – Transporter Subcommittee**  
Joe Schuster, Guide, Unit 23 Working Group member

**5:00 p.m. Adjourn for the day**

## **Thursday, May 5**

**8:30 a.m.** *Coffee/Refreshments*

**9:00 a.m.** **Welcome**

**9:10 a.m.** **Education & Public Outreach in Unit 23**  
Kari Rasmussen, ADF&G

**9:45 a.m.** **Northwest Arctic Borough / North Slope Borough Caribou Workshop**  
– Report on workshop held March 11, 2016 in Fairbanks  
Noah Naylor, NWAB Planning Director

**10:15 a.m.** **Break**

**10:30 a.m.** **The Future of the Working Group**

- With declining state budgets, funding for the Working Group in the future is uncertain. What can be done to continue information sharing and communication on these topics?
- Working Group recommendations

**11:00 a.m.** **Working Group Discussion & Action**

- Additional discussion on topics raised by Working Group members
- Working Group Recommendations / Actions
- Assignments / Wrap up

**12:00 p.m.** **Adjourn**

Additional information about the Unit 23 Working Group can be found at the project web site:

<http://www.adfg.alaska.gov/index.cfm?adfg=plans.unit23>

## Unit 23 Working Group Membership

2016

Name	Affiliation
<b>Public members</b>	
Phil Driver	Alaska Professional Hunting Association Western Arctic Caribou Herd Working Group
Cyrus Harris	Maniilaq Association Western Arctic Caribou Herd Working Group Kotzebue Advisory Committee
Stosh Hoffman <i>(unable to attend)</i>	Alaska Board of Game
Victor Karmun	Kotzebue Advisory Committee
Melvin Lee	Upper Kobuk Advisory Committee (rep.)
Enoch Mitchell	Noatak/Kivalina Advisory Committee Northwest Arctic Subsistence Regional Advisory Council
Ron Moto, Sr.	North Seward Peninsula Advisory Committee Western Arctic Caribou Herd Working Group
Noah Naylor	Northwest Arctic Borough, Planning Department
Julie Owen	Transporter representative
Pete Schaeffer	Kotzebue Advisory Committee
Joe Schuster	Alaska Professional Hunting Association
Raymond Stoney	Lower Kobuk Advisory Committee Northwest Arctic Regional Advisory Council
Tim Towarak	Chair, Federal Subsistence Board
Nate Turner <i>(unable to attend)</i>	Alaska Board of Game
Alex Whiting	Native Village of Kotzebue Kotzebue Advisory Committee
<b>Agency representatives</b>	
Alan Bittner	Bureau of Land Management Anchorage Field Office
Valerie Baxter	Alaska Department of Natural Resources Division of Mining, Land and Water
Lisa Fox	National Park Service Western Arctic National Parklands
Susan Georgette	US Fish and Wildlife Service Selawik National Wildlife Refuge
Jennifer Hardin	US Fish and Wildlife Service Office of Subsistence Management
Brandon Saito	Alaska Department of Fish and Game Division of Wildlife Conservation

## CHARTER

### **Unit 23 Working Group**

Approved April 24, 2008

The following Charter was approved by consensus of the Unit 23 Working Group on April 24, 2008, at its meeting in Kotzebue, Alaska.

#### **Background**

Fall hunting in Game Management Unit (GMU) 23 in northwest Alaska has been the subject of conflict between local hunters, non-local hunters and commercial operators (e.g., hunting guides, transporters) since the early 1980s. In 2006, the Alaska Department of Fish and Game (ADF&G), Division of Wildlife Conservation, interviewed representatives of different user groups, regional organizations, landowners and land management agencies about Unit 23 user conflicts. Interview results and background information are found in the ADF&G report “*Fall Hunting in Game Management Unit 23: Assessment of Issues and Proposal for a Planning Process.*”<sup>1</sup>

In May 2007, key individuals and agency representatives met in Kotzebue to discuss fall hunting conflicts in Unit 23. Participants at that meeting recommended that a working group be formed to try to cooperatively resolve the conflicts.

#### **Unit 23 Working Group Process**

The Unit 23 Working Group was formed in early 2008 to discuss fall hunting conflicts and to try to agree on solutions to the conflicts. The group expects to meet a number of times, for 3-4 days per meeting, over the next two years in Kotzebue in 2008-2009. A third year may be added if needed. The group’s work and advisory recommendations will be included in a final report. While the process may extend two to three years, it is recognized that there is a sense of urgency to begin addressing conflicts as soon as possible.

All Unit 23 working group meetings are open to the public. The public will receive information about the process and will be invited to suggest topics for discussion and ideas to resolve conflicts. (NOTE: A public outreach plan will be discussed and approved by the working group.)

**Mission:** Preserve the Inupiaq values of the region, their hunting, heritage, and ability to take caribou needed, as unrestricted as possible, while providing a reasonable opportunity for resident personal use and non-resident harvest.

**Goal:** The goal of the Unit 23 Working Group is to protect subsistence uses, and to identify and minimize user conflicts resulting from the influx of fall hunters to GMU23.

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<sup>1</sup> Prepared by Cynthia Jacobson, ADF&G, Division of Wildlife Conservation, February 25, 2008.

**Objectives:**

1. Discuss fall hunting user conflicts in Unit 23 and share and discuss the information that is important to resolving these conflicts.
2. Develop specific recommendations for resolving user conflicts, which respond to public concerns and can be feasibly and legally implemented. The recommendations *may* address such topics as:
  - numbers of users, density, distribution on the landscape, and compatibility issues;
  - future needs for data and local knowledge (to inform future management and monitor effectiveness of actions taken to address user conflicts);
  - public outreach and education to reduce conflict and impacts;
  - strategies to reduce impacts and increase benefits to Kotzebue and other communities;
  - other topics addressed through the Working Group process.
3. Recommend a monitoring approach to track future changes in GMU 23 fall hunting and determine if actions taken to address user conflicts have been effective.
4. Keep the public informed about the Unit 23 Working Group process. Allow the public to express their concerns, opinions and knowledge about fall hunting conflicts, and suggest solutions to these conflicts.
5. Take into consideration climate change; changes in big game populations, distributions and migration; and other changing conditions.
6. Improve communication between local hunters, non-local hunters, guides, transporters and management agencies. (In addition to potentially resolving user conflicts, this could also improve safety.)

**General Principles:** The Working Group will seek to ensure that its recommendations meet these general principles (not in priority order):

- Protect the long-term conservation and health of GMU23 caribou and moose populations.
- Minimize detrimental impacts to natural resources.
- Maximize benefits to the public, where possible.
- Protect the way of life and the cultural values of the local people, including the continued opportunity and prioritization for subsistence use.<sup>2</sup>
- Maximize the quality of the experience for hunters.
- Provide for equity among commercial service operators.

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<sup>2</sup> The use of the term “prioritization” references existing state and federal laws, with no further implications.

- Minimize disruption to caribou migration and the subsistence hunting practices and locations based on these migration patterns.

**Working Group Membership:**<sup>3</sup> The Unit 23 Working Group includes 20 people who represent users who participate in fall hunting in GMU23, including local hunters, non-local hunters, and commercial operators (e.g., guides and transporters); local governments; wildlife managers and regulators; and land owners/managers within the region. For the May 2016 meeting, Working Group members include:

<b>Name</b>	<b>Affiliation</b>
<b>Public members</b>	
Phil Driver	Alaska Professional Hunting Association Western Arctic Caribou Herd Working Group
Cyrus Harris	Maniilaq Association Western Arctic Caribou Herd Working Group Kotzebue Advisory Committee
Stosh Hoffman	Alaska Board of Game
Victor Karmun	Kotzebue Advisory Committee
Melvin Lee	Upper Kobuk Advisory Committee (rep.)
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Julie Owen	Transporter representative
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<b>Agency representatives</b>	
Alan Bittner	Bureau of Land Management, Anchorage Field Office
Valerie Baxter	Alaska Department of Natural Resources, Division of Mining, Land and Water
Lisa Fox	National Park Service, Western Arctic National Parklands
Susan Georgette	US Fish and Wildlife Service, Selawik National Wildlife Refuge
Jennifer Harden	US Fish and Wildlife Service, Office of Subsistence Management
Brandon Saito	Alaska Department of Fish and Game, Division of Wildlife Conservation

<sup>3</sup> Working Group membership list has been updated as of May 2016 meeting.

**Staff and Resources to Support Process:** Jan Caulfield of Jan Caulfield Consulting<sup>4</sup> has been hired as a neutral contractor to serve as the Facilitator and Project Manager for the Unit 23 Working Group process, with oversight by Steve Machida with ADF&G. ADF&G will provide logistic and administrative support. The facilitator and ADF&G, in consultation with the Working Group, will develop and distribute material to inform the public on the project and seek input.

The process is currently supported by funds contributed by the State of Alaska, US Fish and Wildlife Service, Bureau of Land Management, and National Park Service. It is anticipated that local governments and/or organizations will contribute meeting space, refreshments, logistics and other support for the process. The agencies will pay travel and lodging costs for public group members who must travel to attend the meetings.

**Working Group Process:** The Working Group will use a consensus-building process, facilitated by a neutral party. Each working group member begins the process intending to work cooperatively to reach consensus decisions, on even the most difficult issues. “Consensus” is defined as an agreement all parties can accept because it meets their most important needs. It does not mean that everyone likes the solution equally, but it is the best solution overall to address the interests involved. If the group can not reach consensus on all issues, the differing opinions will be explained in the group’s meeting summaries and final report.

**Working Group Recommendations:** The Working Group will develop advisory recommendations. These recommendations may be further evaluated (as required) and implemented by agencies, governments, organizations or other parties. Consensus recommendations from this diverse group of Unit 23 residents, users and agency managers would likely carry significant weight with decision makers.

Tools for implementing the group’s recommendations could include regulatory proposals to the Board of Game and/or Federal Subsistence Board, ADF&G or other agency management actions, state and/or federal management plans, projects accomplished by a government or organization, or other actions.

**Responsibilities of Working Group Members:**

- Working Group members will be expected to attend all meetings and participate in the discussions. Group members must stay current with the information and ideas discussed at each meeting.
- Meetings will operate under the attached Ground Rules.
- Throughout the process, each Working Group member should communicate with individuals or groups that hold similar interests to theirs, and share the comments they receive with the full group.

