Federal Subsistence Board Public Meeting

Meeting Materials: Volume II B

(Non-Consensus Agenda Proposals and Closure Reviews)

April 12-15, 2022

Via Teleconference

This page intentionally left blank

VOLUME II

Non-Consensus Agenda

What's Inside…

i Public Meeting Agenda
ii Consensus Agenda
iv Non-Consensus Agenda
912 WCR22–01 Executive Summary
941 WP22-12 Executive Summary
958 WP22–25b/26b Executive Summary
983 WP22–28/29 Executive Summary
994 WP22–30/31 Executive Summary
1012 WP22-35 Executive Summary
1035 WP22-39 Executive Summary
1048 WCR22–05 Executive Summary
1063 WP22-43/44 Executive Summary
1094 WP22-45 Executive Summary
1109 WP22–47 Executive Summary
1138 WP22–49 Executive Summary
1158 WCR22–09b Executive Summary
1173 WCR22-11/12 Executive Summary
1185 WCR22-13 Executive Summary
1197 WCR22-14 Executive Summary
1210 WCR22–18 Executive Summary
1226 WCR22–45 Executive Summary
1253 WP22–54 Executive Summary

This page intentionally left blank

FEDERAL SUBSISTENCE BOARD

PUBLIC MEETING AGENDA
April 12 - 15, 2022

April 12, 2022: 1:30 p.m. to 5:00 p.m. (or until recessed)
April 13 - 15, 2022: 9:00 a.m. to 5:00 p.m. (or until recessed) daily

The meeting will convene by **teleconference only**
To participate, dial toll free **(888) 455-7761**, (passcode **2266069**)

On April 12th, prior to start of the Public Meeting, the Federal Subsistence Board will meet at 9:00 a.m. to conduct Tribal Government-to-Government and ANCSA Corporation consultations regarding closure reviews and proposals to change Federal Subsistence Regulations. The Public Meeting will begin at 1:30 p.m. Updates on the Board's progress through the agenda will be posted online at https://www.doi.gov/subsistence/board/ and www.facebook.com/subsistencealaska.

Public Meeting

***Asterisk denotes Action Item**

1. **Call to Order and Welcome**
2. **Review and Adopt Agenda***
3. **Federal Subsistence Board Information Sharing**
4. **Regional Advisory Council Chairs Discuss Topics of Concern with the Board**
5. **Public Comment Period on Non-Agenda Items** *(This opportunity is available at the beginning of each day)*
6. **Old Business**
7. **2022–2024 Subparts C&D Proposals and Closure Reviews** *(Wildlife Regulations)*
   a. Announcement of Consensus Agenda
   (see detailed agenda that follows)
   b. Public Comment Period on Consensus Agenda Items *(This opportunity is available at the beginning of each subsequent day prior to the final action)*
   c. Board deliberation and action on Non-Consensus Agenda items*
   (See detailed agenda that follows)
   d. Adoption of Consensus Agenda*
8. **WSA22-01, Units 22 and 23 muskox*** *(Supplemental)*
9. **FP21-10 Lower Copper River Area Salmon*** *(Supplemental)*
10. **Schedule of Upcoming Board meetings***
    a. 2022 Summer Work Session (*Date and topics to be determined*)
    b. 2023 Winter Public Meeting (*Fish and Shellfish Regulations – Date to be determined*)
11. **Federal Subsistence Management Program correspondence procedures**
12. **Other Business**
13. **Adjourn**

FEDERAL SUBSISTENCE BOARD
CONSENSUS AGENDA

The following proposals and closure reviews have been included on the consensus agenda. These are proposals and closure reviews for which there is agreement among Federal Subsistence Regional Advisory Councils, the Federal Interagency Staff Committee, and the Alaska Department of Fish and Game concerning Board action. Anyone may request that the Board remove a proposal or closure review from the consensus agenda and place it on the regular agenda. The Board retains final authority for removal of proposals and closure reviews from the consensus agenda. The Board will take final action on the consensus agenda after deliberation and decisions on all other proposals and closure reviews.

Proposal	Region/Unit/Species	Recommendation	Analysis Page
WP22-05	Southeast/Unit 3/Elk	Oppose	Vol. II 572
WP22-09	Southeast/Unit 4/Deer	Oppose	Vol. II 792
WP22-11	Southeast/Unit 5/Goat	Support with OSM modification	1
WCR22-02	Southeast/Unit 5/Moose	Maintain status quo	20
WP22-13	Statewide/Unit 6/Deer	Oppose	40
WP22-14	Southcentral, Southeast/Unit 6/ Black Bear	Oppose	51
WP22-15	Southcentral/Unit 7/All Furbearers	Oppose	63
WP22-16 / 17 / 18 / 19 / 21 / 22 / 23 / 24 / 26a	Southcentral/Units 7, 15/Caribou, Goat, Moose, Sheep	Support WP22-16/17/18/21/23/26a; Support WP22/24 as modified by the SCRAC; Oppose WP22-19	127
WP22-20 / 25a / 27	Southcentral/Units 7, 15/Moose, Sheep	Oppose WP22-20; Support WP22-25a; Support WP22-27 as modified by the SCRAC	158
WP22-32	Southcentral/Unit 15/Black Bear, Brown Bear, Caribou, Goat, Moose, Sheep	Oppose	184
WP22-33	Statewide/Units 11, 12/Black Bear	Support	209
WP22-34	Southcentral, Eastern Interior/ Units 11, 12/Sheep	Oppose	218
WP22-37	Statewide/Unit 9/Ptarmigan	Support with OSM modification	226
WP22-38a	Kodiak-Aleutians, Bristol Bay/ Unit 10/Caribou	Support	240

Proposal	Region/Unit/Species	Recommendation	Analysis Page
WP22-38b	Kodiak-Aleutians, Bristol Bay/ Unit 10/Caribou	Support as modified by the KARAC	253
WP22-40	Statewide/Units 9, 17/Wolf, Wolverine	Support as modified by the BBRAC	280
WP22-41	Bristol Bay, YK Delta, Western Interior, Seward Peninsula/Units 9, 17, 18, 19/Caribou	Support	300
WCR22-07	Bristol Bay, Western Interior/ Unit 17/Caribou	Maintain status quo	331
WP22-42	YK Delta, Western Interior, Seward Peninsula/Unit 18/ Moose	Support	346
WP22-43	YK Delta, Western Interior/Unit 18/Moose	Oppose	Vol. II 1063
WP22-46	Western Interior/Unit 24/Brown Bear	Support	361
WP22-48	Seward Peninsula/Unit 22/ Moose	Support	375
WCR22-09c	Seward Peninsula/Unit 22/ Moose	Maintain status quo	387
WCR22-16	Seward Peninsula/Unit 22/ Moose	Maintain status quo	408
WP22-50	Statewide/Unit 23/Beaver	Support with OSM modification	420
WCR22-27	Northwest Arctic, North Slope/ Unit 23/Muskox	Modify or eliminate closure as recommended by OSM	428
WP22-51	Eastern Interior/Unit 20/Moose	Support	438
WP22-52	Eastern Interior/Unit 25/Moose	Support as modified by the EIRAC	444
WP22-53	Statewide/Unit 25/Arctic Fox	Support	454
WCR22-22	Eastern Interior/Unit 25/Moose	Maintain status quo	460
WP22-55	North Slope/Unit 26/Muskox	Support with OSM modification	Supplemental
WP22-56	North Slope/Unit 26/Brown Bear	Support	477
WCR22-25	North Slope/Unit 26/Muskox	Maintain status quo	490

FEDERAL SUBSISTENCE BOARD
NON-CONSENSUS AGENDA

Procedure for considering proposals:

Analysis *(Lead Author)*

Summary of public comments *(OSM Staff)*

Open floor to public testimony

Regional Advisory Council recommendation(s) *(Chair or designee)*

Tribal/Alaska Native Corporation comments *(Native Liaison)*

Alaska Department of Fish and Game comments *(State Liaison)*

Interagency Staff Committee comments *(ISC Chair)*

Board discussion with Council Chairs and State Liaison

Federal Subsistence Board action

Proposal	Region/Unit/Species	Analysis Page
WP22-01	Statewide/All Units/Various	500
WP22-02	Statewide/Units 6, 9, 10, 22, 23, 26/Various	519
WP22-03	Statewide/Unit 2/Wolf	542
WP22-04	Southeast/Units 1-4/Elk	572
WP22-06	Southeast/Unit 3/Moose	Supplemental
WP22-07	Southeast/Unit 4/Deer	594
WP22-08	Southeast/Unit 4/Deer	701
WP22-10	Southeast/Unit 4/Deer	792
WCR22-01	Southeast/Unit 2/Deer	912
WP22-12	Statewide/Unit 6/Deer	941
WP22-25b / 26b	Statewide/Unit 7/Sheep	958
WP22-28 / 29	Southcentral/Unit 7/Moose	983
WP22-30 / 31	Southcentral/Unit 15/Moose	994
WP22-35	Southcentral, Eastern Interior/Unit 11/Caribou	1012
WP22-36	Southcentral, Eastern Interior/Units 11, 12, 13/Caribou, Moose	Supplemental
WP22-39	Statewide/Units 9, 17/Hare	1035
WCR22-05	Bristol Bay/Unit 9/Moose	1048
WP22-44	YK Delta, Western Interior/Unit 18/Moose	1063
WP22-45	Statewide/Units 18, 22, 23/Hare	1094

Proposal	Region/Unit/Species	Analysis Page
WP22-47	Seward Peninsula, YK Delta, Northwest Arctic, Western Interior, North Slope/Unit 22/Caribou	1109
WP22-49	Seward Peninsula/Unit 22/Moose	1138
WCR22-09b	Seward Peninsula/Unit 22/Moose	1158
WCR22-11 / 12	Seward Peninsula/Unit 22/Moose	113
WCR22-13	Seward Peninsula/Unit 22/Moose	1185
WCR22-14	Seward Peninsula/Unit 22/Moose	1197
WCR22-18	Northwest Arctic, North Slope/Unit 23/Sheep	1212
WCR22-45	Northwest Arctic, Seward Peninsula, Western Interior, North Slope/Unit 23/Caribou	1226
WP22-54	North Slope/Unit 26/Moose	1253

	WP22-09/10 Executive Summary
General Description	Wildlife Proposal WP22-09 requests that Federal public lands draining into Lisianski Inlet, Lisianski Strait, and Stag Bay south of the latitude of Mite Cove (58° 4' N) and north of the latitude of Lost Cove (57° 52' N) be closed to deer hunting Oct. 15 – Dec. 31, except by Federally qualified subsistence users. *Submitted by: Southeast Alaska Subsistence Regional Advisory Council* Wildlife Proposal WP22-10 requests that the deer harvest limit for non-Federally qualified users in Lisianski Inlet and Lisianski Strait be reduced to 4 deer. *Submitted by: Patricia Phillips*
Proposed Regulation	WP22-04 **Unit 04—Deer** *Unit 4 — 6 deer; however, female deer may be taken only from Sept. 15 – Jan. 31.* — *Aug. 1 - Jan. 31* ***Federal public lands draining into Lisianski Inlet, Lisianski Strait, and Stag Bay south of the latitude of Mite Cove (58° 4' N) and north of the latitude of Lost Cove (57° 52' N) are closed to deer hunting Oct. 15 – Dec. 31, except by Federally qualified subsistence users hunting under these regulations.*** — *July 1- June 30*
	WP22-10 **Unit 4—Deer** *Unit 4 — 6 deer; however, female deer may be taken only from Sept. 15 – Jan. 31.* — *Aug. 1 - Jan. 31* ***Non-Federally qualified users may harvest up to 4 deer in Lisianski Strait and Lisianski inlet***
OSM Conclusion	**Oppose** Proposal WP22-09 and Proposal WP22-10

WP22-09/10 Executive Summary	
Southeast Alaska Subsistence Regional Advisory Council Recommendation	**Oppose** WP22-09 **Support** WP22-10 **with modification** to the area and harvest limit restrictions on non-Federally qualified users. The modified regulation should read: **Unit 4—Deer** *Unit 4 — 6 deer; however, female deer may be taken only from Sept. 15 – Jan. 31.* *Aug. 1 - Jan. 31* ***On Federal public lands within drainages flowing into Lisianski Inlet, Lisianski Strait, and Stag Bay south of a line connecting Soapstone and Column points and north of a line connecting Point Theodore and Point Uray, non-Federally qualified users may harvest up to 3 bucks.***
Interagency Staff Committee Comments	The ISC acknowledges the extensive discussion by the Council members about the closure policy application to this situation. This was one of four proposals for Unit 4, which overall has a healthy population of deer, but is experiencing subareas where subsistence users are not able to harvest enough deer for their needs. The Council submitted WP22-09 closing this area because of concerns brought to them by the affected Federally qualified subsistence users in Pelican about not meeting subsistence needs for deer. WP22-10 was submitted by a resident of Pelican, who is also a member of the Pelican Fish and Game Advisory Committee, who also supported WP22-10. The proposal review process allowed the Council and the public to review the available data and provide testimony from all affected users of the resources. During the meeting, the Council acknowledged that the data in the State reporting system used to measure effort does not reflect success in subsistence hunting because subsistence hunting of deer is opportunistic and users generally only report when they are successful. They crafted a modification of WP22-10 to only reduce the harvest limit to 3 bucks for non-Federally qualified users rather than a closure. The Council felt this modification would address the concerns expressed by local residents.
ADF&G Comments	**Oppose** Proposal WP22-09 and Proposal WP22-10
Written Public Comments	**63 Oppose, 1 Neutral**

STAFF ANALYSIS
WP22-09/10

ISSUES

Wildlife Proposal WP20-09, submitted by the Southeast Alaska Subsistence Regional Advisory Council (Council), requests that Federal public lands draining into Lisianski Inlet, Lisianski Strait, and Stag Bay south of the latitude of Mite Cove (58° 4' N) and north of the latitude of Lost Cove (57° 52' N) be closed to deer hunting Oct. 15 – Dec. 31, except by Federally qualified subsistence users.

Wildlife Proposal WP22-10, submitted by Patricia Phillips of Pelican, requests that the deer harvest limit for non-Federally qualified users in Lisianski Inlet and Lisianski Strait be reduced to 4 deer.

DISCUSSION

The proponent of WP22-09 states that it recently became more challenging for Federally qualified subsistence users in Lisianski Inlet, Lisianski Strait and Stag Bay to harvest sufficient deer for their needs due to increased hunting pressure from non-Federally qualified users. They state that regulatory change is needed to protect the deer population from further depletion and increase opportunity for Federally qualified subsistence users.

The proponent of WP22-10 states that hunting pressure from non-Federally qualified users results in Federally qualified subsistence users' deer needs not being met. The proponent further contends that bear predation on deer populations have deer staying out of the beach fringe, which makes deer skittish when there is ongoing deer hunting pressure.

Existing Federal Regulation

Unit 4 - Deer

Unit 4 — 6 deer; however, female deer may be taken only from Sept. 15 – Jan. 31.	*Aug. 1 - Jan. 31*

Proposed Federal Regulation

<u>WP22-09</u>

Unit 4 - Deer

Unit 4 — 6 deer; however, female deer may be taken only from Sept. 15 – Jan. 31.	*Aug. 1 - Jan. 31*

Unit 4 - Deer

Federal public lands draining into Lisianski Inlet, Lisianski Strait, and Stag Bay south of the latitude of Mite Cove (58° 4' N) and north of the latitude of Lost Cove (57° 52' N) are closed to deer hunting Oct. 15 – Dec. 31, except by Federally qualified subsistence users hunting under these regulations.

WP22-10

Unit 4 - Deer

Unit 4 — 6 deer; however, female deer may be taken only from Sept. 15 – Jan. 31.	*Sept.*	*Aug. 1 - Jan. 31*
Non-Federally qualified users may harvest up to 4 deer in Lisianski Strait and Lisianski inlet		

Existing State Regulation

Unit 4 - Deer

Chichagof Island east of Port Frederick and north of Tenakee Inlet			
Residents and Nonresidents - 3 deer total	*Bucks*	*HT*	*Aug. 1 - Sept.14*
	Any deer	*HT*	*Sept. 15 - Dec. 31*
Remainder			
Residents and Non-residents - 6 deer total	*Bucks*	*HT*	*Aug. 1 - Sept.14*
	Any deer	*HT*	*Sept. 15 – Dec. 31*

Extent of Federal Public Lands

Unit 4 is comprised of approximately 96% Federal Public Lands and consists of 95% U.S. Forest Service (USFS) managed lands and less than 1% National Park Service or U.S. Fish and Wildlife Service managed lands (**Map 1**).

Customary and Traditional Use Determination

Rural residents of Units 1, 2, 3, 4 and 5 have a customary and traditional use determination for deer in Unit 4.

Regulatory History

See Proposal WP22-07 analysis.

Biological Background

See Proposal WP22-07 analysis.

Habitat

See WP22-07 analysis.

Population Information

McCoy (2017) outlines the limitations of estimating deer populations in Southeast Alaska, while Bethune (2020) discusses the most recent deer population status in Unit 4. Overall, the deer population in Unit 4 has recovered from the mortality incurred during the severe winters of 2006-2008 and is probably reaching winter carrying capacity in some areas. There have not been any significant mortality events recorded since 2008 and recent winters have been mild with no significant snowfall. McCoy (2019) explains that Unit 4 deer pellet-group counts in 2019 were higher than previous counts in all three survey areas. Pavlov Harbor, on northeast Chichagof Island, was surveyed in 2019. Results indicated a 39% increase in pellet-groups from the last survey conducted in 2010 (McCoy 2010).

Annual harvest is one indication of deer population status. The average annual legal deer harvest in Unit 4, 2000-2019, was 5,579 (**Figure 1**). Deer harvest was below average in 2007-2010 probably due to high deer mortality from several consecutive harsh winters. Unit 4 annual deer harvest has been increasing to pre-2007 levels, suggesting that the Unit 4 deer population has recovered from those harsh winters.

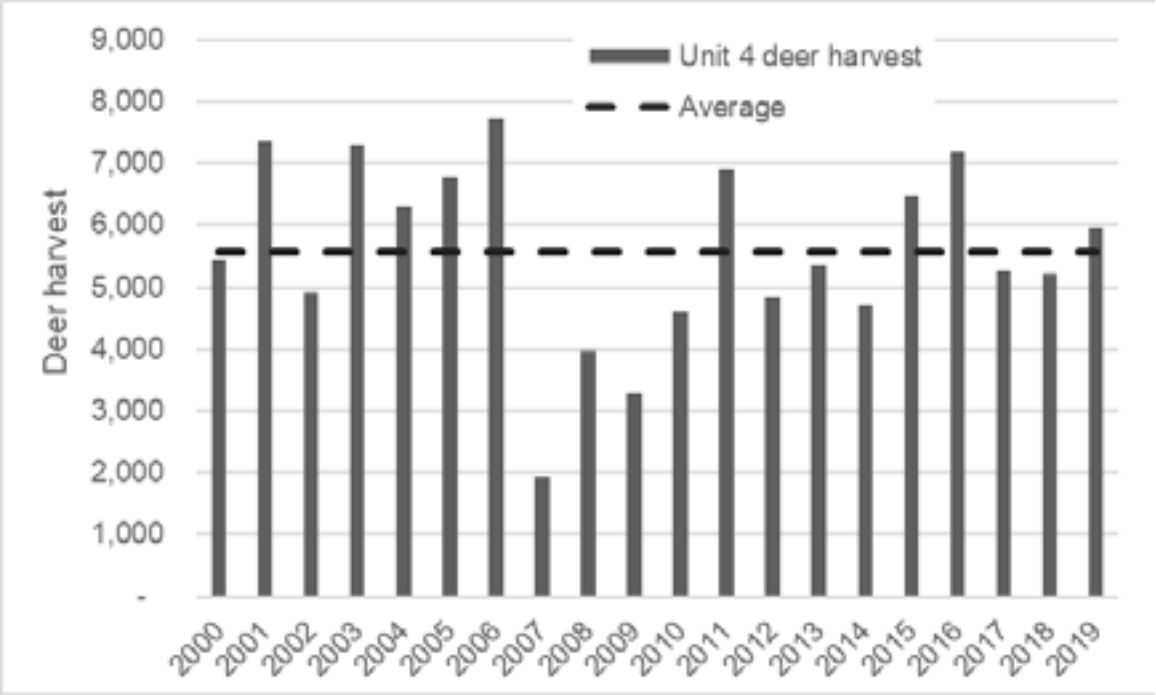


Figure 1. Unit 4 estim4ated annual legal deer harvest, 2000-2019.

Harvest History

Through 2010, deer harvest data provided by the Alaska Department of Fish and Game (ADF&G) are based on a sample of hunters. In general, 35% of hunters from each community are sampled each year and while response rates vary by community, the overall response rate across communities is approximately 60% each year. Harvest numbers are extrapolated using expansion factors that are calculated as the total number of harvest tickets issued to a community divided by the total number of survey responses for that community. If response is low from a community, an individual hunter may have a disproportionate effect on the data. As confidence intervals are not available for these data, exact numbers should be considered estimates and used with caution. Trends, however, especially at larger scales, should be indicative of general harvest change. Since 2011, harvest data have been gathered through mandatory reporting. ADF&G expands the harvest estimate based on returned reports to account for unreturned harvest reports (Bethune 2020).

Deer harvest in Unit 4 in 2007/08 (1,858 ± 236) was down significantly from 2006/07 (7,746 ± 594) and was the lowest harvest in Unit 4 in over a decade due to significant mortality from preceding severe winters (McCoy et al. 2007). Prior to 2007/08, Unit 4 deer harvest was mostly stable, fluctuating around 7,000 deer per year. Harvest data indicates that the annual Unit 4 deer harvests increased beginning around 2008-2009 and was 5,969 in 2019 (**Figure 1**).

The proposal analysis area for WP22-09/10 relative to Unit 4 is shown in **Map 1**. The harvest data presented is specific to wildlife analysis areas (WAA) encompassing, but not limited to, the area of Lisianski Inlet, Lisianski Strait, and Stag Bay (**Map 2**). Deer harvest information at a finer scale is not available, however data for WAAs in **Map 2** should sufficiently convey harvest and effort trends in the proposal analysis area.

Map 3. Unit 4 management map with proposal analysis area encircled in red.

Map 4. Wildlife analysis areas used for harvest and effort data analysis.

Harvest and effort by Federally qualified subsistence users and non-Federally qualified users in the relevant WAAs is presented in **Figures 2** and **3** below. Federally qualified harvest is consistently higher compared to other users (**Figure 2**) while effort, expressed in hunter days, is generally lower (**Figure 3**). Non-Federally qualified users have a lower success rate, which results in higher hunting effort compared to Federally qualified subsistence users. Both harvest and effort appear to be fairly stable since 2011 when mandatory harvest reporting was implemented. Ninety-three percent of non-Federally qualified users harvest less than 4 deer annually from Unit 4 (**Figure 4**).

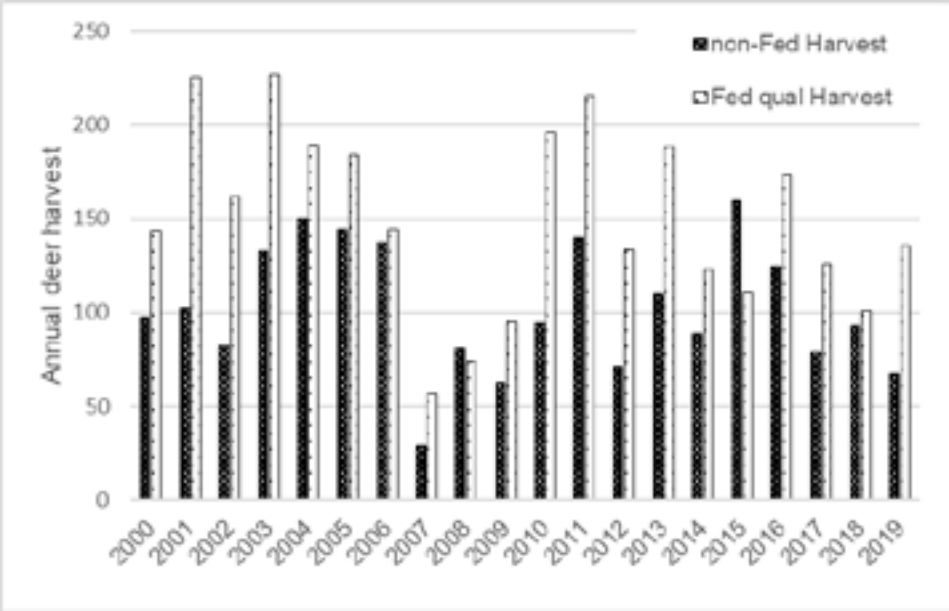


Figure 2. Annual deer harvest in the proposal analysis area, 2000-2019 (ADF&G unpublished data).

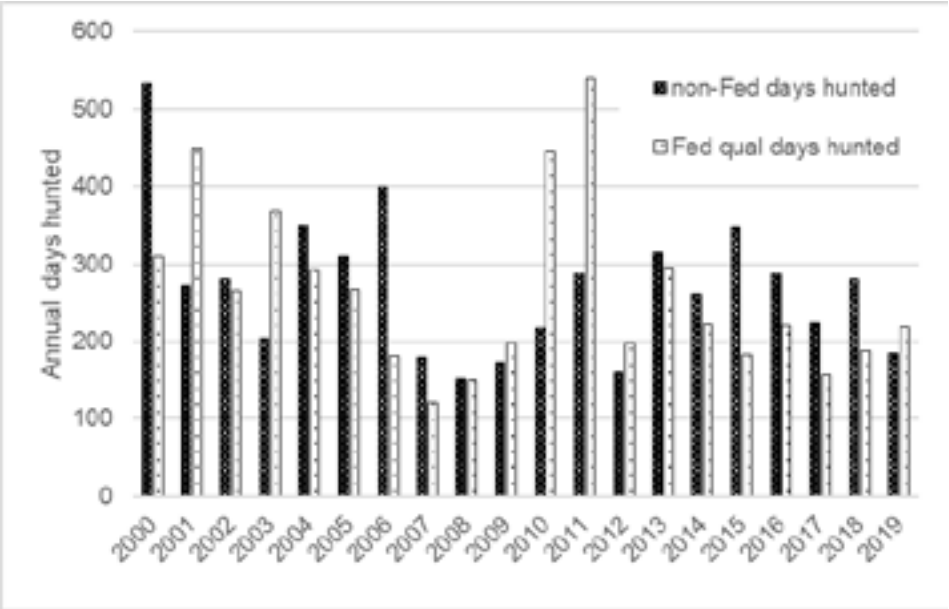


Figure 3. Annual hunter days in the proposal analysis area, 2000-2019 (ADF&G unpublished data).

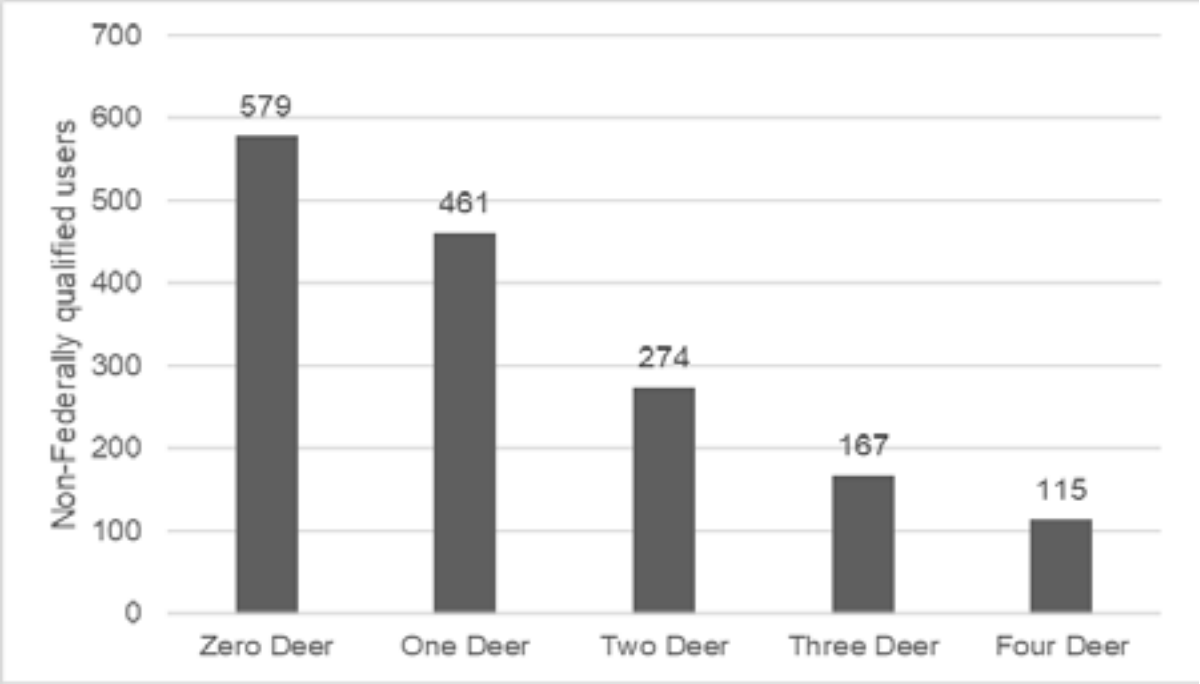


Figure 4. Average number of non-Federally qualified users harvesting 0-4 deer annually in Unit 4, 2000-2019 (AD-F&G unpublished data).

The chronology of deer hunting effort in all of Unit 4 is probably similar to effort in the proposal analysis area, varying by user group. November is the most popular hunting month for both groups, particularly for non-Federally qualified users (**Figure 5**).

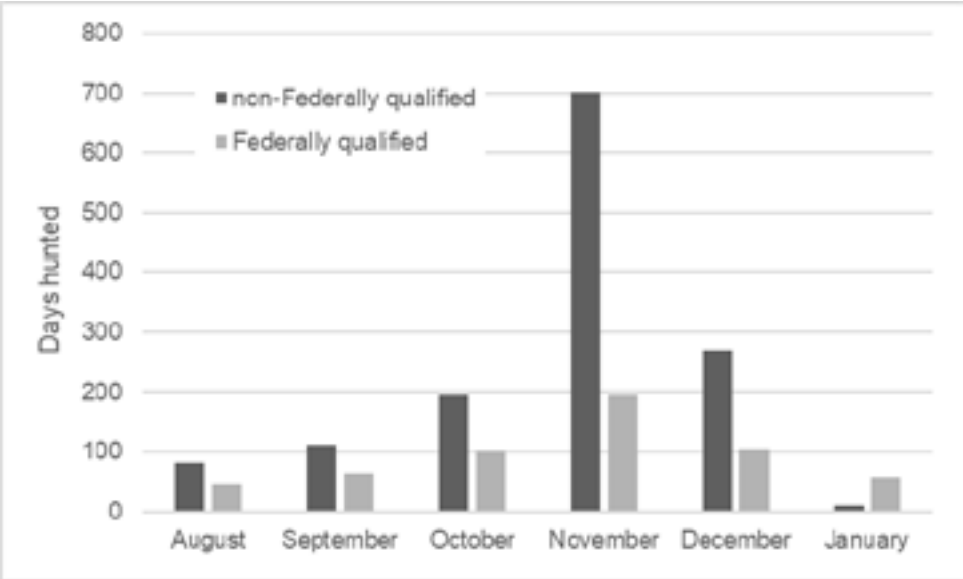


Figure 5. Average number of days hunted by month by Federally qualified subsistence users and non-Federally qualified users in Unit 4, 2000-2019 (ADF&G unpublished data).

Hunter success rate and the number of deer harvested per hunter, are indicators of whether user nutritional needs are being satisfied. For data management purposes, a hunt is considered successful when any

number of animals is harvested on a single hunt. The success rate in November for residents of Pelican has been 86% or higher since 2014, and the annual success rate has been 93% or higher since 2017. The number of deer harvested per hunter has been trending up since 2009 (**Figure 6**).

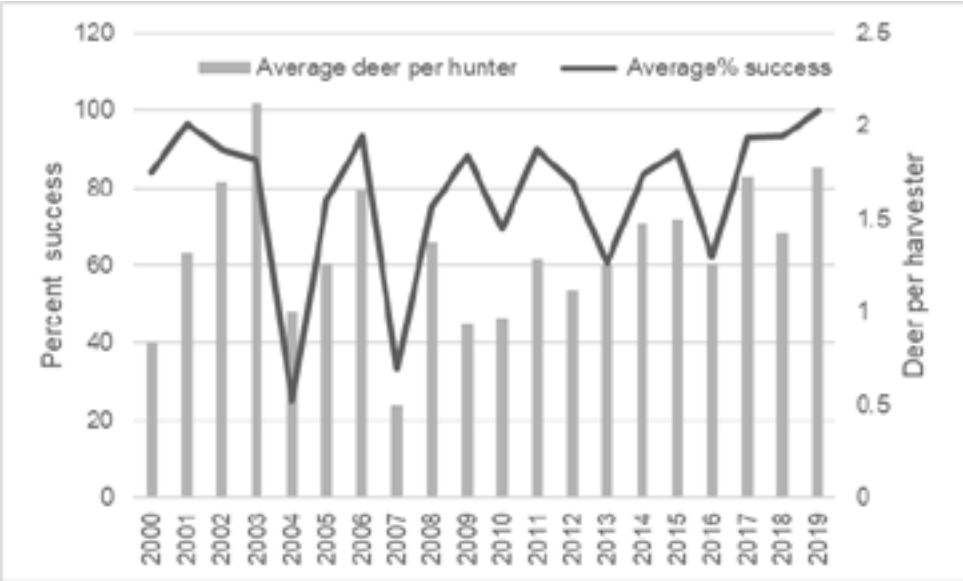


Figure 6. Hunter success rate and deer harvested per hunter for Pelican residents hunting in Unit 4, 2000-2019 (AD-F&G unpublished data).

Effects of the Proposal

These proposals would restrict non-Federally qualified users from hunting deer in portions of Lisianski Inlet, Lisianski Strait and all of Stag Bay. Restricting non-Federally qualified users could decrease overall deer harvest and reduce competition with Federally qualified subsistence users in the area. Lower harvest and reduced competition may lead to more favorable hunting conditions for Federally qualified subsistence users. Non-Federally qualified users may shift some deer hunting effort to other areas of Unit 4, possibly displacing other hunters.

OSM CONCLUSION

Oppose Proposals WP22-09/10.

Justification

Section 802(2) of ANILCA requires that subsistence uses by rural residents of Alaska shall be "the priority consumptive uses of all such resources on the public lands of Alaska." Section 804 provides a preference for subsistence uses, specifically "…the taking on public lands of fish and wildlife for nonwasteful subsistence uses shall be accorded priority over the taking on such lands of fish and wildlife for other purposes." Section 815(3) provides that the Board may restrict nonsubsistence uses on Federal public lands if "necessary for the conservation of healthy populations of fish and wildlife, for the reasons set forth in section 816, to continue subsistence uses of such populations, or pursuant to other applicable law."

Restricting deer hunting in the analysis area for non-Federally qualified users does not appear necessary for conservation because deer populations in Unit 4 are high and may be approaching carrying capacity in some locations.

Hunting effort in Unit 4 by non-Federally qualified users is highest in November and to a lesser extent in December. This could be evidence that increased competition during this time may be a factor affecting Federally qualified subsistence users' needs being met. However, the success rate in November for residents of Pelican has been 86% or higher since 2014 and annual success rate has been 93% or higher since 2017. The number of deer harvested per hunter has been trending up since 2009. Thus, a partial season closure to non-Federally qualified users in the proposal area does not appear necessary to continue subsistence uses.

Very few non-Federally qualified hunters harvest more than 3 deer annually in Unit 4, so restricting them to 4 deer annually would not significantly affect harvest or effort by non-Federally qualified users or the hunting experience of Federally qualified subsistence users. Lowering the harvest limit for non-Federally qualified users does not appear necessary to continue subsistence uses.

LITERATURE CITED

ADF&G. 2009. Deer Trails. Issue 1.

ADF&G. 2021. Deer population and hunter effort and success in Unit 4 2000-2019. Unpublished data. Juneau, AK.

Bethune, S. W. 2020. Deer management report and plan, Game Management Unit 4: Report period 1 July 2011–30 June 2016 and plan period 1 July 2016–30 June 2021. Alaska Department of Fish and Game, Species Management Report and Plan ADF&G/DWC/SMR&P-2020-5, Juneau, AK.

Gilbert S. L., Hundertmark K. J., Person D. K., Lindberg M. S., and M. S. Boyce. 2017. Behavioral plasticity in a variable environment: snow depth and habitat interactions drive deer movement in winter, Journal of Mammalogy, Volume 98, Issue 1, 8 February 2017, Pages 246–259, https://doi.org/10.1093/jmammal/gyw167

McCoy, K., G. Pendleton, D. Rabe, T. Straugh, and K. White. 2007. Sitka black-tailed deer harvest report, Southeast Alaska, 2007. ADF&G, Division of Wildlife Conservation, Juneau, AK. 10 pages.

McCoy, K. 2010. Sitka black-tailed deer pellet-group surveys in southeast Alaska, 2010 report. ADF&G, Juneau, AK. 54 pages.

McCoy, K. 2017. Sitka black-tailed deer pellet-group surveys in Southeast Alaska, 2016 report. ADF&G, Wildlife Management Report ADF&G/DWC/WMR-2017-2, Juneau, AK.

McCoy, K. 2019. 2019 traditional deer pellet survey preliminary results. Memorandum. ADF&G. Juneau, AK.

Mooney, P.W. 2009. Unit 4 deer management report. Pages 57-76 *in* P. Harper, editor. Deer management report of survey and inventory activities 1 July 2006-30 June 2008. ADF&G, Juneau, AK.

Olson, S.T. 1979. The life and times of the black-tailed deer in southeast Alaska. Pages 160–168 *in* O.C. Wallmo and J.W. Schoen, editors. Sitka black-tailed deer: Proceedings of a conference in Juneau, Alaska. USFS, Alaska Region, in cooperation with the ADF&G. Series No. R10-48, May 1979.

SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Southeast Alaska Subsistence Regional Advisory Council

Oppose WP22-09. The Council felt the issue of hunting competition in this area would be better addressed through a harvest limit restriction. A closure is not necessary for the continuation of subsistence uses and there is not a conservation concern for deer. This proposal is not supported by a majority of Pelican residents and the needs of the community can be better met by proposal WP22-10.

Support Proposal WP22-10 **with modification** to the area and harvest limit restrictions on non-Federally qualified users.

The modified regulation should read:

Unit 4 - Deer

Unit 4 — 6 deer; however, female deer may be taken only from Sept. 15 – Jan. 31.	*Aug. 1 - Jan. 31*
On Federal public lands within drainages flowing into Lisianski Inlet, Lisianski Strait, and Stag Bay south of a line connecting Soapstone and Column points and north of a line connecting Point Theodore and Point Uray, non-Federally qualified users may harvest up to 3 bucks.	

The restriction is necessary for the continuation of subsistence uses based on public and written testimony from residents and is supported by local and traditional knowledge. It benefits Federally qualified subsistence users because it reduces the harvest limit and restricts the harvest to bucks only for non-Federally qualified users, which reserves does for Federally qualified users. There are concerns that residents are not meeting their subsistence needs for deer. Predators are focused more on deer because of recent failed fish runs and warm winters. Limiting non-Federally qualified users to three bucks would not be an inconvenience as these users rarely take more than 2 deer.

INTERAGENCY STAFF COMMITTEE COMMENTS

The ISC acknowledges the extensive discussion by the Council members about the closure policy application to this situation. This was one of four proposals for Unit 4, which overall has a healthy population of deer, but is experiencing subareas where subsistence users are not able to harvest enough deer for their needs. The Council submitted WP22-09 closing this area because of concerns brought to them by the affected Federally qualified subsistence users in Pelican about not meeting subsistence needs for deer. WP22-10 was submitted by a resident of Pelican, who is also a member of the Pelican Fish and Game Advisory Committee, who also supported WP22-10. The proposal review process allowed the Council and the public to review the available data and provide testimony from all affected users of the resources. During the meeting, the Council acknowledged that the data in the State reporting system used

to measure effort does not reflect success in subsistence hunting because subsistence hunting of deer is opportunistic and users generally only report when they are successful. They crafted a modification of WP22-10 to only reduce the harvest limit to 3 bucks for non-Federally qualified users rather than a closure. The Council felt this modification would address the concerns expressed by local residents.

ALASKA DEPARTMENT OF FISH AND GAME COMMENTS

Wildlife Proposals (WP) 22-9/10

WP22-09 would close federal public lands draining into Lisianski Inlet, Lisianski Strait, and Stag Bay south of the latitude of Mite Cove (58° 4' N) and north of the latitude of Lost Cove (57° 52' N) to deer hunting by non-federally qualified users (NFQU) from October 15 to December 31 (Figure 1). WP22-10 would reduce the bag limit for NFQUs from 6 to 4 deer.

Figure 1. Map of the ADF&G Wildlife Analysis Areas for deer hunter data used to analyze effects of the proposals. Note the proposal area shown is for WP 22-09. Boundaries were not defined for WP 22-10.

Background

In proposal WP22-9, the Southeast Alaska Subsistence Regional Advisory Council (SERAC) claims that NFQUs are competing with federally qualified users (FQU) when hunting Sitka black-tailed deer. Proposal WP22-10 was submitted by the public to address claims that federally qualified users (FQU)

who reside in Pelican are not meeting their subsistence needs because of brown bear predation on Sitka black-tailed deer and ongoing deer hunting pressure from NFQUs.

GMU 4 encompasses the ABC Islands (Admiralty, Baranof, and Chichagof) and the surrounding archipelago. Hunters residing in Southeast Alaska (GMUs 1-5) excluding Juneau and Ketchikan are eligible to harvest deer in GMU 4 under federal subsistence regulations. The current federal deer season for this area is August 1 to January 31 with a bag limit of six deer (bucks only August 1 – September 14). The current state season is August 1 to December 31 with a bag limit of 6 deer (bucks only August 1 – September 14). In 2019, the Alaska Board of Game (BOG) increased the state deer bag limit in GMU 4 from 4 to 6 deer because of high population indices in the GMU.

In 1992 the BOG established an annual amount reasonably necessary for subsistence (ANS) for deer in GMU 4 of 5,200-6,000 deer. ANS differs from the undefined term "subsistence need" used in Title VIII of the Alaska National Interest Lands Conservation Act (ANILCA). Under Alaska law ANS is the harvestable portion of a game population that is sufficient to provide a reasonable opportunity for subsistence uses. "Reasonable opportunity" is that which allows a normally diligent hunter a reasonable expectation of success. Because actual harvest depends on several factors including the number of people who hunt and effort by those hunters, harvest relative to the ANS should not be viewed as an indicator of successful management. Instead, measures of individual hunter success such as days of hunting effort required to harvest one deer and deer harvested per hunter should also be considered.

GMU 4-Wide Population and Harvest

Monitoring deer abundance in forested habitat is challenging because deer cannot be directly counted through ground or aerial surveys. We present several types of survey data. Since the 1980s ADF&G has used spring pellet group counts to monitor broad (≥30%) changes in deer abundance. Spring pellet group surveys are conducted in numerous US Forest Service Value Comparison Units across Southeast Alaska after snow melts and before spring green-up.

GMU 4 consistently has the highest pellet group counts in Southeast Alaska (Figure 2). Pellet group densities <1.0 groups/plot generally correspond to low density populations, 1.0 – 1.99 groups/plot to moderately dense populations and > 2.0 groups/plot correspond to high density populations. Pellet group counts in GMU 4 are usually well above the high-density threshold and are often double the counts in other GMUs. This broad index of deer abundance suggests the GMU 4 population remains at high levels with no indication of depleted populations or conservation concerns.

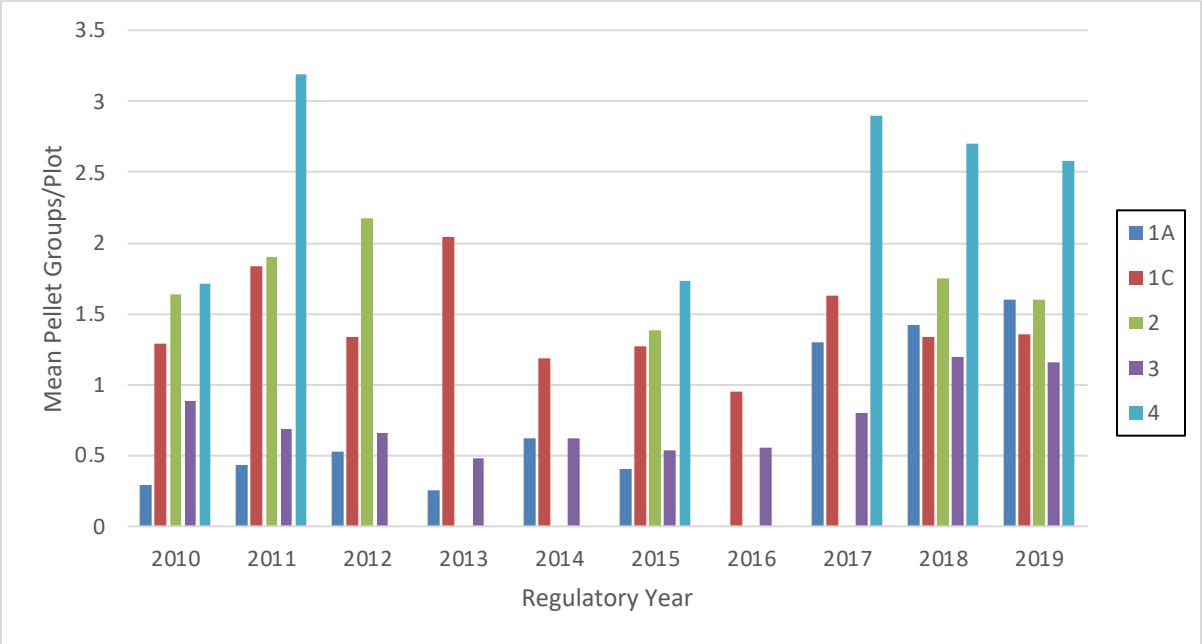


Figure 2. Mean number of deer pellet groups/plot for Southeast Alaska by GMU, 2010-2019.

In 2013 ADF&G began evaluating mid-summer aerial counts of deer in alpine habitat as an index of deer abundance. Surveys were conducted for 2 locations in GMU 4, Southern Admiralty Island (2015-2017) and Northeast Chichagof Island (2017-2018). The findings of those surveys were summarized as deer counted per hour of survey time (Figure 3). Southern Admiralty had the highest deer/hour of any survey area in Southeast Alaska. Estimates from Northeast Chichagof were similar to Prince of Wales Island (POW) and higher than all other survey areas except Southern Admiralty and POW.

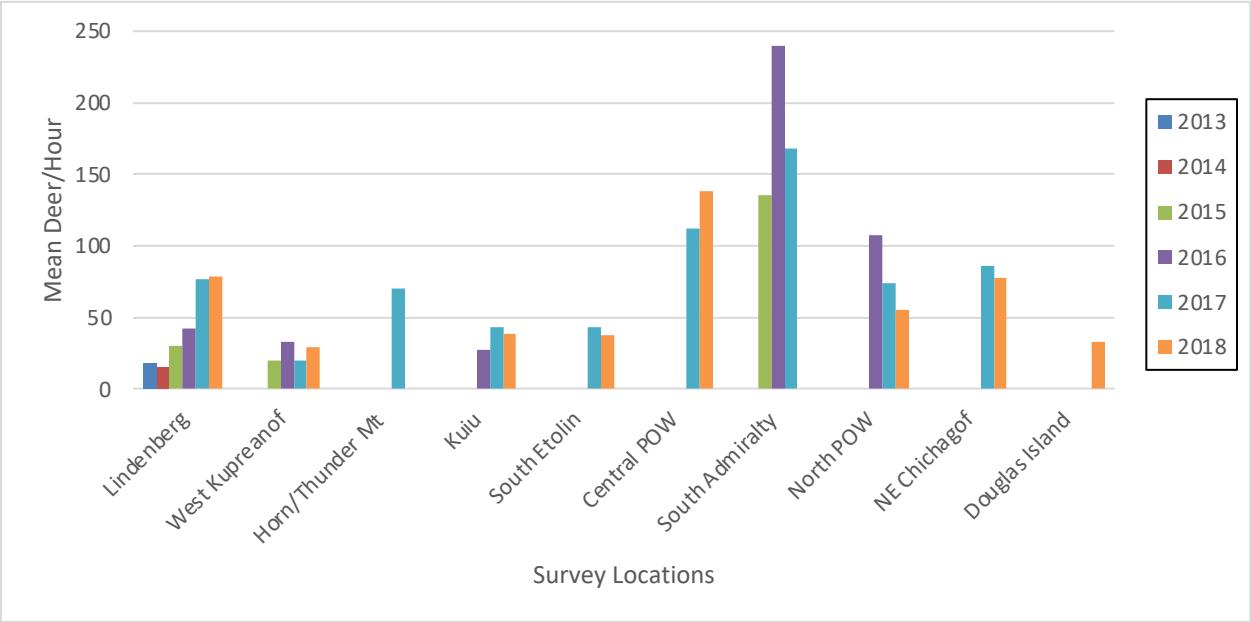


Figure 3. Mean number of deer counted per hour during mid-summer aerial alpine deer surveys in Southeast Alaska, 2013-2018.

Management biologists in GMU 4 began conducting beach mortality transects in the early 1990s. Although these mortality surveys are a relatively insensitive indicator of population trend, they are an indicator of mortality resulting from severe winters which is the most limiting factor for Sitka black-tailed deer populations in GMU 4. In addition to the total count of carcasses per mile, the proportion of adult male, adult female and fawn mortalities also indicates winter severity. Usually fawns die first, followed by adult males and then adult females. The winter of 2006/2007 was the most severe on record, and in some parts of GMU 4 managers estimated up to 75% of deer died. Note the very high number of carcasses found during spring 2007 surveys (Figure 4). In the years since then, few carcasses were found indicating high overwinter survival and no winter related population declines.