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<sup>4</sup> Jan Caulfield Consulting, 114 S. Franklin St., Ste. 205, Juneau, AK 99801. Phone (907)523-4610, email [janc@gci.net](mailto:janc@gci.net) web site [www.jancaulfield.com](http://www.jancaulfield.com)

- Working Group members may be asked to help with public outreach efforts during the process, and/or to help present the group's recommendations at the end of the process.
- Working Group members may agree by consensus to issue press releases or other media information, assisted by ADF&G and the Facilitator. Members of the group agree to not make statements to the media until the group agrees it is appropriate to do so.

**Ground Rules for Communication – Unit 23 Working Group**

1. Respect the values, interests and views of all group members.
2. Give each person an equal opportunity to speak. Please do not interrupt.
3. Seek to understand, as well as to be understood. Listen carefully to understand other points of view.
4. If you disagree with a point someone else is making, explain why in a constructive way. Do not criticize the speaker.
5. If you disagree with the group on an issue or recommendation, you have a responsibility to explain why. Try to suggest an alternative approach that might be acceptable to the whole group

# Unit 23 Working Group

Process and Recommendations

May 2016

## Working Group Charter - 2008

- **Mission:** Find solutions to hunting conflicts in Unit 23 that will preserve the Inupiaq values of the region, including opportunities for local hunters to take caribou needed, while also providing reasonable opportunities for Alaska resident personal use and non-resident harvest.
- Advisory recommendations / proposals, developed with group consensus.

2

## Working Group meetings

- First meeting in 2008.
- Since 2010 have been meeting once a year in Kotzebue, to keep sharing information and to provide opportunity for public comments to the Working Group.
- July 2015 – Meeting in Noatak with NPS and BLM to discuss ways to address concerns about user conflicts and local harvest. Meeting held at request of the Working Group.
- Working Group also met with residents in Kiana and Noatak in 2008 and in Shungnak in 2009.

3

## Recommendations

- Noatak Controlled Use Area
  - Proposal approved by Board Game to extend dates to Aug. 15-Sept. 30. In effect 2010.
- Mandatory one-time online orientation for pilots flying in Unit 23 for purposes of hunting
  - Proposal approved by Board of Game. In effect 2010.
  - 345 pilots had taken the orientation as of May 2015.
  - Worked with Federal Aviation Administration on pilot education through FAA events.

4

## Recommendations

- Communication – local communities, management agencies, guides & transporters
  - Letters sent to guides and transporters recommending ways to reduce conflicts.
  - Provide information to help guides, transporters and visiting hunters avoid conflicts.
  - BLM provides digital land status maps (online), updated yearly, to reduce trespass and ensure hunters know land status and that different regulations may apply.
  - Pre-season meeting with NWAB, local communities, management agencies.

5

## Recommendations

- Authorities to manage guides and transporters
  - Supported State's Guide Concession Program and requested it be expanded to include management of transporters (bill was not passed by Legislature)
  - Supported legislation in 2010 to expand authority of Big Game Commercial Services Board to regulate transporters (bill was not passed by Legislature)

6

## Recommendations

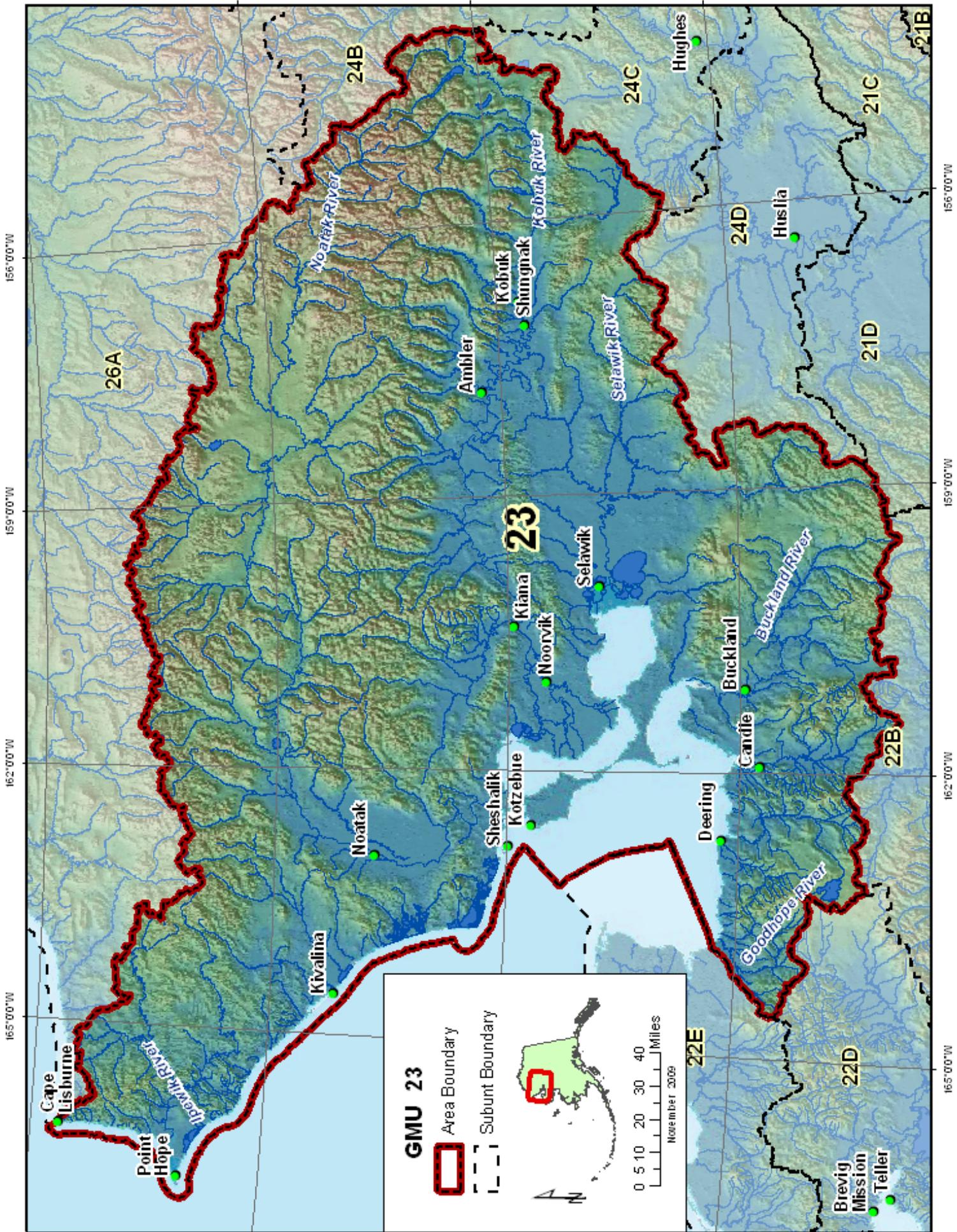
- Agency Coordination
  - Law enforcement – Coordinate efforts among State and Federal agencies. Work with NANA Trespass program.
  - Investigator from Alaska Department of Commerce and Economic Development in the field in Unit 23 2010-2013, focused on transporter activity (no longer funded by State of Alaska).
  - Federal management plans & permitting affecting guiding/transporting – Involve NWAB and local communities in planning.
  - Federal permits for guides & transporters – Permits include requirements to reduce conflicts.

7

## Recommendations

- Other actions
  - Keep informed of proposed developments in northwest Alaska that may affect the herd, the availability of the herd for hunting, or the potential for conflicts between local and nonlocal hunters (such as proposed Ambler Mining District Industrial Access Road).

8



156°00'W

159°00'W

162°00'W

165°00'W

156°00'W

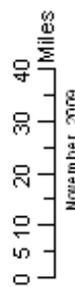
159°00'W

162°00'W

165°00'W

### GMU 23

- Area Boundary
- Subunit Boundary



November 2006

26A

24B

24C

21C

21B

23

21D

22B

22E

22D

Brevig Mission

Teller

Cape Lisburne

Point Hope

Kivalina

Noatak

Sheshalik

Kotzebue

Kiana

Noorvik

Selawik

Ambler

Kobuk

Shungnak

Kobuk River

Selawik River

Noatak River

Goodhope River

Buckland River

Huslia

Hughes

Brevig Mission

Teller

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## Northwest Alaska Caribou Overview

Lincoln Parrett, Brandon Saito & Jim Dau  
ADF&G



Alaska Dept. Fish & Game

WAH/TCH Overview: Slide 1

### This Presentation

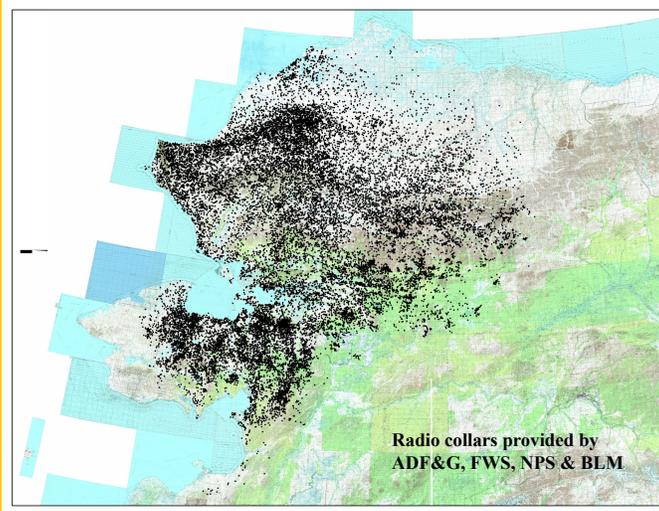
- Range of the WAH
- Fall 2015 movements
- WAH Population size & trend
- WAH Cooperative Management Plan (2011)
- Harvest vs. Harvestable surplus

**NOTE:** Much of the information I'm going to show you is based on radio collared caribou. Collars have been provided by ADF&G, North Slope Borough, FWS, BLM and NPS.

Alaska Dept. Fish & Game

WAH/TCH Overview: Slide 2

**Locations of Satellite-Collared WAH caribou:  
1988-2014**



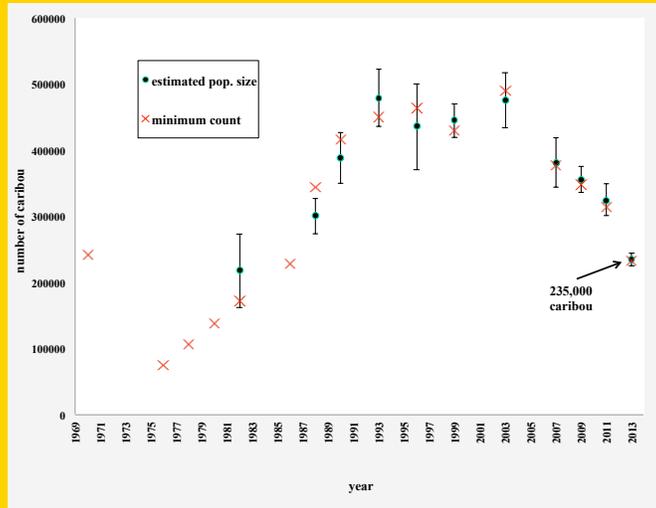
Alaska Dept. Fish & Game

Fall 2015 WAH Animation

Alaska Dept. Fish & Game

WAH Overview: Slide 4

## Census Results



Red 'X' = minimum counts of population size

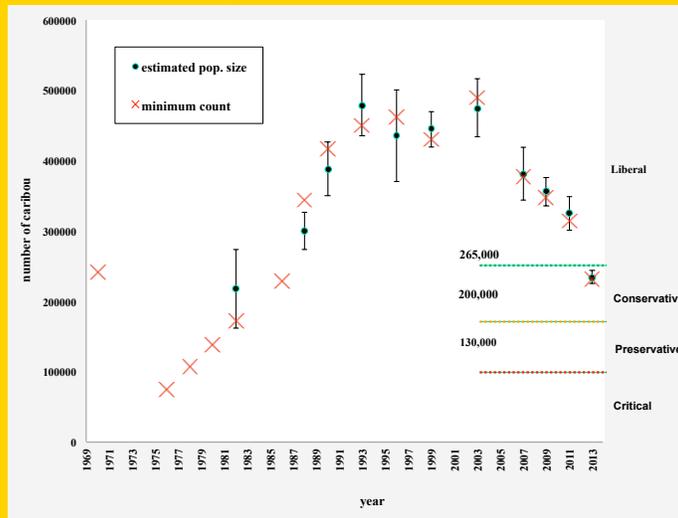
Black dots = population estimates based only on collared caribou

Vertical bars =  $\pm 95\%$  confidence intervals for the population estimates

Alaska Dept. Fish & Game

WAH Overview: Slide 5

## Western Arctic Caribou Herd Population Estimates

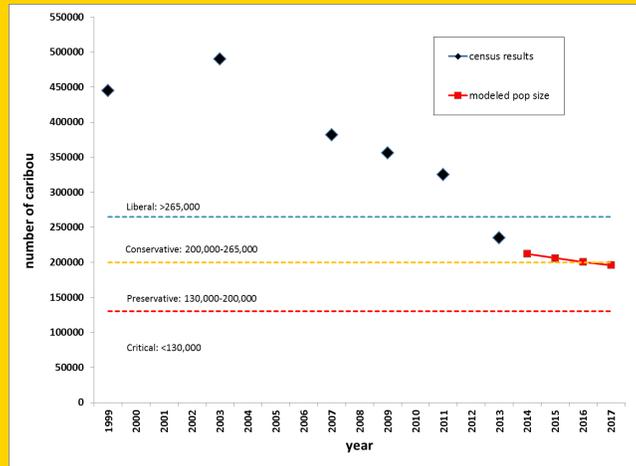


The management levels shown are for a declining population; these will change if the herd stabilizes or begins to increase.

Alaska Dept. Fish & Game

WAH Overview: Slide 6

## Census Results & Population Projections



Uses vital rates 2013-2016; assumes consistent harvest of 12,000

Alaska Dept. Fish & Game

WAH Overview: Slide 7

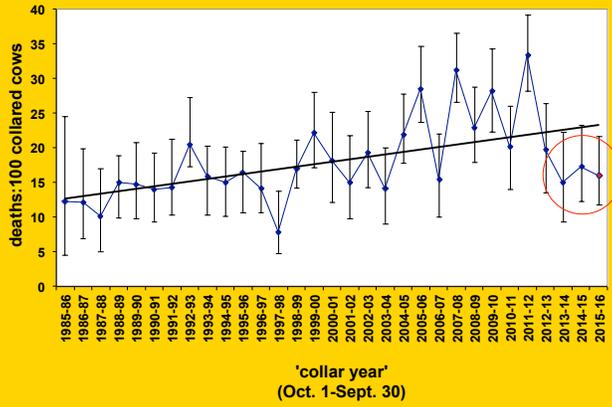
## What Changed?

- Adult female mortality rates were much lower than previous 5 years
- Calf production remained stable compared to long-term trend
- Calf recruitment increased, especially this year
- **Other information:**
  - Calf weights at Onion Portage were the highest ever
  - High overwinter survival rates of calves collared at O.P.
  - 2015-16 shaping up to have high adult survival
- In general, although we lack a 2015 photocensus estimate, other biological information we have leads us to believe that the decline has slowed dramatically, possibly approaching stability.

Alaska Dept. Fish & Game

WAH Overview: Slide 8

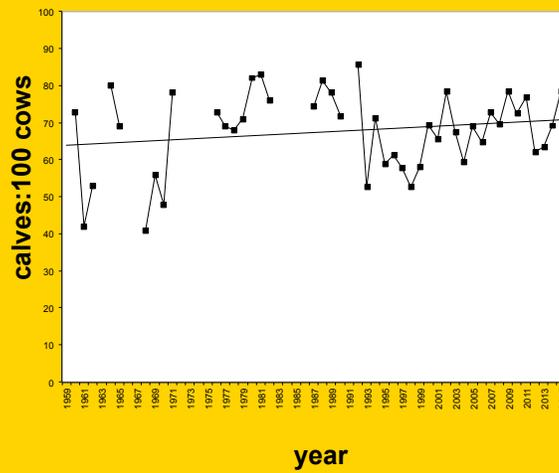
### Adult Cow Mortality



Alaska Dept. Fish & Game

WAH Overview: Slide 10

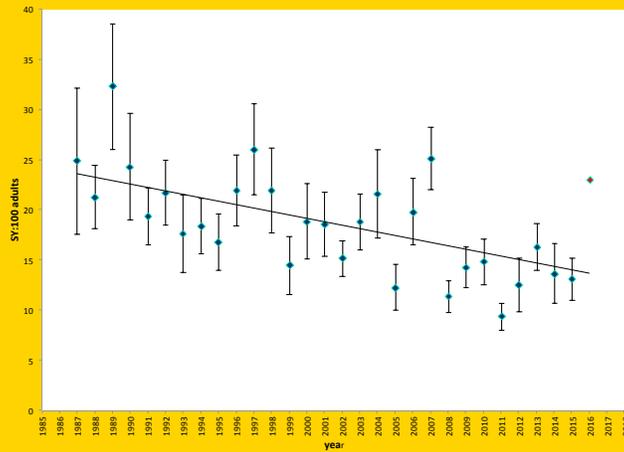
### WAH Calf Production



Alaska Dept. Fish & Game

WAH Overview: Slide 11

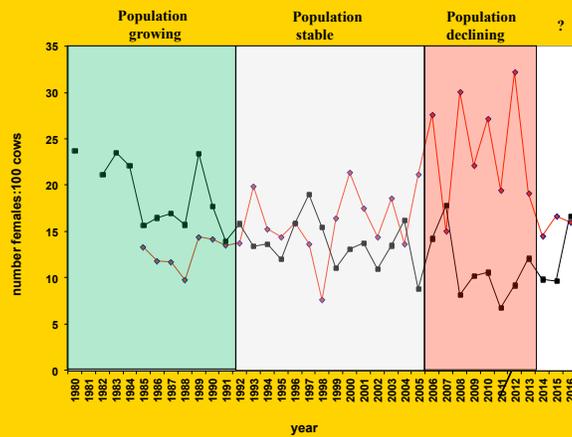
### Calf recruitment to 10 months of age



Alaska Dept. Fish & Game

WAH Overview: Slide 12

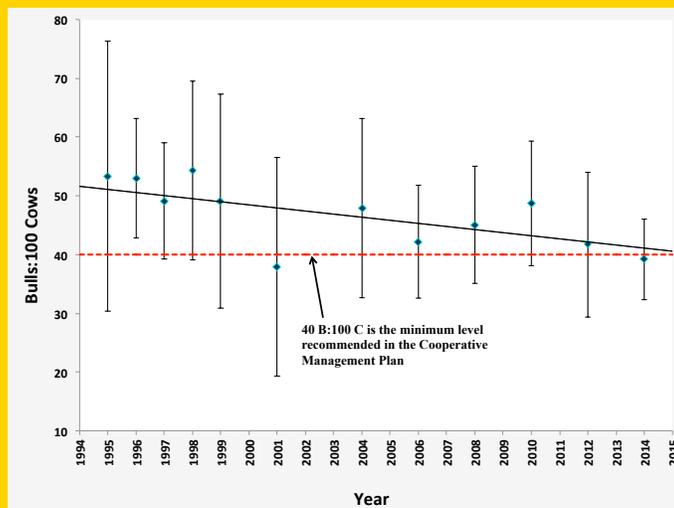
### Adult Cow Mortality vs. Calf Recruitment Relative to Population Growth Phase



Alaska Dept. Fish & Game

WAH Overview: Slide 13

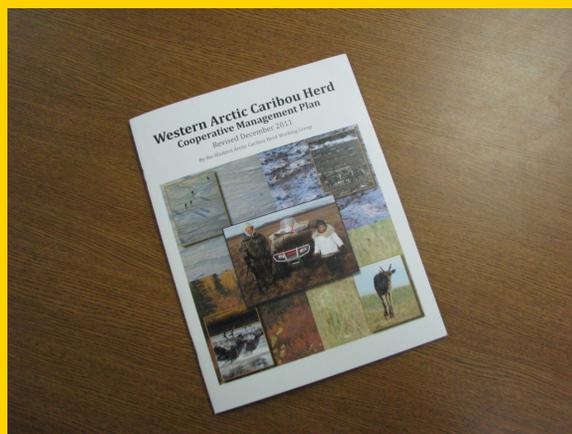
## Fall Bull:Cow Ratios



Alaska Dept. Fish & Game

WAH Overview: Slide 14

## Western Arctic Caribou Herd Management Plan



The latest revision of the Plan was finalized in December 2011

There are 7 elements in this Plan – Two elements are relevant to management of the WAH:

- Population Management
- Regulations

Alaska Dept. Fish & Game

WAH Overview: Slide 15

### Population Management Element

**Table 1** relates population size and trend to management actions and harvest levels

**Appendix 2** provides detailed recommendations regarding:

- population monitoring by agencies
- harvest management by BOG & FSB

**NOTE:** This section of the plan does not attempt to establish hard and fast rules or thresholds for managing the WAH. Instead, population values and recommendations are presented only as guidelines to help the agencies and regulatory boards adjust to changes in the biological status of this herd.