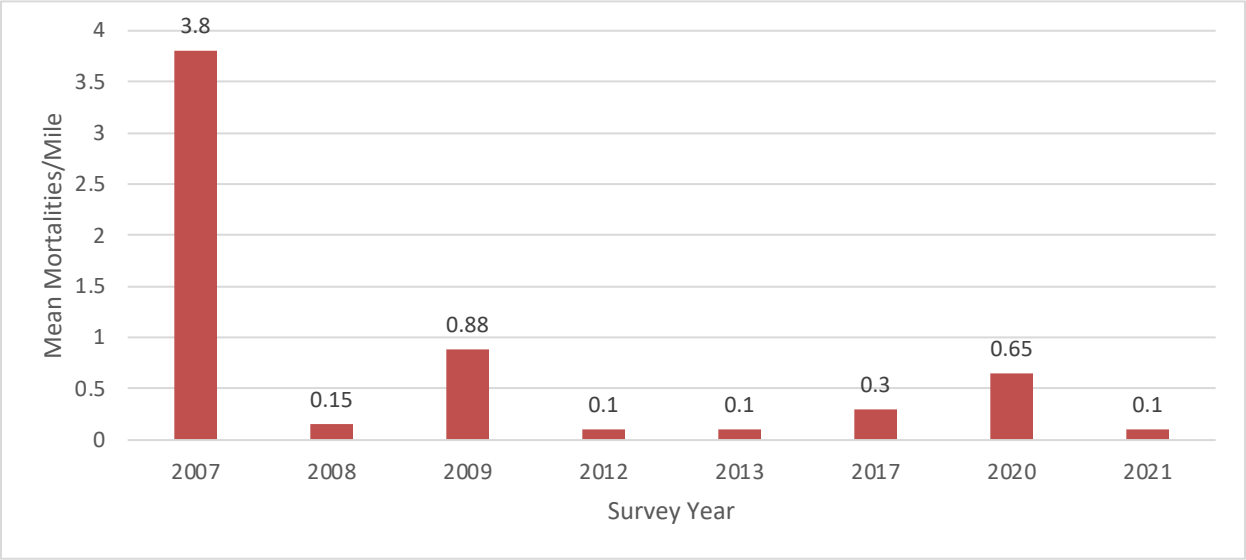


Figure 4. Mean number of mortalities per mile of beach surveyed in GMU 4.

Taken together, these indices of deer abundance (pellet group surveys, alpine counts, mortality transects) suggest the GMU 4 deer population is high and stable. None of these indices suggests a decline in deer abundance or a conservation concern for the GMU 4 deer population.

Hunter Effort and Harvest

GMU 4 managers also use harvest as an indicator of trend in the deer population. ADF&G estimates hunter effort and harvest using information provided by hunters. To hunt deer in Southeast Alaska all hunters must obtain harvest tickets. Prior to 2011 ADF&G mailed survey forms to one third of the hunters in each community who obtained harvest tickets. Since 2011 harvest tickets have come with a mandatory reporting requirement. People who obtain harvest tickets are required to report whether they (or a proxy or federal designated hunter) hunted or not. Those who did hunt are required to report where they hunted, days of hunting effort, and information about deer they harvested.

From Regulatory years (RY)1997-2019 the estimated average annual harvest in GMU 4 was 5,643 deer taken by 3,275 hunters (Figure 5). GMU 4 supports the highest deer harvest in the state. Although estimated harvest fluctuates for a variety of reasons each year, harvest has remained fairly stable with between 5,000-7,000 deer harvested annually. The exception being the severe winter of 2006/2007 when high harvest in 2006 was followed by significant overwinter mortality of deer through-out GMU 4. That resulted in a precipitous decline in harvest from 7,734 deer in RY06 to 1,933 deer in RY07. Based on

harvest and other indicators of deer abundance, managers believe the Unit 4 deer population had fully recovered by the RY13 season.

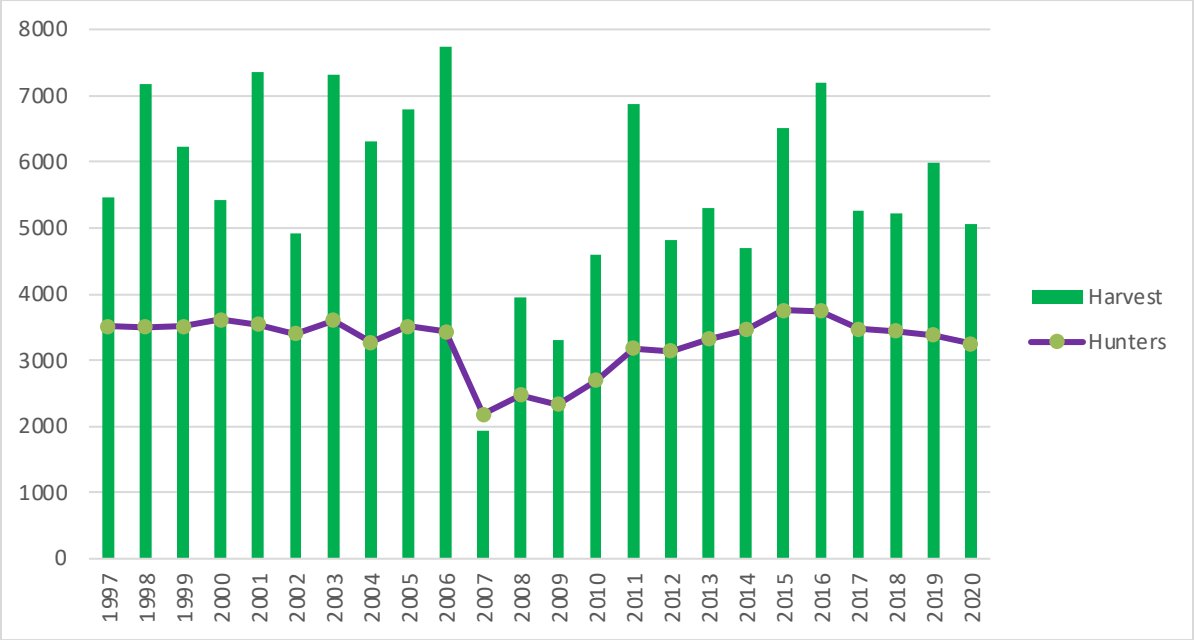


Figure 5. Numbers of people hunting deer and estimated deer harvest for GMU 4, RY97-RY20.

Data Summaries for the Area Affected by This Proposal

The proponent for WP22-10 identified Lisianski Strait and Lisianski Inlet but did not specify specific boundaries for the proposal area. Therefore, the data from the same WAAs are used in the analysis for WP22-09 and WP22-10 (Figure 1). The following analyses present data summarized for FQUs and NFQUs in WAAs 3417, 3418, 3419, 3421. WAAs are the finest scale at which data can be meaningfully summarized.

Prior to RY07, FQUs harvested an average of 202 deer annually. Harvest declined following the severe winter of 2006/2007, and since 2013, when ADF&G considered the deer population recovered, annual harvests have averaged 132 deer, about 70 fewer deer per year than the average prior to RY07. Prior to RY07 NFQUs harvested an average of about 107 deer annually, and since RY13, that average has returned to pre-RY07 levels.. Prior to RY07 FQUs accounted for 65% of the harvest. That percentage has since declined to approximately 55% (Figure 6).

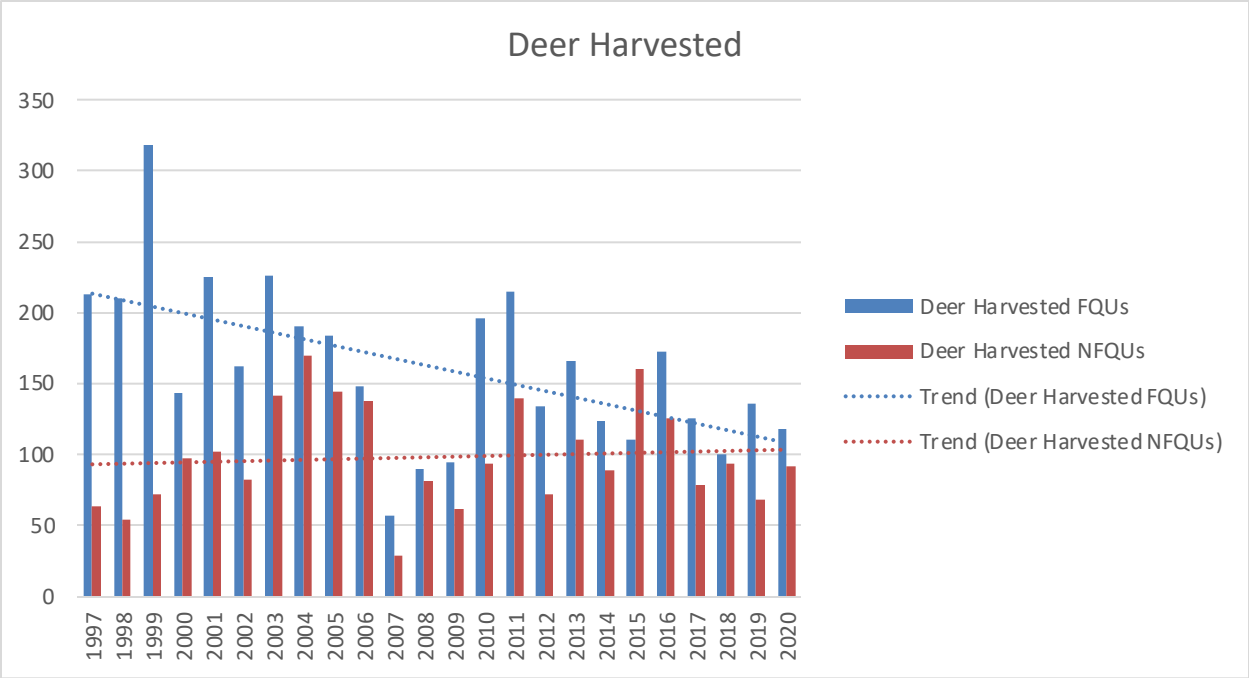


Figure 6. Estimated deer harvest and trend by FQUs and NFQUs, Lisianski area, RY97-RY20.

To evaluate potential reasons for the decline in deer harvest by FQUs we examined trends in the numbers of FQU and NFQU hunters and days of hunting effort by those hunters. Since 1997, the number of NFQUs using this area has remained stable and averaged 60 hunters per year, while the number of FQUs has declined from a high of 121 hunters in RY97 to about 58 in recent years (Figure 7).

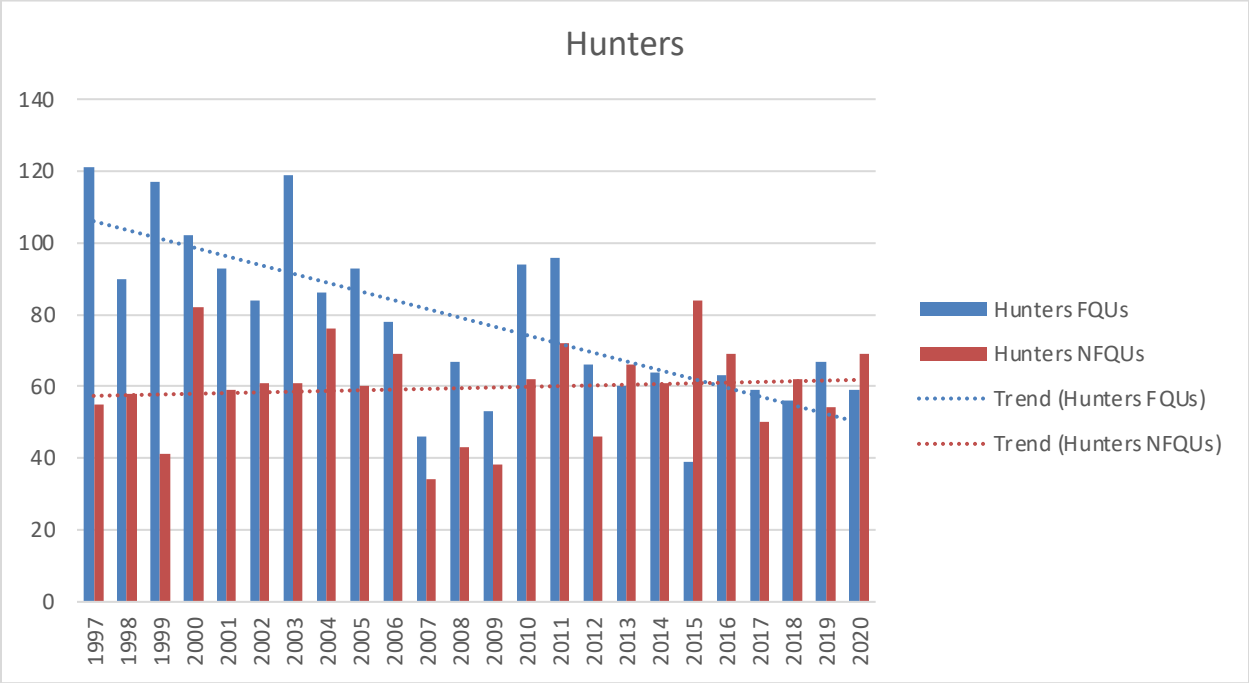


Figure 7. Trends in number of FQUs and NFQUs, Lisianski area, RY97-RY20.

In Pelican specifically, there has been a nearly 60% declining trend in the number of Pelican residents who have obtained deer harvest tickets (Figure 8).

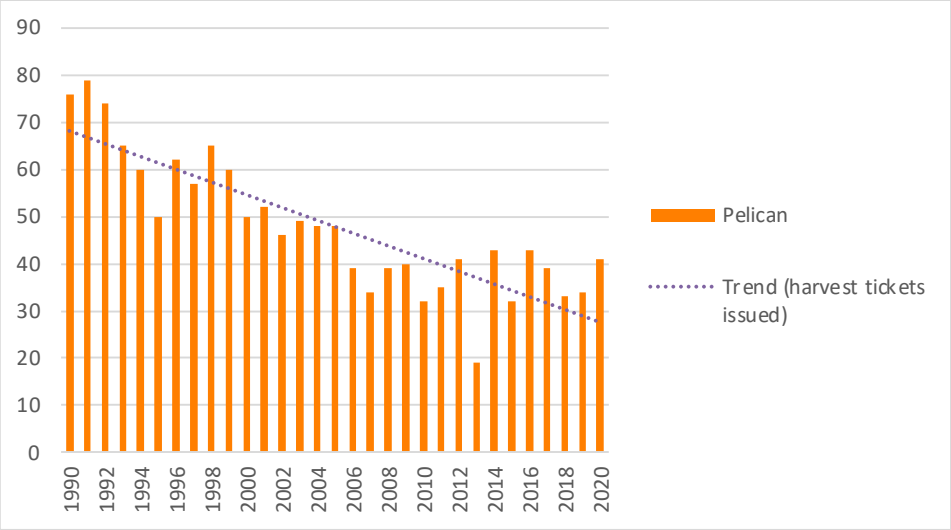


Figure 8. Deer harvest tickets issued to Pelican residents RY97-RY20.

Trends in days hunted mirror trends in numbers of hunters (Figure 9). FQUs and NFQUs both show downward trends, but the trend for FQUs is much more pronounced. Days hunted for FQUs has been roughly half of what it was prior to RY07. The number of hunters along with the number of days hunted both indicate decreased deer hunting effort for this area of GMU 4.

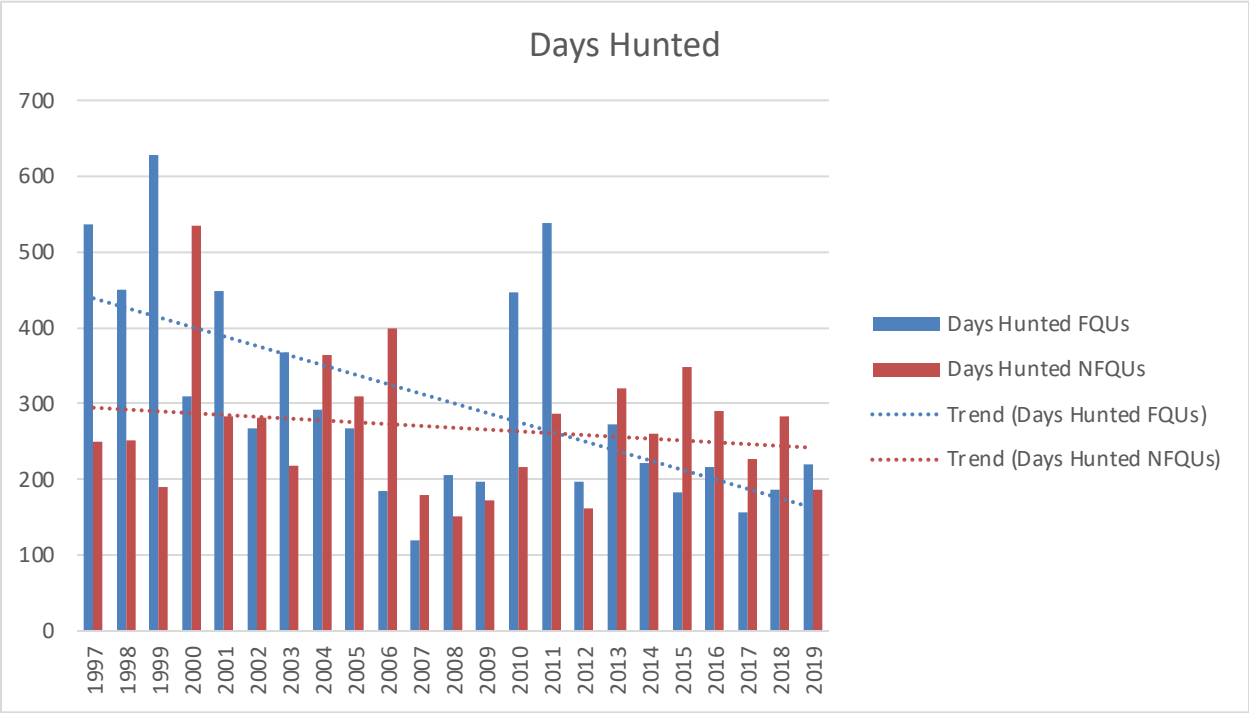


Figure 9. Trends in estimated days of hunting effort by FQUs and NFQUs, Lisianski area, RY97-RY20.

Trends in Hunter Efficiency

Hunter efficiency, or the days of hunting effort required to harvest 1 deer, is another indicator of the availability of deer to GMU 4 hunters. FQUs in the Lisianski area are consistently more efficient at harvesting deer than NFQUs. Since 1997 FQUs have required an average of only 1.9 days to harvest 1 deer while NFQUs have required an average of 2.7 days of hunting effort to harvest 1 deer. This metric is trending slightly down for FQUs (becoming more efficient) and has been below 2 days/deer for 8 of the past 10 seasons. (Figure 10).

Compared to deer hunting effort required to harvest a deer elsewhere in the state, this is an extremely efficient hunt. Hunters in GMU 4 require approximately 2.4 days/deer. In comparison, hunters on Prince of Wales Island (GMU 2) average 4.0 days of hunting per deer harvested, Kodiak (GMU 8) averages 3.6 days/deer, GMU 1A (Ketchikan) averages 5.0 days/deer, GMU 3 (Petersburg/Wrangell) averages 6.1 days/deer, GMU 6 (Prince William Sound) averages 3.0 days/deer and in GMU 1C (Juneau) hunters average 7.9 days/deer (ADF&G 2013-2019). Hunters in GMU 4 experience the most efficient deer hunting of anywhere in Alaska. FQU hunters in the Lisianski area have a better days/deer average than Unit 4 as a whole.

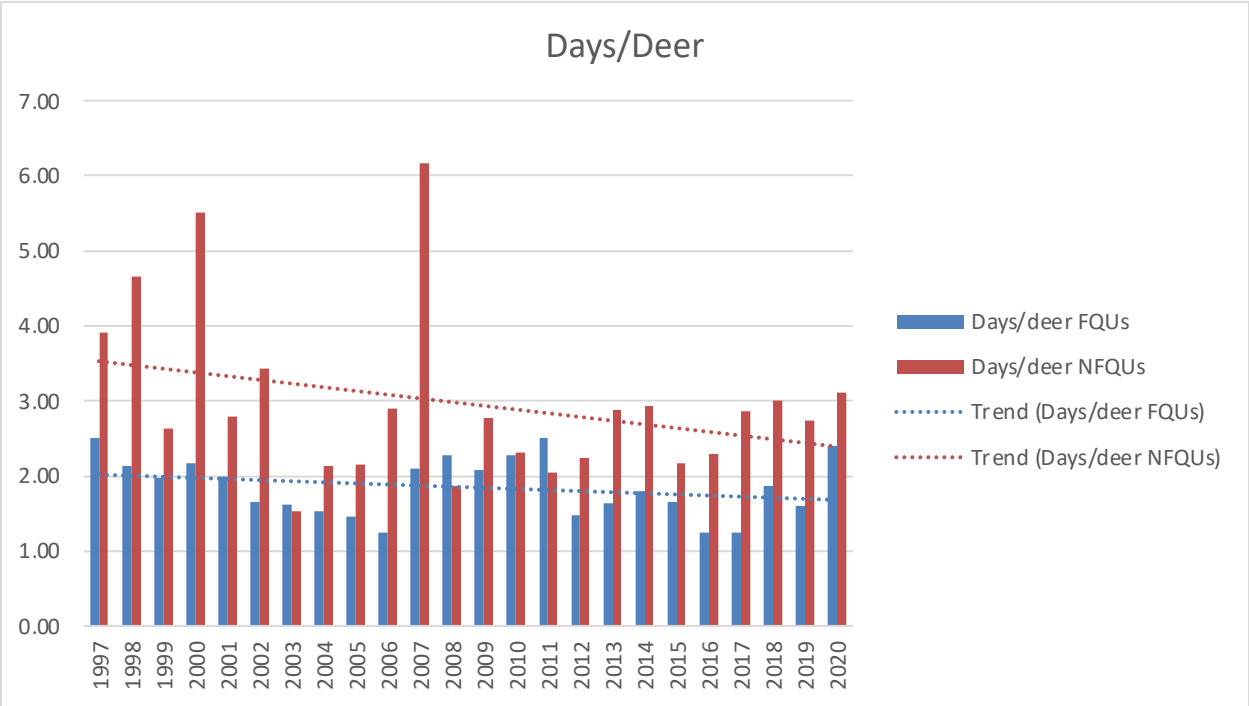


Figure 10. Trends in estimated days of hunting effort required by FQUs and NFQUs to harvest one deer, Lisianski area, RY97-RY20.

The number of deer harvested per hunter is another gauge of deer abundance and hunting success. Since 1997 the average number of deer harvested per NFQU has remained stable at about 1.6 deer/hunter (Figure 11). In contrast, the number of deer harvested per FQU is greater and has improved from an average of 2.1 deer per hunter prior to RY07 to an average of 2.3 deer per hunter since RY13. This metric, along with days/deer suggests that FQUs are enjoying better hunting success now than at any time over the past 2-3 decades.

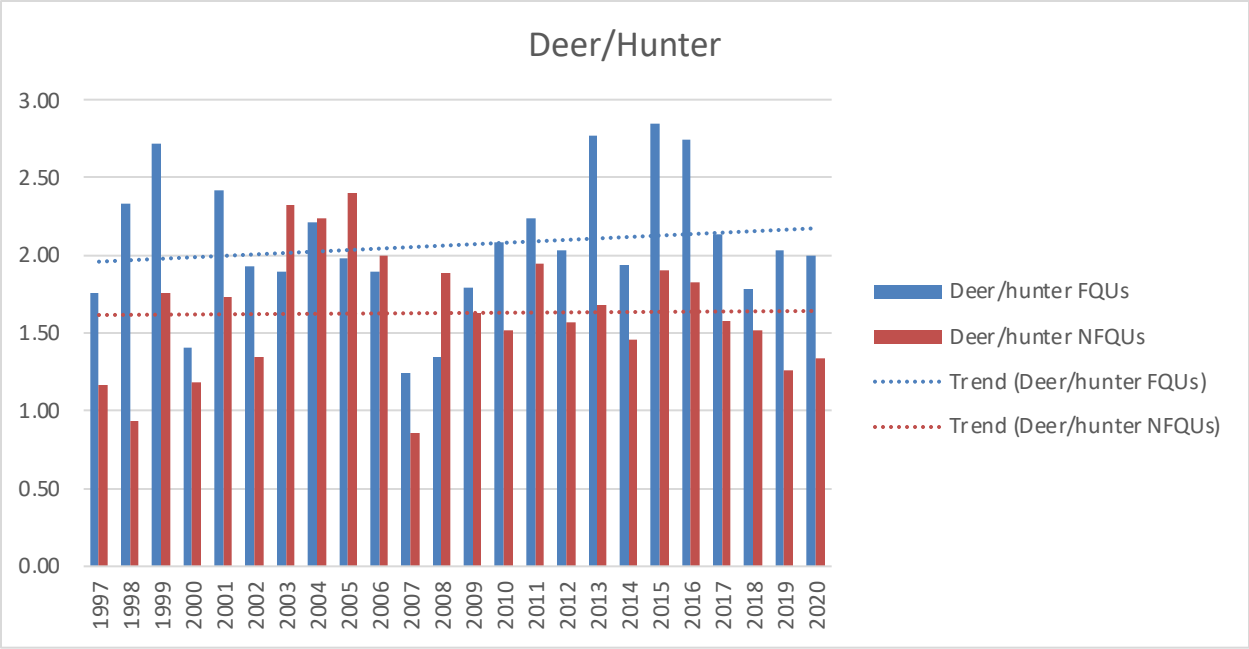


Figure 11. Trends in mean number of deer harvested per FQU and NFQU hunters, Lisianski area, RY97-RY20.

Hunt Chronology

Mid-October through December is the most popular time for hunters to pursue deer in GMU 4. Deer activity coinciding with the rut as well as winter snows that push deer to beaches, make for more successful hunting than earlier in the season. Hunters report hunting effort and harvest by month, so data can only be summarized by month. For NFQUs the period, October - December, encompasses use by 85% of hunters, 89% of days hunted, and 86% of harvest. For FQUs those numbers are slightly lower at 75%, 79%, and 78%, respectively (Table 1).

Table 1. Unit 4 Deer Hunting Chronology of Harvest and Effort for FQUs and NFQUs as both numbers and percentage of total.

FQUs RY11-RY20						
	Hunters	%	Days Hunted	%	Deer harvested	%
August	2,405	8	4,081	6	2,124	6
September	2,741	10	4,961	8	2,672	8
October	4,686	17	9,677	15	4,991	14
November	10,480	37	28,035	44	14,641	42
December	5,807	21	12,840	20	7,821	22
January	2,149	7	4,050	6	2,992	8
Total	28,268		63,644		35,241	

NFQUs RY11-RY20						
	Hunters	%	Days Hunted	%	Deer harvested	%

NFQUs RY11-RY20						
August	1,763	8	3,694	5	1,071	6
September	1,763	8	4,651	7	1,368	7
October	3,529	16	9,475	14	2,361	12
November	10,256	46	38,204	55	9,905	53
December	5,005	23	13,268	19	4,222	21
Total	22,316		69,292		18,927	

Proposal WP22-10 seeks to reduce the bag limit from 6 deer to 4 deer in the Lisianski area. ADF&G collects data on the number of deer individual hunters report taking relative to the bag limit in areas they report hunting. Within GMU 4, 83.5% of NFQUs take 2 or fewer deer (Figure 12, ADF&G RY19-RY20). Eight and a half percent of NFQUs take 3 deer and 5% take 4 deer. The percentage of hunters who took 5 or 6 deer (legal as of RY19) in RY 19 and RY20 was 1.5% for both.

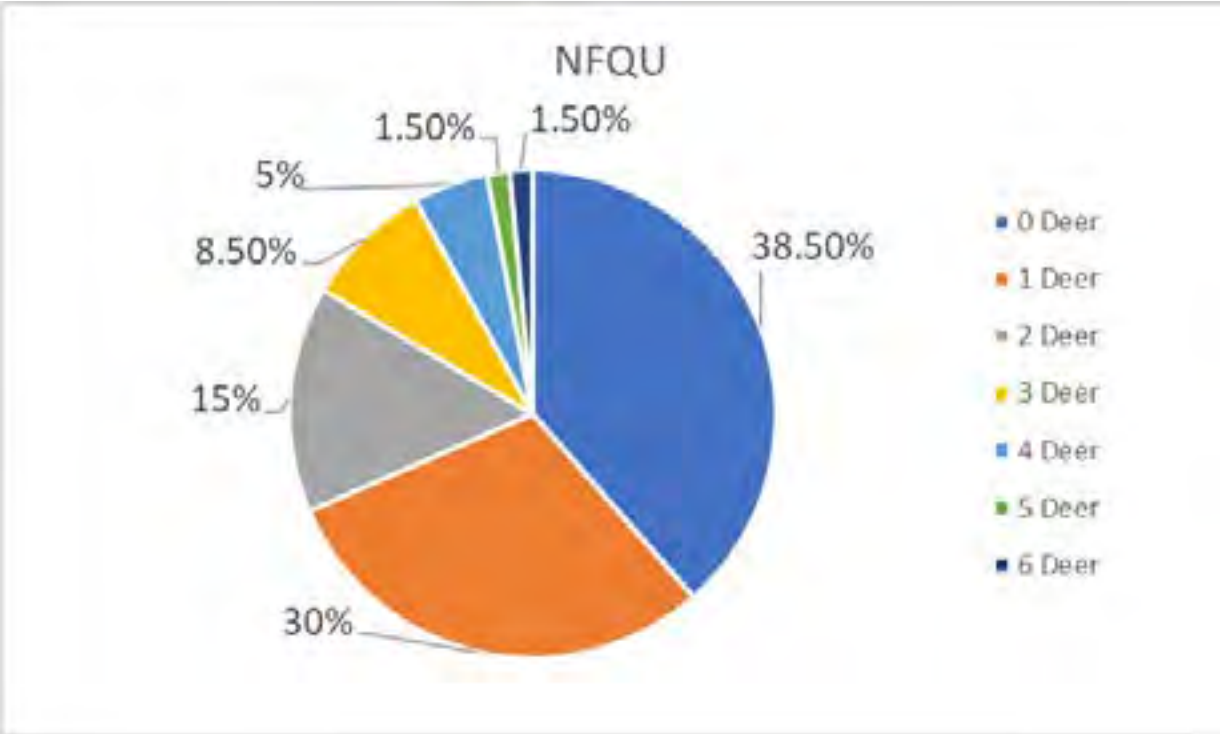


Figure 12. Percentages of NFQUs who report harvesting 0, 1, 2, 3, 4, 5 or 6deer in GMU 4, RY19-RY20.

Under federal regulations, FQU hunters were able to harvest six deer prior to RY19 when the State bag limit was raised to six. On average, more FQU hunters take multiple deer than NFQU hunters. For example, since RY11 13% of FQU hunters take more than four deer (Figure 13).

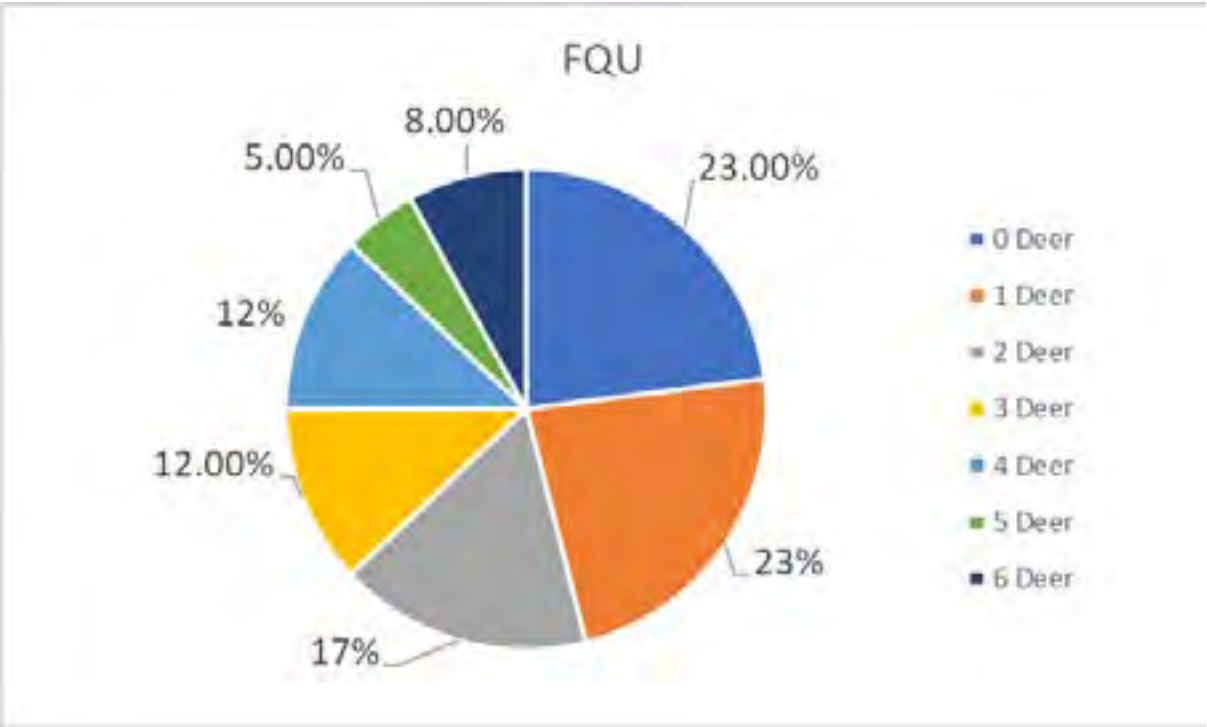


Figure 13. Percentages of FQUs who report harvesting 0, 1, 2, 3, 4, 5 or 6 deer in GMU 4, RY11-RY20.

Analysis

The analyses presented here were based on the only annually collected, objective, and quantitative information available on deer abundance, hunter effort, and harvest in the area affected by this proposal. Deer abundance data were gathered by ADF&G, and hunter effort and harvest data were reported to ADF&G by hunters, including residents of Pelican, via mandatory deer harvest ticket reports.

These proposals asserts that FQUs have had difficulty meeting their subsistence needs for deer. The term, "subsistence need", as used in Title VIII of ANILCA has no quantitative harvest benchmark. ANILCA also does not require the federal program to quantify historical levels of harvest for subsistence uses. Consequently, there is no objective way of verifying whether the existing federal regulations continue to provide for adequate subsistence opportunity or if current harvest meets the subsistence needs of FQUs. Therefore, our analysis focuses on measures of deer abundance and trend in GMU 4 and on trends in effort and harvest by FQUs and NFQUs in the proposal area. Conditions that would support the assertion that NFQUs are hindering deer harvest by FQUs would include increasing numbers of hunters, days of hunting effort, and harvest by NFQUs that coincide with declining harvest by FQUs while the number of FQU hunters and effort by those hunters remained stable or increased.

ADF&G monitors abundance and trend of deer at the scale of the GMU or subunit, so we can only note that the available data indicate that GMU 4 deer populations are currently at high and stable levels. Winter severity, particularly deep and lingering snowpack, is the biggest limiting factor for Sitka black-tailed deer in GMU 4. The last winter with above average snowfall occurred in 2011/2012. Since then, winters have been average to mild with little overwinter mortality. Pellet group and aerial alpine deer counts also support the conclusion that deer remain abundant throughout GMU 4.

The existing evidence suggests predation has little effect on the GMU 4 deer population. Wolves and black bears are absent, so unlike other GMUs in the region, brown bears are the only large land predator in GMU 4. Brown bears occur at high densities throughout Unit 4, and they have been documented to prey on young fawns. However, a few weeks after the early June fawning period, fawn remains are no longer found in brown bear scats. Once fawns become mobile at 2-3 weeks of age, it appears bears either lose interest or are unable to catch them. Further, deer pellet survey data, aerial alpine survey data, and hunter harvest data all indicate that GMU 4 supports higher deer densities than adjacent GMUs inhabited by wolves and black bears.

Although brown bears have been reported to prey on older fawns and adult deer, the available evidence suggests that it is very rare and occurs opportunistically. McCarthey (1989) analyzed scats from bears on Admiralty Island and found deer remains in up to 10% of spring scats. The author did not distinguish whether those remain were from young fawns or scavenged carcasses of winter-killed deer. During mid-summer up to 14% of scats from bears using high elevation habitat (>400m) contained some deer remains, but deer was absent from summer scats of bears using low elevation habitat. Deer was not found in bear scats collected during late-summer and fall.

Studies of radio collared deer on Admiralty (Schoen and Kirchhoff 1990) and Chichagof (McCoy et al. 2015) islands in GMU 4 further support that brown bears rarely kill deer. Neither study reported any predation-related mortalities. In general, during fall when snow pushes deer to lower elevations and salmon runs have ended, most brown bears have moved to higher elevation denning areas. Although some bears may remain at lower elevations and feed on remains of hunter-killed deer, there is no evidence that brown bears have any appreciable effect on deer distribution during hunting season or abundance at any time of year. In fact, ADF&G biologists, hunters, and guides working in GMU 4 report seeing deer and brown bears in close proximity with the deer exhibiting no apparent concern.

The proposals suggest that brown bear predation and competition with NFQUs is making subsistence harvest more difficult for FQUs in the Pelican area. Because no similar proposals have been submitted before, we presume that in the past FQUs were able to provide for subsistence uses. Therefore, to evaluate the need for this restriction of NFQU opportunity we investigated harvest and measures of hunter effort for trends of increasing effort and harvest by NFQUs.

We found that since 1997 the total number of individuals hunting deer in the Lisianski area has declined by about 25%. However, that decline primarily results from a roughly 50% decline in the number of FQUs hunting deer in this area. Since the late 1990s total days of deer hunting effort in this area also declined, while NFQU hunting pressure has remained relatively unchanged. Again, most of that decline resulted from decreasing hunting effort by FQUs. This finding directly contradicts the assertion in the proposal that increasing competition from NFQUs is hindering harvest by FQUs. In fact, deer hunting effort and the potential for competition between FQUs and NFQUs in this area has substantially declined.

To evaluate whether FQUs are having an increasingly difficult time harvesting deer we looked for trends in the number of days of hunting effort required to harvest one deer and number of deer harvested per hunter. In recent years the days of hunting effort required to harvest one deer has trended downward for both groups of hunters. Since RY13 FQUs have required an average of only 1.7 days of hunting effort to harvest one deer, whereas NFQUs have required 2.7 days of hunting effort to harvest 1 deer. During the same period the days of hunting effort required to harvest a deer for all of GMU 4 hunters was 2.4 days/deer, so the 1.7 days of hunting effort required for FQUs in the proposal area represents extremely

efficient hunting. Numbers of deer harvested per FQU hunter has also trended upward, averaging 2.1 deer/hunter from RY97-RY06 and 2.3 deer/hunter from RY13-RY20.

If harvesting deer was becoming more difficult for FQUs, we would expect to see an increase in the number of days of hunting effort required to harvest a deer and a decline in the number of deer harvested per FQU hunter. However, these measures of hunter success based on hunt reports provided by FQUs, including residents of Pelican, indicate that deer hunting conditions in the Lisianski area remain very good and that in recent years FQUs have enjoyed greater hunting success.

During RY19 and RY20, the first years the state bag limit in GMU 4 was expanded to six deer, 54 and 69 NFQUs hunted in the Lisianski area, respectively. By applying the percentage of NFQUs who harvested 5 (1.5%) or 6 (1.5%) deer in GMU 4 during RY19 and RY20 to the Lisianski area, ADF&G estimates 3 additional deer per year were harvested by NFQUs under the more liberal bag limit. It can be inferred that this would be the annual reduction in harvest under a four deer bag limit. However, these calculations do not take into account deer harvested below mean high tide and on other State and private lands. Because NFQUs take an average of only 1.6 deer per hunter, any bag limit reduction is unlikely to have any effect on the deer population or increase harvest opportunity for FQUs in any way. Proposal WP22-10 would only serve to potentially eliminate opportunity for an average of two NFQUs per season who choose to take more than 4 deer.

Summary

These proposals asserts that FQUs have had difficulty meeting their subsistence needs because of brown bear predation and ongoing competition with NFQUs. Our analysis of predation, the deer population, hunter effort and harvest trends found no support for those contentions. The available information indicates that brown bears are ineffective predators on deer and that deer remain abundant throughout GMU 4. In the Lisianski area it is unlikely that hunter harvest has reduced deer abundance because total hunting effort is relatively light, and over the last two decades hunter effort and harvest have declined.

We could find no support for the contention that competition from NFQUs has increased or that NFQUs are hindering harvest by FQUs. In fact, rather than increasing, the number of NFQUs and days of hunting effort by NFQUs has held steady for 2 decades. Further, days of hunting effort required to harvest a deer remains very low and the number of deer harvested per FQU hunter has been increasing.

Harvest data indicate there has been a decline in the number of deer harvested by FQUs in the Lisianski area. However, that decline is attributable to a decline in the number of FQUs and days of effort by those hunters. Over the last 20 years both metrics have declined by over 50%. Deer remain abundant, federal regulations provide a six-month open season, and “competition”, or hunting effort by NFQUs, has been stable for two decades. Therefore, we conclude that the decline in federal subsistence harvest of deer in the Lisianski area results from a decline in participation and effort by FQUs, not depleted deer populations, predation by brown bears, or increasing competition from NFQUs.

Impact on Subsistence Users

WP22-09 could result in eliminating some competition in this area between FQUs and NFQUs between October 15 and December 30. However, hunting under state regulations could still occur on state-owned tidelands below mean high tide and private property. WP22-10 would have no impact on FQUs.

Impact on Other Users

These proposals could possibly result in eliminating some competition in this area between FQUs and NFQUs after October 14th. However, NFQUs could continue to hunt state-owned tidelands below mean high tide and private property. Opportunity for NFQUs to harvest deer on federal public lands in the Lisianski area would be slightly reduced. Few if any NFQUs take more than 4 deer.

State customary and traditional use findings: The Alaska Board of Game has made positive customary and traditional use findings for deer in GMU 4.

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 board does this by reviewing extensive harvest data from all Alaskans, collected either by ADF&G or from other sources. The ANS for deer in GMU 4 is 5,200–6,000 deer.

Contrary to its name, ANS does not indicate subsistence "need". Instead, ANS provides the board with guidelines on typical numbers of animals harvested for customary and traditional uses under normal conditions. The ANS for deer in GMU 4 was established in 1992. Hunting regulations can be re-examined if harvests for customary and traditional uses consistently falls below ANS. However, harvest may decline for many reasons, and in this case it appears to result from declining participation and effort by FQUs in the Lisianski area

The State hunting season and bag limit for deer in GMU 4 including the Lisianski Area is:			
GMU 4Remainder	Bag Limit 6 deer (bucks only to Sep 14th)	Resident Open Season Aug1-Dec 31 (Harvest ticket)	Resident Open Season Aug1-Dec 31 (Harvest ticket)

Conservation Issues

There are no conservation issues for the deer population in GMU 4. Following 9 consecutive mild winters, the available population indices suggest the GMU 4 deer population remains high and stable. Deer harvest remains stable. Population indices and measures of hunter effort and success indicate that GMU 4 has the highest population of deer and highest hunting success of anywhere in in the state.

Based on the information provided to ADF&G by GMU 4 deer hunters, population indices, reports by local hunters and field observations by management biologists, we conclude that there is no conservation concern for the GMU 4 deer population.

Enforcement Issues

If these proposals are adopted NFQUs will still be able to hunt deer on state-owned tidelands below the mean high tide line and on private lands with a bag limit of 6 deer. The tideline is not marked, so NFQUs and enforcement officers will have difficulty determining when deer are above or below the line of mean high tide. This makes enforcement difficult and regulations confusing.

Position

ADF&G **OPPOSES** both proposal WP22-09 and WP22-10. There is no evidence hunting by NFQUs as cited in WP22-09 or that brown bear predation as cited in WP22-10 has affected the ability of FQUs to harvest deer. Although the number of FQUs hunting and total harvest by those hunters has declined, the

remaining FQUs hunting in this area are enjoying greater success. Adopting this proposal would deprive NFQUs of sustainable deer hunting opportunity contrary to terms in Title VIII of ANILCA.

Approximately 90% of land in GMU 4 is federally managed, and current federal regulations already provide greater opportunity to FQUs compared to NFQUs. FQUs are eligible to hunt an entire month longer than NFQUs with a season extending through the month of January as well as a liberal designated hunter program.

In *Alaska v. Federal Subsistence Bd.*, 544 F.3d 1089, 1100 (9th Cir. 2008), the Ninth Circuit ruled that, under ANILCA, the Federal Subsistence Board may regulate subsistence use but is prohibited from limiting nonsubsistence use. A bag limit reduction for NFQUs for deer in GMU 4 is inconsistent with ANILCA under applicable case law on federal preemption. As directed by Congress in Section 802 of ANILCA, subsistence uses of wildlife shall be the priority consumptive use on federal public lands "when it is necessary to restrict taking in order to assure the continued viability of a fish or wildlife population or the continuation of subsistence uses of such population." Section 815 of ANILCA authorizes federal restrictions on nonsubsistence uses on the public lands only if "necessary for the conservation of healthy populations of fish and wildlife" or if necessary to "continue subsistence uses." Proponents of this proposal, and similar ones that will be considered, interpret these conditions to mean it gives them the right to total exclusivity to an area based on the aesthetics of hunting. They justify the FSB passing this proposal with statements, "Just trying to find a way so people can hunt in peace here" or "… going to a favorite spot and, you know, seeing another boat there. It doesn't matter whether or not they're successful hunters or not, it's just the fact that they're there alter the way you hunt." Based on ADF&G's analysis of the only annually collected, objective, and quantitative data available, neither of those reasons apply. There is no conservation concern for the GMU 4 deer population, NFQUs are enjoying greater success harvesting deer, and no restrictions are needed for the continued subsistence use of deer.

Literature Cited

McCarthy, T. M. 1989. Food habits of brown bears on northern Admiralty Island, Southeast Alaska. Master's thesis, University of Alaska, Fairbanks.

McCoy, K. R., D. P. Gregovich, P. W. Mooney and N. L. Barten. 2015. Movement patterns, home range, and habitat use by Sitka black-tailed deer on Chichagof Island, Southeast Alaska. Alaska Department of Fish and Game, Division of Wildlife Conservation, Federal Aid Annual Research Performance Report 1 July 2014–30 June 2015, Federal Aid in Wildlife Restoration Project 2.15, Juneau.

Schoen, J. W., and M. D. Kirchhoff. 1990. Seasonal habitat use by Sitka black-tailed deer on Admiralty Island, Alaska. Journal of Wildlife Management 54(3):371-378. http://doi.org/10.2307/3809641

Data Tables

Table 1. Summary Table Federally Qualified Deer Hunters, WAAs 3417, 3418, 3419, 3421.

Regulatory Year	No. of Hunters	Total Hunt Days	Bucks Harvested	Does Harvested	Total Harvest	Deer per Hunter	Days per Deer
1997	121	536	165	48	213	1.8	2.5
1998	90	50	150	60	210	2.3	2.1
1999	117	628	272	47	318	2.7	2.0
2000	102	310	117	26	143	1.4	2.2
2001	93	449	177	48	225	2.4	2.0
2002	84	267	114	47	162	1.9	1.6
2003	119	367	179	47	226	1.9	1.6
2004	86	292	157	33	190	2.1	1.5
2005	93	268	152	32	184	2.0	1.5
2006	78	185	129	20	148	1.9	1.3
2007	46	120	57	0	57	1.2	2.1
2008	67	205	84	6	90	1.3	2.3
2009	53	197	86	9	95	1.8	2.1
2010	94	446	168	28	196	2.1	2.3
2011	96	539	188	28	215	2.2	2.5
2012	66	197	118	16	134	2.0	1.5
2013	60	273	141	25	166	2.8	1.6
2014	64	222	107	16	124	1.9	1.8
2015	39	183	104	7	111	2.9	1.7
2016	63	216	135	37	173	2.8	1.3
2017	59	157	110	16	126	2.1	1.3
2018	56	187	89	11	100	1.8	1.9
2019	67	219	113	22	136	2.0	1.6
2020	59	284	94	25	118	2.0	2.4

Table 2. Summary Table Non-Federally Qualified Deer Hunters, WAAs 3417, 3418, 3419, 3421.

Regulatory Year	No. of Hunters	Total Hunt Days	Bucks Harvested	Does Harvested	Total Harvest	Deer per Hunter	Days per Deer
1997	55	250	40	24	64	1.2	3.9
1998	58	252	44	10	54	0.9	4.7
1999	41	190	72	0	72	1.8	2.6
2000	82	534	74	23	97	1.2	5.5
2001	59	284	92	10	102	1.7	2.8
2002	61	281	72	10	82	1.3	3.4
2003	61	218	114	28	142	2.3	1.5
2004	76	364	165	5	170	2.2	2.1
2005	60	310	113	31	144	2.4	2.1
2006	69	400	105	33	138	2.0	2.9
2007	34	179	24	5	29	0.9	6.2
2008	43	152	66	14	81	1.9	1.9
2009	38	172	53	10	62	1.6	2.8
2010	62	217	89	5	94	1.5	2.3
2011	72	287	118	21	140	1.9	2.1
2012	46	162	71	1	72	1.6	2.3
2013	66	320	98	13	111	1.7	2.9
2014	61	261	76	13	89	1.5	2.9
2015	84	348	132	28	160	1.9	2.2
2016	69	290	108	17	126	1.8	2.3
2017	50	226	72	7	79	1.6	2.9
2018	62	283	76	18	94	1.5	3.0
2019	54	186	57	10	68	1.3	2.7
2020	69	287	71	21	92	1.3	3.1

WRITTEN PUBLIC COMMENTS

[EXTERNAL] Alaska Outdoor Council comments - 2022-2024 Wildlife Proposals

Rod Arno <rodarno@gmail.com>
Mon 7/19/2021 12:23 PM
To: AK Subsistence, FW7 <subsistence@fws.gov>
Cc: Mulligan, Benjamin J (DFG) <ben.mulligan@alaska.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Alaska Outdoor Council
310 K Street, Suite 200
Anchorage, Alaska 99501
July 19, 2021

RE: Public comments for FSB 2022-2024 Wildlife Proposals

The Alaska Outdoor Council (AOC) is a Statewide coalition of individual members and clubs representing 10,000 Alaskans who hunt, trap, fish and recreate on public lands/waters in Alaska. AOC Club Representative have participated in the regulatory process of managing and allocating fish and game in Alaska since before statehood in 1959.