### Management & Harvest Levels Relative to Population Size and Trend

**Table 1**

Management Level and Harvest Level	Population Trend		
	Declining Low: 6%	Stable Med: 7%	Increasing High: 8%
Liberal	Pop: 265,000+ Harvest: 16,000-22,000	Pop: 230,000+ Harvest: 16,000-22,000	Pop: 200,000+ Harvest: 16,000-22,000
Conservative	Pop: 200,000-265,000 Harvest: 12,000-16,000	Pop: 170,000-230,000 Harvest: 12,000-16,000	Pop: 150,000-200,000 Harvest: 12,000-16,000
Preservative	Pop: 130,000-200,000 Harvest: 8,000-12,000	Pop: 115,000-170,000 Harvest: 8,000-12,000	Pop: 100,000-150,000 Harvest: 8,000-12,000
Critical Keep Bull:Cow ratio ≥40 Bull:100 Cow	Pop: <130,000 Harvest: 6,000-8,000	Pop: <115,000 Harvest: 6,000-8,000	Pop: <100,000 Harvest: 6,000-8,000

Taken from WAH Management Plan (revised 2011, corrected 2015)

## Appendix 2: WAH Management Plan Recommendations

### Liberal Management (green)

- Reduce nonresident bull harvest only to maintain 40 bulls:100 cows
- No restriction of resident bull harvest unless <40 bulls:100 cows

### Conservative Management (orange)

- No harvest of calves
- No nonresident cow harvest
- Restrict nonresident bull harvest
- Encourage voluntary reduction in resident cow harvest
- Limit subsistence harvest of bulls only if <40 bulls:100 cows

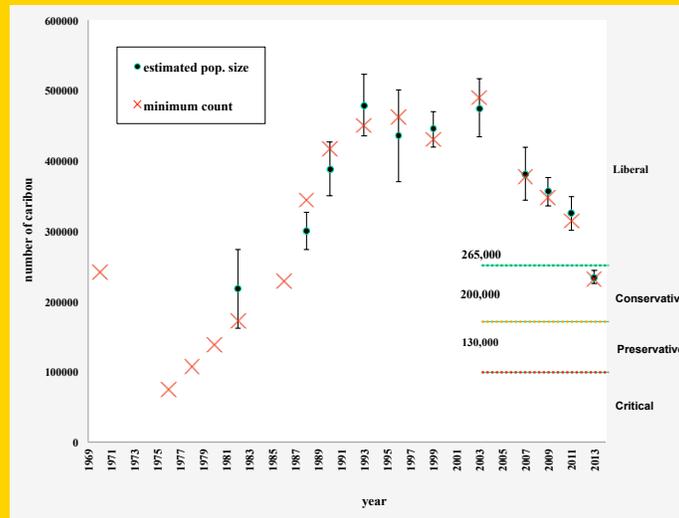
### Preservative Management (yellow)

- No harvest of calves
- Limit harvest of cows by residents through permit hunts and/or village quotas
- Limit subsistence harvest of bulls only if <40 bulls:100 cows
- Harvest restricted to residents only according to State and federal law – closure of some federal public lands may be necessary

### Critical Management (red)

- No harvest of calves
- Highly restrict resident cow harvest through permit hunts and/or village quotas
- Limit subsistence harvest of bulls to maintain 40 bulls:100 cows
- Harvest restricted to residents only according to State and federal law – closure of some federal public lands may be necessary

## Western Arctic Caribou Herd Population Estimates



The management levels shown are for a declining population; these will change if the herd stabilizes or begins to increase.

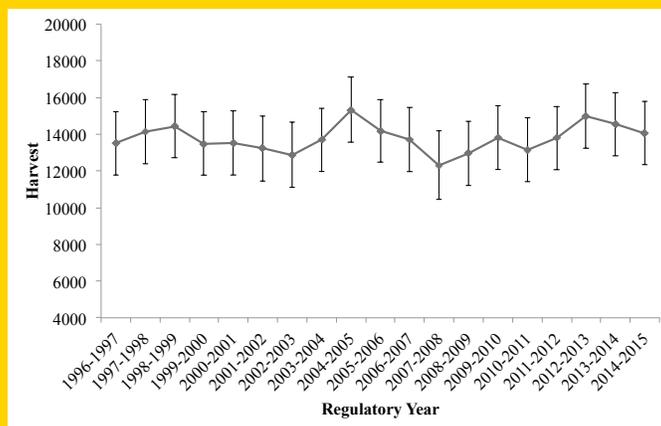
## Harvests



Alaska Dept. Fish & Game

WAH Overview: Slide 20

## Total Caribou Harvest by Year WAH+TCH



This is the annual harvest, estimated using a model developed by Sutherland (2005), based on data collected by ADF&G division of subsistence

Alaska Dept. Fish & Game

WAH Overview: Slide 21

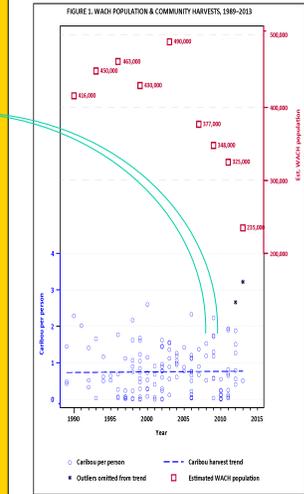
## Summary of Community Estimates (From Magdanz, WAHWG, 2015)

**TABLE 1. SUMMARY OF ESTIMATED CARIBOU HARVESTS FROM COMMUNITY SURVEYS IN THE RANGE OF THE WESTERN ARCTIC HERD, 1989-2013 (N=146)**

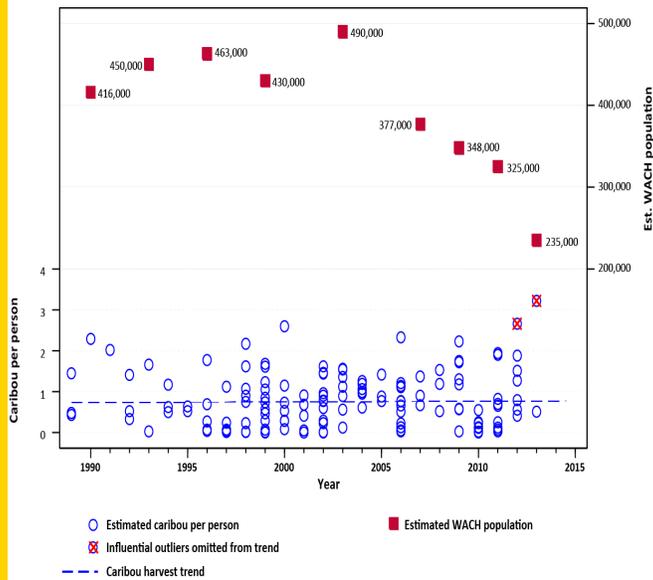
N	Community	Average population	Date survey	Average number of caribou killed per year	
				to community (12,310 per person/yr)	per person/yr
5	Kotzebue	1,137	2002-2013	1,889	0.4
5	Barnes	4,125	1989-2011	2,024	0.5
3	Nome	3,866	2009-2011	42	0.3
3	Owing	150	2007-2013	275	2.2
3	Austler	270	2003-2012	480	1.4
4	Shungvak	361	1998-2012	444	1.7
10	Anaktuvuk Pass	296	1990-2011	493	1.7
4	Wainwright	528	1989-2009	889	1.7
2	Buckland	421	2003-2009	589	1.4
3	Noonvik	662	2002-2012	880	1.3
2	Hartley	223	2002-2012	190	1.2
3	Selkirk	813	1999-2011	960	1.2
3	Kotuk	133	2004-2012	154	1.2
8	Arctic	229	1994-2008	289	1.2
9	Nagat	426	1993-2006	465	1.1
3	Kiana	380	1999-2009	413	1.1
4	Kauak	338	1998-2010	427	1.3
5	Nusarik	479	1999-2011	502	1.0
5	Shutnamof	546	1989-2009	462	0.7
4	Shutovok	258	1998-2009	154	0.7
3	Umiakuk	728	2002-2006	461	0.7
3	Elm	310	1999-2010	133	0.5
4	Hulla	258	1997-2002	129	0.5
2	Hudik	380	2002-2010	429	0.8
3	White Mt.	204	1999-2008	81	0.4
3	Golvie	156	2001-2012	62	0.4
3	Portnege	710	1993-2009	284	0.4
8	Akkajuk	168	1997-2011	66	0.3
3	Wentham	16	2011-2011	6	0.3
3	Brang Mission	320	2000-2011	18	0.1
2	St Michael	420	2003-2006	10	0.1
2	Teller	248	2000-2011	19	0.1
2	Wales	148	1995-2006	14	0.1
2	Galena	520	1996-2010	15	0.01
6	Killing	237	1996-2002	5	0.01
2	Sukkila	600	2001-2006	11	0.02
5	Nulato	339	1996-2010	4	0.01