Numerous proposals submitted by Federal Subsistence Regional Advisory Councils, federally recognized subsistence communities, and individuals confirm the fears that many AOC Representatives had at the time of the passage of Alaska National Interest Lands Conservation Act (ANILCA) 1980. Dual management of who can harvest game depending on whether you are on state public and private lands or if you are on federal lands was not the intend of Congress when they passed ANILCA.

AOC opposes WP22-07, WP22-08, WP22-09.
Alaska Department of Fish & Game data should not invoke a complete closure to non-Federally Qualified Subsistence Users under Section 804 of ANILCA. Even the 9th Circuit Court, *Noatakat Traditional Council v. U.S.*, 227 F.3d 1186 in 2000 understood the priority given in Title VIII of ANILCA was not absolute.

AOC opposes WP22-15.
Congress's findings and declaration in Sec. 801 of ANILCA should leave no room for regulatory action by the Federal Subsistence Board (FSB) regarding anti-trapper claims. Sec. 801(3) of ANILCA should have the FSB concentrating only on "remote federal lands", as was the intent of Congress when they passed 802(2) of ANILCA.

AOC opposes WP22-16 thru 22.
Providing a priority for some individuals or communities to harvest game on federal public lands located on the Kenai Peninsula only exacerbates the conflict between federally qualified hunters and Alaskans living in non-federally qualified areas of the state. Both groups of hunters are similarly situated.

AOC opposes WP22-32.
It would be in Alaskan's best interest if the FSB would reduce the number of Alaskans allowed a priority to harvest game on federal lands just based solely on where they live, not how.

Thanks for the opportunity to provide public comments.

Rod Arno, Public Policy Director
Alaska Outdoor Council

Sent from Rod Arno's iPad.

To Whom It May Concern:

I am writing today thankful for the opportunity to voice my opinion regarding the following proposals.

WP22-07 - To exclude hunting privileges in this region to Juneau residents who depend solely on deer meat to survive is simply outrageous. Angoon hunters DO NOT hunt anywhere remotely close to Hawk Inlet and have the benefit of hunting more productive and safer waterways near town. (Mitchell Bay) Where Juneau residents even on a good weather day cannot reach. It will confine hunting areas to Juneau residents which will increase pressure on already overcrowded areas furthermore helping to create unsafe scenarios. It is discriminatory, unethical, and does not show good land management for the "American people" rather it divides and polarizes Alaskans in the region.

WP22-08 – I hope this is not a biased proposal toward Juneau hunters and is actually based on science relating to current deer populations. How did we go from 6 to 2? Snow and ice lead to winter die off which effects overall deer populations not hunters.

WP22-09 - Rural hunters outside of Juneau already have the benefit of a longer harvest period. Just because our jobs and lives are based in Juneau does not mean we want the high cost of inferior meat from Costco.

In closing please do not take away these beautiful places to Juneau residents limiting our access to the outdoors, feeding our families, and the social benefits hunting brings us.

Thank you

Adam S. Anderson

Mike Bethers
P.O. Box 210003
Auke Bay, AK 99821
(907)-321-1186
mikebethers@gmail.com

June 22, 2021

Theo Matuskowitz
Federal Subsistence Board
Office of Subsistence Management
1011 East Tudor Road, MS-121
Anchorage, AK 99503-6199

Re. Wildlife Proposals 22-07, 22-08, and 22-09

Dear Mr. Matuskowitz:

Please include these comments in the public record. Please give a copy to each board member.

Subsistence deer hunters (Federally Qualified Users or FQUs) from Angoon, Hoonah and Pelican are claiming that non-subsistence deer hunters (Non-Federally Qualified Users or NFQUs) are out competing them for blacktail deer. Village residents are federally qualified and already have priority use of the deer resource as their season runs through January 31, while the NFQU season ends December 31.

The Southeast Alaska Subsistence Regional Advisory Council has developed three wildlife proposals – 22-07 Angoon, 22-08 Hoonah, and 22-09 Pelican – to address claims that NFQUs are responsible for reduced subsistence harvests in these villages. These proposals are based only on comments from villagers and are not based on any actual data or documented observations.

Based on my personal observations made deer hunting in Northern Southeast Alaska over the last fifty years and findings of the Alaska Department of Fish and Game (ADF&G) harvest studies, these proposals can not be justified in any way and should not be adopted.

I have been a lifelong deer hunter and am over seventy years old. The last several years I've spent more than fifty days in the woods annually, and for the last fifty years, my hunting has been in Northern Southeast Alaska; I've hunted in all areas included in these proposals. I can still get up the mountain farther than I can get a big buck out of the woods and am very selective of what I harvest and where. I use a boat to access my hunting areas and do a lot of calling and don't hunt from drivable roads. I haven't been on the Hoonah road system in decades. Every year I let many deer walk away rather than shoot them and have absolutely no problem getting enough deer to meet my family's needs

Theo Matuskowitz
June 22, 2021
Page 2
Following are comments that apply to all three proposals (22-07, 22-08, and 22-09)

FQUs already have priority to deer as they can hunt through January when deer are often most available while NFQU's season ends December 31.

The winter of 2007-2008 saw a record high snowfall throughout Northern Southeast Alaska and as a consequence, deer where driven to the beach in numbers not seen since. They were at the peak of availability. Since the winter of 2007-2008 there has been less snowfall and deer have not hit the beach in numbers seen during the 2007-2008 winter. In the last three to four years there has been less snow and more rain. Deer have not herded up on the beach much and it has been more miserable to hunt in the rain but hunters I associate with, that like to hunt and eat venison, were out there hunting.

In the areas I've hunted the last ten years, I have seen fewer hunters than in earlier years.

Since the deer killing winter of 2007-2008, the deer populations in all three areas have rebounded and currently are at or near all time highs.

Comments on 22-07 Admiralty

This proposal would essentially close federal lands from Pt. Marsden to Pt. Gardener to deer hunting by NFQUs from September 15 through November 30.

Most NFQUs from Juneau who hunt the West side of Admiralty usually turn around at Funter Bay or Hawk Inlet as there are few to no good anchorages south of Pt. Marsden. Also, the proposed closed area is too far from Juneau for day trips. It is my belief that most subsistence hunting from Angoon is done on the beaches, which are not included in this proposal as beaches are state land.

I know several NFQU hunting parties that hunt West Admiralty, mostly north of Pt. Marsden, and they are typically quite successful. I know of two parties of NFQUs that hunt out of Angoon and they always get their deer.

Comments on 22-08 Hoonah

Hoonah has really degraded local wildlife habitat through extensive clear-cut logging (which has been shown to significantly impact wildlife values over the long period) and the extensive road system (which has been shown to also reduce the area's wildlife values). The Hoonah road system has become a favorite place to conduct hunting by Hoonah residents, especially after doe season opens. Please note that reduced sailing schedules of the Alaska Marine Highway's ferries have reduced opportunity for NFQUs from Juneau to get to Hoonah to compete with local hunters.

Over the years, deer have adjusted to the heavy hunting pressure along the Hoonah road system. After a week or two of harassment by road hunters, surviving animals move away from the roadside. However, I know those that hunt in the woods accessed by the Hoonah road system have had no problem finding deer.

Theo Matuskowitz
June 22, 2021
Page 3

I have heard of two Hoonah residents who in the past typically shot many more deer than the limit, which would take deer away from other hunters.

Also please note that data shows there is minimal exchange of deer between the north shore of Tenakee Inlet and areas accessed by the Hoonah road system. The mountains on the north side of Tenakee Inlet serve as a dividing line for Tenakee Inlet deer and deer living north of the mountains in areas accessed by the Hoonah road system. Therefore, only areas accessed by the Hoonah road system on northeast Chichagof Island should be included in proposal 22-08 and the north shore of Tenakee Inlet should be excluded.

ADF&G deer harvest and hunter effort data applies to all three proposals.

1. Deer populations are at very high levels.
2. There have been substantial decreases in hunting effort by FQUs
3. There has not been any noticeable increase in hunting effort by NFQUs
4. The reduced number of FQUs still hunting are harvesting more deer than in the past.
5. There is simply no justification to support any of the three proposals.

In conclusion

There are very high numbers of deer available in all areas covered by these proposals, however, FQU hunters are no longer hunting. They are not taking advantage of the standard deer season (August 1 – December 31) or their priority opportunity of hunting through January. Deer are often most available during January, due to winter snow levels, etc.

Any restriction of NFQU deer hunting opportunity will not increase subsistence harvests in the villages. FQUs from the villages need to get out of the house and out of their vehicles and back into the woods to get their deer. They will have no problem.

Proposals 22-07, 22-08, and 22-09 are based on inaccurate beliefs of FQUs in the villages and lack any justification. Adoption of any of these proposals would be a needless and huge disservice to many hunters in northern southeast Alaska, hunting a strong public resource, on public lands.

Please reject (not approve) proposals 22-07, 22-08, and 22-09.

Thank you for the opportunity to comment.

Sincerely,

Mike Bethers
Auke Bay, Alaska

Mike Bovitz

9500 N Douglas Hwy

Juneau, AK 99801

(907)723-2279

Metalworks@gci.net

Theo Matuskowitz

Federal Subsistence Board

Office of Subsistence Management

1011 East Tudor Road , MS-121

Anchorage, Ak 99503-6199

Re: wildlife proposals 22-07, 22-08, and 22-09

Hello Mr. Matuskowitz:

I am NOT in support of the 3 wildlife proposals-22-07 Angoon, 22-08 Hoonah, and 22-09 Pelican.

The rural subsistence deer hunters/Federally qualified users are claiming it is getting harder to fill their quota of deer. They are concerned about the potential of not enough deer for their personal use to live a subsistence living. There is no science based facts to what is being questioned or science based facts to what they are stating on the deer population.

Alaska fish and game do harvest studies, pellet counts, flights for deer etc, etc. This is all paid for by every Alaskan through tax dollars. Based on their science the number of deer is quite plentiful and Federally Qualified Users already have an extended season going through January 31st. Alaska fish and game last year allowed every resident 6 deer instead of the normal 4. Why would they do that if there was a resource problem?

The only thing that has changed over the past years is our weather pattern. Snow is no longer coming in and staying on the beach for long periods of time driving the deer to the beach. Which is a good thing because as those big snow falls happen mother nature NOT man takes over and the deer start to die.

Proposals 22-07, 22-08, and 22-09 are not science based, have no justification, and would be the wrong thing to do to many Southeast Alaska hunters, hunting a public resource.

Please REJECT and NOT APPROVE proposal 22-07, 22-08, 22-09

Thank you for your time.

Mike Bovitz

[EXTERNAL] SE Deer Hunting

Lee Bridgman <Lee.aklife@outlook.com>
Fri 7/9/2021 1:53 PM
To: AK Subsistence, FW7 <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

RE: proposed changes to deer hunting in Unit 4 are WP22-07, WP22-08, WP22-09, and WP22-10.

I myself do not hunt in the Southeast and do not believe the large numbers are making their way to hunt deer in this area. The cost of getting there compared to the game meat taken would make the trip counter productive. As for the Wanton Waste of game meat, I would believe that F&G would be very able to check vessels arriving in Juneau for proper care of the game meat.

The proposals will only further divide the user groups, which is not a desired result. If limits need to be reduced, for all, then so be it.

Do not proceed with these proposals.

Thank you,

Lee H. Bridgman
763 Wanda Dr
North Pole, AK 99705

[EXTERNAL] WP 22-09 Lisianski Subsistence Deer Hunting Restrictions

bornalaska@yahoo.com <bornalaska@yahoo.com>
Fri 7/16/2021 12:14 AM
To: AK Subsistence, FW7 <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

My name is Chris Carson, my wife and I own a cabin 3 miles outside Pelican. Our cabin is in the same sub-division as the author of WP 22-09 proposal. Mr Slatter has on a number of occasions sought to purchase our property and the remaining four other lots in the division, for which he owns all the lots except for four. The four other lots are owned by people who are not residents of Pelican or other Alaska substance communities.

If this proposal was to pass, it would mean that none of us would be able to use our cabin to hunt deer. Our cabin had been in the family for over 25 years. I was born in Juneau in 1965, live in Pelican as a child and have been hunting and fishing in the Pelican area most of my I've.

I have always found there to be plenty of deer in the area and truly believe this proposal is Mr. Slatter attempt to restrict the resources from the remaining families who live in Slatter National Park, (as local Pelicans call it) so they would no longer have a reason to visit Pelican, which could lead to selling their property.

Hunting and fishing has always been an important part of our lives. My son who was born and lives in Juneau now has children who have spent time hunting at the cabin, this is now the third generation of Carsons hunting at the cabin.

I strongly encourage the board to decline WP 22-09 Lisianski Subsistence Deer Hunting Restrictions as it does not have any solid standings to support its implementation.

Thank you for your time,

Chris L. Carson
Sent from my iPad

[EXTERNAL] Wildlife Proposal - 22-09 - Lisianski

CARSON JIM <akjim22@yahoo.com>
Mon 7/19/2021 7:50 PM
To: AK Subsistence, FW7 <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

We would like to comment on the above proposal regarding hunting in the Lisianski Inlet. As hunter's and long time Alaskan residents we strongly oppose this proposal. The land in the proposal is public land. Since when can one person's want's oversee the public. There is no lack of deer or evidence of such to prompt such a proposal. If we allow this type of strong arm tactic from an individual special interest, what is next for the public land user and average Alaskan. Please do not allow this to pass. Public land is Public land. No one person should change that.

Jim and Tama Carson
Juneau Alaska

Subsistence Opposition
WP22-09 SE

I, Norm Carson, am adamantly opposed to the proposed rural qualification for deer hunters within the Lisianski Inlet & Strait area. I recognize my comments are lengthy; therefore my recommendations are preceding how they were derived.

Recommendations

The best solution is to not support the Federal Subsistence proposal. I recommend the Pelican Fish & Game Advisory Board address this issue with adequate public notice so that we can arrive at well thought out recommendation unlike the proposal that was rammed through the SE Federal Advisory Board March 16-18 with selective input from the community. These are some suggestions I would have for the Pelican Board:

- RF qualified no change, 6 deer
- All non rural federally qualified, NRFQ, Alaska residents, 4 deer, season ending December 31.
- Non-residents of Alaska 1 deer, season August 1 ending October 31
- ADF&G Game Biologist for the area has flexible management authority to change bag limit or season as needed for resource ADF&G has determined there is not a shortage of deer.
- There is not a shortage of deer in this area; weather and an abundance of brown bear deprived of their customary food source kept the deer very skittish and off the beaches.

If WP22-09 should it pass will actually make the situation worse for the following reasons:

- NRFQ hunters will have to hunt on State tidelands up to the mean high tide mark. This will result in more skiffs running the beaches and the deer will quickly learn to run off at the sound of an outboard.

- NRFQ hunters will be allowed to hunt on private land; this will increase the potential for conflict with a land owner as we saw in 2020.
- RFQ hunters from other areas such as Haines and Sitka will not be affected by WP22-09

Background Information

I first came to Pelican in 1966 as a college kid working at the Pelican Cold Storage; in 1968 I joined the Alaska State Troopers. I retired in 1990 from law enforcement as Commander of all Trooper operations in Southeast Alaska.

My parents resided in Pelican and in their later working years were commercial salmon trollers. I spent my annual leave time commercial fishing and hunting in the Lisianski area; my mother was an avid deer hunter and fisherman. At the early age of 7 or 8 years both of our sons participated in October and November deer hunts with myself and my parents. Both of our sons are State Troopers, one in Juneau and another in Delta. Both of them look forward to a deer hunt with their father during November; we often talk about the family time they spent hunting as youngsters with their grandparents.

In 1981 my wife and I obtained a 3 acre land parcel in the State sponsored land lottery. We built our future home 3 miles south of Pelican and acquired 2 other lots in our cove through purchase. After my retirement from State employment I spent sufficient time at our Pelican home to claim residency in the area; our sons joined me during the summer commercial fishing the local waters. My wife remained employed in Juneau until our youngest son graduated in 1997; at that point we sold the Juneau property and moved to our Pelican home.

Pelican was never a total subsistence community in the category of Angoon, Hoonah, or Kake. Pelican was founded in 1938 as a site for a cold storage; the nearest "tribal community" was Hoonah. Pelican was a mixture of Finns, Swedes, Norwegians, Tlingits, Swiss, and Filipinos. At a time in our past there were approximately 350 residents, perhaps 200 year round. In the 1980's the cold storage was exporting approximately 5 million pounds of frozen fish annually; at one time we led the world in the landing of King Salmon. The Lisianski area was never the site of an Alaska

Native settlement; but some of our earliest residents were Alaska Natives and important to the building of the town.

The town's economy slumped as the fish market turned from whole frozen fish to value added in the early 2000's. The town's population dropped to around 100 residents. On the positive side we have seen a resurgence in the commercial trade with the opening of a new processing operation that is employing roughly 25 workers seasonally. The sport fishing charter/ lodge businesses bring an estimated 500 clients annually and this helps support sailings by the Alaska Marine Highway Service and scheduled airplane service from Juneau. The fact that Pelican has hydro power is an incentive for further expansion if our housing shortage is solved.

The question of food security is important. I can say that 99% of the residents and perhaps 100% receive food from Juneau stores. On ferry day the freight trucks unload pallets of food; I witness a few proponents of this subsistence rural qualification proposition and other residents gathering up their purchases from Costco, Fred Meyer, Super Bear, etc. Yes, we all harvest fish, shell fish, berries, and deer from the area; it is a supplemental part of our diet.

I have been hunting this area for over 50 years; there is nothing about the number of hunters or the availability of deer that has not cycled through the decades. In the 1990's and first decade of the 21st century I well recall turning a corner in my skiff and finding another hunter's skiff anchored where I intended to hunt. Not a big deal; I went and found another place. It was not unusual to find another hunter's prior foot prints on a the trail. Often I called up a November buck while in an area that had been hunted by some one else a few days prior, and in one case just a few hours prior.

The first Department of Natural Resource, State of Alaska, land lottery in the Lisianski area occurred some 40 years ago. Some folks from Juneau that had family or friends in Pelican obtained building lots. Other residents from Fairbanks to Sitka obtained acreage and built homes; some have become full time residents and others have recreation houses they use while fishing and/or hunting. None of the Pelican residents of that time tried to enact new laws to keep the "new comers" from taking "their fish or deer". A couple of residents have told me they used to hunt in the immediate area of our present home.

The 2020 hunting season was unusual because of the weather and the pandemic. The local spawning streams had very low returns of salmon. The summer was very moist and the berry crops were sparse. The brown bear turned to grubbing for roots in late September and October. More bear were seen on the beaches than usual; some were seen pursuing deer. It was not unusual to have bears grubbing in resident's yards in Pelican; ten were counted around Pelican Creek; just a couple hundred yards from the school. A bear was seen walking the boardwalk and another out on the breakwater where boats are stored and the city shop is located. Is it any wonder the deer were skittish and staying off the beaches?

My eldest son came out from Juneau to hunt with me during the November rut when the bucks are most likely to respond to a deer call. During this two week period the weather was so blustery that we only were able get out in the skiff for two hunts. One one of our hunts we found not much sign low and more up around the 400 foot level; we should have gone up higher. The next time we got out we found good sign at the 500 foot level; I called up three deer, my son shot one and the others got away. Later my son found another deer on the hillside not far from out home. We believe the deer were unusually high for November and very wary; probably because of bear prevalence. We had no problems with competition from other hunters for an area to hunt.

An unfortunate aspect of this proposal is that is will cause a division within the community. The newest board member, Jim Slater, pushed this proposal within the community to a select few. Jim is a passionate environmentalist; we have had discussions on cruise boats in Lisianski Inlet, charter boats, sport fishing effort, etc. I commend his concern; he has remarked that he has seen the effects of tourism in California where he once resided and he does not want to see it happen here. I agree with him; but I do not think that is likely due to the remoteness, land use restraints, and cost of getting here.

The manner in which this proposal was hurriedly brought before the March SEARAC meeting may have been technically correct; in my estimation it was inappropriate. These are the issues I question:

- A select few were notified this proposal would be put forth.

March 14th

- 7:45 PM; Jim sent email to the selected few "I am still gathering the information to put in a form to submit a proposal. It will be along the lines of of what we discussed."

March 15th

- 9:55 AM: Jim sent the 6 members an email: "Hi everyone, here is the proposal we discussed. I have also included the agenda, which has the dial in info. But here it is:" You should call in either Tuesday or Wednesday at 9:00 AM. That is when the public testimony is scheduled. I'll call you guys later. Thanks, Jim."

- 2:46 PM: Jim sends email to the selected few: "Hi everyone, This was sent to me by the biologist for the area. Please give me some feedback, if you guys support this please re-confirm. I don't want to propose it if it doesn't have broad support from the community."

- 5:17 PM: Jim sent email to 6 community residents with a wording recommended for supporting the proposal; he said he provided this in testimony at the previous RAC meeting:
- "We live a subsistence lifestyle"
- Coho run on Lisianski River
- 500-750 charter visitors
- concern about bareboat charters

During the March 16 -18 Meeting:

- A select group of residents met at City Hall and utilized the teleconference phone system to call in to the SEARAC meeting and comment on the deer proposal. Mayor Weller, I believe made the call and turned it over to the few people present; two of them are on the city council. This teleconference at City Hall was not announced publicly.
- The SEARAC passed the proposal and it will be heard by the Statewide Board; this will give it extra impetus for passage.

If this issue was of such great concern, why did it take so much coaching for the testifiers? If the teleconference at City Hall were publicized might there have been at least one dissenter?

Another issue I have with the March SEARAC meeting was the generalities spoken by the proponents and the lack of follow up questions:

- "We saw quite an increase in the number of hunters in the Inlet this year." *Follow up needed: Please quantify the number and the town or area they came from.*
- "There are several groups that live outside the area and state that come seasonally and target some of our key resources here in Lisianski Inlet. These include the coho run in Lisianski River and Sitka black-tail deer hunting in the habitat surroundings." *Follow up needed: How many people have you seen fishing on the Lisianski River? How many fish did you see caught? Where did the large groups of deer hunters stay in Pelican? How many hunters were in these groups?*
- "fishing in Lisianski Inlet, in general, has been significantly worse over the last -- it's decreased over the last decade or two." *Follow up needed: Is this based upon your personal fishing experience? Could this be related to the area wide issue with colder water and less bait fish?*
- "This year several members were not, including myself, able to harvest a deer or saw very limited access." *Follow up needed: Over the previous two years, how many deer have you taken annually? How many days did you go hunting after October 15th in 2020?*
- "But over the few years we've seen a lot of big parties coming out and doing hunting." *Follow up needed: Please describe these hunting parties; how did they get to Pelican?*
- "the concern I share with the community is the obvious growth in the sportfishing" *Follow up needed: Does most of the sport fishing by lodge clients occur in the Lisianski Inlet or out along the coast of Yakobi Island and beyond?*
- "are folks in Pelican thinking about addressing all those resources or are they focusing primarily on deer?" "All the resources." Follow up needed: *If salmon were a subsistence issue wouldn't that remove commercial salmon fishing from the Lisianski Inlet and Strait?*
- I'm 65 years old but I've been hunting for 50 years and this is a -- this past year has been the first year that I haven't even gotten a deer" *Follow up needed: Did you hunt with anyone else that shot deer that you could have taken?*
- "we have noticed in the last couple of years is increased pressure from people that don't live here. They show up and they compete with us directly for the resources that we're after" *Follow up needed:*

You came here 40 years ago, were there more people living in Pelican then or now?

- "The lodge that I spoke of is currently a summer fishing lodge and to be honest we've only just heard the idea that this is going to become a hunting lodge so this is just something that we're looking into the future to limit, if possible, if that were to become an option for a hunting lodge." Follow up needed: *"So, we are considering a substantial regulation change to prohibit some Alaska resident hunters because of the possibility of a hunting lodge?"*

These are a few of the comments made by 5 hunters that reside in Pelican: none of the comments were questioned. A sixth person that hunts deer and testified abstained from supporting this proposal. There are more than 5 Pelican residents that hunt deer after October 15th; their lack of testimony is a result of not being notified of this proposal or because they did not want to be involved in a controversial subject with their fellow residents by voting against it.

I will submit the issue of a hunting lodge was a scare tactic used to cause some residents to testify. Consider the economics of out of state hunters coming to Pelican:

- Airfare from Juneau is over $400.00 round trip with a 50 pound baggage limit, $1.10 per pound overage.
- Alaska non-resident hunting license $160.00
- Alaska non-resident deer tag $300.00

This would amount to $860.00 for the opportunity to bag an average 90# deer and that is before any local lodging costs are added.

Would there be a market for Alaska resident hunters? Again, there is the expense of getting the hunters from Juneau to Pelican: over $400.00 round trip. Then, the uncertainty of air travel. From mid-October on the weather & shorter daylight hours makes flying to and from Pelican anything but a sure thing. A person may not get to Pelican for a week or once here, may not leave for an extra week. The prospective hunting lodge will have to consider the costs of extra insurance for hunters, possible weather cancellations, possible extra cost of weather preventing

clients from departing, and the liability of hunters in a new area containing unforgiving conditions. The issue of a deer hunting lodge was a useful tool for a person wanting to limit any resident hunters coming to the area.

Are there a large number of Alaska resident hunters that travel to Pelican to hunt deer? No, depending on the definition of "a large number". Looking back at 2020 I can count a total of 18 between October 1 to December 15; these were spread out over that time. There is a group from Haines that travel to Elfin Cove and then hunt from a commercial fishing boat and concentrate their activity at Idaho Inlet, Port Althorp, and outside of Yakobi Island. The Haines group attract attention in Pelican as they end their trip here and catch a ferry back to Juneau; the Federal proposal will not affect them as they are from a rural community.

Where do the Alaska resident hunters stay when they come to Pelican? Five of these 1 to 4 person groups stay with a property owner outside the city limits. The owner purchased State DNR land in one of the land disposal programs and invested thousands of dollars in building houses on their lots. Often the houses were built by hiring workers from Pelican. These owners contribute to the local economy by purchasing airfare, ferry fare, gasoline, and other items in Pelican. Some of these hunters are relatives of the property owner who in turn is a Pelican resident; they have hunted in the area for decades. Other hunters either stay with relatives or friends in town or in a house they own within the city limits.

Is there a shortage of deer in the proposal area? No. The ADF&G data will show there are plenty of deer. Success rate for local hunters has not diminished over time; in fact it has increased. The 2020 season was remarkable for poor weather conditions and an abundance of brown bear. The difficulty many hunters faced in locating deer was not unique to the Pelican area; it was a complaint I heard from other hunters in Northern Southeast.

Will this proposal improve the hunting success for Pelican residents? No, it likely will make it more difficult: The proposal pertains only to Federal Lands, it has no effect on State or private land. State land is that portion of land below mean high tide and there are pockets of State land within the area. We can anticipate more boats running the beaches looking for deer, this will push the deer up the and make them more wary. Land owners outside the city limits can hunt on their land, many of these are 3 acres in size. Some of these private holdings are adjacent to the lands owned by proposal supporters; unless posted we can expect more unpleasant encounters between land owner and hunter.

Will this proposal affect the Haines group? No, they come from rural community. Only hunters from Juneau or Ketchikan in Southeast and any other community in the rest of Alaska will be restricted. Sitka hunters will also not be affected.

My final remark is that if a commercial deer hunting lodge were to be started, I would oppose it with every legal remedy available. I believe we can recommend changes within the ADF&G to make commercial deer harvest operations even less economical.

Sincerely:

Norm Carson
PO Box 98
Pelican, AK 99832

ph: 541-361-5272 or cell 907-321-1950
email: lcarson@att.net

June 29, 2021

Linda Carson
PO Box 98
Pelican, Alaska 99832

Federal Subsistence Board
State of Alaska

RE: WP22-09, Lisianski Inlet Deer

I was born in Alaska and Pelican has been my home since 1997. My husband and I reside off grid about 3 miles south of Pelican. We have two sons, one lives in Juneau and the other Delta. Both of our sons learned to hunt with their father and grandparents in this area.

WP22-09 would restrict deer hunting in our area after October 15th to only those residents that meet the qualifications for a Rural Federally Qualified hunter. Only two communities in Southeast Alaska do not meet the RFQ standard, Juneau and Ketchikan.

A recent study by the Alaska Department of Fish & Game states the deer population in our area is not at all threatened; there is no conservation issue. Further, the study shows that subsistence hunters in our area are more successful now than in previous years.

This spring we have seen many deer around our local beaches. The fall & early winter of 2020 was unusual in weather; it was very windy and warm. There was not an early snow pack to bring the deer down to lower elevations; this had a detrimental effect on hunting.

WP22-09 should not be passed.

Linda Carson
lcarson@att.net

[EXTERNAL] Public comment: Wildlife proposals 22-07, 08, 09

Kelly Cates <kacates@alaska.edu>
Mon, 1/19/2021 9:31 PM
To: AK Subsistence, FWS <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Dear Subsistence Management Board,

I am writing in opposition to wildlife proposals 22-07, 22-08 and 22-09. I am a SE hunter and my family regularly hunts in each of the proposed areas. We rely on subsistence meats to feed us through the year and enjoy the memories created from our hunting trips. It is unclear to me why these proposals were initiated as the data outlined in the packets suggests that deer populations are thriving and that FQU's are harvesting more deer than they used to. So if there are plenty of deer and enough for all users, why should one user group be excluded? Again, I oppose these proposals and hope the facts outlined in the information packets are fairly weighed in the boards decision.

Thanks,
Kelly Cates

--

Kelly Cates, PhD Candidate
College of Fisheries and Ocean Sciences
Green Business Division, University of Alaska Fairbanks
kacates@alaska.edu | 989 423-9032

May your trails be crooked, winding, lonesome, dangerous, leading to the most amazing view.

[EXTERNAL] Comments for WP22-07,8,9,10

Matthew Catterson <mattcatterson@yahoo.com>

Fri 7/16/2021 4:30 PM

To: AK Subsistence, FW7 <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Federal Subsistence Board Members,

I am writing to comment in respectful opposition to the regulatory actions proposed in WP22-07, WP22-08, WP22-09, WP22-10. I am currently a resident of Juneau, but I have spent most of the past 15 years residing in the Southeast Alaska communities of Yakutat and Sitka. My time living, working, fishing, and hunting in these communities has engendered in me a great respect and connection to the subsistence lifestyle.

Because of my background, I can certainly empathize with the concerns presented by the authors of these proposals. However, the information provided in ADF&G Department comments is aligned with my experiences hunting in the proposal areas, which is that hunting effort in these areas is minimal and that competition between hunters is not responsible for trends of reduced deer harvest by FQUs or NFQUs. I believe it is widely accepted that environmental conditions (harsh winters), not hunting pressure, is the primary driver of deer abundance in Northern Southeast Alaska.

I would ask Federal Subsistence Board members to very carefully consider these proposals that significantly reduce available hunting areas to residents of Juneau. As you know, just because someone lives in a larger community like Juneau, does not mean they don't live a subsistence lifestyle and place great cultural, traditional, and personal value on a connection to the natural world that is based on procuring food for themselves, their family, and their community. The closures and bag limits reductions in these proposals would significantly impact traditional hunting use patterns for many people who live in Juneau and should only be enacted in extremely dire circumstances.

As an alternative, I would not oppose regulatory changes that increase opportunity for FQU's while maintaining existing hunting opportunity for NFQUs. This type of regulatory change, coupled with ADF&G assertions that deer abundance is relatively stable in proposal areas, may achieve the increased harvest sought by proposal authors.

Thank you for your time and consideration of my comments.

Matt Catterson, Douglas, Alaska

Steve Christensen
509-543-8468
Email: EinnFinn2019@gmail.com

Federal Reserve Board
Alaska Region

RE: WP22-09
Lisianski Deer Restriction

I moved to Alaska in 1985 and resided in Juneau for almost 30 years. I moved to the Lower 48 for personal reasons. Five years ago I returned to Alaska and purchased a home in Pelican. I am presently employed at Alaska SeaPlanes in Pelican

I have always been an avid hunter and fisherman; I was involved in subsistence hunting and fishing. I hunted to put food on my table in my first 30 years in Alaska

A recent study by the Department of Fish & Game states the deer population in the area of Lisianski Inlet & Strait is not at all threatened. In years past I have experienced regulation changes by the ADF&G when they felt it necessary to protect the deer population. This is not the current situation.

WP22-09 would restrict deer hunting in the Lisianski area after October 15th to only those residents meeting the qualifications for a Rural Qualified Hunter. Only the residents of two communities in Southeast do not meet the rural standard. Those would be of Juneau and Ketchikan

In the past 5 years I have seen plenty of deer along the shores of Lisianski Inlet. All experienced hunters in Southeast understand that weather conditions and individual effort determine success or failure.

By current statistics, the deer population is flourishing and subsistence hunters are more successful now than in previous years.

I ask that WP22-09 not be passed.

Sincerely,

Steve Christensen
General Delivery
Block 1, Lot 7
Pelican AK 99832

[EXTERNAL] WP22-09 SE Deer 4 Closure to non-Federally qualified users, Lisianski Strait

denny corbin <dennycorbin.dc@gmail.com>

Sun 6/13/2021 6:15 AM

To: AK Subsistence, FW7 <subsistence@fws.gov>
Cc: dhulen@adn.com <dhulen@adn.com>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Re: WP22-09 SE Deer 4 Closure to non-Federally qualified users, Lisianski Strait

This proposal is ridiculous. The deer population is in fine shape as per analysis by Alaska Department of Fish and Game deer managment biologists. The number of hunters has decreased (mostly the subsistence qualified hunters have decreased due to a poor economy forcing the majority of younger people who grew up here to move away in search of work). The harvest limit has been raised over last few years as there are so many deer and success rate per days hunted has increased over the last decade. According to game managment biologists the deer population is at carrying capacity. In my opinion failure to harvest deer by a very few people living in the area is due not from competition but from not wanting to hike to the high country where deer have been staying because warmer winters and increased bear population that haven't been hibernating like normal from low snowfalls for most of the winter. This bear activity all winter keeps the deer on the defensive, sticking to high ground and extra sneaky.

I grew up in Lisianski Inlet a few miles outside of Pelican. My family subsisted heavily on deer and I can remember my mother telling me not to come home without a deer. I learned quickly how to catch a deer and sometimes it takes hard work. Due to the loss of economic opportunities in the area (from government over-regulation I might add) I was forced to spend my winters in southern California commercial fishing squid in order to support my young family. I still spend summers in Lisianski Inlet operating my families homestead as a fishing lodge. I maintain Alaska residency but purchase a non-resident hunting license as cheap insurance to keep enforcement from attempting Law-fare shake downs, taking me to court and forcing me to spend a lot of money proving I still intend to remain an Alaska resident. At some point I would like to come home from the (economic) war and hunt the November rut with my children in the area that I hunted with my father. This is an important cultural and traditional point for me, yes, based mostly on nostalgia, but valid all the same.

This proposed new law will shut out many people who grew up in Lisianski and who's families have long history of hunting there. It will make outlaws of people who have traditionally hunted the area for generations simply because they cannot make a living around Pelican anymore and needed to move part of the year to another location in order to survive. Parents and grandparents who still live in Lisianski will be denied the pleasure of hunting the November rut and first snowfall (which by the way is the very best of the deer hunting over the entire season) with their children who were forced to

move away and they will be denied teaching their grandchildren how to hunt in the traditional area that their families have hunted for generations. The grandchildren will lose an important link to their traditional and ancestral home when they are not allowed to learn how to hunt with their parents and grandparents.

This area is sadly turning into a summer home vacation spot for wealthy retirees. Southeast Alaska has seen its share of economic hardships over the last 30 years, with pulp mills shutting down, the IFQ program for halibut and black cod making 2nd class citizens out of many young (now not so young) fishermen, salmon farms and increased federal regulations driving down the price of salmon and shortening the season making it nearly impossible to make a living as a commercial fisherman. We've suffered enough. We do not need the Federal Government telling us who can and can't take a deer for personal use. The motivations of the few people who support this proposal are varied but in my opinion none are valid or based on any knowledge of deer harvest number or really any hard knowledge at all of deer managment in the area.

The US government should not be required to guarantee anyone deer hunting success and deer hunters who have a long tradition and family history, and who maintain homes in this area should not be made outlaws for harvesting deer around their homes. Legal liability is only one part of a successful game managment system. Respect for the law and for law enforcement plays a much larger role than fear of reprisal. When stupid laws are made by stupid people the rest of us look on in disgust and lose respect for the system.

Think carefully before forcing through a new feel good (for some) regulation that is not supported by the majority of residents.

Denny Corbin, Lot 17 & 18 Sunnyside
PO Box 765
Pelican, Alaska
99832

[EXTERNAL] Unit 4 WP22-07, WP22-08, WP22-09, WP22-10 Proposed closure of Blacktail deer seasons to non-subsistence hunters

Ken Couch <kc_n_gurls@yahoo.com>
Mon 7/19/2021 5:35 AM
To: Matuskowitz, Theo TM <theo_matuskowitz@fws.gov>; AK Subsistence, FW7 <subsistence@fws.gov>
Cc: AK Subsistence, FW7 <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

I am opposed to these proposals because there is no scientific evidence or biological data to support these recommendations. ADFG biologists are on record stating the proposed closures will unnecessarily restrict non-subsistence hunters of opportunity to hunt contrary to Title VIII of ANILCA. There is no biological evidence or even a reason to believe that non-subsistence hunters are affecting the federally-qualified subsistence hunters ability to harvest deer.

I am getting tired of RACs, aided and abetted by the Subsistence Office of FWS Region7 continuing to waste public funds on these frivolous proposals to give federally-qualified subsistence hunters a private hunting club paid for by all Federal tax payers. Federal Regulations REQUIRE that the proponent of any rule change has the burden of proof to show the proposed change is necessary. The RAC has not provided any proof. Instead, all this is just wasting tax dollars. Maybe all the non-subsistence hunters should start making frivolous proposals that the RAC has to fight. Then maybe they would not have time to waste time and tax dollars on unsubstantiated claims.

Ken Couch

Sent from my iPhone

[EXTERNAL] I strongly oppose proposal WP22-09 SE

Tom Crass <tomcrass@gmail.com>

Sun 7/18/2021 1:28 PM

To: AK Subsistence, FW7 <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

WP22-09 Lisianski Subsistence Deer Hunting Restrictions.

There is no reason for this federal subsistence proposal . My family hunt and hike the hills in the proposed area and have done so for over twenty years. We have not seen a decrease in the deer population, and city of Pelican was approximately 300 people when we first bought our house there, it is currently 60 people. I do not suspect that the deer population is in danger from a few hunters from the surrounding areas (including Juneau) it is expensive and difficult to travel to Pelican particularly in the fall. The cost and difficulty will keep most out and the black tail deer is not a trophy animal this is not a serious issue .

Tom Crass
PO Box 302
Pelican Alaska 99832

[EXTERNAL] Proposals 22-07/08/09

Elias Daugherty <elias1547@yahoo.com>
Mon 7/12/2021 4:39 PM
To: AK Subsistence, FW7 <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

I Elias Daugherty
Oppose the proposal 22- 07/08/09
The deer numbers show healthy and Sustainable.

I do think that nNon-residents becoming residents should have a stricter and longer qualification period
For hunting
Privileges
Such as a 5 year stay required.

I also believe if there is a concern about deer numbers being taken that the price for non-resident dear tags should increase. And Stricter non-guided deer hunts.

Sent from my iPhone

[EXTERNAL] Federal Subsistence Management Program Wildlife Proposals

John Demuth <jdemuth@pndengineers.com>
Wed 6/30/2021 1:46 PM
To: AK Subsistence, FWS <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Attention: Theo Matuskowitz

The intent of this email is to voice my opposition to the following proposals:

- WP22-07
- WP22-08
- WP22-09

The population of deer in these areas (as all areas in SE Alaska and Kodiak) has historically been impacted primarily by weather, and in particular the amount of snow experience in a given winter/early spring – NOT by the small percentage of hunters who may choose to venture further away from towns/areas with greater hunting pressure – i.e. Juneau. When heavy snow kills off deer, EVERYONE feels the impacts due to reduced numbers of deer.

W22-07 in particular is extremely exclusive and excessive as it covers over 70 miles of the west side of Admiralty Island – 40 miles north and 30 miles south. This is simple outrageous. NOBODY in Angoon hunts 30-40 miles from town, but rather they hunt primarily in Mitchell Bay due to the close proximity and favorable weather conditions – i.e. protected from high wind/waves. In addition, the vast majority of hunting pressure on the south end of Admiralty is from Petersburg and Kake hunters – who also qualify as subsistence hunters and hence will continue to compete with Angoon hunters – effectively changing nothing. The proposal clearly is intended to exclude Juneau hunters from hunting on the west side of Admiralty Island and will hence increase hunting pressure on the east side of Admiralty. The intent seems reasonable, but the range/area is far too large and should be reconsidered to be more focused on the immediate area around Angoon.

Thank you for your consideration.

- John DeMuth

[EXTERNAL] Public Comments Regarding Subsistence Management Program 2022-2024

Jared Erickson <erickson_jared@yahoo.com>
Sat 7/17/2021 7:43 AM
To: AK Subsistence, FW7 <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Public Comments Regarding Federal Subsistence Management Program 2022-2024:
WP22-07
WP22-08
WP22-09
WP22-10

Federal Subsistence Board-
I would like to take this opportunity to voice my opposition to the proposed changes to the above referenced deer hunting regulations in SE Alaska. To manage a population of a targeted animal species for harvest, I do believe it would be a mistake to consider anything other than the health of the population of that species. The ADF&G recently produced a comment response to the above proposed changes and the general trends show that there are fewer FQU's hunting, and they are hunting fewer days per year. The data also strongly suggested that the the Sitka Black Tail Deer populations in the areas referenced above are absolutely healthy and stable. That is, it has been a renewable source of food for all user groups for many years. The above proposals also do not take into account that deer at, or below, the mean high tide mark would still be eligible for harvest by the NFQU user group. I believe that this would actually make the concern worse due to the fact that all hunting efforts in these areas by NFQU's would be focused on the easier deer to harvest. If a NFQU is not allowed to harvest deer at elevation, or via flying into a lake that drains into these areas, the focus will shift to the deer near below the mean high tide level. This would generate the exact opposite effect as what is desired. I also believe it would be very hard to enforce the new proposals. The most concerning example I can think of is what will happen if a deer is shot below mean high tide, but then expires and is recovered above the mean high tide? A difficult scenario and one that invites controversy.
The above areas do have a natural barrier against too much traffic. For the months of concern, the population from Juneau must transit around Point Retreat and navigate Southern Lynn Canal to get to these areas if they are hunting by boat. This is the same body of water that will often prevent the Alaska Marine Highway System from making scheduled trips due to wave height and wind. The FQU's are positioned in the heart of the best hunting areas, giving them distinct geographic advantage.
If the true problem is FQU's not meeting their ANS, there are alternatives to the above proposals. Perhaps the Subsistence Board could consider subsidies to the FQU's in terms of fuel or equipment. Another option may be to liberalize proxy hunting for the communities in need. But if the real reason the FQU is experiencing a decrease in deer harvest rates has to do with fewer hunters putting in fewer days we should not penalize other user groups who use the same resource for the same reasons.
I have been a resident of Alaska my entire life, nearly 45 years, and Sitka Blacktail Deer from the regions above are an important part of calories for myself and my family throughout the year. I would like to voice my support for keeping the hunting regulations as they are and not preventing NFQU's the opportunity to continue to utilize this healthy, renewable source of food in our region.
Sincerely-
Jared Erickson
Juneau, AK

[EXTERNAL] Comments RE: All Southeast deer proposals, including but not limited to WP22-07, WP22-08, WP22-09, and WP22-10

Kyle Ferguson <pabucktail@hotmail.com>
Mon 7/19/2021 5:34 PM
To: AK Subsistence, FW7 <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

As an over 20 year resident of Sitka, and a federally qualified subsistence deer hunter, I would like to state my opposition to the proposals attempting to limit the deer hunting opportunity for non-qualified hunters in Southeast Alaska. My opposition is for the following three reasons:

First, there is no valid scientific reason for the proposed limitations. There are currently no existing or anticipated population concerns for deer in Southeast Alaska. Deer numbers across the region are increasing. With the general pattern of mild winters in the last decade Admiralty, Baranof, and Chichagof deer numbers are as good as they've ever been. In GMU 3 it looks like deer numbers are the best they've been in at least a generation. Scientific study of deer numbers in GMU 4 showed that numbers are high enough to sustain a limit for all residents of 6 deer per year. Anecdotal information from hunters and people who live in Southeast's subsistence communities indicates the general impression of excellent deer numbers.

Secondly, there is no valid social reason for the proposed limitations. In a 7/16/21 article in the Sitka Sentinel members of the Regional Advisory Council were interviewed and stated their rationalizations for these proposals. The reasoning revolved around perceptions of unfairness related to boats and trucks owned by other hunters accessing hunting areas, and perceptions of increased competition and decreased opportunity for federally qualified users. Neither of these points stands up under the scrutiny of facts. No matter who we are, there will always be someone with a better truck or boat than any one of us. Being offended by this reality will make us all a bunch of victim-based thinkers, and in sum are the mere voice of emotions rather than real facts. In regards to the idea of increased competition and decreased opportunity, if anywhere were to qualify for such an idea it would be Sitka, the subsistence community with the greatest numbers of qualified, non-qualified and non-resident hunters. In spite of the greatest numbers of competition, Sitka hunters don't seem to have a problem meeting their subsistence deer meat needs. This fact was acknowledged by Sitka RAC member Harvey Kitka who stated Sitka hunters don't have the problems alluded to by the RAC members from other communities.

In contrast, there are actual social reasons for rejecting these proposals. Deer hunting anywhere, but especially in Southeast Alaska, is a time-honored activity which affords people an opportunity to sustain themselves while enjoying and passing on a heritage that transcends generations. We all live in small towns here. The reality is that for reasons of employment, marriage, medical concerns, education, or various other factors, any one of us could find ourselves with family members living in non-qualified Alaska communities, or down south. I hate to envision a scenario where a grandfather in Sitka, an uncle in Angoon, or father in Kake couldn't take a young person deer hunting because a proposal such as this made it illegal to mentor the next generation.

Lastly, data and facts shows there's no practical reason for the proposed limitations. In the same 7/16/21 Sitka Sentinel article ADF&G biologist Steve Bethune was interviewed. He pointed out some

interesting facts related to hunter effort. Across the region it seems hunting pressure is light. Additionally, non-qualified hunter effort has remained stable while hunting effort by qualified subsistence hunters has declined. I don't know why there are presumably less qualified subsistence hunters, or why the same numbers of hunters are hunting less days. But the fact remains that the data shows if anything, hunters in the communities involved in this proposal have even greater opportunity than they did ten or twenty years ago.

Thank you for your hearing and consideration,

Kyle Ferguson, Sitka

sent from Outlook

[EXTERNAL] opposition to these proposals

Ron Flint <ron@nuggetoutfitter.com>

Mon 7/19/2021 2:02 PM

To: AK Subsistence, FW7 <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Federal Subsistence Board;

Count me in opposition to the following proposals.

1. western Admiralty from Sept 15 to Nov 30 that includes Hawk Inlet and south WP22-07
2. reduced bag limit for Chichagof (Hoonah and Tenakee, Freshwater Bay) from 3 to 2 WP22-08
3. closure of Lisianski Oct 15-Dec 31 WP22-09

Thank you for your time,

Ron Flint
12070 Cross St.
Juneau, AK. 99801

[EXTERNAL] Comments regarding 22-07, 22-09

Peter Flynn <flynn.peter@gmail.com>
Mon 7/19/2021 8:32 PM
To: AK Subsistence, FW7 <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

To whom it may concern,

I am an active hunter from Juneau, AK who would be affected by proposals 22-07 and 22-09. Myself and the group of people whom I hunt with also respect and hold great respect for the subsistence rights of other people in this state and wholly support their right to put food in the freezer. As hunters we hunt what only we can eat, aren't after trophies, and respect the land. We often hunt out of a cabin off the hoonah road system, always enjoying our conversations with neighbors and locals whether on the ferry, on the roads, or in town. We also fly into many of the affected areas, sometimes directly from juneau sometimes from other local airports, enjoying the cabins and beautifully different terrains that are available there. I am opposed to the aforementioned proposals as I believe there are better tools than closure to ensure that subsistence needs are protected without wholly excluding other parties, especially with such a healthy population of blacktails. Other tools are available that would provide for all affected parties such as altering bag limits depending on your subsistence qualification. Curtailing bag limits for non-subsistence-qualified hunters in these areas would keep subsistence as the dominant harvests while regional hunters from larger towns would be able to participate, as is being proposed in 22-08.

Thank you for your consideration,

Peter Flynn

[EXTERNAL] WP22-07, WP22-08, and WP22-09

Charles Frey <cfrey09@gmail.com>
Fri 7/16/2021 3:36 PM
To: AK Subsistence, FW7 <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

I am firmly opposed to WP22-07, WP22-08 and WP22-09. These proposals rely on hearsay & unscientific data to back up the proposed changes. The Alaska Dept of Fish & game who studies these areas is opposed as they cite healthy deer numbers. In addition, these areas are hard to access & have relatively light hunting pressure. This is pure & simple federal overreach & an attempt to lock down Alaska's wilderness for a self-serving reason by those in charge & those who sponsored these proposals.

Regards,
Charles Frey

[EXTERNAL] WS22-09

Ben Genz <bengenz@yahoo.com>
Mon 7/19/2021 7:43 AM
To: AK Subsistence, FW7 <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

I am opposed to this proposal as there is no scientific evidence or biological data to support these recommendations. ADFG biologists are on record stating the proposed closures will unnecessarily restrict non-subsistence hunters of opportunity to hunt contrary to Title VIII of ANILCA. There is no biological evidence that non-subsistence hunters are affecting the federally-qualified subsistence hunters ability to harvest deer.

Federal Regulations require the proponent of any rule change has the burden of proof to show the proposed change is necessary. The RAC has not provided any proof.

[EXTERNAL] Opposition of proposals 22-07, 22-08 and 22-09

Mary Glaves <Mare_e86@hotmail.com>

Mon 4/19/2021 1:24 PM

To: AK Subsistence, FWS <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Dear Federal Subsistence Board,

These proposals do not seem to be being proposed based on science and monitoring of deer populations. ADF&G recently INCREASED the annual bag limit of deer from 4-6 in Port Frederick. FQUs are also allotted an additional month (January 1-31) to subsistence hunt, which actually puts unnecessary pressure on deer during the hardest month of winter for the deer, and the easiest month for someone to harvest a deer as they get pushed down to the beaches. These proposals add unnecessary restrictions to Juneau and Ketchikan residents. ADF&G assessments for all units to do support these proposals. I, also, do not support them.

Mary Glaves

Territorial Sportsmen Inc.

Post Office Box 32712 • Juneau, Alaska 99803

Telephone (907) 789-2399 • Fax (907) [illegible]

July 14, 2021

Federal Subsistence Board - Attn: Theo Matuskowitz
Office of Subsistence Management
1011 East Tudor Road, MS-121
Anchorage, AK 99503-6199

The Territorial Sportsmen, Inc. (TSI) of Juneau is on record opposing the proposal (Wildlife Proposal 22-08) to reduce the deer hunting bag limit to 2 deer within the Northeast Chichagof Controlled Use Area (NECCUA) for non-federally qualified users (NFQUs). TSI wholly supports the Alaska Department of Fish and Game's (ADF&G's) comments opposing this proposal.

TSI agrees with ADF&G's assessment that there is not a conservation concern for deer on western Admiralty Island. The deer population is currently high, abundant, and stable. Because of the abundance of deer on in NECCUA, ADF&G increased the annual bag limit from 4 to 6 deer west of Port Frederick in 2019. Additionally, total hunting effort is relatively light for the area.

ADF&G concludes that the actual reason for the decline of federally qualified user (FQU) deer harvest is from a decline in participation & effort by FQUs, not depleted deer populations or increased NFQU competition. They found that NFQU deer hunting participation & effort have remained stable. Additionally, FQUs are allowed to hunt an additional month (January 1-31) than NFQUs, which is when the snow levels push most of the deer to the beaches. On the east side of Port Frederick FQUs have a much more liberal bag limit of 6 deer (compared to 3 deer for NFQUs). This proposal adds unnecessary restrictions to Juneau & Ketchikan residents, as well as non-residents.

TSI opposes this proposal and respectively asks that it not be adopted.

Sincerely,

Shawn Hoover
Vice President, TSI

Sportsmen Promoting Conservation of Alaska's Fish and Wildlife Since 1945

[EXTERNAL] Subsistence proposals for Sitka Blacktail Deer in AK

Brooks Horan <brookshoran@yahoo.com>
Wed 7/14/2021 9:58 AM
To: AK Subsistence, FW7 <subsistence@fws.gov>

3 attachments (2 MB)
WP22_09 ADFG comments Draft_Final.pdf; WP22_08 ADFG comments Draft_Final.pdf; WP22_07 ADFG comments Draft_Final.pdf;

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Dear Sir/Ma'am,
I am writing to express my lack of support for the proposed changes to sitka blacktail hunting in SE Alaska. The data just does not support these changes. I understand that the purpose of the subsistence board is to listen to rural residents in AK. I have respect for the decisions made by the board to ensure proper distribution of resources. As a past Kodiak resident, I experienced scientifically sound board decisions first hand, and benefited from them. But in this instance, the data does not support the proposed changes. Take the Lisianski proposal, the hunter data shows that success rates for rural residents/federally qualified users (FQUs) is the best in the state. Given that success rate, the actual number of rural resident hunters has decreased. There is just no mathematical or scientific reason to support this change to limit access to non-federally qualified users (NFQUs). I fear cutting such huge swaths of land out for FQUs will concentrate NFQUs into a smaller area making overall deer management that much more difficult. I strongly oppose these proposals as a scientist and as a resource user. I have attached the ADFG comments which represents the best evidence to support my input. Thank you for your time and for the work you do to ensure that the best science is followed in these management decisions. I hope this comment reaches you before the July 19th deadline and can be considered in your decision along with the comments of my fellow Alaskans.
Very Respectfully,
Brooks Horan

[EXTERNAL] Wildlife proposal 22-08

Aaron Hulett <aaronthenurse@icloud.com>

Sat 7/17/2021 10:14 AM

To: AK Subsistence, FW7 <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Regarding wildlife proposal 22-08 on Chichagoff island in Alaska I would like to voice my opposition. The numbers of deer on the island and harvest data do not support the claims made. This change would have a dramatic negative impact on non-federally qualified users and minimal or no positive effect for federally qualified users.

Thank you,

Aaron Hulett
1670 Mendenhall Peninsula Rd
Juneau, AK 99801
(360)460-4179

[EXTERNAL] Opportion to WP22-07, WP22-08, WP22-09

Brandon Ivanowicz <blvanowicz@pndengineers.com>
Mon 5/15/2021 4:11 PM
To: AK Subsistence, FWS <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Attention: Theo Matuskowitz

The intent of this email is to be on record in my opposition to the following proposals:

- WP22-07
- WP22-08
- WP22-09

I support the views of the Territorial Sportsmen, Inc. of Juneau and the Alaska Department of Fish and Game in their opposition to these proposals. Please see the attachment. Thank you. Brandon Ivanowicz.

There are three federal subsistence wildlife proposals being considered that will affect Juneau deer hunters! - Territorial Sportsmen

☰ Nav panel

Territorial Sportsmen

Search...

There are three federal subsistence wildlife proposals being considered that will affect Juneau deer hunters!

Posted on July 17, 2021 by territorialsport in Homepage

Comments on these are due by this Monday, July 19, 2021 (email: subsistence@fws.gov or fax: 907-786-3898).

The first proposal (WP22-07) is a closure of most of west Admiralty Island September 15 – November 30 for Juneau hunters. This includes all areas south of Hawk Inlet. Here are TSI's comments opposing that proposal (& supporting ADF&G):

The Territorial Sportsmen, Inc. (TSI) of Juneau is on record opposing the proposal (Wildlife Proposal 22-07) to close deer hunting on western Admiralty Island from September 15 to November 30 to non-federally qualified users (NFQUs). TSI wholly supports the Alaska Department of Fish and Game's (ADF&G's) comments opposing this proposal.

TSI agrees with ADF&G's assessment that there is not a conservation concern for deer on western Admiralty Island. The deer population is currently high, abundant, and stable. Because of the abundance of deer on Admiralty Island (highest in the State), ADF&G increased the annual bag limit from 4 to 6 deer in 2019. Additionally, total hunting effort is relatively light and hunter effort/harvest have declined.

ADF&G concludes that the actual reason for the decline of federally qualified user (FQU) deer harvest is from a decline in participation & effort by FQUs, not depleted deer populations or increased NFQU competition. They found that NFQU deer hunting participation & effort is also declining. Additionally, FQUs are allowed to hunt an additional month (January 1-31) than NFQUs, which is when the snow levels push most of the deer to the beaches. This proposal adds unnecessary restrictions to Juneau & Ketchikan residents, as well as non-residents.

TSI opposes this proposal and respectively asks that it not be adopted.

The second proposal (WP22-08) reduces the bag limit from 3 to 2 deer for the Northeast Chichagof Controlled Use Area (NECCUA – Hoonah & Tenakee areas). Here are TSI's comments opposing that proposal (& supporting ADF&G):

The Territorial Sportsmen, Inc. (TSI) of Juneau is on record opposing the proposal (Wildlife Proposal 22-08) to reduce the deer hunting bag limit to 2 deer within the Northeast Chichagof Controlled Use Area (NECCUA) for non-federally qualified users (NFQUs). TSI wholly supports the Alaska Department of Fish and Game's (ADF&G's) comments opposing this proposal.

TSI agrees with ADF&G's assessment that there is not a conservation concern for deer on western Admiralty Island. The deer population is currently high, abundant, and stable. Because of the abundance of deer on in NECCUA, ADF&G increased the annual bag limit from 4 to 6 deer west of Port Frederick in 2019. Additionally, total hunting effort is relatively light for the area.

ADF&G concludes that the actual reason for the decline of federally qualified user (FQU) deer harvest is from a decline in participation & effort by FQUs, not depleted deer populations or increased NFQU competition. They found that NFQU deer hunting participation & effort have remained stable. Additionally, FQUs are allowed to hunt an additional month (January 1-31) than NFQUs, which is when the snow levels push most of the deer to the beaches. On the east side of Port Frederick FQUs have a much more liberal bag limit of 6 deer (compared to 3 deer for NFQUs). This proposal adds unnecessary restrictions to Juneau & Ketchikan residents, as well as non-residents.

TSI opposes this proposal and respectfully asks that it not be adopted.

The third proposal (WP22-09) is a closure of Lisianski Inlet, Lisianski Strait, & Stag Bay on Chichagof Island October 15 – December 31. Here are TSI's comments opposing that proposal (& supporting ADF&G):

The Territorial Sportsmen, Inc. (TSI) of Juneau is on record opposing the proposal (Wildlife Proposal 22-09) to close deer hunting in Lisianski Inlet, Lisianski Strait, & Stag Bay on Chichagof Island from October 15 to December 31 to non-federally qualified users (NFQUs). TSI wholly supports the Alaska Department of Fish and Game's (ADF&G's) comments opposing this proposal.

TSI agrees with ADF&G's assessment that there is not a conservation concern for deer on western Admiralty Island. The deer population is currently high, abundant, and stable. Because of the abundance of deer on Admiralty Island (highest in the State), ADF&G increased the annual bag limit from 4 to 6 deer in 2019. Additionally, total hunting effort is relatively light and hunter effort/harvest have declined.

ADF&G concludes that the actual reason for the decline of federally qualified user (FQU) deer harvest is from a decline in participation & effort by FQUs, not depleted deer populations or increased NFQU competition. They found that NFQU deer hunting participation & effort has remained stable. Additionally, FQUs are allowed to hunt an additional month (January 1-31) than NFQUs, which is when the snow levels push most of the deer to the beaches. This adds unnecessary restrictions to Juneau & Ketchikan residents, as well as non-residents.

Federal Subsistence Board - Attn: Theo Matuskowitz
Office of Subsistence Management
1011 East Tudor Road, MS-121
Anchorage, AK 99503-6199

Dear Federal Subsistence Board,

The Alaska Department of Fish and Game's Juneau-Douglas Advisory Committee thanks you for the opportunity to submit written testimony on WP22-07, WP22-08, and WP22-09.

Our 15-member citizen volunteer committee represents diverse user groups and perspectives; we have designated seats for people who represent commercial fishing, sport fishing, hunting/personal use, hunting guiding, charter fishing, trapping, as well as non-consumptive users. We strive to represent the interests of our diverse constituencies, holding a half dozen meetings each year to both discuss fish and game issues as well as to create a public forum for consideration of proposed regulations that impact our region. Under the guidance of the Alaska Department of Fish and Game, our body is charged with weighing proposals that will impact State of Alaska Game Management Units 1C, 1D, 4, and 5, but we pride ourselves in thinking inclusively about our broader region.

Like the Federal Subsistence Board and the Regional Advisory committee, we believe we need to support rules and regulations that create equitable and sustainable fishing and hunting opportunity. As a group, we are thankful to have abundant opportunity to fish, hunt, and feed our families from the land, and, for many of us, to earn our living from well managed and abundant fish and ungulate populations. We also recognize and celebrate the cultural significance that fishing, hunting, and gathering have for so many people in our region. While we live in Juneau--and we recognize that there is more pressure on our wild fish and animals close to town--most of us travel regionwide to hunt, fish, and work, and we are especially mindful of the incredibly important role that hunting plays in rural Alaska. Finally, all our discussions and recommendations are underscored by a strong desire to ensure equitable access to wild food well into the future.

We see that there are legitimate concerns raised by those who participated in the meetings that lead to these proposals; indeed, the lack of ferry service and the broader impacts from the Covid-19 pandemic have created real impacts on food security in rural communities. We are not convinced, however, that these proposals best address the issues raised in the comments.

Instead of addressing these very real food security hardships, we worry the proposals could instead amplify tensions between federally qualified and non-federally qualified hunters, straining cultural and family ties between communities in Southeast Alaska. Because residents of our region move between rural areas and especially Juneau for work and school (and demographic trends suggest this movement from rural to more urban areas has been especially pronounced over the last decade), there are significant numbers of now-Juneau-based hunters who return home to villages to hunt with family. As such, these proposals could in fact reduce harvest success for those who need it most. That is, the non-federally qualified hunters who

successfully harvest animals in each of these areas are often former federally qualified hunters who have moved to Juneau, but return home to help put up food for their families

In each of these proposals, we also concur with Alaska Department of Fish and Game's detailed and well-researched position that the proposals' respective closures to non-federally qualified users are not warranted for conservation concerns. We therefore see these as allocative proposals, serving to limit opportunity for residents of our region.

We look forward to continuing to listen and to understand the concerns raised by federally qualified hunters, and we stand ready to create a forum to discuss ways to address these issues. Such a forum or open dialogue between users across the region would strengthen our shared interest in sustaining the strong connections to the land provided by traditions of hunting and fishing. We would also be happy to work with the Regional Advisory Committee to propose and champion changes through the Alaska Board of Game process that could alleviate some of the problems.

We urge you to maintain consistent access to deer hunting opportunity for residents of our sparsely populated region by voting no on these proposals.

Sincerely,

Juneau Douglas Advisory Committee

[EXTERNAL] WP22-09

greg-donica@gci.net <greg-donica@gci.net>

Mon 7/19/2021 12:06 AM

To: AK Subsistence, FW7 <subsistence@fws.gov>; deanna.perry@usda.gov <deanna.perry@usda.gov>
Cc: Norm and Linda Carson <nlcarson@att.net>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

To Southeast Subsistence Regional Advisory Council:

There have been many personal discussions lately on deer hunting in Lisianski Inlet and Pelican area. Almost to the point of "Hatfield & McCoys" situation.
It seems pretty simple to me. Alaska Fish & Game has done a good job of managing the hunting of deer. The rules and regulations in place are reasonable, practical and effective. Abide by them. Until there is obvious and proven data to verify a severe reduction in deer population, leave it as it is.
ALL hunters should use good judgement when hunting, doing so in a safe manner. They should be aware of and respect personal property, be it a year around residence or a cabin. Don't hunt so near.
There are times when bears are in abundance and their food sources are not. Extreme fall & winter weather can also contribute to more deer being taken by bears. And yet, data does not support any reduction in deer population, due to bears or hunters. Should that ever happen, then cut the limit of deer to be taken. If a hunter knows he/she will not use the amount of deer allowed, take less.
My husband has hunted in this area with other family members who live in Pelican, our son-in-law as well. We have been property owners in Pelican for twenty years. Generations of families still hunt there and hope to continue to do so. They may not be FQU. For some reason, that has been a topic that is causing those who are and those who are not, to be divided and confrontational. Is that really necessary?
Be a legal and responsible hunter.
Please consider this an opposition to WP22-09, and also WP22-07, WP22-08, & Wo22-10.

Thank you,
Greg & Donica Jerue
PO Box 211434
Auke Bay, Ak. 99821

[EXTERNAL] Wildlife proposals 22-07 through 22-09

Jones Chiropractic <akchiros@gmail.com>
Mon 7/19/2021 10:34 PM
To: AK Subsistence, FW7 <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Federal Subsistence Board
Office of Subsistence Management.
Attention: Theo Matuskowitz
1011 E. Tudor Road, MS-121
Anchorage, Alaska 99503

Dear Federal Subsistence Board,

I have deer hunted Admiralty Island and Chichagof Island for the last 25 years. From my personal experience, I wholly agree with Alaska Department of Fish and Game's (ADF&G's) assessments on the following proposals.

I oppose the Wildlife proposal 22-07 that attempts to close deer hunting on western Admiralty Island from September 15 to November 30 to non-federally qualified users (NFQUs). I wholly support ADF&G's comments opposing this proposal.

I agree with ADF&G's assessment that there is not a conservation concern for deer on western Admiralty Island. The deer population is currently high, abundant, and stable. Because of the abundance of deer on Admiralty (highest in the State), ADF&G increased the annual bag limit from 4 to 6 in 2019. Additionally, total hunting effort is relatively light and hunter efforts and harvests have declined.

ADF&G concludes the actual reason for the decline of federally qualified user (FQU) deer harvests are from a decline in participation and effort by FQU's, NOT depleted deer populations or increased NFQU competition. They found that NFQU deer hunting participation and effort is also declining. Additionally, FQU's are allowed to hunt an additional month (January 1-31) than NFQU's, which is when the snow levels push most of the deer to the beaches, allowing for easier harvest. This proposal adds unnecessary restrictions to Juneau and Ketchikan residents, as well as non-residents.

I oppose Wildlife proposal 22-07 and respectively ask that it not be adopted.

I oppose Wildlife Proposal 22-08 that attempts to reduce the bag limit from 3 to 2 deer for the Northeast Chichagof Controlled Use Area (NECCUA).

I agree with ADF&G's, assessment that there is not a conservation concern for deer on western Admiralty Island. The deer population is currently high, abundant, and stable. Because of the abundance of deer in NECCUA, ADF&G increased the annual bag limit from 4 to 6 west of Port Frederick in 2019. Additionally, total hunting effort is relatively light for the area.

ADF&G concludes that the actual reason for the decline of FQU deer harvests is from a decline in participation and effort by FQU's, not depleted deer populations or increased NFQU competition. They found that NFQU deer hunting participation and effort have remained stable. Additional, FQU's are allowed to hunt an additional month (January 1-31) than NFQUs, which is when the snow levels push most of the deer to the beaches, allowing for easier harvest. On the east side of Port Frederick FQUs have a much more liberal bag limit of 6 deer, compared to 3 deer for NFQUs. This proposal adds unnecessary restrictions to Juneau and Ketchikan residents, as well as non-residents.

I oppose Wildlife proposal 22-08 and respectively ask that it not be adopted.

I oppose Wildlife Proposal 22-09 that attempts a closure of Lisianski Inlet, Lisianski Strait, and Stag Bay of Chichagof Island October 15 to December 31.

I agree with ADF&G's, assessment that there is not a conservation concern for deer on western Admiralty Island. The deer population is currently high, abundant, and stable. Because of the abundance of deer on Admiralty Island (highest in the State), ADF&G increased the annual bag limit from 4 to 6 in 2019. Additionally, total hunting effort is relatively light and hunter efforts and harvests have declined.

ADF&G concludes that the actual reason for the decline of FQU deer harvests is from a decline in participation and effort by FQU's, not depleted deer populations or increased NFQU competition. They found that NFQU deer hunting participation and effort have remained stable. Additional, FQU's are allowed to hunt an additional month (January 1-31) than NFQUs, which is when the snow levels push most of the deer to the beaches, allowing for easier harvest. This proposal adds unnecessary restrictions to Juneau and Ketchikan residents, as well as non-residents.

I oppose Wildlife proposal 22-09 and respectively ask that it not be adopted.

Warm Regards,

Resident Hunter of Alaska

--

Dr. Stefanie Jones

10004 Glacier Hwy
Suite B
Juneau, AK 99801

[EXTERNAL] WP-22 07,08 and 09

David Keller <saltheart76@gmail.com>

Mon 7/19/2021 1:58 PM

To: AK Subsistence, FW7 <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Good afternoon,

I am writing to you today to voice my opposition to proposed regulation changes WP-22 07, 08 and 09. I feel that the changes, if approved, would negatively affect hunters who do not qualify for subsistence permits.

Thank you for considering my comments.

Regards,

[EXTERNAL] WP22-(8,9,10) comment

elickirby@gmail.com <elickirby@gmail.com>
Sun 7/4/2021 11:00 AM
To: AK Subsistence, FW7 <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hopefully I got the numbers correct for the sections on the deer limits for the areas around pelican hoonah and angoon. I think a reduction in harvest limit like the one proposed in pelican will be more effective while also allowing people like myself(juneau resident) access and use of the forest. Even a reduction to 2 deer per season in these areas would cause a large reduction in the game taken while allowing us to still hunt. The area around the mainland of juneau receives a lot of pressure so the ability to hunt outside has a lot of value for people like me who primarily eat deer, bear, and moose throughout the year.
Thanks for your time and protection of the forests.
Sincerely
Elic Kirby

[EXTERNAL] Changes 22-07 22-08 and 22-09

Chris klawonn <chris.klawonn@gmail.com>
Fri 7/2/2021 7:18 AM
To: AK Subsistence, FW7 <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hello,

My name is Chris Klawonn, I live in Juneau and have been a resident in Juneau for a vast majority of my life. I plan on raising my children here, and I have loved the aspect of boating, fishing, and hunting my entire life. I'd like to keep this short and simple as I hope you are busy reading lots of comments on this topic. Closing the back side of admiralty to specifically Juneau residents is unnecessary, and would be costly and near impossible to regulate.
The number of Juneau residents hovers around 35,000, the total number of reported hunters in GMU 4 that reported a harvest in 2019 is 3,377 according to the ADF&G website. Let's assume that every single one of those harvests came from Juneau, which I know from friends and Facebook isn't the case, that's only 1 in 10 people that live in Juneau claiming deer on admiralty. I don't see this as anything near an issue effecting deer population on admiralty.
Second, if this proposition did pass you'd need troopers to nearly constantly monitor the back side of admiralty to ensure that nobody is breaking the law. How many officers, boats, and planes would it take to find the few boats from Juneau to genuinely balance the manpower, equipment, and fuel costs.
Please understand, I realize the people's frustration of seeing pictures with a huge commercial fishing boat with 20 deer on the bow, and realize that this is a bit excessive on the taking of such a great resource. Even worse is hearing the wonton waste of deer or really any animals, on this island or in any other location. But to squarely place the blame for this on the residents of Juneau is wrong.
Admiralty island is 1,646.4 square miles, making it the 7th largest island in the United States. Cutting off half of it to one community of 3000 or so hunters isn't right, and I hope you can see my side.

Good luck with your decision and thank you for your time.

[EXTERNAL] WP22-09 Deer Hunting Restrictions Lisianski Inlet

Jerome <rnjk8@gci.net>
Sun 7/18/2021 7:39 AM
To: AK Subsistence, FW7 <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hello,
My name is Jerome A Kristjanson, I have been an owner and occupant of property next door to Jim Slater and have noted the abundance of deer in my yard at various times of the season. I have noted bucks and does in my yard and this has been consistent, not just one or two a month. There are fresh sign weekly from the ones I do not see physically.
I do not hunt, I do feel my neighbors in Juneau (that own or have permission to hunt in the Inlet) and Pelican have the right to harvest legally.
Those that do not wish to share should find other interests to engage in.
Jerome A Kristjanson
14 Salmon Way
Pelican AK 99832
907-723-2863

Sent from my iPhone

[EXTERNAL] Object to Proposals

Jay/Amy Lloyd <jayamylloyd@gmail.com>
Mon 7/19/2021 12:28 PM
To: AK Subsistence, FW7 <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

I would like to submit my objection to proposals WP22-07, WP22-08 and WP22-09.

The abundance of the animals in the areas as stated by the Alaska Department of Fish and Games objection to the proposals does not warrant this action. Federally qualified hunters also have an extended season that they can hunt these areas. I do not feel that these proposals are necessary or required at this time.

Sincerely,
Jay Lloyd

[EXTERNAL] WP22-09 Lisianski Deer Hunting Restrictions

Greg Lockwood <greenhoochie@icloud.com>
Tue 7/13/2021 5:15 PM
To: AK Subsistence, FW7 <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

I oppose the new restrictions as proposed in WP22-09. I have a cabin along Lisianski inlet but I am not currently a qualified subsistence user. However, hunting is an important part of my Alaskan lifestyle as well as of my children's. We hunt every year together and we are looking forward to many memories of hunting in the Lisianski area.

Additionally, we rely on the health benefits of wild game meat vs store bought meat. I lost my wife 5 years ago to cancer and my children and I work hard to maintain as healthy of a lifestyle as possible. The proposed change will impact our ability to continue to do this.

I personally do not believe the deer herd is substantially impacted by non-subsistence qualified hunters harvesting deer in the Lisianski area and I also believe the proposed change would result in a waste of a resource. I request that a scientific study be performed before making a change that negatively affects some of Alaska's residents.

Thanks,
Gregory Lockwood
Juneau AK

Sent from my iPhone

[EXTERNAL] Comments opposed to proposals WP22-07, WP-08, and WP-09

David Love <pandalid@yahoo.com>
Tue 7/13/2021 11:51 AM
To: AK Subsistence, FW7 <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

These comments concern Federal subsistence management program's Proposals WP22-07, WP22-08, and WP22-09.

As a hunter who lives in a non-subsistence area (Juneau) but uses sport hunting means to harvest wild game which is an essential source of protein for my annual sustenance, it is my observation (borne out by the ADF&G surveys) that there is not a conservation need to limit sport harvest of deer in any part of Unit 4, Southeast Alaska.

ADF&G Wildlife Conservation has many years of objective, quantitative data that shows that the deer populations in Unit 4 are not depleted, but are in fact at high and stable population levels, even after the heavy snow year of 2020/2021. Restrictions on non-subsistence hunters is not necessary and unfairly targets sport hunters whose numbers and hunt days are stable when NFQUs are declining. Also, the average number of deer harvested in Unit 4 has been stable for all users for 10+ years with good success rates in deer harvested. There is not increasing competition for deer among FQUs and NFQUs.

I urge the Federal Board to NOT support these proposals, and vote to oppose these proposals, since their claims are not true compared to the objective, quantified data showing strong population trends and stable deer harvest in Unit 4.

Thank you for your time, David Love, hunter and resident of Juneau

[EXTERNAL] Public comments for WP22-09

Chris Lunsford <clunsford1@gmail.com>

Mon 7/19/2021 12:56 PM

To: AK Subsistence, FW7 <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

July 16, 2021

Federal Subsistence Board - Attn: Theo Matuskowitz
Office of Subsistence Management
1011 East Tudor Road, MS-121
Anchorage, AK 99503-6199

I am writing this letter in opposition to WP22-09. I'm a 40+ year Alaskan resident who values what it means to be an Alaska resident. As a child I grew up in Bristol Bay in the 1970's living a subsistence-based lifestyle. I currently reside in Juneau, a non-subsistence eligible community, but still maintain a subsistence lifestyle cherishing the opportunity to harvest the fish and game resources in Alaska. I have hunted the Pelican area for over 15 years and the effects of this proposal would severely affect my ability to harvest deer in Alaska.

The fish and game resources in Alaska are managed for Alaskans by the State of Alaska. Management authority is granted to the Alaska Department of Fish and Game which actively monitors deer populations in Southeast. There is no scientific evidence of a conservation issue for the deer population in Lisianski Inlet. There is also no evidence to suggest changes in effort, harvest, or environmental drivers warrant the need for additional management actions to limit harvest.

In the case of WP22-09, the Southeast Alaska Subsistence Advisory Council failed in its mission to provide meaningful advice to the Federal Subsistence Board. Little to no effort was made to evaluate the claims of this proposal against existing science-based knowledge or to discuss alternative less-restrictive management measures to achieve the proposal's goals. I believe you will receive overwhelming public comment to not support this proposal based on these principles. I encourage the Advisory Council to fully evaluate all proposals before moving forward to the Board to ensure all subsistence users and Alaskans are fairly represented.

Residents who reside in remote villages in Alaska should be offered the opportunity to harvest the State's fish and game resources to the extent possible to ensure a successful subsistence lifestyle. In Southeast Alaska and Lisianski Inlet, this subsistence accommodation for deer includes additional tags (currently six tags) and additional time to hunt (currently January 1-31), which non-subsistence eligible hunters do not qualify for. Until there is scientific justification and overwhelming support to limit deer harvest in Lisianski Inlet, the Federal Subsistence Board should not be taking further action to favor subsistence users.

I urge to Board to not support WP22-09 based on, 1) available scientific evidence indicates the deer population in Lisianski Inlet is healthy; 2) the current effort and harvest levels in Lisianski Inlet are stable; and, 3) there are current subsistence regulations in place to ensure successful subsistence deer hunting can occur in Southeast Alaska including Lisianski Inlet.

Sincerely,

Chris Lunsford

[EXTERNAL] Wildlife Proposal - 22-09 - Lisianski

Carmen Magnuson <ckcolacj@hotmail.com>
Sun 11/14/2021 2:05 PM
To: AK Subsistence, FWS <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

We would like to submit a comment on the above proposal regarding deer hunting in Lisianski Inlet. As Alaskan residents and a public land users, we would like to say, restricting public land from the public is ridiculous just because one rich man wants it all to himself. There is no evidence in the proposal that supports the claim of low deer numbers or hunting success in that area and how such a proposal made it to this point is ridiculous. There is more than enough recourses for everyone to share. My family has a cabin out there and has been hunting there for over 30 years. We would be shocked and appalled if such a proposal passed and that would bring up more questions and suspicions about how such a decision came to pass.

We strongly oppose this proposal and look forward to the failure of it as it should.

Thank you for your time.

Aaron and Carmen Magnuson
Auke Bay, Alaska

Sent from Mail for Windows 10
There

[EXTERNAL] WP22-09

jenandpat@gci.net <jenandpat@gci.net>

Mon 7/19/2021 5:14 PM

To: AK Subsistence, FW7 <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

July 19, 2021

Federal Subsistence Board - Attn: Theo Matuskowitz

Office of Subsistence Management

1011 East Tudor Road, MS-121

Anchorage, AK 99503-6199

Dear Federal Subsistence Board,

I am writing this letter in strong opposition to WP22-09.

I am an Alaskan resident who has hunted in Southeast Alaska since 1995. I currently reside in Juneau but for many years I lived remote on Baranof Island, living a subsistence lifestyle that made me sympathetic to the associated hardships. Over the last 13 years, I have hunted Lisianski Inlet and the surrounding areas with my best friend, who is a property owner in Lisianski Inlet. Our hunting trips usually take place in December, when our work schedules allow us a short amount of free time from our jobs in Juneau. As I am now a non-federally qualified user (NFQU), WP22-09 would restrict me from hunting between October 15 – December 31 in Lisianski Inlet, Lisianski Strait, and Stag Bay. I believe this proposal is misguided, misinformed and would unfairly exclude Alaskan residents from hunting a healthy and sustainable population of deer. The proposal asserts that the deer population is depressed and that it is more difficult harvesting deer than it used to be because the number of NFQU hunting in the area is higher. The data that ADFG collects shows that each of these points are incorrect.

The proposal states:

1. It has become more challenging for subsistence hunters to harvest sufficient deer.
2. Hunting pressure from non-subsistence hunters has risen.
3. The deer population is depleted.

According to ADFG statistics:

1. Since 2013, the average number of deer harvested per year by federally qualified users (FQU) in the Lisianski area increased and the number of days required for FQU to harvest a deer decreased, i.e., efficiency increased.
2. The number of NFQU hunting in the Lisianski area and the number of deer harvested per year by NFQU has been stable since 1997. The number of hunting days by NFQU has decreased.
3. The deer population in GMU 4 is higher than anywhere else in the state. Multiple ADFG deer abundance indices (pellet survey, alpine counts, and winterkill beach mortality transects) all indicate that the deer population in Game Management Unit 4 is high and stable.

When comparing the facts with the assertions, it is clear that the basis for the proposal is flawed: FQU hunters are harvesting more deer per hunter and are more efficient than in previous years; the number of NFQU hunters is not increasing; and there is not a deer conservation concern in the proposed area. Considering the inaccuracy of the proposal's assertions, it begs the question of the motivations of the proposer and perhaps indicates other considerations, unrelated to conservation or subsistence needs, may be at play.

I strongly encourage the Federal Subsistence Board to do its due diligence and look at the facts and reject WP22-09. Without careful review of the best available ADFG data, making any decisions would be inappropriate and reactionary. If the proposal were approved as-is, it would unnecessarily and unfairly restrict hunting opportunities for Alaskan residents who cherish the opportunity to hunt and its sustaining results.

Thank you for your consideration,

Patrick Malecha

BACKCOUNTRY
HUNTERS & ANGLERS
ALASKA

Alaska Backcountry Hunters & Anglers Comments on Wildlife Proposal 22-07 and Wildlife Proposal 22-09

Proposed Change to Federal Regulation:

"Federal public lands of Admiralty Island draining into Chatham Strait between Point Marsden and Point Gardner are closed to deer hunting Sept. 15 – Nov. 30, except by Federally qualified subsistence users hunting under these regulations."

Backcountry Hunters & Anglers advocates for an ecosystem wide approach to land and wildlife management and to ensure that the public landscapes we speak up for remain open to hunting and angling. We are supportive of science-based management decisions and support the responsibility of state wildlife agencies to manage fish and wildlife populations on public and private land. We support and strongly encourage cooperation between state and federal management agencies to maintain robust fish and wildlife populations on Federal public land.

Alaska BHA has reviewed the proposals submitted by the Southeast Subsistence Regional Advisory Council (SRAC), the meeting transcripts, as well as hunter participation, harvest and population data provided by the Alaska Department of Fish and Game. We recommend the Federal Subsistence Board oppose the proposed closure of Federal public lands to hunting of deer by non-federally qualified users. Alaska BHA does not see that there is adequate information related to deer populations and harvest to meet the high burden needed to close Federal public lands or that these proposed closures will necessarily solve the problems identified by the SRAC.

Although we are opposing this proposal, Alaska BHA would like to bring up concerns that we have, some of which were expressed by the Council.

1. The Council expressed concern in the spring meetings that there is a limited selection of tools available for them to use to address their concerns. Several members expressed hesitancy over supporting these proposals due to their concern that they did not necessarily want to limit non-federally qualified users but lacked any other options.
    a. Alaska BHA would like to express our support of the Council in this regard and we would take this opportunity to support and encourage the concept of agency co-management. We understand the unique situation of subsistence management in Alaska and believe this situation calls for a stronger working relationship between state and federal agencies than is needed in other states where federal agencies are charged with managing habitat on federal land. An uncooperative relationship between state and federal agencies, as has been recently demonstrated in Alaska by ongoing litigation, leaves hunters and anglers to pay the price, regardless of federal status.
2. Data provided by the Alaska Department of Fish and Game shows that participation by federally qualified users (FQUs) and non-federally qualified users (NFQUs) has been decreasing but that FQUs participation is decreasing at a higher rate.
    a. Alaska BHA believes that the OSM and ADF&G Subsistence Section should be conducting more surveys to better understand why this decrease is

WWW.BACKCOUNTRYHUNTERS.ORG/ALASKA_BHA
ALASKA@BACKCOUNTRYHUNTERS.ORG

occurring, particularly when Federal land closures are involved. Factors far outside the realm of deer populations and hunt management can affect participation in a hunt and should be considered.

b. We would like to make the secondary point that decreasing participation rates among hunters and anglers is a concern of our organization. Our Hunting for Sustainability program is focused on ensuring we have future generations of hunters who will speak up on behalf of our lands, waters and wildlife. We do not want people to stop hunting and fishing, regardless of federal status.

3. Alaska BHA heard from both FQUs and NFQUs who share frustrations about waste of game in areas that receive higher hunting pressure, specifically around the Hoonah road system. When game is wasted it takes away present and future opportunities for both NFQUs and FQUs to put food in their freezers. We encourage Federal and State law enforcement agencies to increase enforcement of existing laws and work with local communities to identify illegal hunting activity.

4. Backcountry Hunters & Anglers was founded around the need for an organization of hunters and anglers to speak up for an ecosystem wide practice of conservation. The Council discussed several concerns leading up to these proposals that Alaska BHA, out of our concern for ecosystem wide conservation, believes are relevant.

   a. A general reduction in other available resources causes strain on hunters and anglers, especially those who depend more upon food harvested from the land. Reduced salmon and herring runs means less available opportunities to harvest additional food and increases the need to harvest the food that is available, in this case deer.

   b. Reduction in resources that other animals depend on increases competition. For example: bears, dependant on robust and healthy salmon runs that are now less consistent, may target more deer and thereby make deer more difficult to harvest.

   c. We share the frustrations of the Council, and many other Alaskans, over the issue of commercial trawl bycatch when many opportunities around the state to harvest halibut, salmon and other fish to put in our freezers are being limited. This increases strain on both FQUs and NFQUs.

5. Alaska BHA strongly emphasizes the need for these issues to be addressed and would like to remind both State and Federal agencies of your obligations to manage for subsistence priority, regardless of your definition of user group.

As an organization that counts both federally qualified users (FQUs) and non-federally qualified users (NFQUs) among our ranks, the Alaska Chapter of Backcountry Hunters and Anglers would like to offer our assistance in facilitating long-term solutions to the problems addressed by the Council.

WWW.BACKCOUNTRYHUNTERS.ORG/ALASKA_BHA
ALASKA@BACKCOUNTRYHUNTERS.ORG

[EXTERNAL] Southeast proposed subsistence deer limitations

Charlie Martelle <martellec@yahoo.com>
Tue 6/29/2021 10:29 PM
To: AK Subsistence, FWS <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hello,

I am writing about the proposed changes of wp-22 07, Wp-22 08 and wp-22 09. I am not in favor of limiting Juneau residents on these areas. I rely on wild game as my main source of protein. By limiting me and other residents of Juneau we will see an increase in the number of hunters in the areas that are not mentioned. This would mean it would be harder to get away from others and find the game we fill our freezers when we hunt closer to town.

We are already so limited in Juneau with hunting, one needs to either have a boat or charter a float plane to find "good" hunting. By dropping the limit on the road system in hoonah you would essentially take our one hunt that doesn't require owning a vessel or chartering.

From my experience on the coast there is abundant numbers of deer, same with the south west side of admiralty. If there was a shortage of animals I would be all for reducing bag limit, but I do not believe this is the case.

Again I am against any changes to the current regulations.

Thank you for your time.
Charlie Martelle

Sent from Yahoo Mail for iPhone

[EXTERNAL] Federal subsistence hunting and trapping regulations comment 2021

Sarah Matula <s_matula1@yahoo.com>

Mon 7/19/2021 1:14 PM

To: AK Subsistence, FW7 <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Federal Subsistence Board Members,

I am writing to comment in respectful opposition to the regulatory actions proposed in WP22-07, WP22-08, WP22-09, WP22-10. I have been a resident of Juneau for 8 years, and have been lucky enough to have gained relationships with people through out SE. Through these relationships, I have had the opportunity to learn, experience, and put into practice in my own life the respect and appreciation for the substance lifestyle.

I would ask Federal Subsistence Board members to very carefully consider these proposals that significantly reduce available hunting areas to residents of Juneau. As you know, just because someone lives in a larger community like Juneau, does not mean they don't live a subsistence lifestyle and place great cultural, traditional, and personal value on a connection to the natural world that is based on procuring food for themselves, their family, and their community. The closures and bag limits reductions in these proposals would significantly impact traditional hunting use patterns for many people who live in Juneau and should only be enacted in extremely dire circumstances.

Thank you for your time-
Sarah Matula, Douglas, Alaska

[EXTERNAL] WP 22-07; WP 22-08; WP 22-09; WP 22-10

Grey Mitchell <fullcurl@live.com>
Wed 7/14/2021 9:04 AM
To: AK Subsistence, FW7 <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Attn: Theo Matuskowitz, Office of Subsistence Management

I am writing to oppose the referenced federal subsistence proposals for deer in Southeast Alaska as listed above. These proposals have no basis, as there is no evidence of a resource shortage or that non-federally qualified users on federal lands are having an actual impact on federally qualified user's ability to harvest adequate supplies of deer in the specified areas. Without specific data to demonstrate a particular subsistence purpose, these proposals are not only arbitrary and capricious, but they will violate the constitutional rights of non-federally qualified users. The credibility of federal subsistence management of wildlife resources on public lands hinges on the use of scientific data. Not only do these proposals lack scientific data, they lack any data to demonstrate a justified subsistence need. I urge the rejection of these unsupported and unjust proposals. Thank you.

Grey Mitchell
Alaskan since 1966
3065 Douglas Highway
Juneau, Alaska 99801

Sent from my iPhone

[EXTERNAL] WP22-07, WP22-08, WP22-09

Richard Morris <akreeldeal@gmail.com>
Mon 7/19/2021 8:40 AM
To: AK Subsistence, FW7 <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Attention Teo Matuskowitz

Good day,

There are a few proposals that I am writing in opposition to.

The first is WP22-07, which proposes to close the western side of Admiralty from Hawk inlet to the southern tip to non-federal users to make it easier for one group to gather food. I also try to fill my freezer with wild game so this would be selecting them over me. Although I have never hunted the area due to its remoteness and difficulty to get to during the hunting season I feel it will be a stepping stone to closing more of the National Forest as they request larger areas to make it easier for them and more difficult for others. I would say that looking at the ADFG hunt records would show that the majority of hunt effort from Juneau is on the eastern side of Admiralty island and any that can make it to the proposed area would say that hunting there is so much more easy than the eastern side. It is all relative.

WP22-08 is the looking to close the northern area of Chichagof island to non-federal users. I bought property in Freshwater bay for the main purpose of hunting. There are already regulations in place that have a harvest limit of 3 deer versus the 6 I could shoot anywhere else on the ABC islands. This is another remote area for someone from Juneau to access and has limited pressure from Juneau as could be found in the hunt records. The majority of deer that are harvested in the area are mainly road hunts as there is an abundance of logging roads throughout the area. As is the case with hunting, it can be challenging for those that don't get out into the forest and expect to fill there freezer shooting deer on the side of the road. Closing this area would impact the value of my cabin and experiences that come with having it there.

WP22-09 is looking to close other areas in the Hoonah area. Again, due to the remoteness this area does not get a lot of pressure from non-federal users.

In closing, these three proposals are trying to make harvesting deer a sure thing for the communities of Angoon and Hoonah. It is hunting, there are no guarantees that you will see a deer, let alone harvest one. Closing these areas will only benefit a few, and probably only to a small degree. These

areas are in the Tongass National Forest, which is to be managed for all user groups. With these proposals it will start to be managed for the select few and I oppose it.

Thank you,

Rich Morris

[EXTERNAL] Comments on WP22-09

Jamal Moss <jamalmoss@gmail.com>

Fri 7/16/2021 8:32 PM

To: AK Subsistence, FW7 <subsistence@fws.gov>
Cc: Jamal Moss <jamalmoss8@gmail.com>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

July 16, 2021

Federal Subsistence Board - Attn: Theo Matuskowitz

Office of Subsistence Management

1011 East Tudor Road, MS-121

Anchorage, AK 99503-6199

I am writing this letter in opposition to WP22-09. I'm an Alaskan resident who has owned a home just outside of Pelican since 2006 but spent the majority of the year in Juneau because of my job. I have been hunting Lisianski Inlet and Lisianski Strait since 2006. The current proposal restricting deer hunting in Lisianski Inlet only represents the view of a select few and is not based on the data ADF&G collects to manage the resource.

The deer population in Lisianski Inlet and Lisianski Strait rises and falls with some years proving more abundant than others. The amount of deer I encounter in a given year appears to have more to do with the amount of snowfall and inclement weather than anything else. Heavy snowfall forces deer to lower elevations, making them easier to harvest, which increases mortality. However, I have found it relatively easy to harvest deer in years following heavy snowfall years, which gives me confidence that the deer population in Lisianski Inlet and Lisianski Strait is healthy.

Access to the hunting grounds that I have enjoyed for almost 2 decades would be severed under WP22-09 which would have an extremely negative impact on me. It is my firm belief that the deer population in Pelican is not threatened. It appears that ADF&G does not believe this population is threatened either, as the bag limit for this area last year was 6 deer per hunter. I encourage the federal subsistence board to review the science, consider ADF&G's assessment of the deer population in Lisianski Inlet and Lisianski Strait, and reject WP22-09. There is no

data suggesting that the deer population is in jeopardy or that hunting pressure has increased over the past several years.

Sincerely,

Jamal H. Moss

[EXTERNAL] Wildlife Proposal 22-07, 22-08, 22-09

Michael Nelson <michaelbn78@gmail.com>

Thu 7/1/2021 2:49 PM

To: AK Subsistence, FW7 <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

I am writing in opposition of these specific proposals, Wildlife Proposal 22-07, Wildlife Proposal 22-08 and Wildlife Proposal 22-09.

These proposals discriminate against Juneau residents unjustly. Excluding the small percentage of Juneau residents that have the ability to hunt in these areas will not increase subsistence means.

Michael Nelson
208-755-7618

[EXTERNAL] WP22-08 comments

nicholasporr <nicholasporr@yahoo.com>
Sun 7/18/2021 11:34 AM
To: AK Subsistence, FW7 <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

I am writing to urge the board not to pass proposal WP22-08, which would reduce the bag limit to 2 deer for non-federally qualified hunters. There is no shortage of deer in the hoonah area nor are non-federally qualified hunters displacing Hoonah hunters. I understand that last November was quite challenging for all hunters, though this is likely due to the ice storm that passed over northern southeast Alaska. In addition to being unnecessary for federally qualified hunters to meet their subsistence needs, this proposal will needlessly affect a number of cabin owners in Freshwater Bay. These hunters are typically not hunting the road system and are not placing any pressure on road system deer. For these reasons, I ask the board to not pass this proposal.

[EXTERNAL] Proposals 22-07,08,09,10

Tom Radandt <tomradandt0@gmail.com>

Fri 7/9/2021 2:52 PM

To: AK Subsistence, FW7 <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

There is no scientific evidence that supports the idea that non-Federally qualified users impact the success of qualified users. Therefore you must reject proposals 22-07, 22-08, 22-09 and 22-10.

To favor one group over another bases on any political characteristics is discrimination, which illegal.

Tom

[EXTERNAL] FEDERAL SUBSISTENCE BOARD STATE OF ALASKA WP22-99 LISIANSKI INLET DEER HUNTING

Mini Reink <mreink38@gmail.com>
Sat 7/10/2021 11:11 AM
To: AK Subsistence, FW7 <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Although I have only been a resident of Pelican since c1998 this has become a very dear home to us and the families that live here. These families also have others who live in extended areas ex:Juneau.

Should WP22-09 PASS this would restrict deer hunting in our area after October 15th to only those residents that meet the qualifications for a Rural Federally Qualified hunter. Only two communities in SE Alaska do not meet the RFQ standard, Juneau and Ketchikan.

ADF&G states the deer population in our area is not at all threatened, there is no conservation issue, Further, the study shows that subsistence hunters in our area are more successful now than in previous years.

This spring we have seen many deer around our local beaches. The fall & early winter of 2020 was unusual in weather; it was very wind & warm. There was not an early snow pack to bring the deer down to lower elevations;this had a detrimental effect on hunting.

WP22-09 SHOULD NOT BE PASSED

Mini & Tom Reink
mreink38@gmail.com

RHAK
Resident Hunters of Alaska
unapologetically FOR ALASKAN RESIDENTS
PO Box 60015, Fairbanks, Alaska 99706 (907) 371-7436
email info@residenthuntersofalaska.org web www.residenthuntersofalaska.org

July 19, 2021

To: Federal Subsistence Board
Office of Subsistence Management
(Attn: Theo Matuskowitz)
1011 E. Tudor Road, MS-121
Anchorage, Alaska 99503-6199

Re: Federal Subsistence Board 2022-2024 Wildlife Proposals and Existing Closures

Dear Federal Subsistence Board Members,

Resident Hunters of Alaska (RHAK) represents several thousand members from across the state, rural and urban, who advocate for sustainable wildlife management policies and a resident hunting priority according to Article 8 of our state constitution.

RHAK participates in Regional Advisory Council (RAC) meetings and Federal Subsistence Board (FSB) meetings, and we have become alarmed at the continuing wildlife proposals and special action requests that are not based on actual biological emergencies or conditions that would prevent federally qualified subsistence users (FQU) from meeting their subsistence needs.

What makes any FSB closures and restrictions especially problematic is that there is no differentiation in the federal system between Alaska residents and nonresidents from another state or country; both Alaska residents and nonresidents are deemed the same under federal regulations by definition of a who is a FQU. A prime example of why this is so problematic is that often complaints about competition from non-local non-federally qualified subsistence users (NFQU) center on the nonresident component, which can often comprise the majority of NFQ hunters participating in these hunts. So, when any restrictions or closures on federal lands happen, Alaskans who used to live in a designated rural area but for whatever reason have moved to more urban areas of the state, can't return home to hunt and carry on their traditional hunting activities on federal lands, nor can other Alaskans participate in these hunts.

It has always been RHAK's position that when and where we have wildlife conservation concerns or subsistence opportunities are not being met, that the ***nonresident component should always be the first group of hunters***

restricted. If other restrictions are still necessary, only then can we support restrictions on resident hunters.

We have always advised RACs to first use the Board of Game (BOG) process when and where there are concerns with too much competition from non-local NFQ hunters, as the BOG can differentiate between Alaska residents and nonresidents.

Comments on Individual Proposals and Existing Closures

WP22-07 Federal public lands of Admiralty Island draining into Chatham Strait between Point Marsden and Point Gardner are closed to deer hunting Sept. 15 – Nov. 30, except by Federally qualified subsistence users hunting under these regulations.

OPPOSE

The rationale of WP22-07 is not based on any biological data or harvest statistics that show a conservation concern for the deer population on Admiralty Island or that subsistence needs are not being met.

According to Alaska Department of Fish & Game (ADF&G) data, over the last decade we have had mild winters in Game Management Unit 4 and the deer population is "*high and stable.*" The deer population on western Admiralty Island is ***not*** depleted, as the proposal states. Nor are there any conservation concerns for the deer population under the current hunting regulations.

The proposal also states that there has been increased "*hunting pressure*" from NFQ hunters and it has "*become more challenging for subsistence hunters in Angoon to harvest sufficient deer for their needs.*" But according to ADF&G data, over the last two decades there has been a ***decrease*** in both the number of FQU and NFQU.