23,877 people      3.000      2.000      1.000      0      1.0      2.0      3.0

SOURCE: Division of Subsistence, Alaska Department of Fish and Game, 12/15/2015

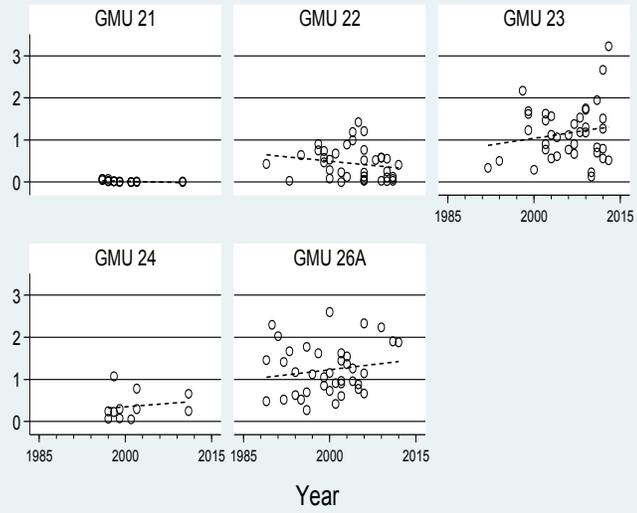


**FIGURE 1. WACH POPULATION & COMMUNITY HARVESTS, 1989-2013**



Each blue circle represents the estimated harvest in a single community in a single year. (N=146)

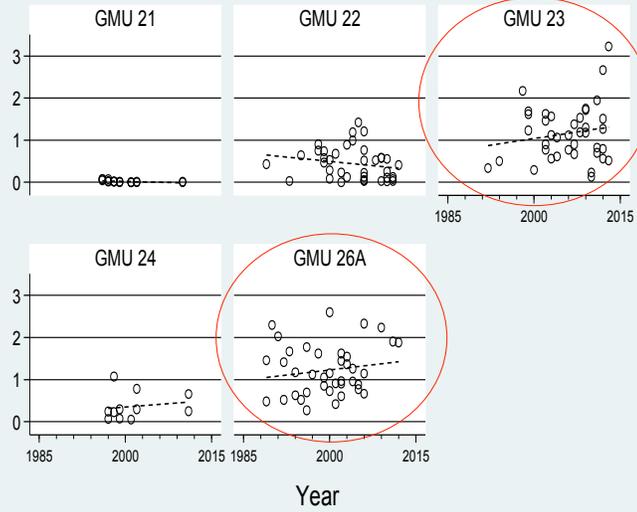
### Caribou per capita harvest, by GMU



○ Caribou per capita    - - - - - Fitted values

Each symbol represents the estimated harvest in a single community in a single year.

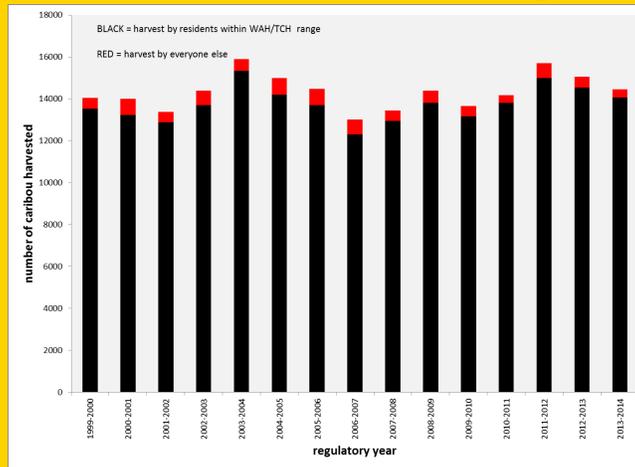
### Caribou per capita harvest, by GMU



○ Caribou per capita    - - - - - Fitted values

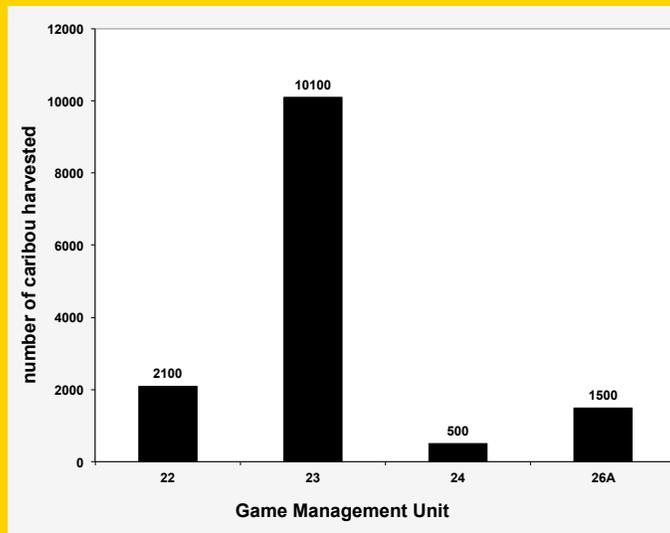
Each symbol represents the estimated harvest in a single community in a single year.

## Total Harvest - Year & User Group



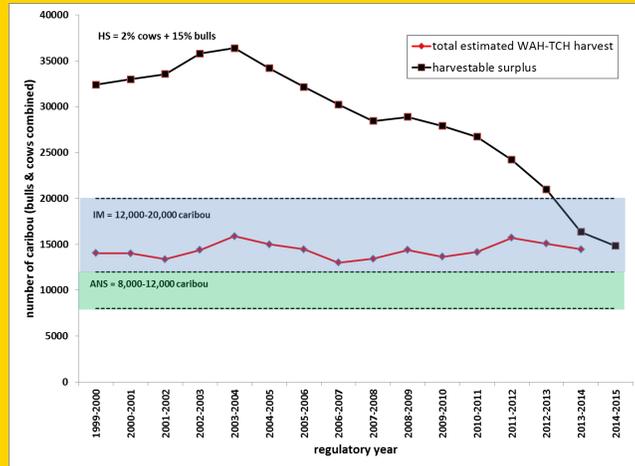
- Household Survey Data (Subs. Div.) – residents within WAH/TCH range**
    - 95% of total annual harvest
    - Approximately 60% bulls, 30% cows, 10% unknown sex
  - Statewide Harvest Tickets (Winfonet) – residents outside WAH/TCH range & nonresidents**
    - Approximately 90% bulls, 9% cows, 1% unknown sex
- Alaska Dept. Fish & Game WAH Overview: Slide 26

## Average Annual WAH Harvest by Residents RY1998 through RY2012



(Data collected by ADF&G Subsistence Division)

## Total Harvestable Surplus (Bulls & Cows Combined) Relative to Annual Harvest Levels



- When the harvestable surplus goes below 12,000 caribou:
  - The State must consider habitat improvement and/or predator control before restricting WAH harvests (IM law)
  - The state will further reduce or close nonresident caribou hunting.
- When the harvestable surplus goes below 8,000 caribou, the State must close all non-subsistence hunting & administer hunts through Tier II system (subsistence law)

Alaska Dept. Fish & Game

WAH Overview: Slide 28

## Biological Summary

- ADFG plans to conduct a photocensus of the WAH this summer
- Other biological data are very encouraging
  - Adult survival rates
  - Calf survival rates
  - Body condition and calf weights last fall
- Range-wide, harvests appear stable
- Harvestable surplus = harvest?

Alaska Dept. Fish & Game

WAH Overview: Slide 29

## Questions?



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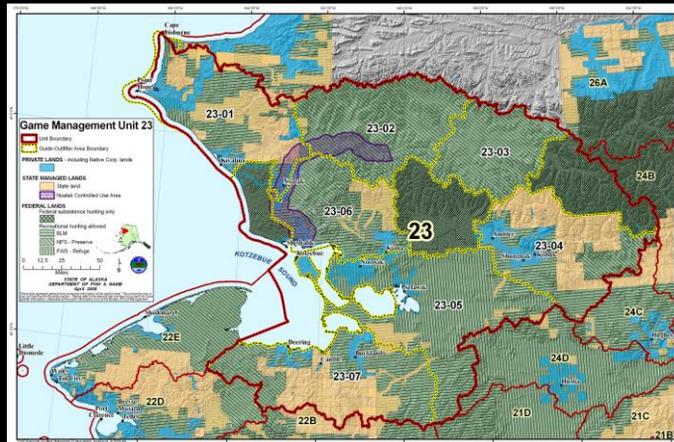
# Unit 23 Harvest Data

May 4-5, 2016

Hunter Distribution, Timing,  
Species, and Commercial  
Services

Brandon Saito

## Unit 23: Land Ownership & Guide-Outfitter Areas



(map prepared by Sally Timp, ADF&G)

## **This Presentation**

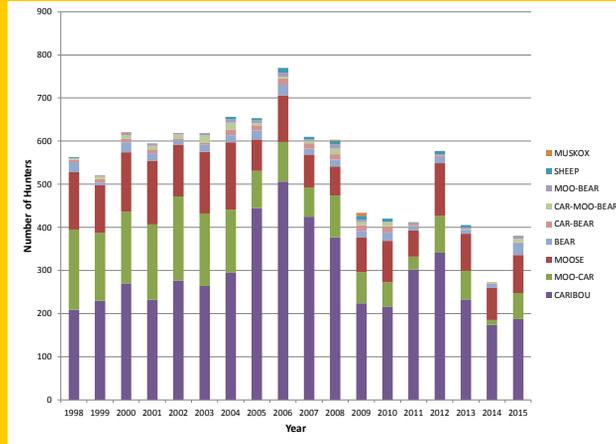
### ***Harvest Data:***

- Hunters by species hunted
- Residence of visiting hunters
- Timing of nonlocal hunting effort
- Distribution of hunters among Guide-Outfitter areas
- Hunters by commercial services used