The FSB operates under ANILCA guidelines and the federal code of regulations that govern when and why any closures to NFQU can happen: "*With respect to subsistence uses of a particular fish or wildlife population, the Board may only approve a proposed closure if necessary for reasons of public safety, administration, or to assure the continued viability of such population (ANILCA §816(b), 36 CFR 242.10(d)(4)(vii) and 50 CFR 100.10(d)(4)(vii)).* ***Meanwhile, the Board may approve a proposed closure of nonsubsistence uses of a particular fish or wildlife population for any of these same reasons, or if necessary for the conservation of healthy populations of fish and wildlife,***

or to continue subsistence uses of such population (ANILCA §815(3), 36 CFR 242.10(d)(4)(vi) and 50 CFR 100.10(d)(4)(vi)).[1]

The Board should vote down this proposal based on the above guidelines of when any restrictions or closures on federal lands for NFQU are allowed to happen.

WP22-09 Federal public lands draining into Lisianski Inlet, Lisianski Strait, and Stag Bay south of the latitude of Mite Cove (58° 4' N) and north of the latitude of Lost Cove (57° 52' N) are closed to deer hunting Oct. 15 – Dec. 31, except by Federally qualified subsistence users hunting under these regulations.

OPPOSE

Refer to our comments on WP22-07

WCR22-01 Deer Prince of Wales closed Aug. 1-15, except by Federally qualified subsistence users; non- Federally qualified users may only harvest 2 bucks

Rescind closure to NFQU on Price of Wales Island

WCR22-45 Caribou Unit 23 – Portions of Unit 23 - closed to non- Federally qualified users

Rescind closure to NFQU in those portions of Unit 23

Thank you for the opportunity to comment.

Sincerely,

Mark Richards
Executive Director Resident Hunters of Alaska

---

[1] https://www.doi.gov/sites/doi.gov/files/uploads/closure-policy-revised-2020-08-04.pdf

[EXTERNAL] Wp22-09 and WP22-10 comments

Shane Ring <shane@apexlodge.com>
Fri 6/18/2021 7:10 AM
To: AK Subsistence, FW7 <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

I'm writing to oppose the new proposed regulations for Lisianski inlet WP22-09 and WP22-10.

I am a resident of Pelican and actively hunt in the area every year.

For one, the smaller harvests are less due to shortages of deer. And more of a lack of snow problem.

Residents of Pelican, for the most part, hunt and shoot deer from their skiffs or front porches. Only a few actively hike, and target them in the forest.

The first heavy snow pushes deer to the waters edge. But that hasn't happened during the hunting season the last few years. Thus a lower harvest.

Secondly, there is a very large amount of aging, older, former residents of Pelican who come and hunt the area every year in the fall. Who keep places in Pelican, but have their main homes in Juneau for health reasons. I think it would be immoral to take those opportunities away. As fall is the easiest hunting for them.

Thirdly, the residents of Pelican do not rely on deer meat to survive through the winter. We are on the AMHS, and get grocery runs on a monthly basis. Yes it's popular, but if there was no deer hunting, they would be just fine.

Fourthly, I myself, and many others, do not want to have extra hoops to jump through with federal regulations and oversight. It makes things overly complicated.

Lastly, these proposals have been pushed by the wealthier residents of the area who do not like anyone visiting. And would do away with all tourism (hunting, fishing, or otherwise) if they had the opportunity to do so.

There is literally zero business that goes on during that time of year otherwise, and would bring less visitors to town. Less fuel dock sales, less people who visit and support the cafe and gift shop.

I would suggest a compromise, and that you ban non residents from hunting within 100 yards of the coastline after Oct 15.

This would keep boat hunters from Juneau, and other places, from driving around and shooting deer enmasse from their vessels. Competing with locals. But give opportunity to those who will work for it.

That's all,

Thanks,

Shane Ring

July 1, 2021

To: Federal Subsistence Board, State of Alaska
subsistence@fws.gov

Re: WP22-09, Lisianski Inlet Deer

My family and I have a summer/fall cabin down the Lisianski Inlet located near Phonograph Creek and we have enjoyed the beauty of the area since my in-laws first purchased the property in 1981. Since then we have made some major improvements to enable us to spend more time there with our children and grandchildren. Both of our children and now our grandchildren have learned to hunt with their parents and grandparents in this area.

WP 22-09 would restrict deer hunting to only those residents that meet the qualifications for a Rural Federally Qualified hunter. Juneau and Ketchikan are the only two communities in Southeast Alaska that do not meet the RFQ standard.

The Department of Fish and Game, who conducted a recent study, stated that the deer population in our area is not at all on the verge of being threatened. My family has been successful in this area for a number of years. In previous years the deer population was scattered due to the adverse weather conditions - windy and warm is not a good mix for deer hunting in the lower elevation areas.

Please do not pass WP22-09.

Sincerely,
Mary Robidoux
PO Box 33099
Juneau, Alaska 99803

[EXTERNAL] Re: WP 22-09 & WP 22-10, GMU 4

Mary Robidoux <maryrobidoux333@gmail.com>
Mon 6/21/2021 8:23 AM
To: AK Subsistence, FW7 <subsistence@fws.gov>
Cc: Clay Robidoux <robidoux@gmail.com>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hello – I wish to address Wildlife Proposal 22-09 and 22-10 in Game Management Unit 4 which is proposed for the Lisianski Strait/Inlet and Pelican area.

Some background: My parents were lucky enough to purchase land in this area through a lottery draw in the early 1980s. Our site is listed as Lot 2, Blk 4 of Alaska State Land Survey #80-183, Phonograph Creek, containing approximately 2.5 acres. We constructed a cabin there and it became my parent's spring, summer and fall place of residence. In the late Fall and winter months (August through December), we enjoyed hunting there too.

After my parents passed away, it became my family's summer and fall retreat with many enjoyable moments spent fishing and hunting with our children and grandchildren as our family grew.

Because we are residents of Juneau, the proposal would severely restrict our ability to hunt there during those months. Being able to pass down family traditions through hunting and fishing is very important to us. The proposal would affect this greatly.

As I mentioned above, my family enjoys all the outdoor activities that this area provides and we honestly have not seen a reduction in the number of deer population. It's my observation that there are more bears in the Phonograph Creek area, however, than there have been in the past.

Please do not change the regulation as it stands now as I believe allowing subsistence hunters to have that extra month (January) is more than sufficient to meet the needs of those whom this affects.

Sincerely,

Dwight Robidoux
PO Box 33099
Juneau, Alaska 99803
(907) 209-6017
lirg@gci.net

[EXTERNAL] Federal Subsistence Management Program Wildlife Proposals

Mark Sams <msams@pndengineers.com>
Mon 7/19/2021 7:53 AM
To: AK Subsistence, FW7 <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Attention: Teo Matuskowitz

I would like to make a few opposition comments on the below listed federal subsistence deer hunting proposals

WP22-07
I oppose this change to the deer hunting regulations on the Chatham straight side of Admiralty Island. The regulation will only isolate one user group which has a very low impact on the area due to the distance from Juneau. Due to the distance Juneau residence do not regularly access this area since it is more than 1.5-2hr run time. All other local communities are subsistence communities including, Petersburg, Kake, Tenekee, and Hoonah, leaving Juneau, the furthest community from the location a user group that would be isolated. I think it would be very easy to look at the hunting records collected by the state of Alaska every year to determine how much pressure Juneau actually has on the location to determine how much this change in regulations would actually effect the overall hunting pressure.

WP22-08
I oppose this change to the northern Chichagof Island since it again singles out a single user group. I currently Own a cabin on norther Chichagof Island but am a Juneau resident. This proposed change would limit my access to deer hunting at my cabin which I have invested heavily in over the past 5 years to use as a place to hunt. For me, the area is difficult to access from Juneau due to weather and distance, over 2hrs. Again if you look at hunting records, I believe you would find Juneau residences have a limited impact on the overall harvest on Norther Chichagof Island.

WP22-09
I oppose this change in regulations for closing deer hunting in Lisianski Inlet. This area is also very remote and very difficult for non-subsistence hunters, Juneau residence, to access. Hunting records should show that this area is seldomly access from Juneau this time of year due to weather so this proposal will have little effect on competition. The only residences this change will effect are from Juneau since access is limited to Pelican and Elfin Cove.

In general I believe instating restrictions that only effect one group is a poor decision that becomes a slippery slope for other communities to make similar requests. Pretty soon, Juneau would have very limited hunting locations in a National Forest that is supposed to be managed for all user groups. If subsistence user groups are having difficulty harvesting deer, maybe that's an indication that the bag limits for all groups are to high and a better proposal would be to limit all harvest verses a single user group that has low impact on all three proposed areas. Another option would be to limit the ability to proxy hunt. I know fishermen can go out and

get to these remote places in the winter and shoot more deer than their limit due to proxy hunting. I understand the need for it in certain instances, but maybe limiting the number of proxy tags allowed to hunt at one time would help spread the pressure out over a longer period and less deer would be harvested. This would reduce the overall pressure and competition for sub-subsistence harvesters.

Historically these areas being proposed, as all deer habitat, is far more effected by weather and old growth timber harvests(heavy snow and large scale timber clear cuts) than the limited number of hunters. When these environmental and man-made (timber harvest) factors affect the population, all hunters are effected equally.

These proposed changes will also hurt any non-resident hunting charters that are based out of these local communities, hurting the local economies. Non-resident hunters will bring a large boost to these small communities at the end of the typical tourist season helping fortify the community with funds to weather the winter. Out of town hunters will not use Angoon based on the proposed WP22-07 since they would be very limited in hunting locations.

Thank you for taking the time to read my comments.

Mark Sams
Owner of Cabin in Freshwater Bay, Directly effected by 2 out of three of these proposed changes.

[EXTERNAL] Opposition of Federal subsistence proposals Southeast Alaska for deer WP 2207, wp2208, wp2209, wp2210, wp 2212

CHARLES SCHULTZ <cjs16@me.com>
Sun 7/18/2021 3:53 PM
To: AK Subsistence, FW7 <subsistence@fws.gov>
Cc: deanna.perry@usda.gov <deanna.perry@usda.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Attention Theo Matuskowitz,
Office of Subsistence Management

I am writing to oppose the federal subsistence proposals that affect Southeast Alaska Deer hunting. I oppose WP2207, WP22-08, WP22-09, WP22-10, and WP22-12.
Proposals WP22-07, WP 22-08, WP22-09 and prevents non-qualified subsistence users from access to deer hunting on public lands. As an Alaskan resident I also rely on deer meat as a primary source of red meat that is locally available. Limiting non-qualified subsistence users from access to hunt deer in areas around Angoon, Hoonah and Pelican is entirely unfair to those who live in other areas of the state, who are non-qualified Subsistence hunters. There is no science to suggest that the over harvest of deer is related to non-qualified subsistence users, in fact I would suggest that the over harvest in the areas around Hoohah, Angoon, and Pelican may actually be from the subsistence users who may be killing every available deer seen in late season, on the beach and uncaring if the deer is antlerless and uncaring of size. Preservation of breeding antlerless deer may prove to allow fawn bearing deer an opportunity to give birth in the spring. Also education of subsistence hunters to harvest mature deer would improve the size of deer and thereby increase the available pounds of edible meat.

Extending the season in unit 6 is exactly a dichotomy of what the Subsistence Board may be wanting to achieve. The complaint of less harvestable deer will only be compounded if deer seasons are extended during their most vulnerable times. Then the subsistence deer harvest will continue to over extend the available deer to breed for next year, and likely they will complain that non-subsistence harvest is the blame.

Hunters of deer need equal access to public lands. We are all Alaskans trying to provide natural, local deer meat.

Please take the comments of non-subsistence hunters into consideration.
Also consider making all Alaskans subsistence users. We all live here. We all have subsistence needs, not based on size of community we live in.

Thanks for your consideration ,
Charles Schultz
Juneau, Alaska

SCI Alaska Chapter
Eagle River, Alaska 99577
Cell (907) 903-8329
Tel: (907) 980-9018
www.akscifarieclub.org

July 19, 2021

Federal Subsistence Board
Attn: Theo Matuskowitz
Office of Subsistence Management
1011 East Tudor Road, MS-121
Anchorage, AK 99503-6199

[Electronic Submission]
subsistence@fws.gov

RE: SCI-AK comments on Wildlife Proposal 22-08 Hoonah

Dear Chairman Matuskowitz,

The Safari Club International Alaska Chapter (SCI-AK) writes in opposition to Wildlife Proposal 22-08 (WP22-08). Founded in 1971, Safari Club International is the country's leading hunter rights advocate and additionally promotes worldwide wildlife conservation. SCI-AK is nationally and internationally recognized for its contributions in support of SCI's four major mission areas: Advocacy, Conservation, Education, and Humanitarian Services.

WP22-08 is counter to our goal of ensuring fair and equitable access to game resources in Alaska. The below comments focus on the indices of deer abundance, deer hunter effort, and harvest in Alaska Game Management Unit 4 (GMU 4) as reasons to reject WP22-08.

The proposal claims that non-federally qualified users (NFQU) are unfairly competing with federally qualified users (FQU) when hunting Sitka black-tailed deer in GMU 4. WP22-08 asserts that the deer population on western Admiralty Island is depleted and that in recent years FQUs have had difficulty meeting their subsistence needs because of increasing competition from NFQUs. Alaska Department of Fish and Game (ADF&G) analysis of deer population, hunter effort, and harvest trends found no support for either contention. Instead, the available indicators support that deer remain abundant throughout GMU 4.

GMU 4 encompasses the ABC Islands (Admiralty, Baranof, and Chichagof) and the surrounding archipelago. Hunters residing in Southeast Alaska (GMUs 1-5), excluding Juneau and Ketchikan, are eligible to harvest deer in GMU 4 under federal subsistence regulations. The current federal deer season for this area is August 1 to January 31 with a bag limit of 6 deer (bucks only August 1 – September 14). The current State season is August 1 to December 31 with a bag limit of 6 deer (bucks only August 1 – September 14). In 2019, the Alaska Board of Game increased the deer bag limit in GMU 4 from 4 to 6 deer because of the GMU's uniquely healthy population of Sitka black-tailed deer.

GMU 4 consistently shows a high black-tailed population. Pellet group counts are usually well above the high-density threshold and are often double the counts in other GMUs. Aerial surveys – measured in deer/hour sighted – were conducted for two locations in GMU 4, Southern Admiralty Island (2015-2017) and Northeast Chichagof Island (2017-2018). Southern Admiralty had the highest deer/hour of any survey area in Southeast Alaska and estimates from Northeast Chichagof were similar to Prince of Wales Island (POW) and higher than all other survey areas except Southern Admiralty and POW.

Management biologists in GMU 4 began conducting beach mortality transects in the early 1990s. Although these mortality surveys are a relatively insensitive indicator of population trend, they are an indicator of mortality resulting from severe

winters. The winter of 2006/2007 was the most severe on record, and in some parts of GMU 4 managers estimated up to 75% of deer died. Yet, based on harvest and other indicators of deer abundance, managers believe the deer population had fully recovered by the 2013 season.

GMU 4 Sitka black-tailed deer are usually above the high-density threshold and are often double the counts in other GMUs. Although the area affected by this proposal is rarely sampled, this broad index of deer abundance suggests the GMU 4 population remains at high levels with no indication of depleted populations or conservation concerns. Taken together, these indices of deer abundance — pellet group surveys, alpine counts, mortality transects — suggest this proposal cannot be based entirely on a conservation concern.

Overhunting is often used as a justification for area closures or implementation of restrictive conservation measures. ADF&G produces estimates for hunter effort and harvest using information provided by hunters. To hunt deer in Southeast Alaska all hunters must obtain harvest tickets. Since 2011 harvest tickets have come with a mandatory reporting requirement. From 1997-2019 the estimated average annual harvest in GMU 4 has been 5,725 deer taken by 3,282 hunters. GMU 4 supports the highest deer harvest in the state and the historical harvest has remained fairly stable with between 5,000-7,000 deer harvested annually. The exception being the severe winter of 2006/2007 when high harvest was followed by significant overwinter mortality of deer throughout GMU 4. This resulted in a precipitous decline in harvest from 7,900 deer in 2006 to 1,932 deer in 2007.

Long-term records indicate a declining trend in harvest for both FQUs and NFQUs. From 1997 to 2006, FQUs harvested on average 152 deer annually. Since 2013, FQUs have harvested an average of 49 deer annually. This represents an approximate 70% decline. There is a similar pattern for NFQUs, who averaged 349 deer annually from 1997-2006. Since 2013, that average has declined to 115 deer annually. SCI-AK notes hunter numbers are decreasing across the board on a national level, not just in Alaska or even GMU 4. This proposal will further restrict access for hunters and lead to a further decrease in the number of hunter's in one of the state's most viable hunting regions.

The Alaska Board of Game has also established an annual amount reasonably necessary for subsistence (ANS) for deer in GMU 4 of 5,200-6,000 deer. ANS differs from the undefined term "subsistence need" used in Title VIII of the Alaska National Interest Lands Conservation Act (ANILCA). Under Alaska law, ANS is the harvestable portion of a game population that is sufficient to provide a reasonable opportunity for subsistence uses. "Reasonable opportunity" is that which allows a normally diligent hunter a reasonable expectation of success. The board establishes an ANS for a game population through review of long-term population and harvest information. With deer harvest levels within the recommended ANS range, the argument that the closure needs to occur in order to benefit ANS users is moot.

SCI-AK members are especially supportive of family hunting traditions because learning to hunt starts with family and community mentors. FCU status is not inherited. Children who leave federally qualified communities to attend school elsewhere will be excluded and harmed by WP22-08. In November, many FCU's invite their family members home for peak season deer hunts. Other NFCU's return to traditional hunting areas to harvest deer on state hunting proxies or kill deer on their limit to share with family, friends, or elders. None of this use would be allowed to continue in the WP22-08 area if it is passed.

Based on the information provided to ADF&G by GMU 4 deer hunters, population indices, anecdotal reports by local hunters, and field observations by management biologists, the department has concluded that there is no conservation concern for the GMU 4 deer population. With deer population remaining high and stable, harvest within its historical range, and state ANS requirements being met it is unnecessary to restrict hunting in GMU 4 to the benefit of a small handful of users. WP22-08 will reduce the amount of deer meat coming into communities while simultaneously failing to provide conservation benefits to an already healthy deer population. SCI-AK urges you to not adopt WP22-08.

Thank you for your consideration.

John Sturgeon
SCI Alaska Chapter President
E-mail: president@akscificlub.org
Cell: (907) 230-0072

Safari Club International Alaska Chapter
First for Hunters – First for Wildlife

Response to 2022 Wildlife Proposed Regulation Change WP22-09

From: Al Steininger
(907)209-8508
al_steininger@yahoo.com

Proposal WP22-09 would close deer hunting in Federal public lands draining into the waters in the Pelican area between October 15th and December 31st except by Federally qualified subsistence users. The reason given for this proposed change is that over the past years it has become more challenging for local subsistence users to meet their needs. This reasoning goes on to say that hunting pressure from non-subsistence hunters has increased.

This proposal should not be approved. There is not a conservation issue with deer populations in this area. The reasoning for this proposal did not provide any documentation of decreased deer populations. This reasoning is hearsay and contrary to studies by the Alaska Fish and Game (ADF&G) that state the deer population is high and stable in this area.

This proposal will restrict hunting access for the part time residents and cabin owners who are non-subsistence hunters. Many of these non-subsistence hunters are property owners, such as myself, who have homes and cabins in the Pelican area. I purchased the property in 2010 and finished building my cabin two years later. I am one of the most recent property owners to do so. Hunting pressure has not noticeably increased from non-subsistence hunters by local property owners. ADF&G found deer hunting effort and the potential for competition between subsistence hunters and non-subsistence hunters in this area has substantially declined, not increased.

I would like to think that part time residents and cabin owners help support the community of Pelican by employing local labor for building projects, paying for city services, eating at the local cafe, using commercial air travel services, supporting the AMHS ferry system, etc.

This proposal is possibly the result of a dispute between a full-time resident and a neighboring cabin owner who hunted unknowingly onto the other's property. If this is correct, this may have been avoided by the resident adequately posting his property.

This proposed change was made without documentation. In response to this proposal, ADF&G documented and indicated that deer populations are healthy and hunters in this area experience the most efficient deer hunting in Alaska and there is not a conservation issue. Local part-time residents and cabin owners will be negatively affected by this proposal.

Again, this proposal should not be approved. Thank you.

[EXTERNAL] Subsistence Hunting Closure

Peter Strow <pstrow@hotmail.com>
Mon 7/19/2021 5:20 PM
To: AK Subsistence, FW7 <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hello,

I would like to submit a commit regarding the closure of hunting to Juneau residents for WP22-07, WP22-08 and WP22-09. I don't believe these areas should be closed to Juneau hunters. Accessible hunting is difficult in Southeast Alaska and many Juneau residents depend hunting deer in these areas. Proposing these closings should be backed by scientific data and I think this needs to be further studied before any closures are passed.

Thank you,
Peter Strow

Sent from my iPhone

SPORTSMEN'S ALLIANCE

July 16, 2021

Federal Subsistence Board - Attn: Theo Matuskowitz
Office of Subsistence Management
1011 East Tudor Road, MS-121
Anchorage, AK 99503-6199

RE: Comments on WP22-07 Closure to non-Federally qualified users, Admiralty Island; WP22-08 Place a harvest restriction on non-Federally qualified users, Northeast Chichagof Controlled Use Area; WP22-09 Closure to non-Federally qualified users, Lisianski Strait; WP22-10 Lower harvest limits for non-Federally qualified users, Lisianski Strait.

Dear members of the Federal Subsistence Board:

The Sportsmen's Alliance is a leading national organization that defends the right of our members to hunt, fish and trap in all 50 states. I am writing today to urge you to use sound scientific evidence to discharge policy related to changing existing hunting seasons, harvest limits and methods and means of taking wildlife related to federal subsistence hunting and trapping and more specifically proposals WP22-07, WP22-08, WP22-09 and WP22-10.

The Sportsmen's Alliance strongly believes that if populations are abundant then all public land users in the Alaska should have access to these lands for hunting and trapping. These lands are managed and conserved using public funds contributed by sportsmen across Alaska and the United States through license fees and excise taxes paid on the purchase of firearms and other hunting equipment.

When determining whether to close certain federal lands to land users that are non-subsistence hunters, the Alliance on behalf of our Alaska members urge you to follow scientific evidence and population data to determine the best course of action. If wildlife populations numbers indicate abundant numbers of game species these lands should remain open to both subsistence hunters and non-subsistence hunters. The North American Model of Wildlife Conservation dictates that science should be the guiding tool for discharging wildlife policy and our membership stands firmly on the principles of this model.

We understand the complex nature of this decision, so we urge you to make these determinations based solely on science and not based on political or social pressure. Thank you for the opportunity to comment on this issue and thank you for your time.

Best,

Jacob Hupp
Sportsmen's Alliance
Associate Director of State Services

[EXTERNAL] Comment on WP22-08, WP22-09, WP22-07

John Unzicker <jmunzicker@gmail.com>
Wed 6/30/2021 8:56 AM
To: AK Subsistence, FW7 <subsistence@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hello,

This comment is regarding the following proposals:
WP22-08, WP22-09, WP22-07

We are all Alaska state residents and have the right to utilize all of the state land regardless of our primary residence. As a lifelong Juneau resident who pays the same fees to hunt game in SE AK as anyone else in the state, I am extremely discouraged by these proposals.

Juneauites would be forced out of major hunting areas during the prime time of the season. If Juneau residents are not allowed to hunt the far, outlying areas, we will all be forced to hunt the immediate areas around Juneau which will result in over-hunting, overcrowding, and less game around Juneau. This proposal is absolutely inequitable and will divide communities.

What about hunters who have cabins or family in Hoonah, Pelican, or Angoon? This is absolutely wrong and only goes to serve a very small population of the state. Residents of Juneau have just as much right to hunt these zones as the residents of Hoonah, Pelican, and Angoon have the right to hunt anywhere in the state. There is enough wildlife and land for everyone to utilize for subsistence and it should be shared equally.

And does this mean that any other resident not from Juneau can hunt these areas? Sitka? Haines? Gustavus? Petersburg? Why only Juneau?

Thank you,
John Unzicker
2016 Glacier Bear Blvd.
Juneau, AK. 99801
907-723-3191

[EXTERNAL] proposals WP22-7, WP22-8 and WP22-9

Luke Woodruff <alaskan_waters@yahoo.com>
Wed 6/30/2021 9:23 PM
To: AK Subsistence, FWS <subsistenceall@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Please do not consider the new proposals WP22-7, WP22-8 and WP22-9 as new regulation. I do not believe the current deer harvest levels combined with predation/winter kills deem this kind of proposal necessary. Subsistence and non subsistence communities alike count on deer as a part of their diet along with fish, water fowl and berries. Every year is different, sometimes hunting is difficult and other times not. Let's avoid creating regulations that favor one group over another because one group thinks they are having to work harder.

Luke Woodruff
Juneau, AK

Sent from Yahoo Mail for iPhone

[EXTERNAL] opposition to all federal deer subsistance proposals. WP2207 -- Wp2212

RICHARD HARRIS <RHDevelopment@gci.net>

Thu 7/15/2021 12:38 PM

To: AK Subsistence, FW7 <subsistence@fws.gov>
Cc: deanna.perry@usda.gov <deanna.perry@usda.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Attn: Theo Matuskowitz,
Office of Subsistence Management
Regarding : Federal deer subsistence proposals Region-1 Southeast Alaska
Proposal Numbers: WP2207, WP2208, WP2209, WP2210, WP2212

As a lifelong deer hunter of Southeast Alaska I am writing to oppose the federal subsistence proposals for deer harvesting in Southeast Alaska. I have hunted some of these areas my entire life, access to the areas listed is very difficult, needing good weather and much planning, I believe the weather controls much of the hunting pressure from non-federally qualified users in these areas(somewhat self regulating). I could understand supporting a lower per hunter harvest number in some areas, but shutting these areas down entirely during the period of Oct. 15 – Dec. 31, to non-federally qualified hunters is not acceptable. limiting hunting to any months other than Oct. 15 – Dec. 31 should be considered a complete shut down as this is the only period a hunter can actually hunt and experience the calling of a deer, during the rutting season. Any regulation changes made should include some changes to the federally qualified user as well, not all but some are doing as much damage to the resource with immediate access and extended hunt seasons as the non-federally qualified user who has limited access and shorter harvest seasons. Also as I understand these proposals have no basis, there is no evidence of a resource shortage or that non-federally qualified users on federal lands are having an actual impact on federally qualified user's ability to harvest adequate supplies of deer in the specified areas. I hope you will take these comments into consideration and reject these proposals.

Thank you,

Richard Harris
P.O. Box 32403
Juneau, Alaska 99803

Richard Harris

WCR22–01 Executive Summary	
Closure Location and Species	Unit 2, Prince of Wales Island (POW), excluding the southeast portion (land south of the West Arm of Cholmondeley Sound draining into Cholmondeley Sound or draining eastward into Clarence Straight)—Deer.
Current Regulation	*5 deer; however, no more than one may be a female deer. Female deer may be taken only during the period Oct.15-Jan. 31. Harvest ticket number five must be used when recording the harvest of a female deer but may be used for recording the harvest of a male deer. Harvest tickets must be used in order except when recording a female deer on tag number five.* *Federal public lands on Prince of Wales Island, excluding the southeast portion (land south of the West Arm of Cholmondeley Sound draining into Cholmondeley Sound or draining eastward into Clarence Strait), are closed to hunting of deer from Aug. 1 - Aug. 15, except by Federally qualified subsistence users hunting under these regulations. Unless otherwise restricted, non-Federally qualified users may only harvest up to 2 male deer.*
OSM Conclusion	**Maintain status quo**
Southeast Alaska Subsistence Regional Advisory Council Recommendation	**Maintain status quo**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	Eliminate the closure
Written Public Comments	1 Eliminate the closure

FEDERAL WILDLIFE CLOSURE REVIEW
WCR22-01

Closure location

Unit 2, Prince of Wales Island (POW), excluding the southeast portion (land south of the West Arm of Cholmondeley Sound draining into Cholmondeley Sound or draining eastward into Clarence Straight)—Deer.

Existing Federal Regulation

Unit 2—Deer

5 deer; however, no more than one may be a female deer. Female deer may be taken only during the period Oct.15-Jan. 31. Harvest ticket number five must be used when recording the harvest of a female deer but may be used for recording the harvest of a male deer. Harvest tickets must be used in order except when recording a female deer on tag number five.	*July 24 – Jan. 31*
Federal public lands on Prince of Wales Island, excluding the southeast portion (land south of the West Arm of Cholmondeley Sound draining into Cholmondeley Sound or draining eastward into Clarence Strait), are closed to hunting of deer from Aug. 1 - Aug. 15, except by Federally qualified subsistence users hunting under these regulations. Unless otherwise restricted, non-Federally qualified users may only harvest up to 2 male deer.	

Closure Dates: August 1 – August 15

Current State Regulation

Unit 2—Deer

Residents and Nonresidents: Four bucks	*Aug. 1 – Dec. 31*
Harvest tickets must be validated in sequential order, and unused tickets must be carried when you hunt.	

Regulatory Year Initiated: 2003

Extent of Federal Public Lands/Waters

Unit 2 is made up of 74% Federal public lands and consist of 73% U.S. Forest Service (USFS) managed lands and less than 1% U.S. Fish and Wildlife Service (USFWS) managed lands (**Figure 1**).

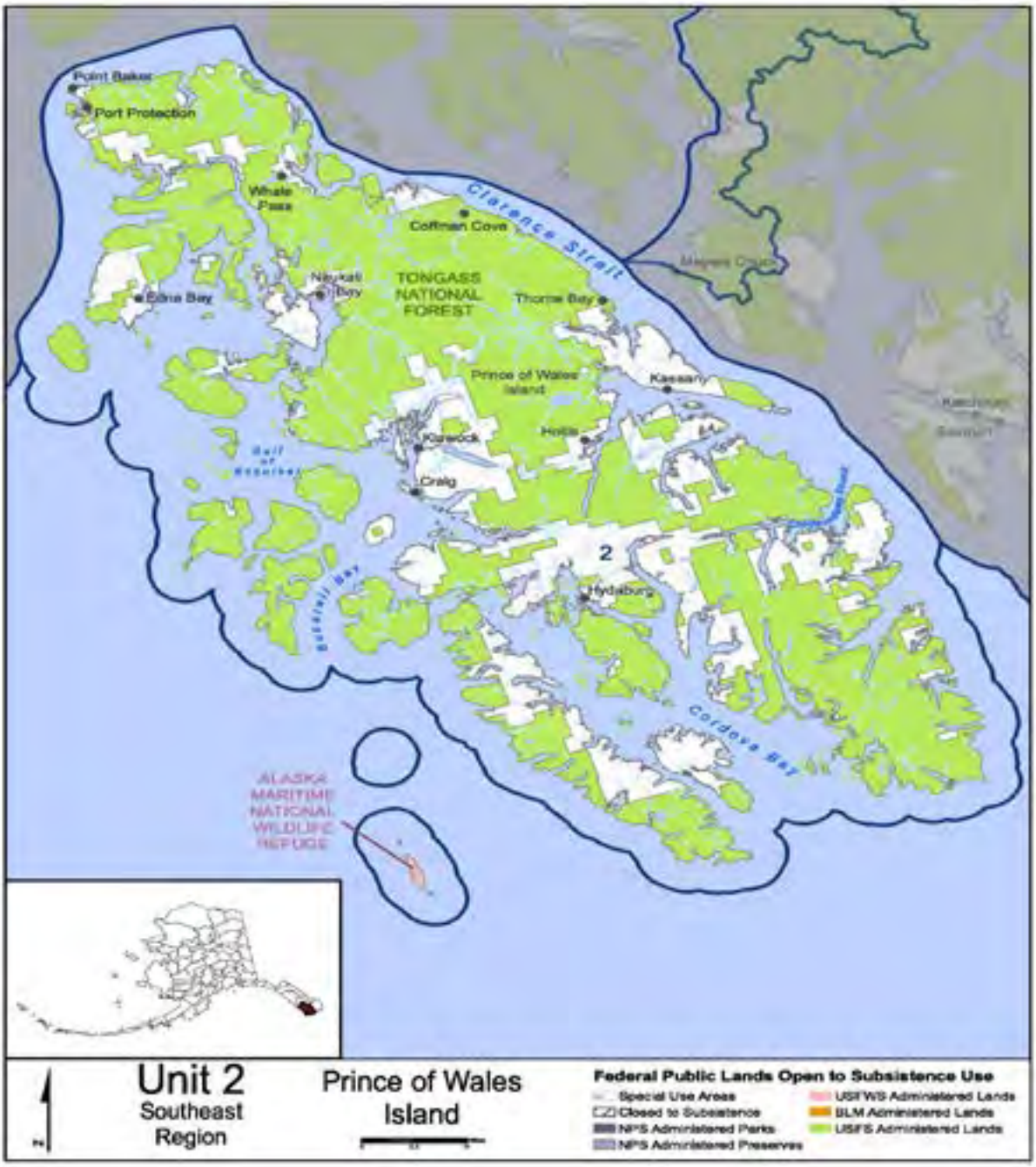


Figure 1. Map of the Unit 2 hunting area in Southeast Alaska, which is comprised of Prince of Wales Island and surrounding smaller islands.

Customary and Traditional Use Determinations

Rural residents of Units 1, 2, 3, 4 and 5 have a customary and traditional use determination for deer in Unit 2.

Regulatory History

In 2003, the Federal Subsistence Board (Board) adopted Proposal WP03-05, which initially closed Federal public lands for hunting deer Aug. 1- 21. August was chosen to coincide with the earlier start date of July 24th with proposal WP03-04 and provide a total of 28 days to hunt for Federally qualified subsistence users. In 2004, the Board adopted Proposal WP04-15 with modification to change the Federal public lands closure from Aug. 1-21 to Aug. 1-15, and to keep the closure in perpetuity. In 2006, the Board adopted Proposal WP06-08 to exclude the southeast portion of Prince of Wales Island from the Federal closure area (Table 1). This made the closure more consistent with prior ADF&G recommendations and ensured opportunity for State residents, as well as other hunters.

In August 2020, the Board approved a revised closure policy, which stipulated all closures will be reviewed every four years. The policy also specified that closures, similar to regulatory proposals, would be presented to the Councils for a recommendation and then to the Board for a final decision. Previously, closure reviews were presented to Councils that then decided whether to maintain the closure or to submit a regulatory proposal to modify or eliminate the closure.

Prior to implementation of Federal regulations, opportunity to harvest antlerless deer was available under State regulations from 1955-1972. From 1973-1977, the antlerless harvest limit was reduced. During the 1987 season, the opportunity to harvest one female deer under State regulations was re-implemented. Harvest data for these years are not available. Between 2005 and 2019, reported deer harvests of female deer in Unit 2 ranged from 60 to 119 animals. While the average female deer harvest increased to 107 since 2005. The female deer harvest percentage decreased to 3.2% of the total harvest.

Table 1. Regulatory history in Unit 2 related to the closure

Proposal number	Reg Year	FSB action	Proposal request
WP03-04	2003	Adopted with modification adding one week in July at the front of the season (July 24-31)	Extended early deer season for Federally qualified users
WP03-05	2003	Adopted with modification restricting non-Federally qualified users from Aug 1-21 on Federal Public Lands on Prince of Wales Island (closure for 1 year)	Closed Federal public lands from Aug 1-Sept. 1 and reduced harvest limit to 2 deer for non-Federally qualified subsistence users.
WP04-15	2004	Adopted with modification restricting non-Federally qualified users from Aug 1-15 on Federal Public Lands on Prince of Wales Island	Continued the one year closure passed by the Board during the 2003 regulatory cycle.
WP06-08	2006	Adopted with modification including: 1) removal of the August closure on the SE portion of Prince of Wales Island; 2) rejected closure to non-Federally qualified users on Suemez Island; and 3) rejected a closure to non-Federally qualified users on the islands located along the SW coast of Prince of Wales Island.	Expanded closure area to non-Federally qualified users.
WCR10-01	2010	No action: closure maintained	Closure review
WP16-01	2016	Adopted with modification adding January season, but rejected non-qualified harvest reduction	Restricted non-Federally qualified users two deer and extended season closing date from Dec. 31 to Jan. 31

Proposal number	Reg Year	FSB action	Proposal request
WP16-05	2016	Adopted	Requested language stating the Unit 2 deer harvest limit may be reduced to four deer in times of conservation be removed
WP18-01	2018	Adopted with modification to accept harvest limit restriction but opposed season reduction.	Limited harvest to two deer from Federal public lands and reduced season by one week or more for non-Federally qualified subsistence users
WP18-02	2018	Adopted	Modified deer C&T for Units 1-5 to all rural residents of Units 1-5.

Closure Last Reviewed: 2010 - WCR10-01.

Justification for Original Closure (Section 815(3) criteria)

Federal public lands in Unit 2 were closed to deer hunting in early August to non-Federally qualified users for the continuation of subsistence uses. A number of reasons were discussed as justification for the closure: The long-term trend of declining deer habitat (only 6% of clearcuts remain "huntable"); size of the deer population in Unit 2; apparent increase in hunter participation; and competition between user groups that resulted in a decline in subsistence opportunity, especially in the most road-accessible portions of Prince of Wales Island, and to coincide with the earlier July 24th start date for Federally qualified users

Section §815(3) of ANILCA states:

> *Nothing in this title shall be construed as – (3) authorizing a restriction on the taking of fish and wildlife for nonsubsistence uses on the public lands (other than national parks and park monuments) unless necessary for the conservation of healthy populations of fish and wildlife, for the reasons set forth in section 816, to continue subsistence uses of such populations, or pursuant to other applicable law.*

Council Recommendation for Original Closure

The Southeast Alaska Subsistence Regional Council (Council) supported the original proposal (WP03-05) with modification to close Federal public lands to non-Federally qualified users Aug. 1-Aug. 10 instead of Aug. 1- Sept.1. and reduce the limit for non-Federally qualified users from 4 to 2 deer. The Council concluded that there was substantial evidence that the deer population on POW had declined and that this decline was likely to continue as habitat changes persisted.

State Recommendation for Original Closure

Oppose: The Federal board is not authorized to regulate non-Federally qualified subsistence users in the manner requested in this proposal. In November 2002, the Board of Game rejected a proposal to reduce the bag limit for deer in Unit 2 from 4 to 2 bucks, concluding that a reduction in harvest opportunity was not needed at that time. The fact that hunters reported seeing fewer deer may have been a product of thicker second growth in the abundant clearcuts in Unit 2.

Biological Background

Sitka black-tailed deer spend the winter and early spring at low elevation on steep slopes where there is less snow accumulation, and old-growth forests provide snow-intercept and foraging opportunities. Fawning occurs in late May and early June as vegetation greens-up, providing abundant forage to meet energetic needs of lactating does. Some deer migrate and follow the greening vegetation up to alpine for the summer, while others remain at lower elevations. The breeding season, or rut, occurs late October through late November (ADF&G 2009) peaking around mid-November. Wolves and black bears are the primary predators present in Unit 2 and may reduce deer populations or increase recovery times after severe winters.

Recent population indices

Managing Sitka black-tailed deer and deer hunters is a difficult task in this region. Alaska Department of Fish and Game (ADF&G) relies on indices (aerial surveys and pellet counts) (Figures 2 and 3) and harvest statistics to assess population trends. ADF&G management objectives are to: 1) maintain populations with more than 45 deer per mi2 (17 per km2) on winter range, as determined by mean densities of 1.4 pellet groups per plot (Kirchhoff 1990) and, 2) maintain the deer population at 75,000 to allow for a minimum of 2,700 harvested deer per year (Hasbrouck 2020).

There are no methods to directly count deer in Southeast Alaska, so ADF&G conducts deer pellet surveys as an index to the relative abundance of the deer population. Relating pellet group data to population levels is difficult; however, factors other than changes in deer population size can affect deer pellet-group density. Snowfall patterns influence the annual distribution and density of deer pellets, and snow persisting late into the spring at elevations below 1,500 feet limits the ability to consistently survey the same zones each year. In mild winters, deer can access forage in a greater variety of habitats, not all of which are surveyed. Conversely, in severe winters, deep snow concentrates deer (McCoy 2011).

Pellet group transects were designed to detect large (>30%) changes in abundance and are not a suitable tool for monitoring smaller year-to year-changes. Although pellet-group surveys remain the only widely available tool to estimate deer population size, the results should be interpreted with caution. Pellet-group data in Unit 2 suggests an increasing population trend since a low during the late 1990s and early 2000s (Figure 2). Recent indices and harvest statistics suggest the deer population is currently stable. Both pellet count data of 1.4 and deer harvest data have exceeded minimum objectives since 2008 (Hasbrouck 2020).

ADF&G began testing alpine aerial survey techniques for deer in 2013 (Figure 3); 2017 was the first year with an established aerial survey protocol and consistent surveys across southeast Alaska. ADF&G is still researching the correlation between alpine summer surveys and actual deer populations. Surveys were not done in 2019 and 2020. Aerial survey numbers seem to reflect the relative abundances expected among various locations, but correlations with population trends remain unkown at this time.

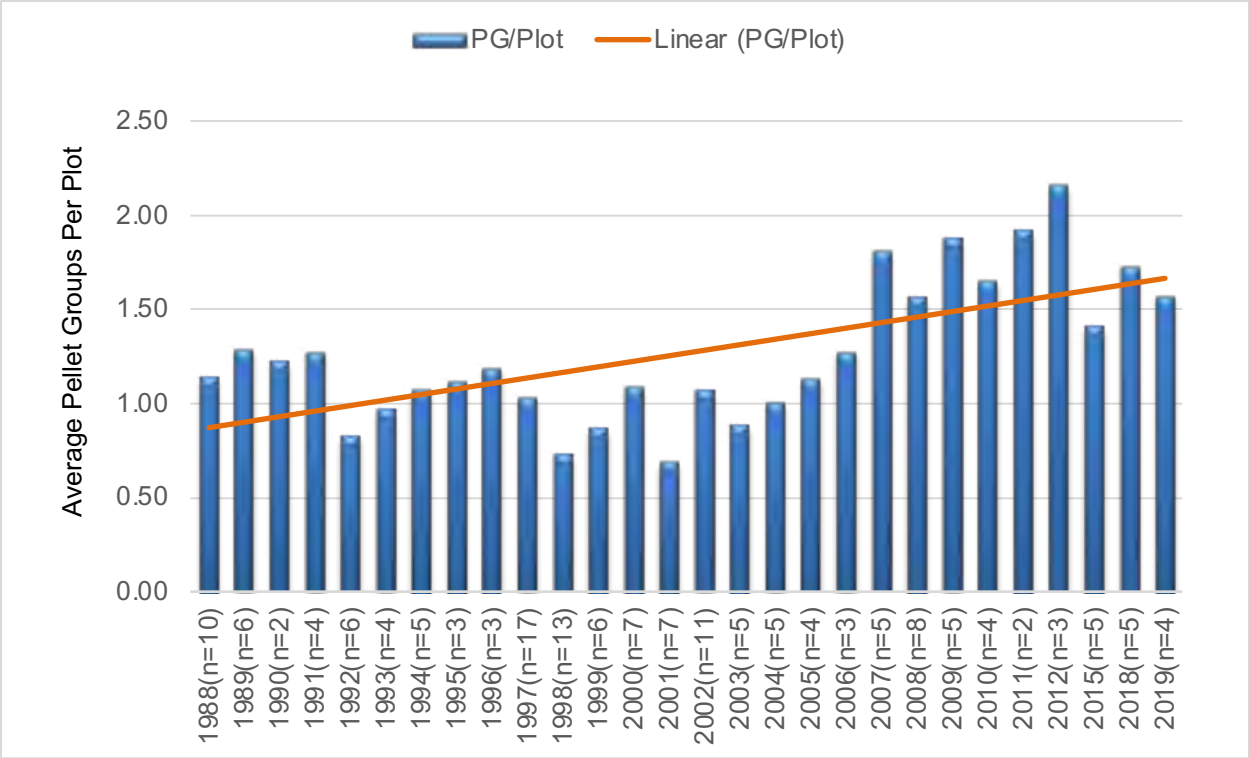


Figure 2. Annual average pellet group counts and general trend for deer in Unit 2 through 2019 (McCoy 2019a).

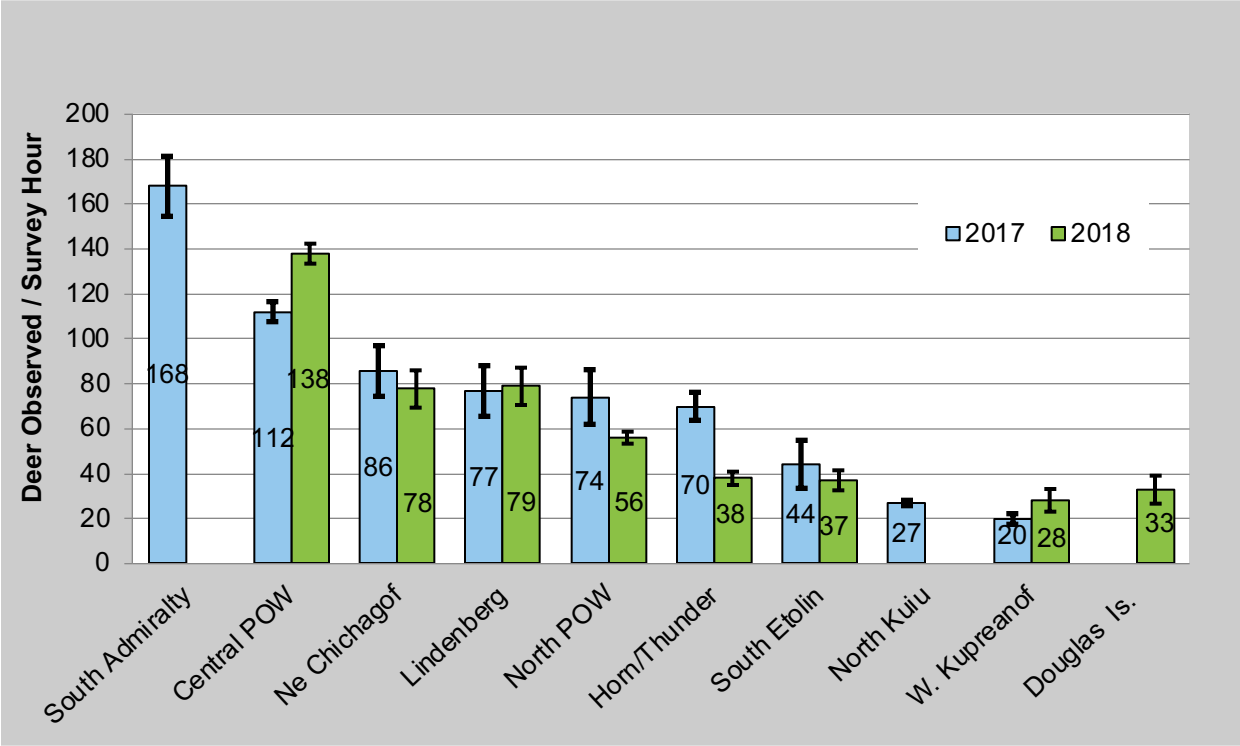


Figure 3. Aerial alpine surveys across southeast Alaska for 2017 and 2018 (McCoy 2019b). Central POW and North POW are the areas surveyed in GMU 2.

Other Mortality

Historically, prior to extensive road paving on the island, deer/vehicle collisions were rare (10–25 deer/year) and not considered a significant source of mortality. However, the collision risk increased in 2003 with completion of extensive new POW highway paving projects, which now extend from Craig to Coffman Cove and east to Thorne Bay. Construction and paving of the main roads to Coffman Cove and Whale Pass were completed. Higher vehicle speeds, as well as an attractive food source created by planting grass for erosion control near the roads has likely caused more deer/vehicle collisions, prompting managers to raise estimates of collision mortality to 30-50 deer per year, beginning in 2004.

Another source of mortality may be illegal and unreported harvesting. Anecdotal reports, interviews with law enforcement personnel, and fates of radio-collared deer suggest that over 4% of the estimated 75,000 deer in Unit 2 may be illegally harvested each year. Unreported and illegal harvest in Unit 2 is equal to that of the legal harvest and is one of the highest in the region (Table 5). Actual mortality from legal hunting could be 38% greater than the estimated harvest because of unknown or unreported crippling loss (Bethune 2015). Field observations and voluntary reports of wounding loss suggest that this estimate might be conservative (Flynn 1989). High illegal take is likely due in large part to the extensive and remote road system, and few law enforcement personnel patrolling the units.

Habitat

POW Island has the highest amount of old growth forest in Southeast Alaska (USDA 2016). Since 1954, POW received the most logging activity in the region, which resulted in a 94% reduction of contiguous high-volume forest for lumber production (Albert and Schoen 2013). Logging activity has reduced deer habitat in north central POW by 46% and in south POW by 18% (USDA 2016).

Old-growth forests are considered primary deer winter range in Southeast Alaska because the complex canopy cover allows sufficient sunlight through for forage plants to grow; it also and intercepts snow making it easier for deer to move and forage during winters when deep snow hinders access to other habitats. Habitat in some areas of Unit 2 have been affected by large scale timber harvest, while habitat remains largely intact in other areas. Young-growth forest treatments (e.g., thinning, small gap creation, branch pruning) can benefit deer forage development in previously harvested stands. Regardless, areas with substantial timber harvest are expected to have lower long-term carrying capacity compared to pre-harvest conditions.

Approximately 62% of the deer winter habitat remains in Unit 2 (Table 2) within Wildlife Analysis Areas (WAAs). Deer winter habitat is defined as high volume, old growth forest on south facing slopes below 800 feet in elevation. Many WAAs have less than 50% of the winter habitat remaining (Figure 4) because of past timber harvest and road building. When severe winter weather occurs, deer mortality is greatest in these WAAs because there is less habitat available to sustain them. Habitat conditions are not likely to improve in logged areas because stem exclusion can last from 25 years post-harvest to 150 years post-harvest. Figure 4 displays where the least amount of habitat remains. Table 2 compares where the greatest timber harvest has occurred compared to available deer winter habitat. Deer wintering areas in WAAs with less than 50% deep snow have the highest deer harvest rates.

Habitat conditions in Unit 2 over the last few years have remained stable because of mild winters and later snow arrival, allowing the deer to forage longer at higher altitudes and in areas such as muskegs. Prolonged snowpack during a severe winter, or during late winters, can have a greater effect on deer survival since less habitat is available for foraging.

Table 2. Percent of historical deep snow winter habitat (High Productive Old Growth below 800 feet on south facing slopes) remaining by WAA in GMU 2 since 1954 (the beginning of large scale logging), percent productive old growth remaining, average harvest since 2005, and harvest trend.

WAA	Remaining Productive Old Growth since 1954(%)	Remaining Deep Snow Deer Winter Habitat (%)	Average Reported Harvest (%) by WAA since 2005 and trend
901	89	85	69 ↑
902	100	100	79 ↓
1003	51	49	46 ↑
1105	99	99	84 ↑
1106	100	100	25 ↓
1107	97	93	138 ↑
1108	99	99	17 ↑
1209	100	100	10 ↑
1210	99	99	50 ↑
1211	83	78	36 ↑
1213	99	99	21 ↑
1214	67	48	245 ↑
1315	55	29	350 ↑
1316	99	100	27 ↓
1317	56	23	145 ↑
1318	78	49	220 ↑
1319	74	61	229 ↓
1323	90	76	18 ↓
1332	80	72	76 →
1420	54	27	308 ↑
1421	71	44	107 ↓
1422	51	29	386 ↓
1525	51	40	21 ↑
1526	93	83	18 ↑
1527	67	61	23 ↓
1528	82	84	37 →
1529	55	46	144 ↓
1530	50	37	145 ↑
1531	55	49	37 ↓

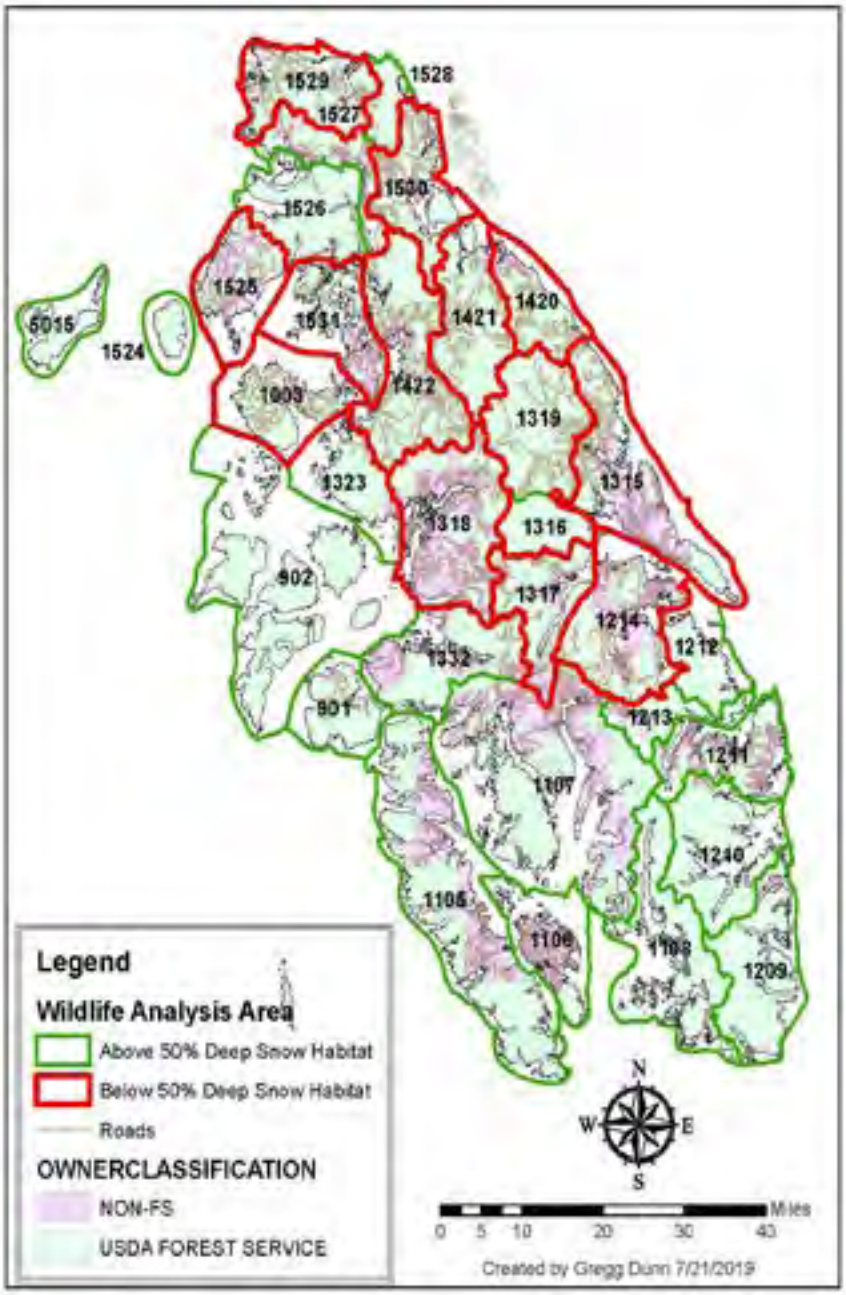


Figure 4. Map of Unit 2 showing deep snow deer winter habitat and where habitat availability is below 50% in WAAs. Note: WAA 5015 is not part of Unit 2.

Cultural Knowledge and Traditional Practices

A cultural research project conducted between August 2014 and February 2015 showed that weather patterns changed during the lifetimes of participants interviewed from 11 different communities (three in Unit 2) in Southeast Alaska. There were three main questions asked and opinions differed on the intensity and duration changes; specifically, timing of seasons, and extent of differences observed (Wyllie de Echeverria 2019). Research participants observing 'seasonal shifts' referred specifically to weather typically considered autumnal such as major rainstorms occurring earlier in the year. Season length was

seen to shift, becoming sometimes shorter or longer (Wyllie de Echeverria 2019). Snow no longer lasts throughout the winter and water does not freeze in this region. The authors of this study did not postulate how weather changes affected resource distribution, harvesting, and processing, however.

Harvest History

ADF&G harvest data obtained from several reporting systems, including the Region 1 (Southeast Alaska) deer survey, Unit 2 deer harvest report, and the State-wide deer harvest report (McCoy 2019b). The Region 1 deer survey is the most consistent report, covering the years 1997–2010, and is based on a sample of hunters. In general, 35% of hunters from each community were sampled annually and, while response rates varied by community, the overall response rate across communities was approximately 60% each year.

Alaska Board of Game, in fall 2000 established a harvest objective of 2,700 deer for Unit 2 and a population goal of 75,000 deer and considered the population as important for satisfying high levels of human consumptive use (Bethune 2013). The estimated average total annual harvest was 3,467 deer in Unit 2 from 2005-2018 (**Figure 5**). Harvests were at or above the Unit 2 harvest objective from 2005-2016 but fell below harvest objectives during the 2017-2019 seasons. Deer harvest reached historically high levels in 2015 and then began to decline. There is a similar pattern seen with hunter participation in the Unit 2 deer hunt (**Figure 5**).

Federally qualified subsistence users harvest the most deer in Unit 2 and accounted for 59-71% of the total harvest from 2005-2018 (**Figure 5**). This estimate may be significantly higher, as past testimony taken at Regional Advisory Council meetings suggested that some communities do not fully report (SERAC 2015; SERAC 2017). Between 2005 and 2015, the number of deer harvested per hunter by non-Federally qualified users averaged 1.5, and the number harvested by Federally qualified users averaged 1.8 (**Figure 6**).

Federally qualified subsistence users in Unit 2 had a higher success rate than other hunters from 1997-2017 with an average success rate of 74.4% compared to 59.6% success rate for non-Federally qualified hunters (Table 3). The harvest of five deer under Federal regulations has been allowed since 2006.

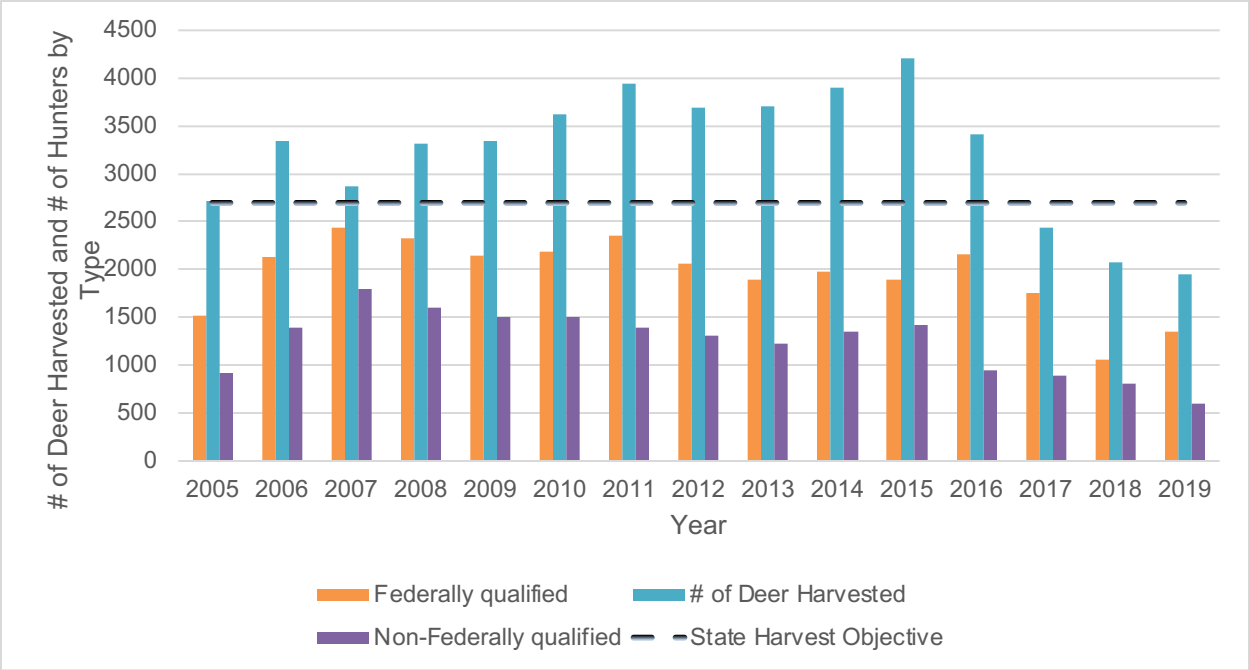


Figure 5. Estimated total deer harvest and number of hunters by user type from 2005-2019 in Unit 2 (McCoy 2019b)

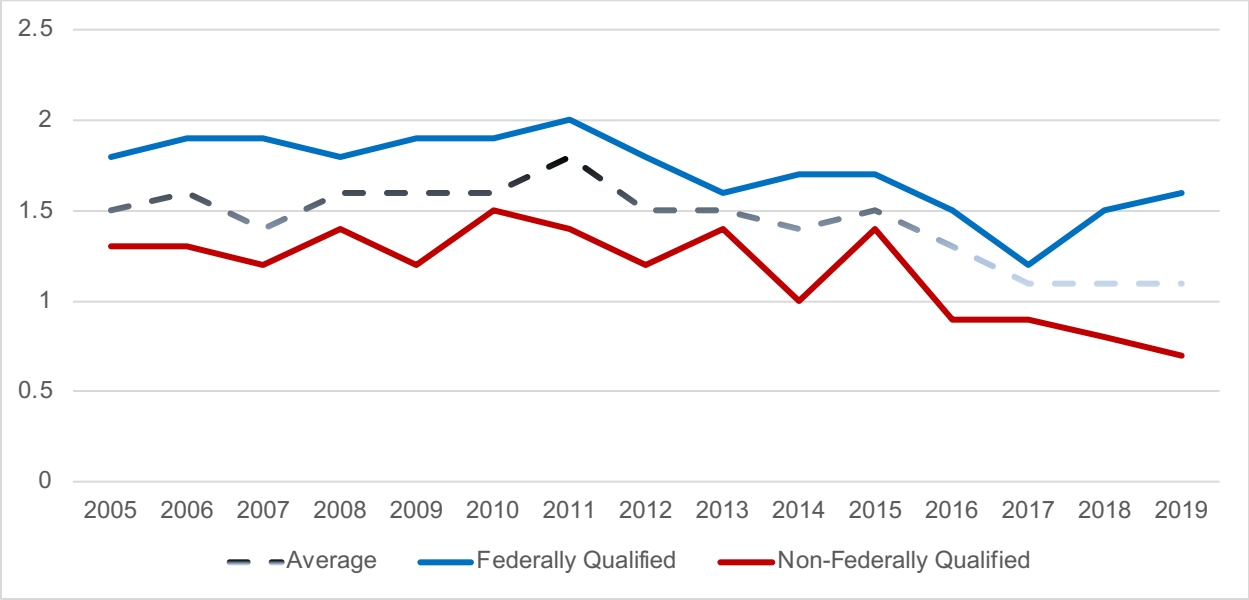


Figure 6. Average Number of deer harvested per hunter by user type in Unit 2, 2005-2019 (McCoy 2019b)

Table 3. Number of deer and percent reported harvested by hunter type and overall percent success from 1997-2017 (McCoy 2019b). Note: Non-federally qualified hunters harvest up to four deer (two on Federal lands).

Hunter Type	No Deer	1-2 Deer	3-4 Deer	5 Deer	Overall Success
Federally Qualified	**25.6%**	**48.7%**	**23.8%**	**1.8%**	**74.4%**
Non-Federally Qualified	**40.4%**	**46.4%**	**13.1%**	**0**	**59.6%**

Much of the harvest in Unit 2 takes place during three time periods: late July/August, October, and November. This is when competition is greatest between user groups. July/August is the opening of the hunt in Unit 2 and people are in alpine areas looking for mature bucks. November is the most popular month to hunt because it coincides with the rut.

Table 4. Percent of harvest by month from 2004-2018 (McCoy 2019b). Notes: The January season has only occurred since 2016.

Hunt Month	July/August	September	October	November	December	January
Percent of Harvest	19%	9%	16%	48%	5%	3%

Weather Patterns

Sitka black-tailed deer adjust their seasonal migrations and habitat use to reflect changing weather patterns. The abiotic factor most closely tied to their movement and distribution is snow. Because air temperatures overall are warming, smaller amounts of snow cover may help migrations to higher elevations, which may make deer less accessible to hunters.

Alternatives Considered

Modifying the closure to the first two weeks of November would have a greater benefit to subsistence users. Most of the harvest from Federally and non-Federally qualified users occurs during the month of November because of the rut.

Effects

Rescinding the closure would increase opportunities on Federal public lands for non-Federally qualified users during August. This could increase both the number of non-Federally qualified user days and encounters between Federally qualified subsistence users and non-Federally qualified users. This could potentially decrease harvest opportunity for Federally qualified subsistence users through increased competition.

Current Federal regulations allow for a 5 ½ -month season, which may or may not be sufficient to meet subsistence needs. Table 4 shows that 19% of the harvest occurs in late July/August (McCoy 2019b).

Historical hunting areas and clearcuts are no longer huntable or not easily accessible. Thus, habitat loss from commercial logging appears to affect the ability of Federally qualified subsistence users to find enough deer to meet their subsistence needs.

Local weather patterns are also changing deer habitat use patterns. For example, snow is not driving deer down to traditional locations that subsistence hunters typically use making it harder to find deer.

There is a possibility of increased crowding from and competition with non-Federally qualified users, which may partly be a result of the Access Travel Management Plan (ATM) enacted by the USDA Forest Service in 2009. Specifically, the ATM reduced access to many miles of roads in Unit 2, concentrating hunters into smaller areas.

OSM CONCLUSION

_X_ maintain status quo

_ modify or eliminate the closure

Justification

The long-term trend of declining deer habitat, decreasing deer population size 2, increase in hunter participation, and competition between user groups in the most road-accessible portions of the Prince of Wales Island have affected the perception of increased competition between Federally qualified users and non-Federally qualified users. The harvest objective has not been met since 2017 and deer per user has dropped as well. Finding deer in traditional hunting areas has decreased because of weather, competition, stem exclusion, predation, and road access. This shows there may be less deer on the landscape and could be a reason to maintain the closure.

LITERATURE CITED

ADF&G. 2009. Deer Trails. Issue 1.

Bethune, S. 2011. Unit 2 deer management report. Pages 31–44 in P. Harper, editor. Deer management report of survey and inventory activities 1 July 2008-30 June 2010. ADF&G. Juneau, AK.

Bethune, S. 2013. Unit 2 deer management report. Pages 33–47 in P. Harper, editor. Deer management report of survey and inventory activities 1 July 2010-30 June 2012. ADF&G. Juneau, AK.

Bethune, S. 2015. Unit 2 deer. Chapter 4, pages 4–1 through 4–15 [In] P. Harper and L. A. McCarthy, editors. Deer management report of survey and inventory activities 1 July 2012–30 June 2014. Alaska Department of Fish and Game, Species Management Report ADF&G/DWC/SMR-2015-3, Juneau.

Brinkman, T.J., D.K. Person, F.S. Chapin III, W. Smith, and K.J. Hundertmark. 2011. Estimating abundance of Sitka black-tailed deer using DNA from fecal pellets. J. Wildlife Manage. 75(1): 232–242.

Brinkman, T.J., D.K. Person, W. Smith, F.S. Chapin, III, K. McCoy, M. Leonawicz, K.J. Hundertmark. 2013. Using DNA to test the utility of pellet-group counts as an index of deer counts. Wildlife Society Bulletin; DOI: 10.1002/wsb.270.

Flynn, R. W. and L. Suring. 1989. Harvest rates of Sitka black-tailed deer populations in Southeast Alaska for land-use planning. Unpublished report.

Hanley, T.A., and J.D. McKendrick. 1985. Potential nutritional limitations for black-tailed deer in a spruce-hemlock forest, Southeastern Alaska. Journal of Wildlife Management 49:103–114.

Hasbrouck, T. R. 2020. Sitka black-tailed deer management report and plan, Game Management Unit 2: Report period 1 July 2011–30 June 2016, and plan period 1 July 2016–30 June 2021. Alaska Department of Fish and Game, Species Management Report and Plan ADF&G/DWC/SMR&P-2020-30, Juneau.

Kie, J.G., R.T. Bowyer, and K.M. Stewart. 2003. Ungulates in western forests: habitat relationships, population dynamics, and ecosystem processes. Pages 296–340 in: Zabel, C., and R. Anthony, editors. Mammal community dynamics in western coniferous forests: management and conservation. The Johns Hopkins University Press, Baltimore.

McCoy, K. 2019a. Wildlife Biologist. Personal communication: email to J. Reeves (USFS) containing ADF&G deer pellet count data. ADF&G, Craig, AK.

McCoy, K. 2019b. Wildlife Biologist. Personal communication: email to G. Dunn (USFS) containing ADF&G deer harvest data. ADF&G, Sitka, AK.

Olson, S.T. 1979. The life and times of the black-tailed deer in southeast Alaska. Pages 160–168 in O.C. Wallmo and J.W. Schoen, editors. Sitka black-tailed deer: Proceedings of a conference in Juneau, Alaska. USFS, Alaska Region, in cooperation with the ADF&G. Series No. R10-48, May 1979.

Parker, K.L., M.P. Gillingham, T.A. Hanley, and C.T. Robbins. 1999. Energy and protein balance of free-ranging black-tailed deer in a natural forest environment. Wildlife Monographs 143:3–48.

SEASRAC. 2006. Unit 2 Deer Management Final Report from the Unit 2 Deer Planning Subcommittee of the Southeast Subsistence Regional Advisory Council.

SEASRAC. 2013. Transcripts of the Southeast Subsistence Regional Advisory Council, October 23, 2013 in Wrangell, Alaska. Office of Subsistence Management, FWS. Anchorage, AK.

SEASRAC. 2015. Transcripts of the Southeast Subsistence Regional Advisory Council, October 27, 2015 in Yakutat, Alaska. Office of Subsistence Management, FWS. Anchorage, AK.

SEASRAC. 2017. Transcripts of the Southeast Subsistence Regional Advisory Council, October 31, 2017 in Juneau, Alaska. Office of Subsistence Management, FWS. Anchorage, AK.

Stewart, K.M., R.T. Bowyer, B.L. Dick, B.K. Johnson, and J.G. Kie. 2005. Density-dependent effects on physical condition and reproduction in North American elk: an experimental test. Oecologia 143:85–93.

Wyllie de Echeverria, V.R., Thornton, T.F. Using traditional ecological knowledge to understand and adapt to climate and biodiversity change on the Pacific coast of North America. Ambio 48, 1447–1469 (2019). https://doi.org/10.1007/s13280-019-01218-6

SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Southeast Alaska Subsistence Regional Advisory Council

Maintain status quo WCR22-01. This seasonal closure has been in place for a good number of years. It was originally recommended by a stakeholder's group that sought solutions to Federally qualified subsistence users' needs for deer not being met in Unit 2. This closure is one of the solutions crafted by that group, which was comprised of both Federally qualified subsistence and non-Federally qualified hunters. This closure is in line with recognized principles of fish and wildlife management. It doesn't exclude non-subsistence hunters; they still have opportunity, but it does provide a meaningful priority for subsistence users.

In addition to the seasonal closure, there is a harvest limit restriction for non-Federally qualified users that was implemented several years ago. The harvest limit restriction has resulted in less hunter effort from non-Federally qualified subsistence users, most of whom live in Ketchikan. Ketchikan is in Unit 1 which has a greater harvest limit as well as good success rates for deer hunters, so the harvest limit restriction in Unit 2 may have shifted some of the effort to Unit 1.

All of this has worked towards solving a problem in Unit 2 where there was a lot of competition, which was resulting in subsistence users having a hard time meeting their needs. The seasonal closure and harvest restriction, collectively, have been a good, successful strategy in ensuring that subsistence needs are being met.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and Federal Subsistence Board action on the proposal.

ALASKA DEPARTMENT OF FISH AND GAME COMMENTS

If this closure is eliminated, non-federally qualified users (NFQU) would once again be allowed to deer hunt August 1-15 and the bag limit would revert back to four male deer rather than the reduced bag limit of two male deer in Game Management Unit (GMU) 2.

Background

GMU 2 encompasses Prince of Wales (POW) Island and the surrounding archipelago. Federally qualified users (FQU) residing in GMUs 1-5 are eligible to harvest deer in GMU 2 under federal subsistence regulations. In 2018, the Federal Subsistence Board (FSB) reduced the bag limit for NFQUs hunting on federally managed land from four bucks to two male deer. Over 70% of land in GMU 2 is federally managed.

Under Title VIII of ANILCA harvest opportunity of NFQUs can only be restricted if there is a conservation concern for a harvested game population or for the continuation of subsistence uses of such population. Consequently, by continuing to restrict the NFQU bag limit for deer in GMU 2 the FSB will

indicate that it continues to believe that there is a conservation concern for the GMU 2 deer population or that the amount reasonably necessary for subsistence (ANS) is not being met. These comments provide updated information on indices of deer abundance and deer hunter effort and harvest in GMU 2 through the Alaska Department of Fish and Game's (ADF&G) mandatory deer harvest ticket reports, which represent the only consistent and systematically collected information on deer hunters and harvest. Under Alaska's constitution ADF&G is responsible for sustainable management of all harvested populations throughout the state, including deer in GMU 2. ADF&G reviewed biological and management metrics, and none suggest a significant or widespread decline in GMU 2 deer numbers or a conservation concern for the population. Deer pellet group data, aerial alpine surveys, hunter effort and harvest information, and a series of mild to moderate winters all suggest the GMU 2 deer population remains relatively high and stable.

Population Indices

Trends in abundance of deer living in forested habitat are challenging to monitor because deer cannot be directly counted through ground or aerial surveys. For over thirty years ADF&G has used spring pellet group counts to monitor broad (>30%) changes in deer abundance. Spring pellet group surveys are conducted in numerous US Forest Service Value Comparison Units across Southeast Alaska after snow melts and before spring green-up. Pellet groups are counted along transects in deer winter habitat (forested habitat from sea level to 1,500 feet elevation), and a pellet group density is calculated. Winters with deeper and more persistent snow concentrate deer in old-growth forest and generally produce higher pellet group densities than winters with little snow when deer are able to use a wider variety of habitats. Consequently, winter severity must be considered when interpreting pellet group counts.

Figure 1 summarizes average spring pellet group densities for surveys in GMU 2 from 1988 through 2019. No surveys were conducted in 2020 or 2021 due to the Covid-19 pandemic. Although average pellet group densities have declined slightly from surveys in 2007 through 2012, they remain high and exceed densities recorded during the 18-year period of 1988 through 2006. This index of deer abundance suggests that the GMU 2 population remains relatively high compared to the previous 30 years. Each of the areas surveyed in GMU 2 resulted in >1.0 pellet groups per plot; the Thorne Lakes VCU resulted in a 2.33 pellet groups per plot. 1.0 pellet groups per plot is considered a moderate density while 2.33 is considered high. In comparison, 2 areas in Southeast Alaska resulted in counts below 1.0 groups per plot; 8 areas resulted in 1.0-2.0 groups per plot; and 6 areas resulted in >2.0 groups per plot.

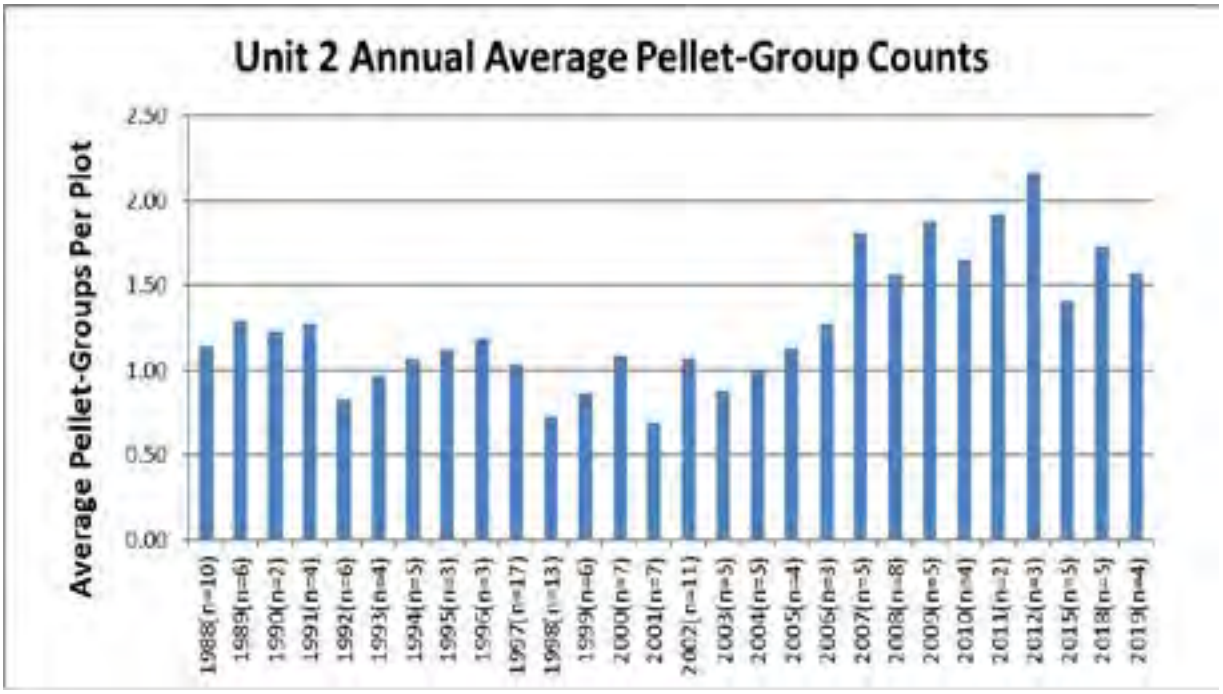


Figure 1. GMU 2 spring deer pellet group density, 1988 – 2019. Due to the Covid-19 pandemic, no pellet group surveys were conducted in 2020 or 2021.

ADF&G began experimenting in 2013 with mid-summer aerial counts of deer in alpine habitat. We flew repeated surveys in each survey area each year under a protocol designed to minimize and document variability in conditions during individual survey flights. The first survey in GMU 2 was flown in 2014 in a survey area on northern Prince of Wales Island and adjacent Kosciusko Island. Multiple surveys of that area were flown in 2016. Beginning in 2017 repeated surveys were flown in the northern survey area and a new survey area on central Prince of Wales Island north of Harris River. The findings of those surveys, summarized as deer counted per hour of survey time, are presented in Figure 2. Alpine surveys were last flown in 2019.

ADF&G does not know whether trends in the numbers of deer seen in the alpine reflect trends in the larger deer population and has not yet completed our analysis of how survey conditions may affect numbers of deer seen during alpine surveys. Consequently, we do not know what value to attach to findings in Figure 2. However, from 2017 through 2019 counts of deer seen on the Central and North Prince of Wales survey routes ranked second and sixth, respectively, out of 10 survey routes throughout Southeast Alaska, with deer counted on the Central POW survey route only exceeded by counts on Admiralty Island in GMU 4.

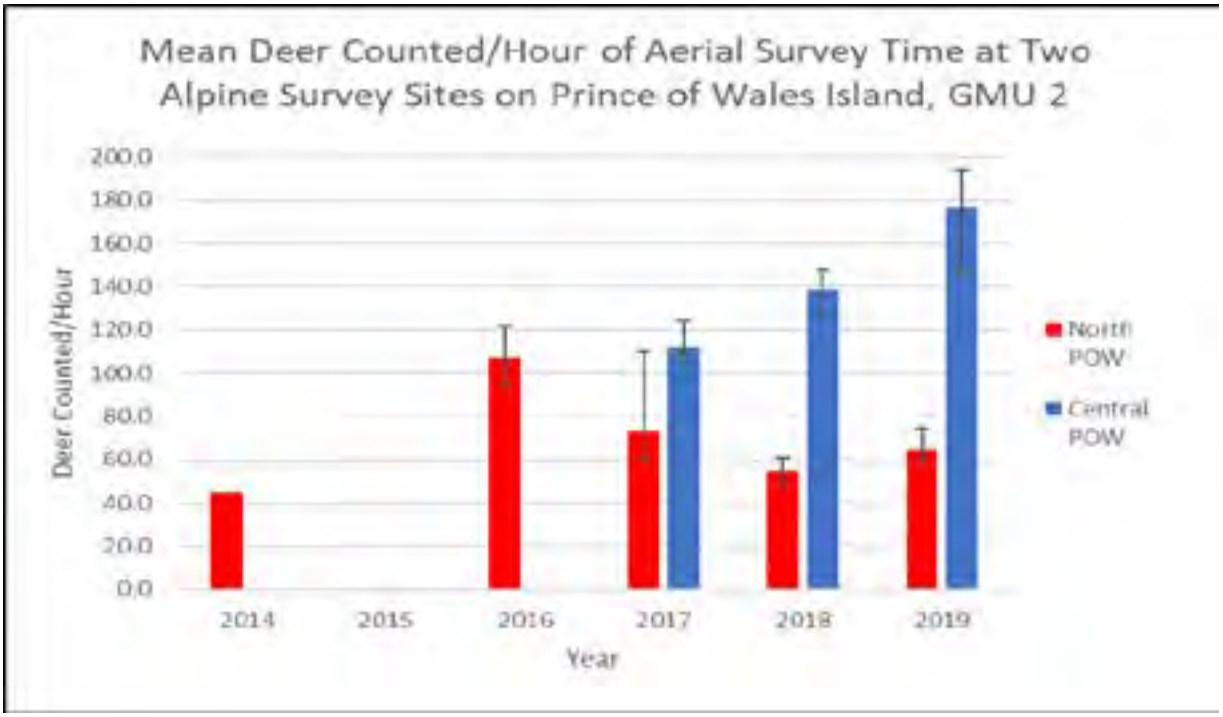


Figure 2. Mean number of deer counted per hour during mid-summer aerial alpine deer surveys on northern and central Prince of Wales Island, 2014 – 2019. Error bars represent the range of deer counted per hour during repeated surveys. Only one survey was flown during 2014. No surveys were flown during 2015.

Taken together, these two indices of deer abundance (pellet group surveys and alpine counts) suggest the GMU 2 deer population is stable. Pellet group densities were designed to detect substantial (>30%) changes in deer abundance. Although pellet group densities have declined slightly since 2012, in spring 2019 they remained above 1.5 pellet groups per plot and higher than any year from 1988 through 2006. Furthermore, spring pellet groups densities in 2018 and 2019 were higher than in 2015, the year of record high deer harvest. Aerial count data are more difficult to interpret, with one count area declining from 2016 to 2017 and then stabilizing and the other increasing by over 50% from 2017 to 2019. However, neither index suggests a substantial decline in deer abundance or a conservation concern for the GMU 2 deer population.

Hunter Effort and Harvest

ADF&G estimates hunter effort and harvest using information provided by hunters. To hunt deer in Southeast Alaska all hunters must obtain harvest tickets. Prior to 2011 ADF&G mailed survey forms to one third of hunters in each community who obtained harvest tickets. Since 2011 harvest tickets have come with a mandatory reporting requirement. People who obtain harvest tickets are required to report whether they (or a proxy or federal designated hunter) hunted or not. Those who did hunt are required to report where they hunted, days of hunting effort, and information about deer they harvested.

Figure 3 summarizes information from harvest tickets on the total numbers of GMU 2 hunters and deer harvest for the past 24 years. The number of GMU 2 hunters and deer harvest began growing around 2006 and peaked in 2015 with new record deer harvests set in 2011, 2014, and 2015. Numbers of hunters and harvests began declining in 2016. The estimated average annual harvest from 1997-2020 was 2,768 deer with estimated annual harvests exceeding ADF&G's GMU 2 harvest objective of 2,700 deer during half

of those 24 years. This means that deer harvest in GMU 2 has met or exceeded the ANS in each of the last 24 years (see below for ANS information). Harvests from 2017 through 2020 were similar to the period 1997 – 2004.

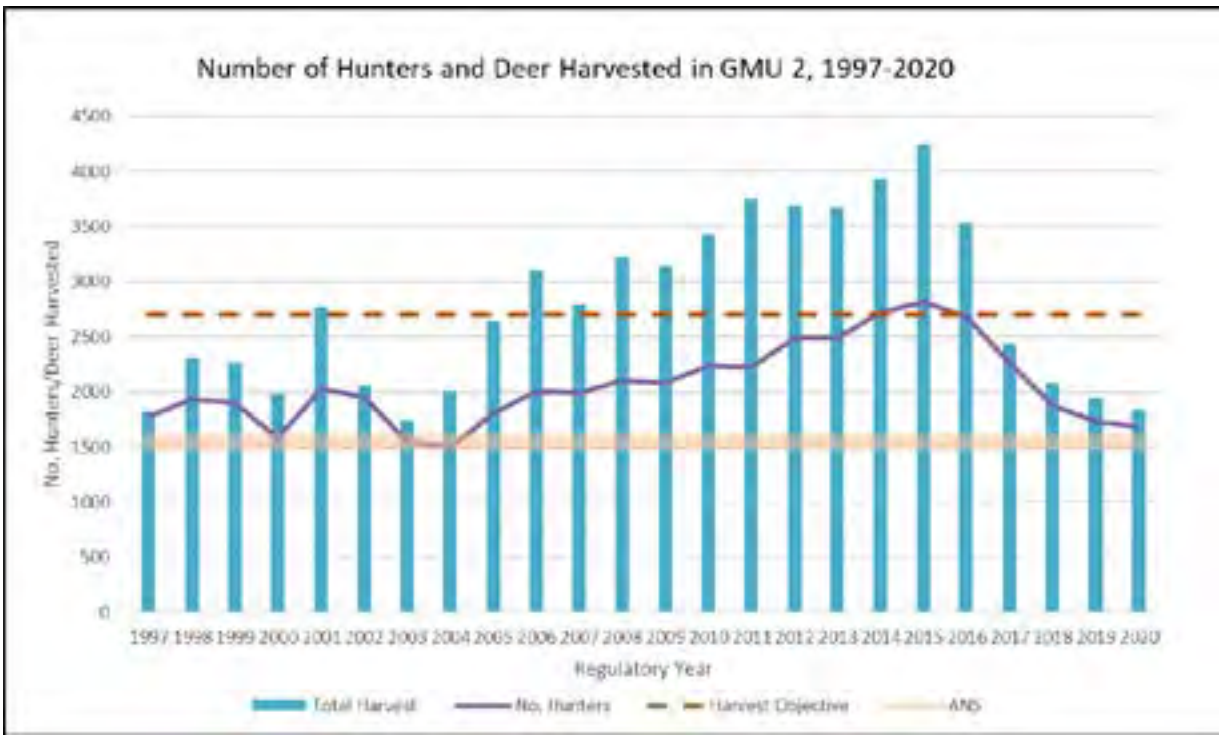


Figure 3. Total number of participating hunters and deer harvest in GMU 2, RY1997-RY2020. In RY2018 eligibility to participate in the federal subsistence hunt was expanded from all FQUs residing in GMUs 1A, 2, and 3 to all federally qualified residents of GMUs 1-5. The bag limit for non-federally qualified hunters on federally managed lands was also reduced from four bucks to two bucks. The orange bar indicates the state amount reasonably necessary for subsistence of 1,500 – 1,600 deer annually.

Figure 4 summarizes estimated GMU 2 deer harvest by FQU and NFQU hunters. Overall harvest depends on a number of factors, including deer abundance, hunter effort, and hunting conditions, particularly during the rut when most GMU 2 deer are harvested. Harvests by both groups of hunters peaked in 2015 and have since declined. Compared to the peak harvest in 2015, harvest by FQUs has declined by 35% while harvest by NFQUs has declined by about 70%. Part of the decline in harvest by NFQUs could result from the 2018 reduction in bag limit on federal lands. However, harvests by both groups of hunters remain within historical norms, particularly for FQUs.

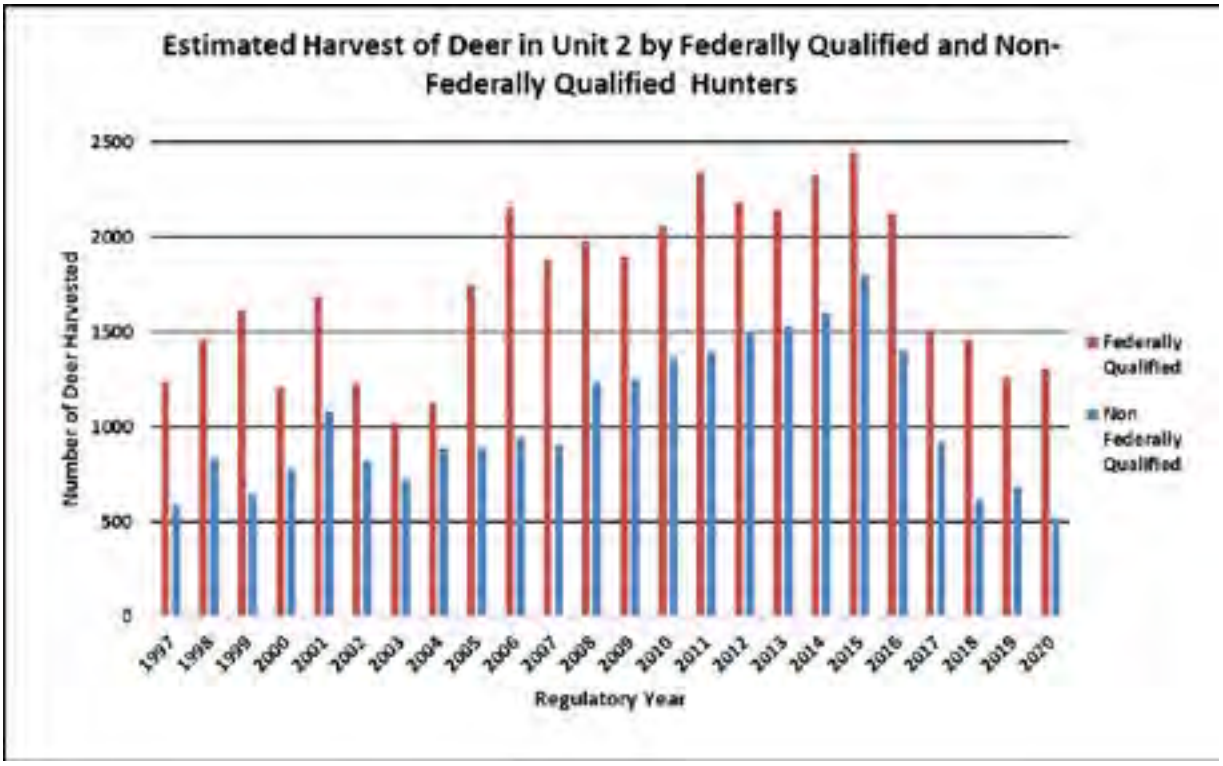


Figure 4. Deer harvested by federally qualified and non-federally qualified hunters in GMU 2, RY1997–RY2020. In RY2018 eligibility to participate in the federal subsistence hunt was expanded from federally qualified residents of Units 1A, 2, and 3 to federally qualified residents of Units 1-5. The bag limit for non-federally qualified hunters on federally managed lands was also reduced from four bucks to two bucks.

One argument in support of adopting the 2018 federal regulation reducing non-federal deer bag limit in GMU 2 was that FQUs were having difficulty meeting their subsistence needs due to competition with NFQUs, primarily hunters from Ketchikan. Unlike state harvest objectives or ANS, both of which are in state regulation, federal subsistence needs remain undefined, so there is no quantitative way to verify whether the regulations provide a reasonable opportunity to harvest deer for subsistence uses. However, data from mandatory deer harvest reports provide some insight into effort and harvest by FQUs and NFQUs over time. Recent harvests by FQUs are similar to levels in the late 1990s and early 2000s when no concerns about subsistence needs being met were expressed, and because no bag limit restrictions were imposed on NFQUs during those years.

Figure 5 summarizes the numbers of FQUs and NFQUs who hunted deer in GMU 2 from 1997 through 2020. The total number of hunters peaked from 2014 – 2016 with the number of NFQUs exceeding FQUs during each of those years. Since peaking in 2015, the total number of people hunting deer in GMU 2 has declined by about 40%. Numbers of NFQUs have declined by over 50%, whereas numbers of FQUs have declined by nearly 30%. The number of participating hunters can affect total hunting effort and harvest. One likely reason GMU 2 deer harvest has declined from the peak in 2015 is that the number of hunters has declined. However, the number of people hunting deer in GMU 2 remains within historical norms.

Prior to 2018 only FQUs who resided in GMUs 1A, 2 and 3 were eligible to hunt deer under federal subsistence regulations in GMU 2. In 2018 the Federal Subsistence Board expanded the pool of hunters eligible to hunt deer under federal regulations in GMU 2 to include all FQUs residing in GMUs 1-5.

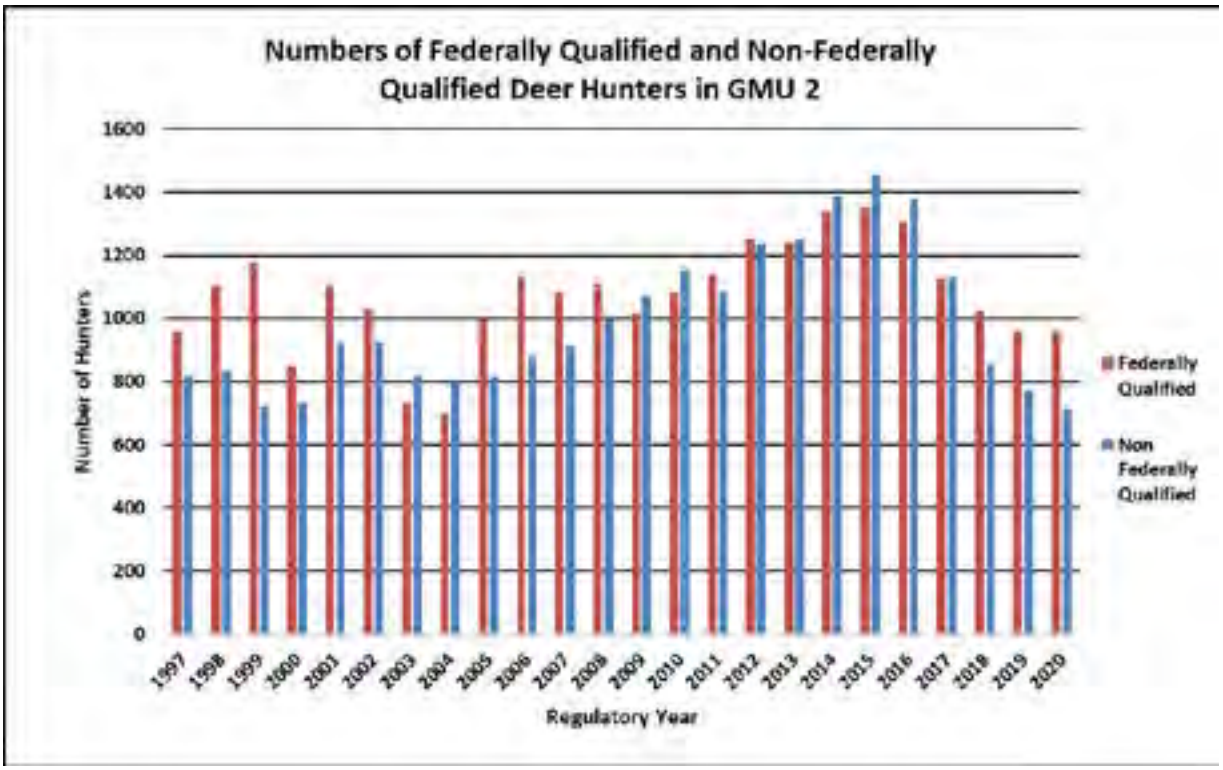


Figure 5. Number of federally qualified and non-federally qualified hunters hunting deer in GMU 2, RY1997 – RY2020. In RY2018 eligibility to participate in the federal subsistence hunt was expanded from all federally qualified residents of Units 1A, 2, and 3 to all federally qualified residents of Units 1-5. The bag limit for non-federally qualified hunters on federally managed lands was also reduced from four bucks to two bucks.

Figure 6 summarizes information on deer hunting effort by FQUs and NFQUs in GMU 2. Total days of hunting effort and effort by NFQUs peaked in 2015. Since 2015, hunting effort by NFQUs has declined by about 50%. In the last decade hunting effort by FQUs peaked in 2014 and has since declined by about 15%. This decline in total hunting effort is likely partially responsible for the recent declines in GMU 2 deer harvest. However, hunting effort by both groups of hunters remains within the historical ranges.

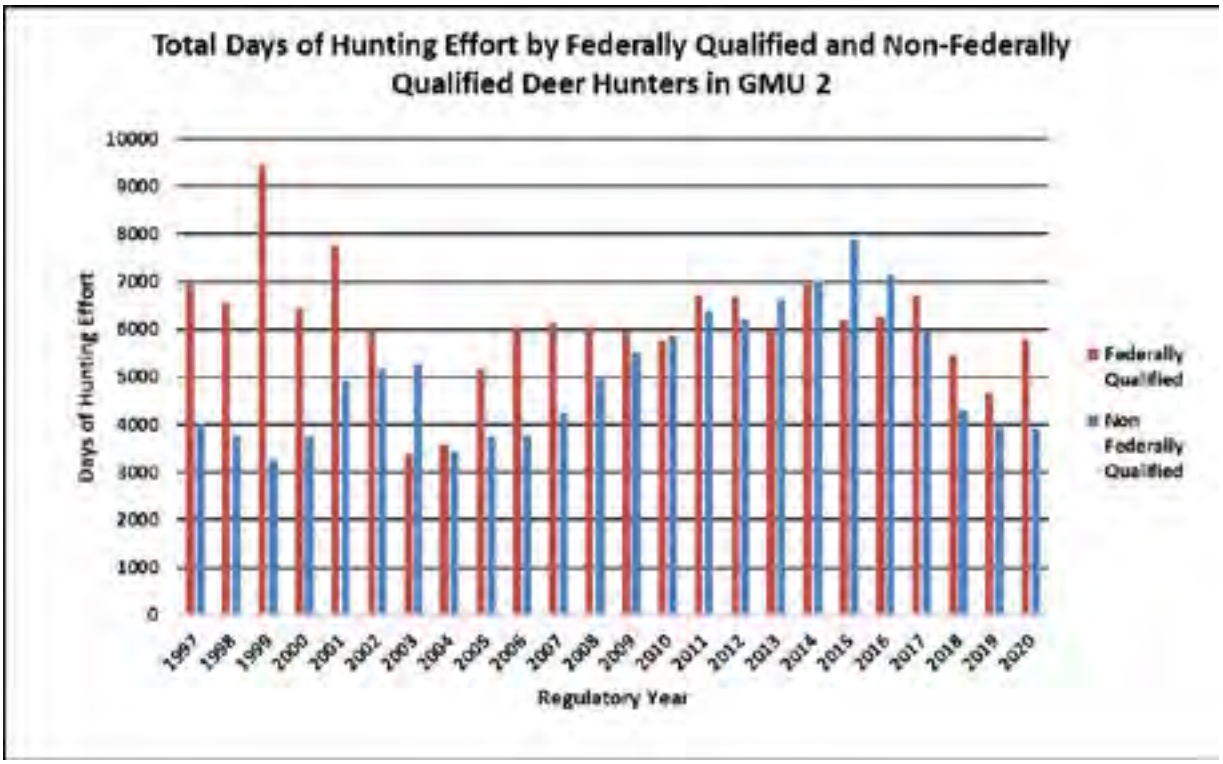


Figure 6. Total days of hunting effort by federally qualified and non-federally qualified hunters hunting deer in GMU 2, RY1997–RY2018. In RY2018 eligibility to participate in the federal subsistence hunt was expanded from federally qualified residents of Units 1A, 2, and 3 to federally qualified residents of Units 1-5. The bag limit for non-federally qualified hunters on federally managed lands was also reduced from four bucks to two bucks.