## **Harvest Data: All Species**

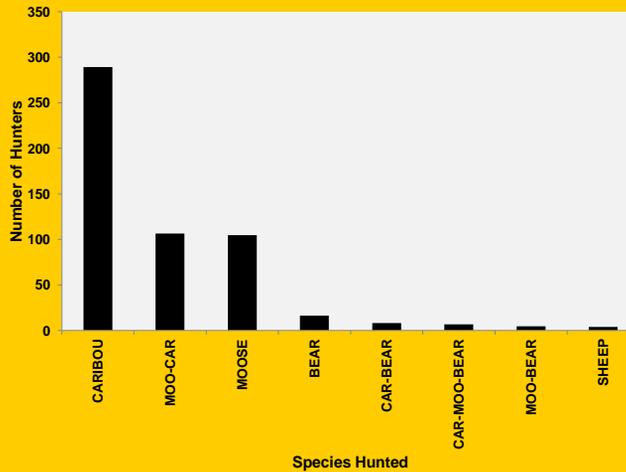
- Data from harvest ticket, registration & drawing permit systems
- Data is only for hunters who live outside Unit 23
  - Nonresidents (including alien hunters)
  - Residents of Alaska who live outside Unit 23
- 1 Record per hunter: caribou, moose, brown bear & sheep hunters combined
- Data from Fall 1998 through Fall 2015
  - August 1-October 31

## Numbers of Nonlocal Hunters by Species & Year (Fall 1998-2015)

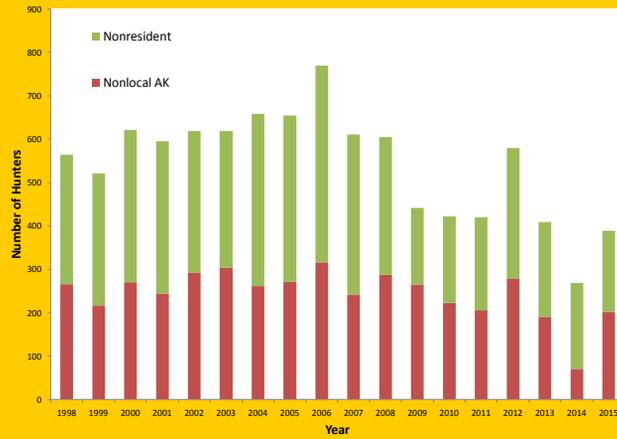


Categories are mutually exclusive; each hunter counted only once even if hunted >1 species

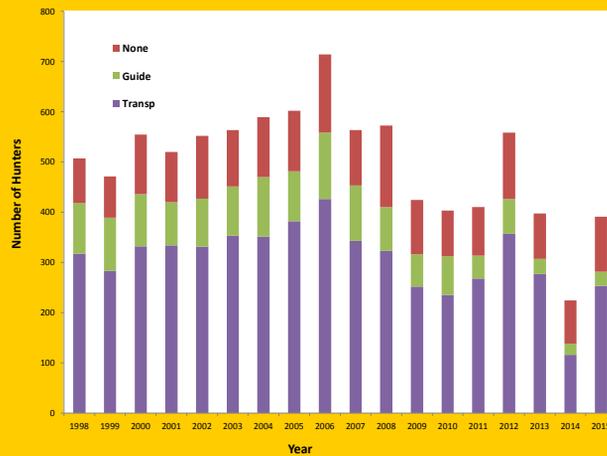
## Average Annual Number of Nonlocal Hunters by Species (Fall 1998 thru 2015 combined)



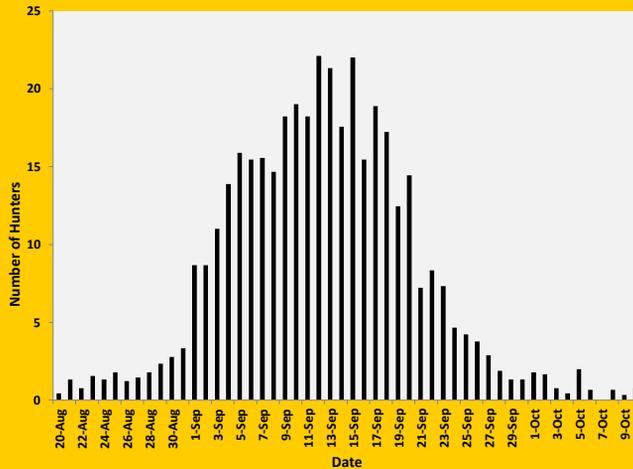
## Numbers of Nonresident & Nonlocal Alaskan Resident Hunters



## Number of Fall Nonlocal Hunters by Commercial Services & Year

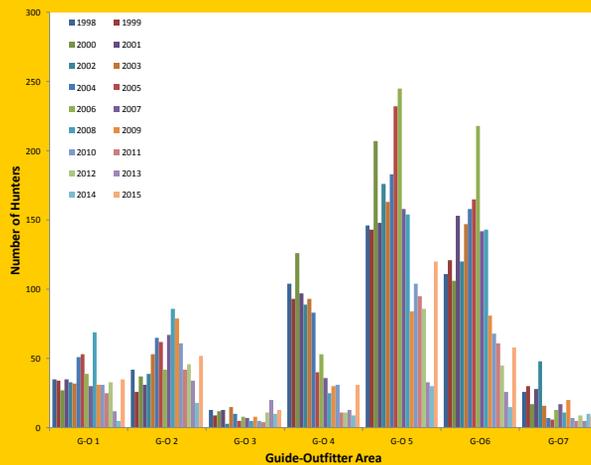


## Average Nonlocal Hunter Effort by Day, Aug. 20-Oct. 10 (1998 thru 2015)



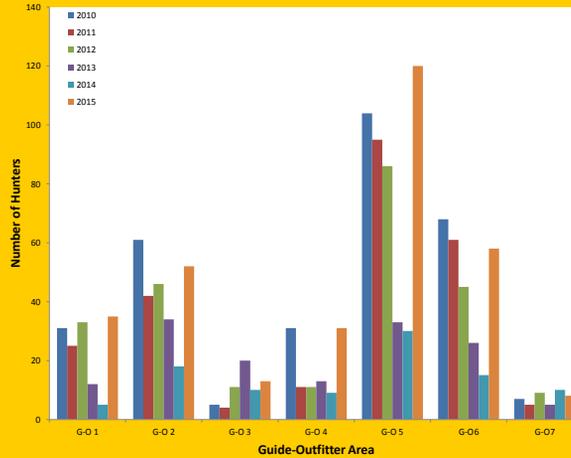
'Date of kill' used to track chronology of effort; when >1 species taken, midpoint date was calculated.

## Nonlocal Fall Hunters by Guide-Outfitter Area & Year (1998 through 2015)



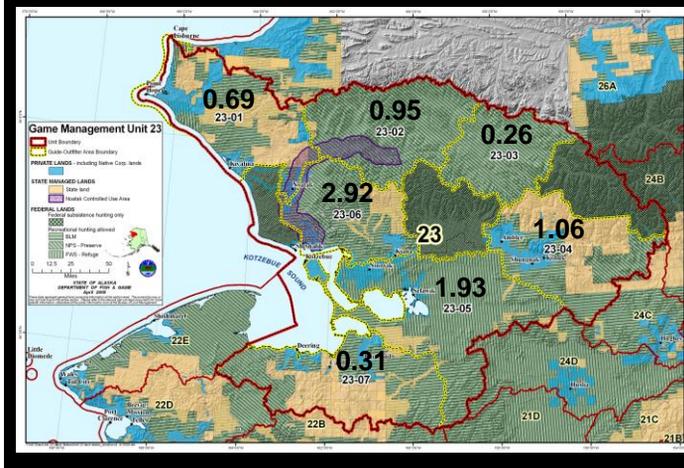
Note: In recent years, an increasingly high proportion of hunters did not report the specific location where they hunted (2011-30%; 2012-51%; 2013-54%).

## Nonlocal Fall Hunters by Guide-Outfitter Area & Year (2010 through 2015)

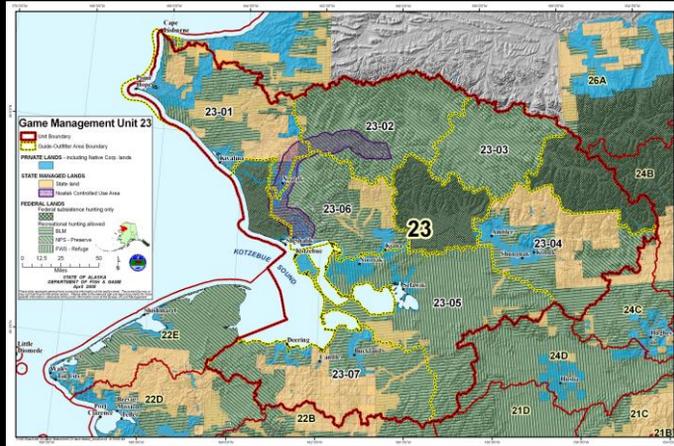


Note: In recent years, an increasingly high proportion of hunters did not report the specific location where they hunted (2011-30%; 2012-51%; 2013-54%).

## Average Annual Nonlocal Hunter Density (#/100 mi<sup>2</sup>) By G-O Area (Fall 1998-2015)



# Questions?



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**PROPOSAL XX - 5 AAC 92.010. Harvest tickets and reports and 85.025. Seasons and bag limits for caribou.** Modify the hunt structure of the Western Arctic and Teshekpuk caribou herds.

The department recommends that the board modify the hunt structure for the Western Arctic and Teshekpuk caribou herds in Game Management Units 21, 23, 24, and 26 by establishing registration permit hunts within the range of these herds. For Unit 22, also within the range of these herds, the board adopted regulations that include a registration permit hunt structure during the March 2016 statewide meeting. Registration permit hunts provide additional tools to monitor harvest and manage caribou herds above what is offered by the registration system that is currently employed.

In preparation for upcoming regulatory years, the department anticipates needing flexibility to actively manage harvest over a very large area of the state if either the WAH or TCH decline to the point that the current hunt management structure is no longer practical for one or both herds. For example, a registration permit allows flexibility to open and close seasons and areas based on seasonal access to caribou, without the need for further Board of Game action. Transition from the current harvest registration system to a registration permit hunt would be a significant change to increase the department's ability to monitor harvest and allow for more responsive management.