Hunter efficiency, or the days of hunting effort required to harvest one deer, is another indicator of the availability of deer to GMU 2 hunters. Figure 7 summarizes the number of days of hunting required to harvest a deer by FQUs and NFQUs in GMU 2. FQUs are consistently more efficient at harvesting deer than NFQUs. Although in the last few years FQUs have required about one additional day of effort to harvest a deer than they did from 2003 – 2016, hunting effort required from 2017-2020 remains within the historical range and lower than from 1997-2002.

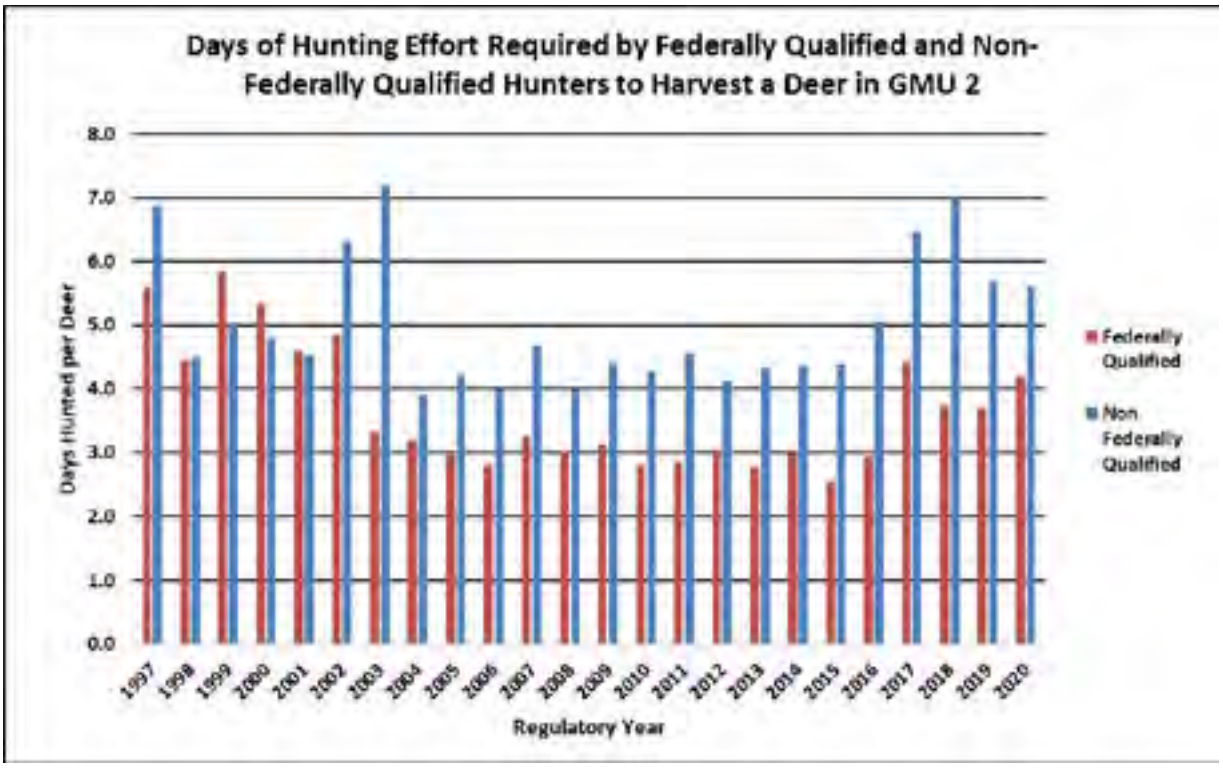


Figure 7. Average number of days hunted by federally qualified and non-federally qualified hunters per deer harvested in GMU 2, RY1997–RY2020. In RY2018 eligibility to participate in the federal subsistence hunt was expanded from federally qualified residents of GMUs 1A, 2, and 3 to federally qualified residents of GMUs 1-5. The bag limit for non-federally qualified hunters on federally managed lands was also reduced from four bucks to two bucks.

Impact on Subsistence Users

Continuing the reduced bag limit for NFQU deer hunters on federal lands in GMU 2 will maintain the status quo and have no impact on FQUs. If this closure is rescinded, there may be a marginal increase in competition with NFQU due to a nominal increase in effort and harvest by NFQUs.

Impact on Other Users

If this closure is rescinded, NFQUs deer hunting opportunity would increase. ADF&G believes the current restrictions on NFQU season dates and bag limit unjustly deprive NFQUs of deer hunting opportunity in GMU 2.

Opportunity Provided by State

State customary and traditional use findings: The Alaska Board of Game (BOG) has made a positive customary and traditional use finding for deer in GMU 2.

Amounts Reasonably Necessary for Subsistence: Alaska state law requires the BOG 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 deer in GMU 2 is 1,500 – 1,600 animals. The season and bag limit for GMU 2 is:

		Open Season	
Unit//Area	**Bag Limit**	**Resident**	**Nonresident**
2	**4 bucks**	**Aug. 1 – Dec. 31** **(Harvest Ticket)**	**Aug. 1 – Dec. 31** **(Harvest Ticket)**

Special instructions: Harvest tickets must be validated in sequential order, all unused harvest tickets must be carried when hunting, evidence of sex must remain attached to meat, and mandatory harvest ticket reports must be submitted within 30 days after the season closes.

Conservation Issues

There are no conservation concerns for deer in GMU 2. Following numerous consecutive mild to moderate winters the available population indices suggest the GMU 2 deer population remains relatively high and stable. Deer harvest has declined since several record-setting harvests between 2011 and 2015, but existing information suggests that decline may be more related to a decline in hunter effort than to a decline in the deer population.

Changing hunting conditions may contribute toward the decline in harvest. Due to behavioral changes associated with breeding that result in increased vulnerability to hunters, a high proportion of GMU 2 deer are harvested during the rut, roughly late-October through mid-November. In the last few years, a number of long-time GMU 2 resident deer hunters have commented to ADF&G that the timing and intensity of the rut appears to be changing and is less predictable than it once was. Those hunters have partially attributed declines in their hunting success to this apparent change in deer behavior.

Finally, hunter effort and harvest data indicate that although harvest by FQUs has declined since the historical high of 2015 and effort required to harvest a deer has increased, both measures remain within historical norms. Effort required for an FQU to harvest a deer remained within about half a day of the mean from 2003 – 2015 (3.0 days) and far below the mean effort required from 1997 – 2002 (5.1 days).

Enforcement Issues

There would likely be fewer enforcement issues if this closure were rescinded, and state and federal harvest regulations were aligned.

Position

ADF&G **SUPPORTS** eliminating the restricted bag limit for NFQU deer hunters in GMU 2. Those restrictions have never been and cannot be justified as necessary to "…assure the continued viability of a fish or wildlife population or the continuation of subsistence uses of such population…". Maintaining this closure will continue to unjustly deprive NFQUs of deer harvest opportunity in GMU 2.

Over 70% of land in GMU 2 is federally managed, and the pre-2018 federal regulations already provided substantially greater opportunity to FQU deer hunters compared to NFQUs. Those advantages included a season with 54 days when only FQUs were eligible to hunt, a higher federal bag limit of 5 deer, including

one doe harvested after October 15, and a federal season that extends through January when deer are at low elevation or on the beach and more vulnerable to hunters. In contrast, NFQU deer hunters hunt under state regulations with an open season from August 1 – December 31 and a bag limit of 4 buck deer. However, currently only two bucks may be taken on federal land, and most federal public lands are closed to hunting by NFQUs from August 1–15.

As directed by Congress in Section 802 of ANILCA, subsistence uses of wildlife shall be the priority consumptive use on federal public lands "when it is necessary to restrict taking in order to assure the continued viability of a fish or wildlife population or the continuation of subsistence uses of such population." Section 815 of ANILCA provides that a restriction on taking wildlife for NFQUs is only authorized if "necessary for the conservation of healthy populations of fish and wildlife, for the reasons in Section 816, to continue subsistence uses of such populations, or pursuant to other applicable law." None of those reasons apply. There are no conservation concern for the GMU 2 deer population, and no restrictions are needed to continue subsistence uses of deer in GMU 2 as ANS has consistently been met. The deer population continues to be viable and productive. No other applicable laws support the current restrictions.

WRITTEN PUBLIC COMMENTS

RHAK
Resident Hunters of Alaska

unapologetically **FOR ALASKAN RESIDENTS**

PO Box 60045, Fairbanks, Alaska 99706 (907) 371-2426
email info@residenthuntersofalaska.org web www.residenthuntersofalaska.org

July 19, 2021

To: Federal Subsistence Board
Office of Subsistence Management
(Attn: Theo Matuskowitz)
1011 E. Tudor Road, MS-121
Anchorage, Alaska 99503-6199

Re: Federal Subsistence Board 2022-2024 Wildlife Proposals and Existing Closures

Dear Federal Subsistence Board Members,

Resident Hunters of Alaska (RHAK) represents several thousand members from across the state, rural and urban, who advocate for sustainable wildlife management policies and a resident hunting priority according to Article 8 of our state constitution.

RHAK participates in Regional Advisory Council (RAC) meetings and Federal Subsistence Board (FSB) meetings, and we have become alarmed at the continuing wildlife proposals and special action requests that are not based on actual biological emergencies or conditions that would prevent federally qualified subsistence users (FQU) from meeting their subsistence needs.

What makes any FSB closures and restrictions especially problematic is that there is no differentiation in the federal system between Alaska residents and nonresidents from another state or country; both Alaska residents and nonresidents are deemed the same under federal regulations by definition of a who is a FQU. A prime example of why this is so problematic is that often complaints about competition from non-local non-federally qualified subsistence users (NFQU) center on the nonresident component, which can often comprise the majority of NFQ hunters participating in these hunts. So, when any restrictions or closures on federal lands happen, Alaskans who used to live in a designated rural area but for whatever reason have moved to more urban areas of the state, can't return home to hunt and carry on their traditional hunting activities on federal lands, nor can other Alaskans participate in these hunts.

It has always been RHAK's position that when and where we have wildlife conservation concerns or subsistence opportunities are not being met, that the ***nonresident component should always be the first group of hunters***

restricted. If other restrictions are still necessary, only then can we support restrictions on resident hunters.

We have always advised RACs to first use the Board of Game (BOG) process when and where there are concerns with too much competition from non-local NFQ hunters, as the BOG can differentiate between Alaska residents and nonresidents.

Comments on Individual Proposals and Existing Closures

WP22-07 Federal public lands of Admiralty Island draining into Chatham Strait between Point Marsden and Point Gardner are closed to deer hunting Sept. 15 – Nov. 30, except by Federally qualified subsistence users hunting under these regulations.

OPPOSE

The rationale of WP22-07 is not based on any biological data or harvest statistics that show a conservation concern for the deer population on Admiralty Island or that subsistence needs are not being met.

According to Alaska Department of Fish & Game (ADF&G) data, over the last decade we have had mild winters in Game Management Unit 4 and the deer population is "*high and stable.*" The deer population on western Admiralty Island is ***not*** depleted, as the proposal states. Nor are there any conservation concerns for the deer population under the current hunting regulations.

The proposal also states that there has been increased "*hunting pressure*" from NFQ hunters and it has "*become more challenging for subsistence hunters in Angoon to harvest sufficient deer for their needs.*" But according to ADF&G data, over the last two decades there has been a ***decrease*** in both the number of FQU and NFQU.

The FSB operates under ANILCA guidelines and the federal code of regulations that govern when and why any closures to NFQU can happen: "*With respect to subsistence uses of a particular fish or wildlife population, the Board may only approve a proposed closure if necessary for reasons of public safety, administration, or to assure the continued viability of such population (ANILCA §816(b), 36 CFR 242.10(d)(4)(vii) and 50 CFR 100.10(d)(4)(vii)).* ***Meanwhile, the Board may approve a proposed closure of nonsubsistence uses of a particular fish or wildlife population for any of these same reasons, or if necessary for the conservation of healthy populations of fish and wildlife,***

or to continue subsistence uses of such population (ANILCA §815(3), 36 CFR 242.10(d)(4)(vi) and 50 CFR 100.10(d)(4)(vi)).[1]

The Board should vote down this proposal based on the above guidelines of when any restrictions or closures on federal lands for NFQU are allowed to happen.

WP22-09 Federal public lands draining into Lisianski Inlet, Lisianski Strait, and Stag Bay south of the latitude of Mite Cove (58° 4' N) and north of the latitude of Lost Cove (57° 52' N) are closed to deer hunting Oct. 15 – Dec. 31, except by Federally qualified subsistence users hunting under these regulations.

OPPOSE

Refer to our comments on WP22-07

WCR22-01 Deer Prince of Wales closed Aug. 1-15, except by Federally qualified subsistence users; non- Federally qualified users may only harvest 2 bucks

Rescind closure to NFQU on Price of Wales Island

WCR22-45 Caribou Unit 23 – Portions of Unit 23 – closed to non- Federally qualified users

Rescind closure to NFQU in those portions of Unit 23

Thank you for the opportunity to comment.

Sincerely,

Mark Richards
Executive Director Resident Hunters of Alaska

---

[1] https://www.doi.gov/sites/doi.gov/files/uploads/closure-policy-revised-2020-08-04.pdf

WP22-12 Executive Summary	
General Description	Proposal WP22-12 requests that the deer season in Unit 6 be extended through January 31. *Submitted by: Southcentral Alaska Subsistence Regional Advisory Council*
Proposed Regulation	**Unit 6—Deer** *5 deer; however antlerless deer may be taken only from Oct. 1–~~Dec. 31~~* **Jan. 31.** — *Aug. 1–~~Dec. 31~~ –Jan. 31* *~~Unit 6D–1 buck~~* — *~~Jan. 1–Jan. 31~~*
OSM Conclusion	**Support** Proposal WP22–12 **with modification** to restrict the harvest limit during the January season to two deer.
Southeast Alaska Subsistence Regional Advisory Council Recommendation	**Take no action**
Southcentral Alaska Subsistence Regional Advisory Council Recommendation	**Support** WP22-12 **with modification** to restrict the January season harvest limit to one deer in all of Unit 6.
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Oppose**
Written Public Comments	**2 oppose**

STAFF ANALYSIS
WP22-12

ISSUES

Proposal WP22-12, submitted by Southcentral Alaska Subsistence Regional Advisory Council, requests that the deer season in Unit 6 be extended through January 31.

DISCUSSION

The proponents believe that lengthening the deer season in Unit 6 through January 31 should be authorized because many subsistence users have not been able to harvest enough deer to feed their families due to mild winters, which decreases hunter success. Early in the season, deer are often found in rugged, mountainous terrain and hunting them can be physically demanding, and deer can be difficult to spot in dense brush. Winter snowpacks that push deer to the beaches where they are more easily accessed by hunters have occurred later in recent winters. Hunters that cannot participate in early-season hunts must wait until later in the season when reduced foliage allows deer to be more easily seen and heavy snowpack forces deer down near the coast where they are more accessible.

Existing Federal Regulation

Unit 6—Deer

5 deer; however, antlerless deer may be taken only from Oct. 1–Dec. 31	*Aug. 1–Dec. 31*
Unit 6D – 1 buck	*Jan. 1- Jan. 31*

Proposed Federal Regulation

Unit 6—Deer

5 deer; however antlerless deer may be taken only from Oct. 1–~~Dec. 31~~ Jan. 31.	*Aug. 1–~~Dec. 31~~ – Jan. 31*
~~*Unit 6D–1 buck*~~	~~*Jan. 1–Jan. 31*~~

Existing State Regulation

Unit 6 – Deer

Residents–5 deer total	*Bucks*	*Aug. 1–Sept. 30*
	Any deer	*Oct.1–Dec. 31*
Nonresidents–4 deer total	*Bucks*	*Aug. 1–Sept. 30*
	Any deer	*Oct. 1–Dec. 31*

Extent of Federal Public Lands

Federal public lands comprise approximately 71% of Unit 6 and consist of 49.2% U.S. Forest Service managed lands, 13.8% Bureau of Land Management managed lands, and 7.6% National Park Service managed lands (Figure 1).

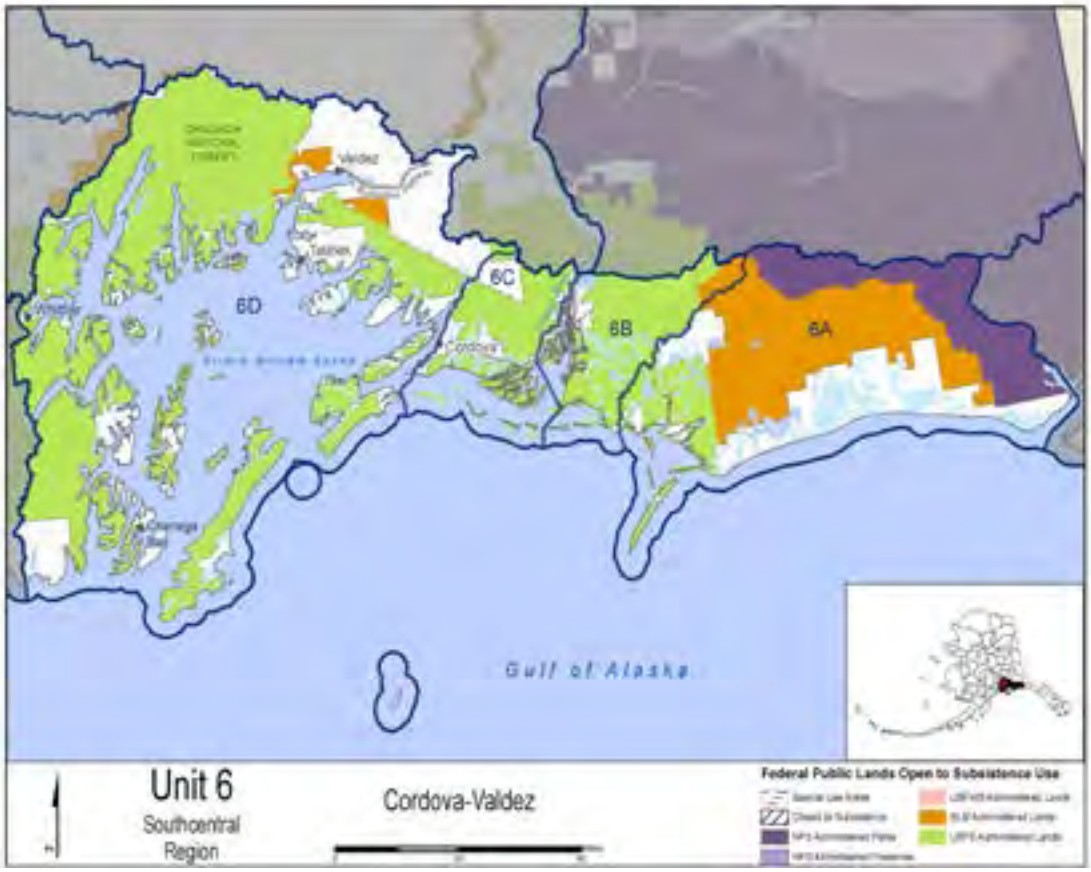


Figure 1. Unit 6 hunt area

Customary and Traditional Use Determinations

The Federal Subsistence Board (Board) has not made a customary and traditional use determination for deer in Unit 6; therefore, all rural residents of Alaska may harvest deer in Unit 6.

Regulatory History

In 1990, the Board adopted subsistence regulations for deer hunting from State regulations. The initial Federal deer season was Aug. 1–Dec. 31 with a limit of 5 deer, but antlerless deer could only be taken from Sept. 15–Dec. 31.

In 1991, Proposal P91-118 was submitted by the Chugach National Forest, Forest Supervisor to reduce the harvest limit from 5 to 4 deer and shorten the antlerless deer season from Sept. 15–Dec. 31 to Nov. 1–Dec. 31 in Units 6C and 6D. The proposal was submitted due to concerns about a population decline following heavy snow years. The Board adopted the proposal with modification to extend the regulatory changes to all of Unit 6 to match recent changes to State regulations (FWS 1991).

In 1996, the Board adopted Proposal P96-21, which extended the antlerless season from Nov. 1–Dec. 31 to Oct. 1–Dec. 31 (FWS 1996).

In 2012, the Alaska Department of Fish and Game (ADF&G) closed the State deer season to residents and nonresidents on December 7, 2012 via Emergency Order. The closure was due to heavy snowfall that concentrated deer on and near beaches, which likely increased the population's vulnerability to harvest. The Copper River/Prince William Sound Fish and Game Advisory Committee (Advisory Committee) and ADF&G agreed the deer population in Unit 6 should be protected from overharvest following the winter of 2011/12, when the population experienced an estimated overwinter mortality of 50%–70% (Westing 2014). The Advisory Committee recommended that both the State and Federal deer seasons be closed on December 7 and that the Cordova District Ranger be delegated the authority to close the season when there are conservation concerns (Copper River/Prince William Sound Fish and Game Advisory Committee, 2012).

In 2012, the Board approved Emergency Special Action (WSA12-10) with modification, shortening the antlerless deer season from Oct. 1–Dec. 31 to Oct.1–Dec. 7 (FWS 2012). The modification gave the Cordova District Ranger the ability to close the season for all hunting if further conservation concerns arose. Federally qualified subsistence users were still able to harvest antlered deer until December 31, 2012.

In 2013, the State issued an Emergency Order to close the resident and nonresident antlerless deer season in Unit 6 at 11:59 p.m. on October 31, 2013. Subsequently, the Board closed Federal public lands in Unit 6 (WSA13-07) to the harvest of antlerless deer by Federally qualified subsistence users, effective at 11:59 p.m. on Nov. 1, 2013 (FWS 2013). These actions were taken to reduce the hunting mortality of female deer and aid in population recovery following the severe winter of 2011/12.

In 2016, the Board adopted Proposals WP16-11 and WP16-12, addressing season length and harvest limits for deer in Unit 6. Proposal WP16-11 lengthened the season in Unit 6D through January 31 with a harvest limit of 1 buck, citing increased difficulty harvesting deer early in the season because of later onset of winter snows due to climate change. The extended season was limited to just bucks to minimize impacts to the population that could result from harvesting females. Proposal WP16-12 increased the Federal harvest limit from 4 to 5 deer in Unit 6, recognizing that the Federal harvest limit had been lower than the State harvest limit.

Biological Background

Sitka black-tailed deer were introduced to Unit 6 between 1916 and 1923 (Paul 2009). The deer population rapidly increased and expanded throughout Prince William Sound (Reynolds 1979). Sitka black-tailed deer are at the northern limit of their range in Unit 6; however, the population has thrived due to the mild, maritime climate conditions in Prince William Sound, which are similar to their natural range in coastal southeast Alaska (Shishido 1986 referenced in Crowley 2011).

Sitka black-tailed deer occupy a variety of habitats throughout the year, from low elevation forests and beaches to alpine habitats (Schoen and Kirchhoff 2007). Deer are more dispersed during summer, but snow depth restricts their winter distribution to lower elevations (Schoen and Kirchhoff 2007). The breeding season begins in late October and peaks in late November (Schoen and Kirchhoff 2007). Throughout the species' range, bucks generally shed their antlers between mid-December and mid-

April (Anderson and Wallmo 1984), but in a British Columbia study most antlers were dropped between January and March (British Columbia Ministry of Environment, Lands and Parks 2000). In southcentral Alaska, hunters commonly observe the beginning of antler shed during the latter part of the hunting season in December.

The deer population in Prince William Sound is limited by snow depth and duration. Heavy snow events have caused multiple major winter mortality events in the area (Reynolds 1979, Crowley 2011). Populations typically increase and then disperse after a series of mild winters, but decline following severe winters (Reynolds 1979, Crowley 2011). Deep snow and high harvest during the winter of 2011/2012 resulted in an estimated mortality of 50%–70% of the deer population in Prince William Sound (Westing 2014). Deep snow concentrates deer along beach fringes, which can be overgrazed if deer are forced to remain there for an extended period of time, and can result in starvation (Reynolds 1979). Deer are also more vulnerable to harvest while concentrated on the beaches and harvesting under these circumstances could become additive to total mortality, rather than compensatory, and result in higher total winter mortality. Predation is not considered a significant mortality factor for deer in Prince William Sound (Reynolds 1979).

The State has set a population objective of 24,000–28,000 deer with an annual harvest objective of 2,200–3,000 deer in Unit 6; however, currently there are no means of estimating the abundance of deer in the unit (Crowley 2011, Westing 2013). Instead, ADF&G and the Chugach National Forest use deer-pellet surveys in Unit 6D, which encompasses Prince William Sound, as an index of the relative density of deer. The mean number of deer pellet groups observed declined overall between 1996 to 2019 (Figure 1), but showed a marked increase from 2017-2019, approximating 1996 levels (Westing 2013). However, deer pellet surveys are not sensitive to previous year winter mortality events, because deer deposit pellets through most of the winter until succumbing to starvation in the spring (Crowley 2012, pers. comm.).

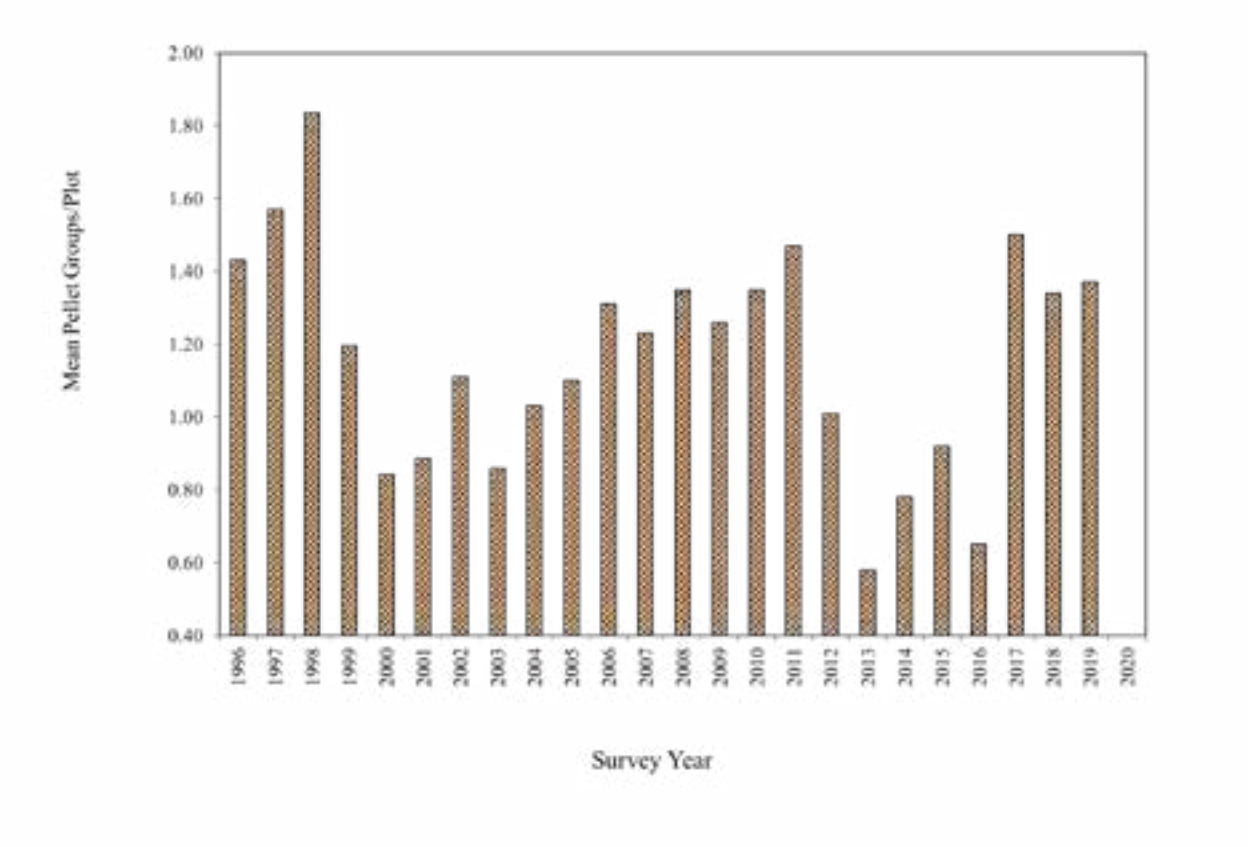


Figure 2. Deer pellet density observed along transects in Unit 6. Deer pellet density provides an index of the relative density of deer in the unit (Crowley 2011, Crowley 2012, pers. comm., Westing 2013, 2014, Westing 2021, pers. comm.).

Thus, there is a one year lag between mortality events and decrease in deer pellet density. Deer pellet counts conducted in 2012 and 2013 by ADF&G and the U.S. Forest Service corroborated the 50-70% mortality rate during the severe winter in 2011/2012 (Crowley 2011, Westing 2013). The 2012/2013 mean number of pellet groups per plot (0.58) was the lowest recorded by ADF&G since 1995 and represented a 61% decline from 2010/2011. Biologists also found evidence of the mortality event during the deer pellet surveys conducted in June 2012. Ten deer carcasses were encountered during transects, whereas zero to one are encountered during normal years. Although differences in topography and snow retention among the islands In Prince William Sound can result in local variation in deer densities, declines in deer pellet densities were observed on all islands and in nearly every location during the 2013 survey, but have largely recovered since then (Figure 1, Westing 2021).

Harvest History

Prior to 2011, deer harvest in Unit 6 was estimated from harvest questionnaires mailed to a sample of hunters who were issued State harvest tickets. It is difficult to identify deer harvested by Federally qualified subsistence users, as results are categorized by residents of Unit 6 (local residents), residents outside of Unit 6 (nonlocal residents), and nonresidents (Table 1). Thus, the local and nonlocal resident categories include both Federally qualified subsistence users and non-Federally qualified subsistence users. However, beginning in 2011/2012, harvest reports were given to each user issued a State harvest ticket, improving reporting by connecting each user to a community. The interim harvest report showed

that approximately 45% of the reported resident harvest was by local Federally qualified subsistence users (residents of Cordova, Chenega Bay, Tatitlek, and Whittier), 50% by non-Federally qualified Alaska residents, and 5% by nonlocal Federally qualified subsistence users (ADF&G 2012). Approximately 98% of the reported harvest by local Federally qualified subsistence users was from Cordova residents (ADF&G 2012), which was similar to the results of the household survey conducted in 2003 (95% of reported harvest). The majority of harvest by non-Federally qualified subsistence users was from Anchorage residents (approximately 38% of reported harvest), and 5% of the reported harvest was associated with Valdez residents, which is a nonrural community in Unit 6 (ADF&G 2012). Local and nonlocal residents were the primary users (29% and 66% of the estimated hunters, respectively) and accounted for 39% and 59% of the estimated harvest between 2010/2011 and 2019/2020, respectively (Table 1). McLaughlin (2015) reported a decline in hunter success during the winter of 2014-2015. This may be due in part to the relatively warm winter which allowed the deer to remain more dispersed at higher elevations where they are less available to Federally qualified subsistence users (Westing 2014). Local residents have the highest success rates of the deer hunters in Unit 6, averaging 1.6 deer per year between 2010/11 and 2019/20 (Table 1).

From 2006 to 2012, the sex ratio of the harvest was approximately 62% male and 38% female (Crowley 2011, Westing 2013). Harvest reports between 2005/2006 and 2009/2010 showed that most of the annual deer harvest occurred during October (19%–35%), November (25%–35%), and December (18%–24%) (Crowley 2011, Westing 2013). Few deer have been harvested during the extended January season since the season was lengthened in 2016. Harvest chronology is similar to previous years, as users often prefer hunting after snow has pushed deer to lower elevations and because the rut, which occurs in November, increases the harvest vulnerability of bucks (Crowley 2011, Westing 2013). Deer were primarily harvested by hunters using boats (76%–86%) as their primary transportation method (Crowley 2011, Westing 2013). A large proportion of the yearly take of deer by the residents of Cordova, the largest of the three communities, occurs on Hawkins Island, which is in relatively close proximity to town.

Cultural Knowledge and Traditional Practices

Deer are an important resource for the subsistence way of life for residents of Unit 6. The most recent data from compressive household subsistence surveys in Unit 6, which were conducted by ADF&G in 2014 in Chenega Bay, Cordova, and Tatitlek, demonstrate the importance of deer. In Chenega Bay, 8 of the 12 participating households (75% of the sample; there was an estimate of 17 total households in the community) reported using deer on a deer in a 2014 comprehensive household subsistence survey (ADF&G 2021a). More households in the survey used deer than any other large land mammal. Residents in the survey reported harvesting a total of 6 deer for a total weight of 259.2 lbs. It is estimated that the community harvested 9 deer for a total weight of 367.2 lbs.

More residents of Tatitlek also used deer than any large land mammal. In the 2014 comprehensive household survey, 17 of the 21 participating households (81% of the sample; there was an estimated 27 households in the community) reported that they used deer (ADF&G 2021c). Residents claimed that they harvested 28 deer, and it is estimated that the community harvested a total of 38 deer. In Cordova, 83 of the 184 participating households (45% of the same; there was an estimate of 950 households in the community) reported using deer (ADF&G 2021b). Residents reported harvesting 91 deer, and it is estimated that the whole community harvested 472 deer. In terms of large land mammals, only moose was used by more residents than deer in the sample.

Deer has also been one of the most important resources for the culture and traditions of those living in Unit 6, including food sharing. In all three of the communities surveyed, more households shared deer with others than any other large land mammal (ADF&G 2021a, 2021b, and 2021c). In Chenega Bay, 8 households said that they received deer from others (67% of the sample), and 4 households (25% of the sample) claimed that they gave it to others. One-hundred and twenty-one of the surveyed households (66% of the household) reported receiving deer from others, and 64 households (35% of the sample) gave it to others. In Tatitlek, 10 households in (48% of the sample) claimed that they received deer from others, and 9 households (43% of the sample) said that they gave it to others. These findings demonstrate that deer is one of the most important wild resources used for resource redistribution and maintaining social networks in the region.

According to locals, the capacity to harvest deer is variable and depends on winter weather. A large proportion of the yearly take of deer by the residents of Unit 6 is in within the unit (Fall 2006). Local hunters have the most success hunting deer when there is snow. At the February 2021 Southcentral Regional Advisory Council (SCRAC) meeting, the proponent explained: "Deer hunting is very challenging earlier in the season, it's only very late in the season when a lot of people are able to participate, and the deer are sort of pushed down [by snow] and not on the peaks. And that season is getting later and later" (SCRAC 2021b). Supporting this theory that it is more difficult to harvest deer when there isn't snow, another resident at the meeting reported "I hunted four times this year and I didn't connect once, so that's not too common, although I didn't get a chance to hunt when the snow flew" (SCRAC 2021a). The association between snowfall and harvest rates as been mentioned at past SCRAC meetings. In the March 2019 meeting, a resident said, "[It was] a mild winter. Good for the deer population assuming, but that also correlates to probably lower harvest rates because of less snow conditions concentrating the deer in the places where they are harvested" (SCRAC 2019). Local knowledge posits that it is easier to harvest deer during snowy winter months.

Table 1. Unit 6 deer harvest 2010-2020 (Crowley 2012, pers. comm., Westing 2013, 2014, FWS 2015, Westing 2021, pers. comm.).

	Local resident		Nonlocal resident		Nonresident		
Year	Hunters	Deer harvested ((deer/ hunter)	Hunters	Deer harvested ((deer/ hunter)	Hunters	Deer harvested ((deer/hunter)	Total deer harvested
2010/2011	352	805(2.2)	775	778(1.0)	60	60(1.0)	1643
2011/2012	455	1202(2.6)	888	1426(1.6)	51	48(0.9)	2676
2012/2013	196	156(0.8)	606	367(0.6)	50	13(0.3)	536
2013/2014	212	228(1.1)	490	303(0.6)	41	3(0.1)	534
2014/2015	360	434(1.2)	793	858(1.1)	37	6(0.2)	1298
2015/2016	443	655(1.5)	936	977(1.0)	52	54(1.0)	1686
2016/2017	508	907(1.8)	1216	1601(1.3)	74	46(0.6)	2554
2017/2018	412	558(1.4)	943	849(1.3)	85	48(0.6)	1455
2018/2019	461	773(1.7)	888	916(1.0)	56	16(0.3)	1705
2019/2020	444	773(1.7)	1102	1319(1.2)	63	49(0.8)	2141

Other Alternatives Considered

In addition to the proposal submitted by the proponent, and the modification suggested by OSM in the preliminary conclusion, another modification considered would be to allow two of the five deer harvest limit to be either-sex, while the remainder must be antlered bucks. This would allow additional opportunity, by allowing all five deer to be taken in the extended season. It would address conservation concerns by limiting the harvest of females to two, and conserve bucks by only allowing those retaining antlers to be harvested. This regulation would also be more complicated and could be difficult to enforce as antlers readily fall off of bucks after or during harvest late in the season.

Effects of the Proposal

If this proposal is adopted, it would lengthen the deer season by one month through January 31 in Unit 6. A longer season would provide increased opportunity for Federally qualified subsistence users to harvest deer during the winter when they are more accessible because snow often pushes deer to lower elevations and onto the beaches in Prince William Sound. By allowing the harvest of either sex deer during the extended season, hunters would not have to discriminate between does, and bucks that have already shed their antlers.

Although the deer population in Unit 6 has largely recovered from the decline after the severe winter of 2011-12, deer are more vulnerable to harvest when pushed to beaches where they are easily accessed by hunters on boats. It is thought that when winter conditions are severe, hunter harvest can become an additive source of mortality to winter kill. Additionally, heavy harvest of does can slow recovery of the deer population after severe winter events.

Federally qualified subsistence users, especially residents of Cordova, harvest a significant portion of the deer taken in Prince William Sound, and are responsible for most of the harvest from Hawkins and Hinchinbrook Islands. While, few bucks have been harvested from Unit 6D during the January season

since 2016, increasing the harvest limit and allowing the harvest of does late in the season would likely increase participation in the late season hunt.

OSM CONCLUSION

Support Proposal WP22–12 with modification to restrict the harvest limit during the January season to two deer.

The modified regulation should read:

Unit 6—Deer	
5 deer; however antlerless deer may be taken only from Oct. 1–Dec. 31. Up to 2 of the 5 deer harvest limit may be taken between Jan. 1 and Jan. 31.	*Aug. 1–~~Dec. 31~~ Jan. 31*
Unit 6D–1 buck	*Jan. 1–Jan. 31*

Justification

While lengthening the deer season by one month through January 31 and allowing the harvest of does would provide additional opportunity to harvest red meat, it also increases harvest pressure at a time when deer can be pushed to beaches by deep snow where they are most vulnerable. Qualified rural residents already have a long and liberal season for deer in Unit 6, extending 5 months from 1 August through 31 December for up to 5 deer, and an additional month through 31 January for up to one buck. The proposed modification would reduce the impact to deer populations by limiting harvest during the time when they are most vulnerable, but still provide additional opportunity for qualified rural residents. This would also reduce additive mortality during more severe winters and speed recovery of the deer populations following these events.

LITERATURE CITED

ADF&G. 2012. General Harvest Reports. https://secure.wildlife.alaska.gov/index.cfm?fuseaction=harvestreports.main. Retrieved: November 26, 2012.

ADF&G. 2021a. Chenega Bay: 2014. http://www.adfg.alaska.gov/sb/CSIS/index.cfm?ADFG=harvInfo.harvest. Retrieved: August 2, 2021

ADF&G. 2021b. Tatitlek: 2014 http://www.adfg.alaska.gov/sb/CSIS/index.cfm?ADFG=harvInfo.harvest Retrieved: August 2, 2021

ADF&G. 2021c. Cordova: 2014 http://www.adfg.alaska.gov/sb/CSIS/index.cfm?ADFG=harvInfo.harvest. Retrieved: August 2, 2021

Anderson, A. E., and O. C. Wallmo. 1984. Odocoileus hemionus. Mammalian Species, No. 219:1–9.

British Columbia Ministry of Environment, Lands and Parks. 2000. Mule and black-tailed deer in British Columbia: ecology, conservation and management. Province of British Columbia.

Copper River/Prince William Sound Fish and Game Advisory Committee. 2012. Meeting minutes for November 15, 2012. Cordova, AK.

Crowley, D. W. 2011. Unit 6 deer management report. Pages 81–95 in P. Harper, editor. Deer management report of survey and inventory activities 1 July 2008–30 June 2010. ADF&G. Juneau, AK.

Crowley, D. W. 2012. Wildlife biologist. Personal communication: email, phone. ADF&G. Cordova, AK.

Fall, J. A., editor. 2006. Update of the status of subsistence uses in Exxon Valdez oil spill area communities. Exxon Valdez Oil Spill Restoration Project Final Report (Restoration Project 040471), ADF&G, Division of Subsistence. Anchorage, AK.

FWS. 1991. Staff analysis P91-118. Office of Subsistence Management, FWS. Anchorage, AK

FWS. 1996. Staff analysis P96-21. Office of Subsistence Management, FWS. Anchorage, AK

FWS. 2012. Staff analysis WSA12-10. Office of Subsistence Management, FWS. Anchorage, AK

FWS. 2013. Staff analysis WSA13-07. Office of Subsistence Management, FWS. Anchorage, AK

FWS. 2015. Harvest database. Office of Subsistence Management. FWS. Anchorage, AK.

McLaughlin, A. 2015. Proposal for amendment to the Federal Subsistence Hunting Regulations, in FWS. 2016-2018 Wildlife Hunting and Trapping Proposals, Anchorage, AK. 2 pp.

Paul, T. W. 2009. Game transplants in Alaska. Technical bulletin No. 4, second edition. ADF&G. Juneau, AK.

Reynolds, J. L. 1979. History and current status of Sitka black-tailed deer in Prince William Sound. Pages 177 – 183 in O. C. Wallmo and J. W. Schoen, editors. Sitka black-tailed deer: Proceedings of a conference in Juneau, Alaska. U.S. Department of Agriculture Forest Service, Alaska Region. Series No. R10-48. 231 pp.

Schoen, J., and M. Kirchhoff. 2007. Sitka black-tailed deer (Odocoileus hemionus sitkensis). Pages 1 – 16 in J. W. Schoen and E. Dovichin, editors. The coastal forests and mountains ecoregion of southeastern Alaska and the Tongass National Forest: a conservation assessment and resource synthesis. Audubon Alaska and The Nature Conservancy. Anchorage, AK.

SCSRAC, 2019. Transcripts of the Southcentral Subsistence Regional Advisory Council proceedings. March 25, 2019. Office of Subsistence Management, USFWS. Anchorage, AK.

SCSRAC, 2021a. Transcripts of the Southcentral Subsistence Regional Advisory Council proceedings. February 24, 2021. Office of Subsistence Management, USFWS. Anchorage, AK.

SCSRAC, 2021b. Transcripts of the Southcentral Subsistence Regional Advisory Council proceedings. February 25, 2021. Office of Subsistence Management, USFWS. Anchorage, AK.

Shishido, N. 1986. Seasonal distribution and winter habitat use by Sitka black-tailed deer in the Prince William Sound region, Alaska. Thesis. University of Alaska Fairbanks, Fairbanks, AK 105 pp.

Westing, C. L. 2013. Unit 6 deer management report. Pages 83-96 in P. Harper, editor. Deer management report of survey and inventory activities 1 July 2010–30 June 2012. Alaska Department of the Fish and Game. Species Management Report ADFG/DWC/SMR–2013–1, ADF&G, Juneau, AK.

Westing, C. 2014. Completion of deer pellet surveys in Prince William Sound. Unpublished memo, June 27, 2014. ADF&G., Cordova, AK. 3pp.

Westing, C. 2021. Wildlife biologist. Personal communication: email. ADF&G. Cordova, AK

SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Southeast Alaska Subsistence Regional Advisory Council

Take No Action on WP22-12.

Southcentral Alaska Subsistence Regional Advisory Council

Support WP22-12 **with modification** to restrict the January season harvest limit to one deer in all of Unit 6.

The modified regulations should read:

Unit 6—Deer	
5 deer; however antlerless deer may be taken only from Oct. 1–Dec. 31. ***Only 1 of the 5 deer harvest limit may be taken between Jan. 1 and Jan. 31.***	*Aug. 1–~~Dec. 31~~* ***Jan. 31***
~~Unit 6D–1 buck~~	*~~Jan. 1–Jan. 31~~*

Lengthening the season for all of Unit 6 adapts to climate change situations and increases harvest opportunities. It also recognizes mobility issues of some hunters, allowing more choice for timing a hunt. Removing the 'buck only' requirement for the January season in Unit 6D will lessen unintentional illegal harvest and decreasing the harvest limit for the January season (from 2 deer as recommended by OSM to 1 deer) should address any conservation concerns.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and Federal Subsistence Board action on the proposal.

ALASKA DEPARTMENT OF FISH AND GAME COMMENTS

Wildlife Proposal WP22-12

This proposal would lengthen the antlerless deer season in Game Management Unit (GMU) 6 by one month (to Jan 31).

Background

Sitka black-tailed deer in GMU 6 are at the extreme northern limit of their range (Cowan 1969). The most important factors limiting the deer population are snow depth and snowpack duration (Reynolds 1979). The population of deer in PWS represents the northernmost extent of their acceptable range (Cowan 1969). A series of mild winters allows deer to increase and disperse to less favorable habitat, only to decline during severe winters from starvation. Regardless of management actions taken, weather will primarily influence population trajectory. Hunting can, however, be a limiting factor in local areas when deep snow concentrates deer on beaches during open season (Reynolds 1979).

Impact on Subsistence Users

This proposal would provide additional harvest opportunity for federally qualified users (FQU). Excessive harvest of female deer in January when deer are especially vulnerable as they are forced to lower elevations by accumulating snowpack will likely have an adverse impact on sustainable harvest in future years. The result may cause conservation concerns and extend recovery times for populations affected by heavy snow years and reduced harvest opportunity in the long term.

Impact on Other Users

If adopted, this proposal would lead to increased take of deer in by FQUs resulting in fewer deer being available in subsequent years for both FQUs and for non-federally qualified users (NFQU).

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 deer in GMU 6.

Amounts Reasonably Necessary for Subsistence: Alaska state law requires the BOG 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 deer in GMU 6 is 1,000- 1,250 animals. The season and bag limit for GMU 6 is:

Table 1. GMU 6 Deer Hunting Regulations.

Residency and Bag Limit	Bag Limit Details	Open Season (Permit/Hunt #)
Residents [a] –5 deer total	Bucks	Aug. 1–Sept. 30
	Any deer	Oct.1–Dec. 31
Nonresidents–4 deer total	Bucks	Aug. 1–Sept. 30
	Any deer	Oct. 1–Dec. 31

[a] Subsistence and General Hunts.

Conservation Issues

Deer were introduced to Prince William Sound (GMU 6) and occur at the northernmost extent of their range. As a result, the population is very susceptible to mortality during extreme weather events. Snow accumulation that could lead to major concentrating events at sea-level is far more common after January than in the last two months of the existing season. Harvest of females is higher in years with significant late winter harvest, which can slow population rebound following large snow events. With a high number of FQUs in close proximity to federal public land, harvest during January could be very high and potentially detrimental to the population. The existing season on bucks only in GMU 6D provides

reasonable opportunity while slowing harvest and protecting females. The staff analysis prepared by OSM suggests that recent harvest is normal although available household survey data and harvest data were not included in the analysis. OSM also fails to present any data to suggest that users are not able to meet their needs with the existing season.

Enforcement Issues

The extension of this season could result in significant harvest outside of the state season. The proponent cites the opportunity to take deer on the beaches as deer are forced to lower elevations by accumulating snowpack later in the season. Deer standing below the mean high-water mark would not be available for harvest under this federal regulation as lands below mean high water are owned by the state. This will be challenging for both users and enforcement to lawfully hunt under federal regulations.

Position

ADF&G OPPOSES this proposal. Excessive harvest of female deer resulting from this proposal is likely to affect the sustainability of the current level of deer harvest in GMU 6 and cause conservation concerns for the population which runs contrary to Sections 804 and 815 in the Alaska National Interest Lands Conservation Act. In addition, as acknowledged by the proponent of this proposal as well as OSM in their analysis, often times deer during the time of the proposed extension, are located on the beaches below the ordinary high-water mark and therefore could not be legally harvested.

LITERATURE CITED

Cowan, M. I. 1969. What and where are the mule and black-tailed deer? Pages 335–360 in: W. P. Taylor, editor. The deer of North America. Stackpole Co., Harrisburg, Pennsylvania. 668pp.

Reynolds, J. R. 1979. History and current status of Sitka black-tailed deer in Prince William Sound. Pages 177–183 in O. C. Wallmo and J. W. Schoen, editors. Sitka black-tailed deer: Proceedings of a conference in Juneau, AK. U.S. Department of Agriculture Forest. Service, AK. Region, Juneau, Alaska. Series No. R10–48. 231pp.

WRITTEN PUBLIC COMMENTS

[EXTERNAL] opposition to all federal deer subsistance proposals. WP2207 -- Wp2212

RICHARD HARRIS <RHDevelopment@gci.net>

Thu 7/15/2021 12:38 PM

To: AK Subsistence, FW7 <subsistence@fws.gov>
Cc: deanna.perry@usda.gov <deanna.perry@usda.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Attn: Theo Matuskowitz,
Office of Subsistence Management
Regarding : Federal deer subsistence proposals Region-1 Southeast Alaska
Proposal Numbers: WP2207, WP2208, WP2209, WP2210, WP2212

As a lifelong deer hunter of Southeast Alaska I am writing to oppose the federal subsistence proposals for deer harvesting in Southeast Alaska. I have hunted some of these areas my entire life, access to the areas listed is very difficult, needing good weather and much planning, I believe the weather controls much of the hunting pressure from non-federally qualified users in these areas(somewhat self regulating). I could understand supporting a lower per hunter harvest number in some areas, but shutting these areas down entirely during the period of Oct. 15 – Dec. 31, to non-federally qualified hunters is not acceptable. limiting hunting to any months other than Oct. 15 – Dec. 31 should be considered a complete shut down as this is the only period a hunter can actually hunt and experience the calling of a deer, during the rutting season. Any regulation changes made should include some changes to the federally qualified user as well, not all but some are doing as much damage to the resource with immediate access and extended hunt seasons as the non-federally qualified user who has limited access and shorter harvest seasons. Also as I understand these proposals have no basis, there is no evidence of a resource shortage or that non-federally qualified users on federal lands are having an actual impact on federally qualified user's ability to harvest adequate supplies of deer in the specified areas. I hope you will take these comments into consideration and reject these proposals.