#### **WHAT IS THE ISSUE YOU WOULD LIKE THE BOARD TO ADDRESS AND WHY?**

The Western Arctic Caribou Herd (WAH) peaked at 490,000 caribou in 2003. In 2013 the herd was estimated at 235,000 indicating a ~7% annual rate of decline between 2003 and 2011; the rate increased to an estimated ~15% annually between 2011 and 2013. The 2015 census failed due to poor photography conditions; however, other metrics suggest the herd is currently declining at a reduced rate, estimated at ~7% annually, with a population projection of approximately 200,000 as of 2015. The intensive management harvest objectives for the WAH are 12,000–20,000, with a population objective of over 200,000. Prior to regulatory year 2015 (RY2015 = July 1, 2015 through June 30, 2016), harvests were estimated at 12,000 caribou per year based on data and patterns available through community harvest assessments. The department is concerned that cow harvest has exceeded 2% since RY2011, but does not have the tools to evaluate the sex composition of the harvest efficiently.

The Teshekpuk Herd (TCH) was estimated at approximately 39,000 in 2013, and 41,500 in 2015. Given confidence limits associated with both estimates, herd growth is implied to have been stable between 2013 and 2015. Minimum counts in those two years were 32,000 and 35,000, respectively. Prior to RY2015, harvests have been estimated at approximately 2,300 per year, through the use of community harvest assessments. If the herd remains stable, these harvests are likely to be near sustainable levels, but additional capability to monitor harvest and adjust seasons, particularly in areas of herd mixture, is increasingly important. The intensive management harvest objectives for the TCH are 900–2,800, with a population objective of 15,000–28,000.

The combined ANS for the WAH and TCH is a range of 8,000 – 12,000. The combined harvestable surplus in 2015 for the two herds, based on a 6% harvest rate, would be approximately 14,500.

Establishing registration permit hunts for these herds will provide managers with additional tools to ensure that harvest levels do not exceed allowable rates for the WAH, which could further depress this population. In addition to providing additional information on harvest levels, the registration permit system will provide annual information on the timing and sex of harvest throughout the herd's range, which is becoming increasingly important to evaluate the effects of harvest on the herd's population status. Another benefit to a registration permit is the ability for the board to require mandatory reporting so harvest can be monitored more closely to prevent overharvest, while maximizing opportunity relative to what is available.

There are no proposed changes to bag limits or seasons; the only change the department is requesting at this time is a change in hunt structure to a registration permit hunt. Restrictions to limit harvest with seasonal quotas, annual bag limits for one or both sexes, or changes to hunting seasons may be necessary for future hunt management. If changes to seasons and bag limits become necessary in the future, the changes would be more easily implemented under the registration permit hunt structure proposed.

The department will present an overview of WAH and TCH hunt management during the January 2017 Board of Game meeting to discuss the potential for changes to seasons and geographic opportunity with the board. The board adopted regulations in Unit 22 during the March 2016 meeting that changed bag limits and reporting mechanisms in Unit 22 that we anticipate will allow the department to evaluate initial implementation of a registration permit hunt and annual bag limit in a portion of the WAH range.

The department is seeking public input through this proposal related to regulatory options for ensuring the continued viability of these herds. The department intends to actively engage state and federal advisory committees, effected communities, local governments, and the Western Arctic Herd Working Group in formulating refinements to this proposal. The department also anticipates collecting new information on abundance and herd demographics in the interim before the 2017 Board of Game meeting. Given the potential for falling below intensive management objectives, the department will prepare an intensive management feasibility assessment for the 2017 Board of Game meeting.

The public is encouraged to evaluate this proposal, and to provide advice on means for reducing harvest, while minimizing impacts to hunters and users of caribou throughout the ranges of both herds. The public is reminded to provide written comments to the Board of Game by December 23, 2016 for the January 2017 meeting in Bethel.

**PROPOSED BY:** Alaska Department of Fish and Game [Log # ]  
\*\*\*\*\*

## Unit 23 Federal Caribou Regulations 2016-2018

### 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 as follows,however 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*  
*however cows accompanied by calves may not be taken July 15–Oct. 14*

*Unit 23 remainder*      *5 caribou per day as follows:*  
*however calves may not be taken*

*Bulls may be harvested*      *July 1 – Oct. 31*  
*Feb. 1 – June 30*

*Cows may be harvested;*      *July 31 – Mar. 31*  
*however cows accompanied by calves may not be taken July 31–Oct. 14*

Changes from previous Federal regulations include the following:

1. Unit 23 split up into two hunt areas
2. A reduction in the harvest limit from 15 to 5 caribou per day.
3. A prohibition on the harvest of calves.
4. A prohibition on the harvest of cows with calves.
5. A shortening of the bull and cow season.



U.S. Fish and Wildlife Service  
Bureau of Land Management  
National Park Service  
Bureau of Indian Affairs



Forest Service

## Federal Subsistence Board News Release

**For Immediate Release:**  
April 18, 2016

**Contact:** Chris McKee  
(907) 786-3572 or (800) 478-1456  
paul\_mckee@fws.gov

### **Federal Subsistence Board closes Federal public lands to caribou hunting**

The Federal Subsistence Board (Board) has approved Temporary Special Action WSA16-01, closing Federal public lands in Unit 23 to caribou hunting by non-Federally qualified users effective July 1, 2016 and continuing through June 30, 2017.

The Board felt that there was sufficient evidence indicating that the closure was necessary to allow for the continuation of subsistence uses and for conservation of a healthy caribou population as mandated under ANILCA Section 815.

The public testimony expressed to the Board by residents of the area, the support of the special action request by the two affected Regional Advisory Councils, and the current status of the herd, compelled the Board to take action. A closure to all but Federally qualified subsistence users is consistent with providing a subsistence priority for use of the resource; to assure that a rural preference is provided; and recognizes the cultural and social aspects of subsistence activities, which may be hampered by direct interaction between local and non-local users.

Additional information on the Federal Subsistence Management Program may be found on the web at [www.doi.gov/subsistence](http://www.doi.gov/subsistence) or by visiting [www.facebook.com/subsistencealaska](http://www.facebook.com/subsistencealaska).

**Missing out on the latest Federal subsistence issues?** If you'd like to receive emails and notifications on the Federal Subsistence Management Program you may subscribe for regular updates by emailing [fws-fsb-subsistence-request@lists.fws.gov](mailto:fws-fsb-subsistence-request@lists.fws.gov).

-###-

**Northwest Arctic Borough Science Program  
North Slope Borough Baseline Studies Program**

**Caribou ecosystem workshop  
Wedgewood Resort, Fairbanks, Alaska  
Friday, March 11, 2016**

Agenda (Draft, 19 February 2016)

- 8:00 Breakfast available in meeting room
- 8:30-9:00 Invocation, Introductions
- Why are caribou important to you? What would you like to learn here?
- 9:00-9:15 Review of Meeting Goals, Agenda
- To assess the state of knowledge about caribou and the ecosystem that supports them in northwestern Alaska (encompassing the Western Arctic and Teshekpuk caribou herds)
  - To identify potential causes of the population declines of these caribou herds, especially in regard to overall ecosystem health and function, including climate
  - Advise the Northwest Arctic Borough and North Slope Borough on research and action that can help sustain the health of caribou herds in northwestern Alaska and the communities that rely on them
- 9:15-Noon What matters to caribou? Discussion about key components of the caribou ecosystem of northwestern Alaska, including:
- Caribou: abundance, distributions, health, changes
  - Subsistence: people's well-being, hunting success, health, changes
  - Plants: caribou forage, range quality, vegetation patterns, changes
  - Predators: abundance, role, changes
  - Insects: effects on caribou, abundance, changes
  - Climate: snow, wind, temperature, rain, ice, changes
  - Landscape: rivers and lakes, ground cover, permafrost, changes
  - Disturbance: noise, infrastructure, other human activities, changes
- Noon-1:00 Lunch (on your own)
- 1:00-3:00 Continued discussion, emphasizing interactions among ecosystem components
- 3:00-5:00 What comes next? Conclusions and outcomes of the workshop, such as:
- Research recommendations for further study?
  - Action recommendations, including regulations and sharing information?
  - Report of the workshop?
  - Paper about what we have learned and what we need to do?
  - Other outcomes, ideas?

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**“Caribou is our main meal”**  
**Workshop Report**  
**Northwest Arctic Borough/North Slope Borough**  
**Fairbanks, Alaska**  
**11 March 2016**

*Henry Huntington, Ted Rockwell, Noah Naylor, Chris Hess, and Robert Suydam*  
*April 2016*

Caribou are an essential part of Iñupiaq society in northwestern Alaska. They provide food, skins, sinew, and more. Sharing of caribou helps connect families and communities throughout the region. It is important for people to be good stewards of caribou.

Caribou are also an essential part of the ecosystem and a sign of ecosystem health. They depend on the food that plants provide and they in turn feed predators. They are already being affected by climate change and by human activity. Their migration connects and serves to integrate what the animals are experiencing throughout the range of the herds.

The Western Arctic Caribou Herd and the Teshekpuk Lake Caribou Herd are declining in numbers. This is a major concern for hunters, communities, managers, scientists, and others interested in the sustainable health of northwestern Arctic Alaska. Everyone shares the goal of abundant, healthy caribou that are accessible to those who rely on them.

Much work is already being done by the Western Arctic Caribou Herd Working Group and others to address the declining herd population numbers and to figure out how people should respond. The Northwest Arctic Borough and North Slope Borough held a joint workshop to seek ideas on how the Boroughs' science programs can be more helpful, including identifying further actions the Boroughs and others could take to better understand the population declines, better prepare for the consequences of those declines, and better communicate these matters to Arctic residents and others who may be affected.

Here is a summary of the main ideas for action that were discussed at the workshop, as heard by the organizers. These ideas do not necessarily represent the views of any individual participant, nor is either Borough committed to carrying out any of the items listed. The list is intended simply as a reference for those seeking ideas for further research and action, based on the workshop discussions.

Support existing work

- Support the efforts of the Western Arctic Caribou Herd Working Group, including its management plan, and help the group improve its efforts where possible
- Support on-going research about caribou and their ecosystem in northwestern Alaska

Advocate for hunters' interests

- Write to the Western Arctic Caribou Herd Working Group to encourage more research and action to understand and protect lead caribou

- Attend meetings of hunting guides and transporters to explain the role they have minimizing disturbance of caribou, cleaning up their camps when they leave, and making sure caribou meat is not wasted but is delivered in good condition to community organizations that can distribute it
- Work on a public PR campaign with our partners about not diverting the lead caribou
- Explore the potential for using Borough permits to require guides and transporters to meet the standards and procedures of local hunters and the Boroughs, including facilitating search and rescue
- Examine FAA regulations to see how they can be used to limit disturbance of caribou by aircraft, for example by filing flight plans or issuing notices to aviators
- Propose extending the spring wolf season into May to allow for more hunting when pelts are still good
- Propose the expansion of closed areas for sport hunters; for example, the controlled use area north of Anaktuvuk Pass could be extended to the Colville River and the results monitored to assess how interception affects caribou availability for Anaktuvuk Pass residents
- Explore the implications of different harvest management approaches on community well-being and the total caribou harvest, including the possibility of the Boroughs helping residents with paperwork associated with a Tier 2 harvest if that is imposed
- Explore the potential for a subsistence hunt quota that must be met before any non-subsistence hunt can proceed
- Explore the implications of changing land use regulations to determine if problems are merely shifted from one location to another
- Explore and identify the potential to amend hunting and land use regulations to provide flexibility for hunters and fishers to meet their needs with what is available instead of being constrained by seasons and limits applied to individual resources that were not developed with consideration of overall community well-being
- If harvest restrictions are imposed, avoid criminalizing people who are only trying to feed their families

#### Develop a local observing system

- Evaluate existing platforms such as LEO (Local Environmental Observers; <http://www.leonetwork.org/leo/about>)
- Evaluate monitoring tools such as tablet computers for recording observations in the field
- Explore cooperation with existing regional efforts, such as NANA's Trespass Officers
- Identify a few parameters to start with, such as snow, predators, etc.
- Determine how local observers would like information returned to them and their communities

#### Improve the use of traditional knowledge

- Document hunters' knowledge about the role of lead caribou and the ways caribou are intercepted or deflected, during a season and across the years, as well as locally and regionally
- Document hunters' knowledge about predators and their role in caribou herd health
- Document hunters' knowledge about freezing rain and other icing events and their impacts to caribou and vegetation
- Document hunters' knowledge about vegetation and how it is changing across the landscape

- Document hunters' knowledge about the factors that affect caribou, individually and as herds

#### Improve scientific collaboration

- Hold a joint science meeting each year to discuss what has been learned and what needs to be done
- Develop better ways for scientists to engage with communities and schools, during the development of project ideas as well as during and after research
- Invite scientists to speak on local radio programs
- Use satellite tagging, traditional knowledge, and remote sensing to explore further the role of lead caribou and interception/deflection
- Study the role of predation and the dynamics of predator populations, using scientific and traditional methods
- Develop a model of caribou population dynamics that draws on scientific and traditional knowledge about the ways caribou interact with their surroundings
- Combine local observations and remote sensing to increase confidence in data and identify any needed changes to scientific data collection activities
- Explore ways to better communicate scientific findings to Borough leaders and residents
- Explore ways to better communicate caribou herd and ecosystem health beyond the Boroughs' leaders and residents to help foster support from outside the herds' ranges
- Develop ways to compare scientific and local observations of vegetation, including for example growth rates, recovery from fires, and impacts of foraging by caribou

#### Involve schools

- Explore the potential for an education project, for example with NSF and NASA and the Borough school districts, to better involve local knowledge holders and visiting scientists in the classroom and to involve students in monitoring and research
- Teach students about hunting practices and local stewardship of the ecosystem
- Restore Iñupiat Days to the school curriculum

#### Improve communication

- Encourage scientists, managers, and Borough officials to speak on KOTZ and KBRW
- Use social media to help reach Borough residents with news, information, updates, etc., and to get input from Borough residents such as environmental observations or evidence of poor practices by outside hunters
- Present the results of the workshop to the Western Arctic Caribou Herd Working Group
- Share our ideas with Native corporations (as landholders), Tribal Councils, Borough permitting and planning departments, and others as a start to developing broad strategies for sustaining caribou herds and communities

## Participants

Robert Suydam	North Slope Borough	Robert.suydam@north-slope.org
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Christine Hess	Northwest Arctic Borough	chess@nwabor.org
Noah Naylor	Northwest Arctic Borough	nnaylor@nwabor.org
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Kyle Joly	National Park Service	kyle_joly@nps.gov
Cyrus Harris	Maniilaq Association	charris@maniilaq.org
Raymond Lee	Native Village of Buckland	rlee@nwabor.org
Carl Weisner	Northwest Arctic Borough	cjweisner@gmail.com
Susan Georgette	US Fish and Wildlife Service	susan_georgette@fws.gov
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Joe Leavitt	North Slope Borough	
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# Inupiat Ilitqusiat

## HUNTER'S SUCCESS for Caribou Hunting



- Always camp and hunt on the south side of the river.
- When caribou start crossing the river, wait until they're half way across and approach from the North to keep the migration moving south.
- If you already have caribou, let the next boat in line have a chance.
- Use smaller caliber rifles, for the safety of others.
- Respect the cabins you stop at and replace any source you borrowed, keep allotments clean.
- Keep the land and water clean of trash.

“We live on this land and drink from the river.”

Thank you for your respect and abiding by our traditions—Kiana Elder's Council

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## CURRENT STATUS

March 2016

Consolidated permit applications have been filed with several relevant federal agencies, including the National Park Service, the U.S. Army Corp of Engineers, U.S. Fish and Wildlife Service, Bureau of Land Management, U.S. Coast Guard, and the U.S. Federal Highways Administration. AIDEA has received requests for additional information from the relevant federal agencies, and is preparing a revised application, expected to be submitted in Spring of 2016.

## PROJECT DESCRIPTION

The Ambler Mining District Industrial Access Project (AMDIAP) concerns the preparation of the scoping portion of an Environmental Impact Statement (EIS) for an approximately 200-mile industrial access road from the Dalton Highway to the Ambler Mining District in northwest Alaska. The Ambler Mining District has extensive mineral resources, including copper, silver, gold, lead and zinc. It has been characterized as one of the largest undeveloped copper-zinc mineral belts in the world. The area has been explored for decades, but development of the mineral resources has been limited due to a lack of transportation infrastructure for mine construction and operation.

The AMDIAP project could provide surface access to the Ambler Mining District and enable further exploration and development of the area's resources, providing for economic development. AIDEA undertook the project with the goal of forming a Public-Private Partnership to finance, construct, operate and maintain the facility. The project design is modeled on AIDEA's successful Delong Mountain Transportation System (DMTS), which includes an industrial access road from the Red Dog Mine to the DMTS port. AIDEA worked with private industry to develop the DMTS industrial access road and the costs of road construction were paid back through tolls on road use.

AMDIAP could provide access to the Ambler Mining District through Gates of the Arctic National Preserve making use of special provisions in the Alaska National Interest Lands Conservation Act (ANILCA), that allow this type of access to reach the Ambler Mining District.

## APPROVAL PROCESS

ANILCA Section 201 directs the Secretaries of the Interior (represented by the National Park Service) and Transportation (represented by Federal Highways Administration) to conduct an Environmental and Economic Analysis to determine the best route through Gates of the Arctic National Preserve. Title XI of ANILCA also requires an Environmental Impact Analysis under the National Environmental Policy Act. The Bureau of Land Management, the Army Corps of Engineers, and the Coast Guard are participating in the Title XI process as they have regulatory authority over land, wetlands and water crossings on the proposed project.

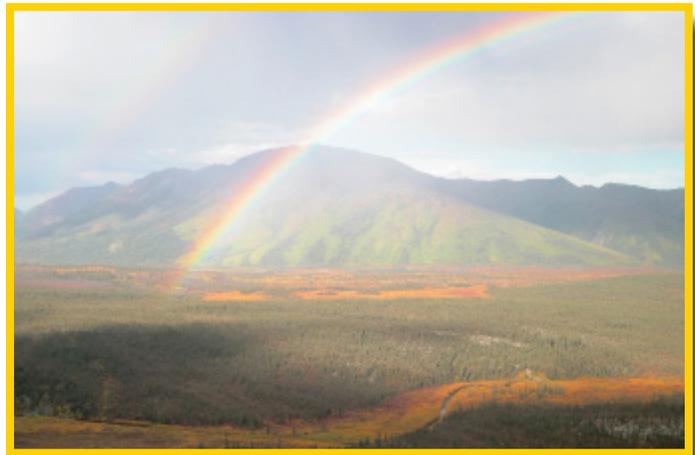
In addition to the federal approvals, the project would require a land use permit from the Northwest Arctic Borough. Finally, AIDEA's regulations require there to be resolutions of support for the project from the Northwest Arctic Borough and a Regional Resource Advisory Committee appointed by the Governor to represent communities in the unincorporated areas in which the project is located.

## BUDGET/FINANCE

AIDEA, as a development finance authority, would develop the access route as a Public-Private Partnership in which AIDEA funds and bonds would be used in conjunction with private capital for the construction and operation of the access modality. As with the DeLong Mountain Transportation System, mines using the road to haul ore to market would pay a user fee that would pay back the financing used for the road's development and construction.

## PROJECT/ ECONOMIC BENEFITS

Development of AMDIAR could allow private industry to develop a 75-mile long area of high mineral resources. Over the life of the project, multiple mines would likely be developed in the area. Benefits from the project include:



- Job and business opportunities for rural residents in north-central and northwest Alaska
- An annual average of 300 jobs over the road construction period
- A total payroll of up to \$120 million for the road construction workforce
- Up to 20 full-time jobs for road operations and maintenance over the life of the road
- Increased employment and wages from mine construction and operations in the Ambler Mining District
- Economic benefits from just one proposed mine (Arctic) include:
  - 400 direct jobs over two years for mine construction
  - \$100 million in wages for mine construction workers
  - 500 long-term direct jobs for mine operations
  - \$46 million per year in mine workforce wages
  - 1,000 direct, indirect and induced jobs with \$79 million in wages annually
  - \$115 million in mining license tax revenues to the State
  - \$158 million in corporate income taxes to the State
  - \$58 million in production royalties to the State

## PARTNERS

*Owner/Operator:* Public-Private Partnership  
*Partners:* AIDEA, NovaCopper, other mining companies, and other private entities