Thank you,

Richard Harris
P.O. Box 32403
Juneau, Alaska 99803

Richard Harris

[EXTERNAL] Opposition of Federal subsistence proposals Southeast Alaska for deer WP 2207, wp2208, wp2209, wp2210, wp 2212

CHARLES SCHULTZ <cjs16@me.com>
Sun 7/18/2021 3:53 PM
To: AK Subsistence, FW7 <subsistence@fws.gov>
Cc: deanna.perry@usda.gov <deanna.perry@usda.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Attention Theo Matuskowitz,
Office of Subsistence Management

I am writing to oppose the federal subsistence proposals that affect Southeast Alaska Deer hunting. I oppose WP2207, WP22-08, WP22-09, WP22-10, and WP22-12.
Proposals WP22-07, WP 22-08, WP22-09 and prevents non-qualified subsistence users from access to deer hunting on public lands. As an Alaskan resident I also rely on deer meat as a primary source of red meat that is locally available. Limiting non-qualified subsistence users from access to hunt deer in areas around Angoon, Hoonah and Pelican is entirely unfair to those who live in other areas of the state, who are non-qualified Subsistence hunters. There is no science to suggest that the over harvest of deer is related to non-qualified subsistence users, in fact I would suggest that the over harvest in the areas around Hoohah, Angoon, and Pelican may actually be from the subsistence users who may be killing every available deer seen in late season, on the beach and uncaring if the deer is antlerless and uncaring of size. Preservation of breeding antlerless deer may prove to allow fawn bearing deer an opportunity to give birth in the spring. Also education of subsistence hunters to harvest mature deer would improve the size of deer and thereby increase the available pounds of edible meat.

Extending the season in unit 6 is exactly a dichotomy of what the Subsistence Board may be wanting to achieve. The complaint of less harvestable deer will only be compounded if deer seasons are extended during their most vulnerable times. Then the subsistence deer harvest will continue to over extend the available deer to breed for next year, and likely they will complain that non-subsistence harvest is the blame.

Hunters of deer need equal access to public lands. We are all Alaskans trying to provide natural, local deer meat.

Please take the comments of non-subsistence hunters into consideration.
Also consider making all Alaskans subsistence users. We all live here. We all have subsistence needs, not based on size of community we live in.

Thanks for your consideration ,
Charles Schultz
Juneau, Alaska

WP22–25b/26b Executive Summary	
General Description	Proposal WP22-25b requests establishing a Federal subsistence sheep hunt with a season of Aug. 10 – Sep. 20, with a harvest limit of one Dall sheep and that the Kenai National Wildlife Refuge Manager be delegated authority to open and close the season in consultation with the Alaska Department of Fish and Game (ADF&G) and the Chair of the Southcentral Alaska Subsistence Regional Advisory Council (Council). *Submitted by: Michael Adams* Proposal WP22-26b requests that a Federal subsistence sheep hunt be established in Unit 7. *Submitted by: Lisa Slepetski*
Proposed Regulation	**Unit 7- Sheep** ***1 sheep by Federal registration permit. The season may be opened or closed by announcement of the Kenai Wildlife Refuge manager in consultation with ADF&G and the chair of the Southcentral Regional Advisory Council.*** ~~*No Federal open season*~~ *Aug. 10- Sep. 20*
OSM Conclusion	**Support** Proposal WP22-25b **with modification** to establish a Federal drawing permit hunt for sheep in Unit 7 with a harvest limit of one ram with full curl horn or larger, and delegate authority to the Seward District Ranger of the Chugach National Forest to close the season, set the harvest quota, the number of permits to be issued and any needed permit conditions via delegation of authority letter only (Appendix 1) and take no action on WP22-26b. The modified regulation should read: ***1 ram with full curl horn or larger by Federal drawing permit.*** ~~*No Federal open season*~~ ***Aug. 10- Sep. 20***
Southcentral Alaska Subsistence Regional Advisory Council Recommendation	**Support as modified by OSM.**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Oppose**
Written Public Comments	**1 Oppose**

STAFF ANALYSIS
WP22-25B/26B

ISSUES

Proposals WP22-25b, submitted by Michael Adams of Cooper Landing and WP22-26b, submitted by Lisa Slepetski of Moose Pass, request that a Federal subsistence sheep hunt be established in Unit 7. Proposal WP22-25b specifically requests establishing a season of Aug. 10 – Sep. 20, with a harvest limit of one Dall sheep and that the Kenai National Wildlife Refuge Manager be delegated authority to open and close the season in consultation with the Alaska Department of Fish and Game (ADF&G) and the Chair of the Southcentral Alaska Subsistence Regional Advisory Council (Council).

DISCUSSION

The proponents state these changes are needed to provide Federal subsistence opportunity to harvest sheep in Unit 7 and that there is a history of sheep harvest by residents of Unit 7. The proponents further state that the requested changes would provide opportunity for rural residents of Unit 7 to engage in subsistence sheep hunting and provide a meaningful subsistence preference.

Note: Proposals WP22-25a and WP22-26a request a customary and traditional use determination for sheep in Unit 7 by residents of Cooper Landing and Moose Pass, respectively.

Existing Federal Regulation

Unit 7- Sheep	*No Federal open season*

Proposed Federal Regulation

Unit 7- Sheep	
1 sheep by Federal registration permit. The season may be opened or closed by announcement of the Kenai Wildlife Refuge manager in consultation with ADF&G and the chair of the Southcentral Regional Advisory Council.	~~*No Federal open season*~~ *Aug. 10- Sept. 20*

Existing State Regulation

Unit 7- Sheep

East of Fuller Lake trail, south of Dike Creek and a straight line from the source of Dike Creek east through the divide south of Trout Lake to Juneau Creek, west of Juneau Creek, and north of the Sterling Highway	*Residents: One ram with full-curl horn or larger by permit*	*DS150*	*Aug. 10- Sept. 20*
	Nonresidents: One ram with full-curl horn or larger every four regulatory years by permit	*DS150*	*Aug. 10- Sept. 20*
South of the Sterling Highway, west of Seward Highway, and north and east of Kenai Lake	*Residents: One ram with full-curl horn or larger by permit*	*DS156*	*Aug. 10- Sept. 20*
	Nonresidents: One ram with full-curl horn or larger every four regulatory years by permit	*DS156*	*Aug. 10- Sept. 20*
Remainder	*Residents: One ram with full-curl horn or larger by permit. Youth hunt only.*	*HT*	*Aug. 1- Aug. 5*
	Nonresidents: One ram with full-curl horn or larger every four regulatory years by permit. Youth hunt only	*HT*	*Aug. 1- Aug. 5*
	Residents: One ram with full-curl horn or larger by permit	*HT*	*Aug. 10- Sept. 20*
	Nonresidents: One ram with full-curl horn or larger every four regulatory years by permit	*HT*	*Aug. 10- Sept. 20*

Extent of Federal Public Lands

Unit 7 is comprised of 77.4% Federal public lands and consist of 52.2% U.S. Forest Service (USFS) managed lands, 23.1% National Park Service (NPS) managed lands and 2.1% U.S. Fish and Wildlife Service (USFWS) managed lands.

Customary and Traditional Use Determinations

There is no Federal subsistence priority for sheep in Unit 7.

Regulatory History

Sheep hunting was closed on the Kenai Peninsula by Federal managers in 1942 due to a low population estimate of 350 sheep for the entire peninsula (Scott et al 1950). In 1953, the Cooper Landing Closed Area was established, which was also closed to all sheep and mountain goat hunting. Sheep hunting remained closed on the Kenai Peninsula until Federal managers opened it again in 1957.

In 1959, with the passage of statehood, the State of Alaska took over management and established a sheep season for one ram with a ¾ curl horn or larger from Aug. 10 – Aug. 31. In 1964, the sheep season was extended to September 20 and the harvest limit changed to one ram with 7/8 curl horn. Although the season remained unchanged, the harvest limit was changed to one ram with a full curl horn in 1989.

In 2015, the Alaska Board of Game (BOG) passed a regulation restricting the use of aircraft for sheep hunting to placing and removing hunters from camps, maintaining existing camps and salvaging harvested sheep from Aug. 10 – Sep. 20. An aircraft may not be used to locate sheep for hunting or to direct hunters to sheep during the hunting season.

In 2016, the BOG adopted two proposals regarding sheep in Unit 7. Based on proposal 30, there would be a nonresident harvest limit established of one ram with a full curl horn every four regulatory years. Based on proposal 47 the BOG established a statewide youth hunting season for Dall sheep.

Prior to 2020, no Federal sheep hunts existed on the Kenai Peninsula. During the 2020 Federal wildlife regulatory cycle, the Board adopted Proposal WP20-24a, establishing a customary and traditional use determination for sheep in Unit 15 for residents of Ninilchik. After this determination was made, the Board adopted Proposal WP20-24b, establishing a drawing permit hunt for sheep in Unit 15 with a harvest limit of one ram with a ¾ curl horn or larger and a season of Aug. 10 to Sep. 20.

Biological Background

Sheep occur naturally throughout the Kenai Mountains, which extend the length of the eastern Kenai Peninsula. Sheep are most abundant in the drier interior portions, where they coexist with mountain goats, and are least abundant in the coastal mountains. Sheep seldom stray far from alpine tundra habitat, river benches and river valleys adjacent to steep cliffs or rocky terrain used to escape predators (Krausman and Boyer 2003). Sheep use the ridges, meadows and steep slopes for feeding and resting. Ewes seek rugged cliffs that provide solitude and protection from predation to give birth to a single lamb. The lamb stays with the ewe until they are strong enough to travel and begin feeding on vegetation usually within two weeks after birth and are weaned by October. Ewes normally give birth for the first time at age 3, whereas adult rams often don't breed successfully until they are 7-8 years old when they have large horns and are dominant. Mating usually occurs during the rut in late November and early December and takes place in the home range of females. Except during the rut, adult female-juvenile groups remain largely separate from the adult male groups. Sheep populations usually increase during periods of mild weather and decrease during severe winters and/or when predation is high.

ADF&G conducts surveys when weather conditions allow, meaning the flight and visibility ceiling are high enough to survey the entire area and turbulence and temperatures are low. All of these variables are figured into the "count conditions" which are rated by the observer on a scale of 1-3, where 1 = excellent

(sheep are up high, light is great, and temperature and turbulence is low), 2 = good to fair conditions, 3 = poor (results are likely to be significantly biased by the conditions).

Surveys are flown following the topography of the landscape. Transects are flown parallel to the mountain starting at the tree/shrub line and working up the mountain. Each face receives 2-3 passes depending on mountain height and visibility. When sheep are observed, pilots circle the location so that the observer can count and classify the animals in each group, as well as note habitat conditions and GPS (Global Positioning System) location. Animals are classified as adults (subadults and adults) and lambs. Often, additional sheep are encountered while circling, which are noted so that they are not recounted on consecutive passes. By starting transects at lower elevations, animals higher on the ridge are less likely to move down below the tree/alder line where they can disappear. Survey length depends on count conditions, area covered, and number of animals seen. The aerial surveys within the sampling units are conducted following the contours of the mountains during the early morning (within three hours of sunrise) or in the evening (within three hours of sunset) when there is the greatest sheep activity and the best visibility.

State management objectives for sheep in Units 7 and 15 are to complete minimum count surveys in all management areas outside Kenai Fjords National Park at least once every three years and maintain viable subpopulations of at least 50 or more sheep. If a sheep population falls below 50 animals, harvest would be suspended. Only two range-wide surveys have been conducted for sheep on the Kenai Peninsula, one in 1968 and the other in 1992 (Herreman 2014).

In the early 20th century, sheep populations sharply declined before growing again. Many sheep were harvested in the early 1900s on the Kenai Peninsula during mining activities centered around the towns of Hope and Sunrise. The sheep population then increased from 350 in 1942 to 2,190 in 1968 and then declined to 1,600 in 1992. Annual sheep surveys conducted from 1968 to the late 1990s indicate that the sheep population fluctuated between 1,000 to 2,000 animals. Starting in 1992, minimum counts have been conducted by ADF&G for sheep in 32 count areas on the Kenai Peninsula, 14 in Unit 15 and 18 in Unit 7 (Figure 1) (Herreman 2018).

Kenai Peninsula sheep populations have declined since the mid-20th century. Overall, there has been an 80% decline since the 1960s (2,200-2,500). More recent survey data for all management areas (Unit 15 and Unit 7) showed a significant decline in sheep from 1997 (1,545) to 2008 (658) (Herreman 2018). From 2011 to 2020, the population for Units 7 and 15 ranged from 379 to 644 sheep (Figure 2) (Herreman pers. comm. 2021). As of 2020 it is estimated that fewer than 400 sheep remain on the Kenai Peninsula based on minimum count data (Table 1) (Herreman pers. comm. 2021).

The Kenai National Wildlife Refuge subpopulation has the largest number of sheep on the Kenai Peninsula. In 2015, the estimated Kenai National Wildlife Refuge sheep population was 163 animals. The Resurrection Trail subpopulation had an estimated population of 165 in 2015. The Grant Lake population was estimated at 77 for the same year. The two remaining subpopulations (Cooper Mountain and Crescent Lake) were both approaching the minimum viable population threshold in 2015 at 52 and 56, respectively (Herreman 2018).

It does not appear that harvest under current regulations of a full-curl ram is responsible for the long-term decline of sheep populations on the Kenai Peninsula. Population trends in the southern management areas (357-360) and information from locals suggest that the sheep range may be moving north. Pederson

(1944) reported that homesteading families harvested sheep as far south as Mallard Bay in management area 360. One theory is that climate change is causing more frequent icing events which have been shown to cause sheep population declines (Nichols 1975). In addition, climate change may also be changing the snow conditions with more frequent, heavier and wetter snows (Nichols 1971). Dial et al. (2007) and Dial et al. (2016) noted that alpine tundra habitat in the Kenai Mountains has been declining at a rate of approximately 17.4% per decade, tree and shrub line elevation has been increasing, and the overall quality of sheep habitat has been declining due to climate change.

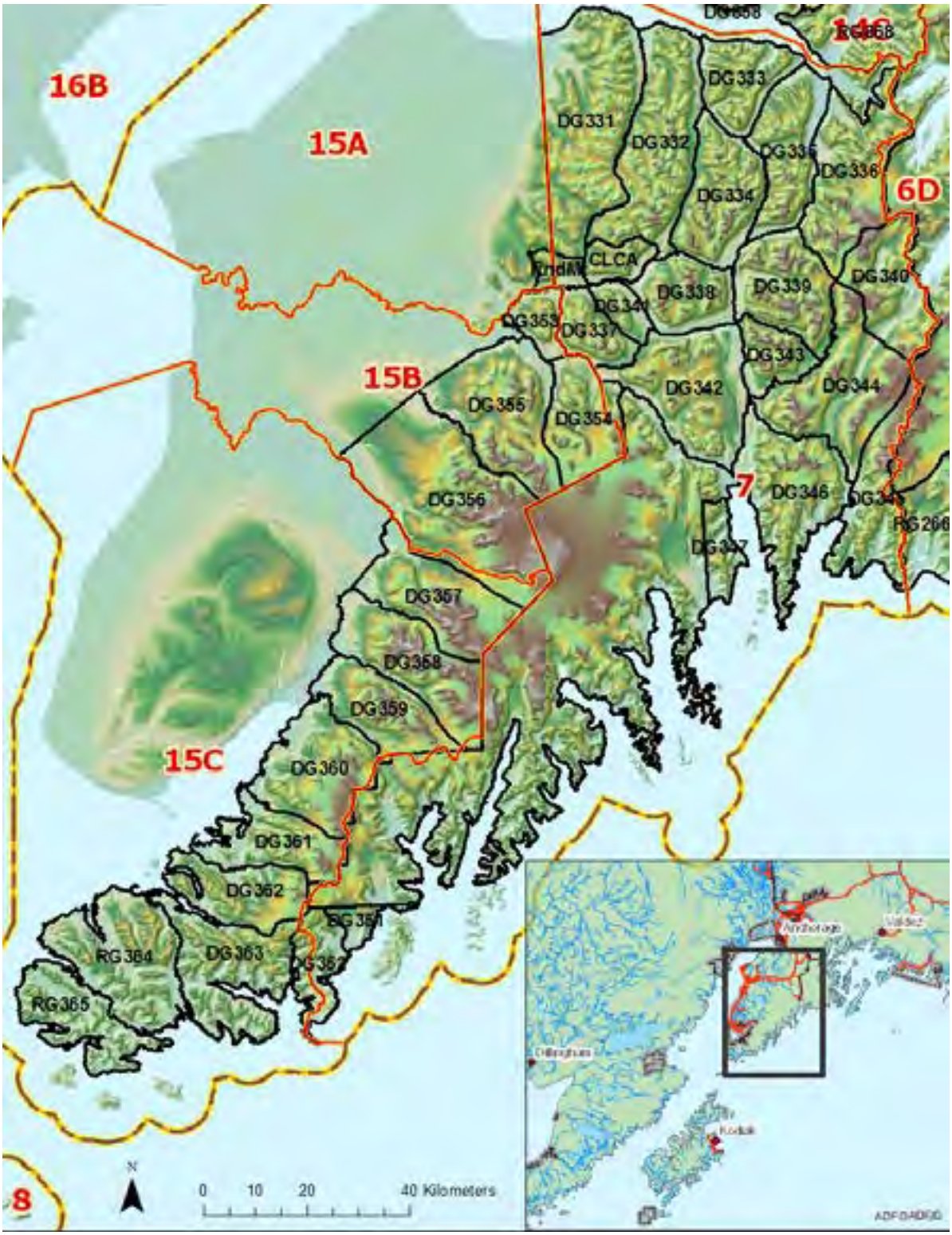


Figure 1. Map of Dall sheep and mountain goat survey units for the Kenai Peninsula, Units 7 and 15, Southcentral Alaska (Herreman 2018).

Table 1. Minimum count survey results in Units 7 and 15, on the Kenai Peninsula, 2011-2020. (Herreman pers. comm. 2021).

Year	Full Curl	< Full-curl	Ewe Like	Lambs	Unclassified Sheep	Total Sheep Observed
2011	1	57	134	42	0	235
2012	3	37	42	10	0	92
2013	4	65	210	60	0	340
2014	1	43	185	21	28	287
2015	3	99	280	81	2	470
2016	4	100	230	48	2	385
2017	7	76	194	47	2	335
2018	7	60	174	48	2	297
2019	2	28	77	16	2	126
2020	2	10	76	16	0	104

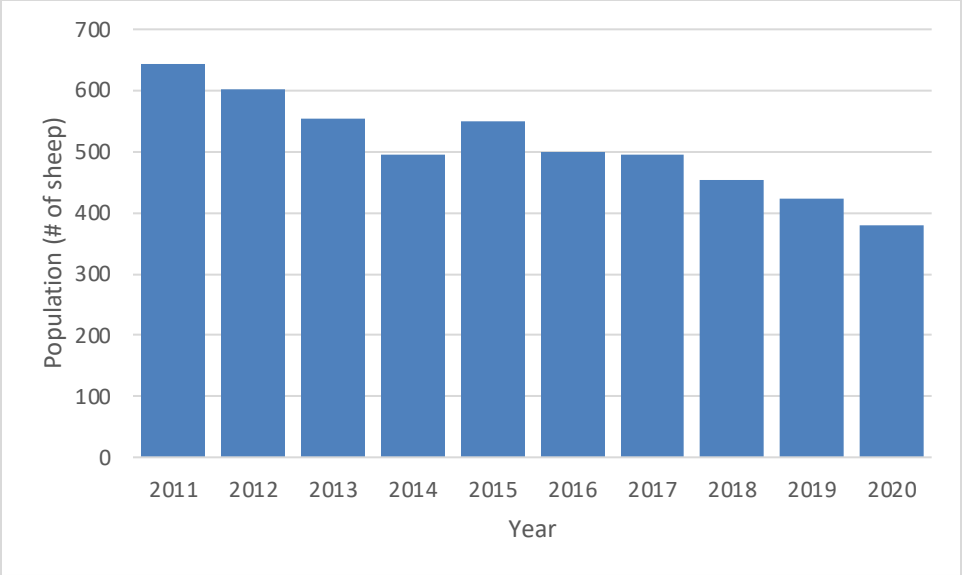


Figure 2. Estimated population of sheep in Units 7 and 15 showing declining trend (Herreman pers. comm. 2021).

Habitat

Sheep in Alaska inhabit alpine areas adjacent to steep cliffs or rocky terrain that provide escape from predators. Most sheep populations in Alaska are migratory, occupying different ranges during the summer and winter. Sheep populations exhibit a high degree of fidelity to their seasonal ranges (Rachlow and Boyer 1998). The smallest ranges typically occur in midwinter (Geist 1971) when they select wind-swept areas with suitable forage and rugged escape terrain. Sheep in Kluane National Park, Yukon, Canada, spent 70% of their time foraging in areas with snow depth <5 cm and in areas with high primary productivity of plants on their winter range (Hoefs and Cowan 1979, Hoefs and Bayer 1983, Hoefs 1984). Overcrowding on the wind-swept ridges during winter can put sheep in a negative energy balance and force sheep to depend heavily on their fat and protein reserves built up during the summer. Lambs and yearlings are particularly susceptible to die offs during periods of food shortages in winter. Limiting disturbance during the late winter/early spring can be critical to maintaining local sheep populations,

especially following severe winters with heavy snowfall or icing events. In the spring, sheep move down near tree line to feed on the first patches of emergent green plants. During the summer, ewes and lambs from interior Alaska select high alpine meadows intermixed with steep rugged escape terrain to graze on grasses and herbs, particularly *Dryas spp., and shrubs (willow leaves and shoots). As winter approaches their diet shifts to lichens, grasses, sedge stems and mosses (Rachlow and Boyer 1998).*

Harvest History

There has never been an open Federal subsistence season for sheep in Unit 7. Federally qualified subsistence users have been able to hunt sheep in Unit 7 with a harvest ticket under the State general regulations except in the Round Mountain (Figure 2) and Crescent Lake (**Figure 3**) areas, where Federally qualified hunters must compete for a limited number of State drawing permits (three DS150 and six DS156 permits, respectively). Sheep are susceptible to overharvest by sport and subsistence hunters in local areas and thus there is a need to closely manage harvests for those populations that are easily accessible. Harvesting full-curl rams is often the most conservative strategy, especially after population declines. Full curl management for a majority of Unit 7 has been in place for the general season and drawing permit hunts since 1989.

The average annual total reported sheep harvest in Unit 7 from 2010 to 2019 was 3.9 animals, which was lower than the previous 10 years when the average annual reported sheep harvest was 6.9 animals (**Figure 4**). While the overall reported harvest has been on a decreasing trend for the last 20 years, hunter success rate has only slightly decreased over the same period (Figure 5). The number of hunters attempting to harvest sheep in Unit 7 has also decreased over the last 20 years (Figure 6). From 2000- 2019, 108 sheep total have been reported harvested in Unit 7. Of the 108 reported sheep harvested, 10.2% were harvested by nonresidents, 15.7% by rural residents and 74.1% were harvested by non-rural Alaska residents (ADF&G 2021a).

Figure 3. Hunt area of the Round Mountain draw permit (ADF&G 2021b).

Figure 4. Hunt area for the Crescent Lake draw area (ADF&G 2021b).

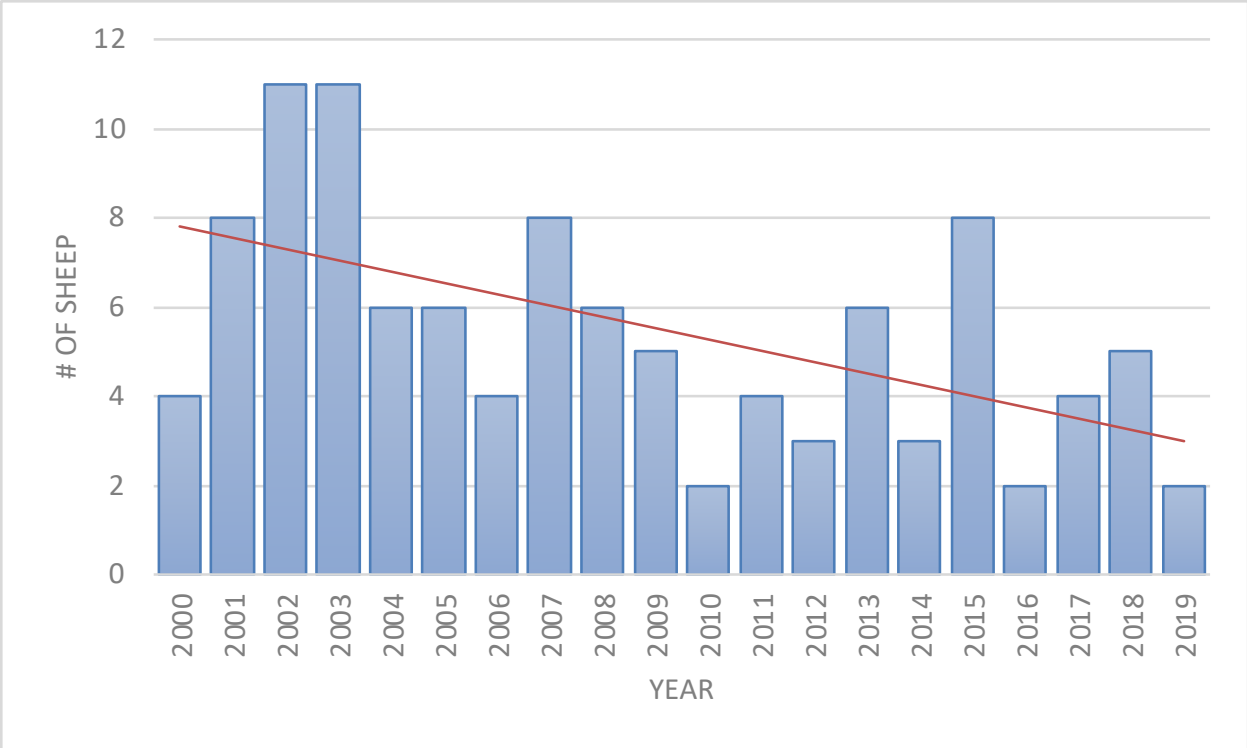


Figure 5. Annual reported harvest of sheep in Unit 7 for 2000-2019 (ADF&G 2021a).

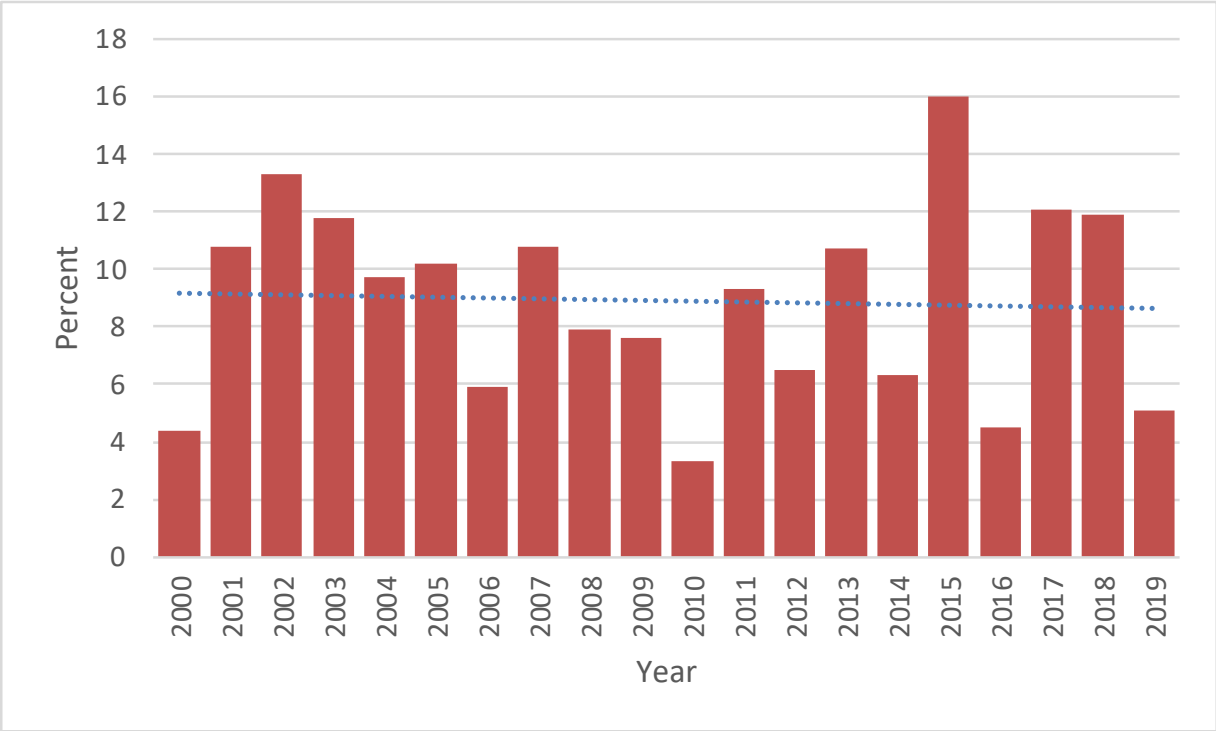
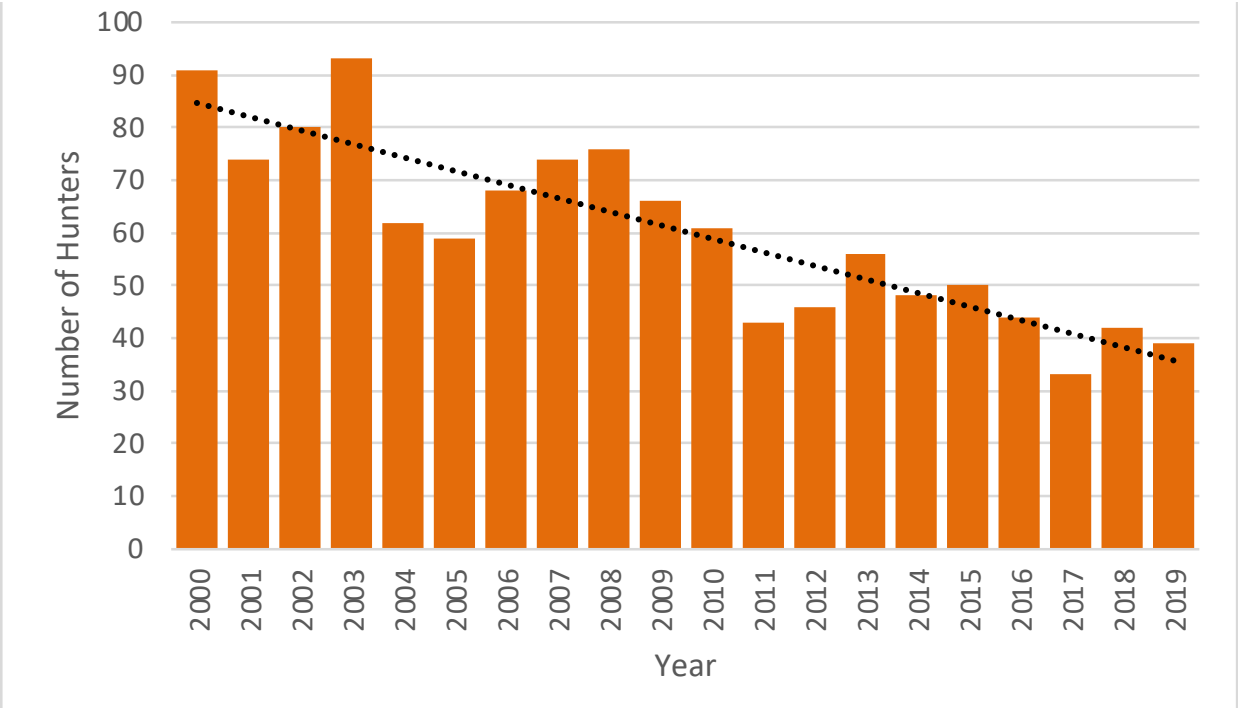


Figure 6. Percent successful sheep hunters in Unit 7 (ADF&G 2021a).



Number of sheep hunters in Unit 7 (ADF&G 2021a).

Other Alternatives Considered

One alternative considered was a harvest limit of one ram with three-quarter curl horn or larger by Federal drawing permit. This would provide more opportunity for Federally qualified subsistence users than those hunting under State regulations, which have a one ram with full-curl horn or larger harvest limit. It would not allow for the harvest of ewes or immature rams, keeping the most important age classes protected. This approach mitigates but does not eliminate conservation concerns as the increased harvest may not be sustainable given the declining status of the sheep populations in Unit 7. The Council may want to further consider this alternative.

Another alternative to be considered if the proposal is adopted as submitted is to delegate additional authority for the hunt to an in-season manger. A harvest limit of one sheep would allow the harvest of immature rams or ewes, which may have a negative effect on such small populations. To alleviate this concern, the Federal land manager would be able to set the harvest limit, including sex restrictions, harvest quotas and permit conditions in addition to closing the season via delegated authority.

Effects of the Proposal

Establishing a Federal season for sheep in Unit 7 would provide additional opportunity for Federally qualified subsistence users to harvest sheep on Federal public lands. Currently, there is no Federal subsistence season for sheep in Unit 7.

The declining sheep populations in Unit 7 are subject to overharvest if not managed carefully. Two of the sheep populations in Unit 7 are at or near the minimum viable population threshold of 50 animals. Severe winters could reduce these populations below this threshold, and the take of even a few additional sheep could result in overharvest. Aligning season dates with the State would reduce regulatory confusion

and provide the best opportunity for collaborative harvest management and enforcement. ADF&G has been managing the sheep populations in Unit 7 with drawing permits for the Round Mountain and Crescent Lake areas and a general hunt (harvest ticket) for the remainder of Unit 7. Because of the small and relatively unstable herd sizes, fluctuating permit numbers and the risk of overharvest, any Federal permits issued should still fall within the same general framework established by the State for those hunts. Thus, Federal registration permit hunts should not be issued for 'any sheep' but be specific to localized populations as done by the State. Appropriate allocation coordination must be made to determine how many Federal and State permits should be issued to limit the potential for overharvest.

OSM CONCLUSION

Support Proposal WP22-25b with modification to establish a Federal drawing permit hunt for sheep in Unit 7 with a harvest limit of one ram with full curl horn or larger, and delegate authority to the Seward District Ranger of the Chugach National Forest to close the season, set the harvest quota, the number of permits to be issued and any needed permit conditions via delegation of authority letter only (Appendix 1) and take no action on WP22-26b.

The modified regulation should read:

Unit 7- Sheep	
1 ram with full curl horn or larger by Federal drawing permit.	~~No Federal open season~~
	Aug. 10- Sept. 20

Justification

Establishing a Federal sheep season in Unit 7 would provide additional opportunity for Federally qualified subsistence users to harvest sheep on Federal public lands. Currently, there is no Federal subsistence season for sheep in Unit 7 and Federally qualified subsistence users must rely on the limited number of State drawing permits in Unit 7 or use a harvest ticket in Unit 7 remainder in order to harvest sheep in the unit. Providing this opportunity for subsistence harvest of sheep is consistent with Section 804 of the Alaska National Interest Lands Conservation Act, which calls for priority consumptive use of fish and wildlife populations by rural Alaska residents. The demand for sheep in Unit 7 from all hunters under State regulations is greater than the harvestable surplus as shown by the harvest history and population data. Due to the small size of the sheep populations, habitat limitations and susceptibility to over hunting, these populations are highly regulated by the State. The continued decline of sheep populations on the Kenai Peninsula requires adaptive management practices to ensure conservation of the resource.

Since the demand for sheep is greater than the harvestable surplus, a drawing permit is recommended so that harvest is limited, and the threat of overharvest minimized. Delegating authority to the Seward District Ranger will allow for greater hunt management flexibility through in-season adjustments and a timelier response to changes in population status, hunting conditions or hunter access while providing harvest opportunities for subsistence users. Harvesting mature rams is often the most conservative strategy, especially after population declines. Full curl management for a majority of Unit 7 has been in

place for the general season and drawing permit hunts since 1989. The Seward District Ranger will have the ability to close the season when the harvest quota has been reached. Setting permit conditions, such as reporting requirements, will assist the Seward District Ranger in closing the season early if needed. The Federal manager will need to work closely with the State to monitor harvest under both State and Federal hunts if this proposal is adopted by the Board.

LITERATURE CITED

Alaska Department of Fish and Game (ADF&G) 2019. Kenai Peninsula Overview. Presentation at the Alaska Board of Game, Southcentral Region: March 14-19, 2019.

ADF&G. 2021a. Harvest General Reports database. https://secure.wildlife.alaska.gov/index.cfm?adfg=harvest.main&_ga=1.109733509.1089519111.1465854136, accessed June 8, 2021. Anchorage, AK.

ADF&G. 2021b. Hunting Maps database. https://www.adfg.alaska.gov/index.cfm?adfg=huntingmaps.byspecies accessed June 9, 2021. Anchorage, AK.

Dial, R.J., E. E. Berg, K. Timm, A. McMahon, and J. Geck. 2007. Changes in the alpine forest-tundra ecotone commensurate with recent warming in southcentral Alaska: Evidence from orthophotos and field plots. Journal of Geophysical Research 112, G04015:1-15.

Dial, R.J., S.T. Smeltz, P.F. Sullivan, C.L. Rubasm K. Timm, J.E. Geck, T.S. Carl, T.S. Golden, and E.C. Berg. 2016. Shrubline but not treeline advance matches climate velocity in montane ecosystems of south-central Alaska. Global Change Biology 22(5):18411856.

Geist, V. 1971. Mountain sheep: A study in behavior and evolution. University of Chicago Press, Chicago.

Herreman, J.H. 2014. Units 7 and 15 Dall Sheep management report. Chapter 1, Pages 1-1 through 1-7 *in P. Harper, editor. Dall sheep management report of survey and inventory activities 1 July 2010- 30 June 2013, ADF&G. Species Management Report ADF7G/DWC/SMR 2014-4, Juneau, AK.*

Herreman, J.H. 2018. Dall Sheep Management Report and Plan, Game Management Unit 7 and 15: Report period 1 July 2011–30 June 2016, and plan period 1 July 2016–30 June 2021. Alaska Department of Fish and Game, Species Management Report and Plan, Juneau, AK.

Herreman, J.H. 2021. Unit 7 Area Biologist. Personal communication: e-mail. Alaska Department of Fish and Game, Homer, AK.

Hoefs, M. 1984. Productivity and carrying capacity of a subarctic sheep winter range. Arctic 37:141-147.

Hoefs, M. and I.M. Cowan. 1979. Ecological investigation of a population of Dall sheep (Ovis dalli dalli Nelson), Syesis 12(Supplement 1):1-81.

Hoefs, M. and m. Bayer. 1983. Demographic characteristics of an unhunted Dall sheep, Ovis dalli dalli. Canadian Journal of Zoology 61:1346-1357.

Krausman, P.R. and R.T. Bowyer. 2003. Mountain Sheep. Pages 1095-1115 in G.A. Feldhamer, B.C. Thompson, and J.A. Chapman, eds. Wild Mammals of North America: biology, management, and conservation. Second edition. John Hopkins University Press, London.

Nichols, L. 1971. The Dall sheep and its management in Alaska. Pages 2-8 in E. Decker, editor. Transactions of the 1st North American Wild Sheep Conference, 14-15 April 1971. Fort Collins, Colorado. Colorado State University, Department of Fishery and Wildlife Biology, Fort Collins, Colorado.

Nichols, L. 1975. Report and recommendations of the Dall and Stone Sheep Workshop Group. Pages 208-266 in J.B. Trefethen, editor. The wild sheep in modern North America: Proceedings of the workshop on the management biology of North American wild sheep, 18-20 June 1974, Missoula, MT.

Pedersen, E. 1944. Kachemak Bay Story. Friends of the Homer Public Library. Homer, AK.Rachlow, J.L. and R.T. Bowyer. 1998. Habitat selection by Dall's sheep (Ovis dalli): Maternal trade-offs. Journal of Zoology, London 245:465-475.

Scott, D. R., E.F. Chatelain, and W.A. Elkins. 1950. The status of the Dall sheep and caribou in Alaska. North American Wildlife Conference Transcripts 15:612-626.

SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Southcentral Alaska Subsistence Regional Advisory Council

Support WP22-25b/26b **as modified by OSM.** The Council supports this proposal as it provides for subsistence priority. If the sheep population is stable enough to allow a non-resident sport hunt in Unit 7 under State regulations, then there should be a Federal subsistence hunt. Delegating authority to a Federal in-season manager will protect discreet sheep populations. This proposal will provide an additional hunting opportunity for Federally qualified subsistence users.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and Federal Subsistence Board action on the proposal.

ALASKA DEPARTMENT OF FISH AND GAME COMMENTS

Wildlife Proposal WP22-25b/26b

These proposals would establish a sheep season in Game Management Unit (GMU) 7 for federally qualified users (FQU) from Moose Pass and Cooper Landing with season dates of Aug 10–Sept 20.

Background

Dall sheep numbers in GMU 7 have been declining since the late 90's and continue to decline to this day. Five functional sheep areas or subpopulations are thought to exist within GMUs 7 and 15 based on the extent of the Alaska Department of Fish & Game's (ADF&G) knowledge of sheep movement, 4 of which fall almost entirely within the borders of GMU 7: 1. Resurrection Trail (count areas 331 and 332), 2. Kenai National Wildlife Refuge (count areas 354–359, GMU 15), 3. Grant Lake (count areas 339, 343, 344), 4. Cooper Mountain (count areas 337, 353), 5. Crescent Lake (338). Within each of these areas, sheep numbers have declined over the past five years and numbers in Grant Lake, Cooper Mountain, and Crescent Lake are all at or approaching what has been recommended as the minimum viable population for wild sheep (50 animals, Berger 1990). There are three special state management areas for sheep on the Kenai including the Cooper Landing closed area, the Round Mountain permit area and the Crescent Lake permit area. The Cooper Landing closed area was designated in 1953 and all Dall sheep and mountain goat hunting in this area has been closed since its establishment. ADF&G recently closed both the Round Mountain and Crescent Lake permit areas due to a lack of legal rams available for harvest and concerns over current population size. The rest of GMU 7 is currently open to harvest by resident and nonresident hunters from Aug 10–Sept 20 through a harvest ticket with a bag limit of one full-curl or greater ram. Current minimum population counts have reached levels similar to which federal managers previously closed all sheep hunting on the Kenai Peninsula in 1942.

Impact on Subsistence Users

The impact to FQUs is unclear due to the wording of these proposals. If a season is established with the suggested dates matching the current state bag limit and FQUs are not allowed to hunt in the Round Mountain or Crescent Lake permit areas, then no change will occur in the opportunity currently available.

Impact on Other Users

If adopted, the impact to other users is currently unclear due to how the proposals are currently written. If a season is established with the suggested dates, matching the current state bag limit, and FQUs are not allowed to hunt in the Round Mountain or Crescent Lake permit areas, then no change will occur in the opportunity currently available.

Opportunity Provided by State

State customary and traditional use findings: The Alaska Board of Game (BOG) has not made a customary and traditional use finding for sheep in GMU 7.

Amounts Reasonably Necessary for Subsistence: Alaska state law requires the BOG 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 sheep in GMU 7 is 0 animals. The season and bag limit for GMU 7 is:

		Open Season (Permit/Hunt #)	
Unit/Area	**Bag Limit**	**Resident[2]**	**Nonresident**
7 east of Fuller Lake trail. South of Dike Creek east through the divide south of Trout Lake to Juneau Creek, west of Juneau Creek and north of Sterling Highway.	One ram with full curl or larger	Aug 10 - Sept 20	Aug 10-Sept 20
7 south of the Sterling Highway, and north and east of Kenai Lake	One ram with full curl or larger	Aug 10 - Sept 20	Aug 10-Sept 20
7 remainder	One ram with full curl or larger youth hunt only	Aug 1 - Aug 5 (HT)	Aug 10-Aug 5 (HT)
	One ram with full curl or larger	Aug 1 - Sept 20 (HT)	Aug 10-Sept 20 (HT)

Conservation Issues

Dall sheep numbers continue to decline in GMU 7 despite the restrictive harvest measures of full curl management. Allowing FQUs to hunt within the boundaries of the Round Mountain and Crescent Lake closed areas could lead to these hunts never again being opened under the state permit system and would disrupt the current state management system. Federal hunts should not occur in areas closed by state regulation due to conservation concerns.

Any ewe harvest in these population is not biologically sound and allowing additional harvest above what is currently allowed by state regulation will be detrimental to the population.

Enforcement Issues

No known enforcement issues exist with this proposal.

Position

ADF&G **OPPOSES** this proposal. Any additional harvest jeopardizes these populations of Dall sheep. If a federal season is established, current harvest restrictions (only one ram with full curl horn ram with both horns broken, or a ram at least 8 years old as determined by counting annual horn rings) should be maintained. Harvest should only be allowed in areas where a harvestable surplus is available as indicated by an open state season.

LITERATURE CITED

Berger, J. 1990. Persistence of different-sized populations: an empirical assessment of rapid extinctions in bighorn sheep. Conservation Biology. 4(1):91-98.

WRITTEN PUBLIC COMMENT

Alaska Kenai Chapter Safari Club International
P.O. Box 2988
Soldotna, AK 99669
kenaisci@gmail.com

RE: Public Comments Processing, Office of Subsistence Management
(Attn: Theo Matuskowitz) subsistence@fws.gov
Oppose proposals WP22-15 through 32.

The Alaska Kenai Chapter of Safari Club International (KPSCI) is the largest conservation group on the Kenai Peninsula. Our chapter was founded in 1989 on three primary principles: Wildlife Conservation, Education and Humanitarian Services, and Advocacy for Hunting and Hunters Rights.

KPSCI represents hunters from across the Kenai Peninsula, including rural and non-rural communities. Our annual fundraiser is attended by 400-500 hunters, fisherman and wildlife conservationists who have a long history of customary and traditional use of harvesting fish and wildlife in Alaska. The KPSCI board and membership, consists of local hunters who participated from the beginning in opposition to the establishment of the Kenai Peninsula rural designations and customary and traditional use determinations. The chapter has a long history of not only opposing these erroneous determinations but engaged with our national chapter to pursue legal actions against them. The actions of the FSB has turned our community into "have and have nots" in regards to fish and wildlife harvest. Our organization does support a subsistence priority in rural parts of Alaska where congress had intended for the priority to apply, but not on the road connected Kenai where the characteristics of the communities have little to no difference.

Congress deliberately crafted ANILCA provisions to minimize impacts on public uses of public lands in conservation system units by Alaska residents for access and traditional activities necessarily related to harvests of fish and wildlife resources. Along with minimizing those impacts, Congress included numerous unique provisions in ANILCA to assure meaningful public involvement and to satisfy specific criteria as a threshold for federal decisions affecting those uses in Alaska. Furthermore, the congressional record clearly indicates that congress did not intend for the road connected Kenai Peninsula communities to be designated for a subsistence priority.

As an example, our organization finds the irony in WP22-15, diminishing trapping opportunity by the anti-hunting/trapping folks from the "rural designated" community of Cooper Landing. Trapping is a customary and traditional use activity protected under ANILCA. These actions clearly illustrate why communities such as Cooper Landing should not have been granted a rural designation with C&T determinations as their community characteristics do not reflect or meet the criteria of Title VIII and the intent of congress.

Another example these erroneous proposals is WP22-32. The FSB ruled against a rural determination for the Russian villages in the North Fork/Homer area. An individual that received a subsistence moose permit for three years was told he lived outside the rural community of Ninilchik so his recent request was denied. This action resulted in proposal WP22-32 to expand the Ninilchik rural area to include North Fort Road. How can the FSB justify rewarding illegal behavior?

For these reasons we adamantly oppose proposals WP22-15 through 32

WP22-15	All furbearers in Unit 7. Establish trap setbacks along trails, road, and campground. Diminishes a subsistence activity in a "rural designated" community.
WP22-16	Adopt a customary and traditional (C&T) finding for Moose Pass residents for moose.
WP22-17	Extend moose season in Unit 7 for Moose Pass residents to Aug. 10 to Sept. 20.
WP22-18	Extend hunting area for Moose Pass to include 15A and 15B. Season Aug. 10 to Sept 20 and Oct. 20 to Nov. 10. Add a registration hunt in these areas with a bag limit of one cow moose/per hunter.
WP22-19	Add 15C to the moose hunting season for Moose Pass residents, season Aug. 10 to Sept. 20. Bag limit increased to spike/FORK-50 inch or 3 brow tines on at least one side. Note: fork antlered bulls are not legal in the general non-rural season.
WP22-21	Allows Moose Pass to harvest caribou in Unit 7 under a registration permit rather than the limited entry draw, season Aug. 10 to Dec. 31. The general season is Aug. 10 to Sept. 20, in a draw hunt, for non-rural residents.
WP22	Establishes a Federal (rural resident) drawing system for Moose Pass residents in Unit 7, season Aug. 10 to Sept. 20 for caribou hunting.
WP22-23	Establishes a federal drawing system for mountain goat in Unit 7 for Moose Pass residents. Season Aug. 10 to Nov. 14. The general (non-rural) season is Aug. 10 to Oct. 15 by limited draw followed by a registration Nov. 1 to 14 in areas where the quota was not reached. The federal hunt will open all areas regardless of reaching the quota.
WP22-24	Establishes the same mountain goat special draw season in Unit 15 for Moose Pass residents.
WP22-25a 25b	Establishes a rural sheep season in Unit 7 for one sheep, no horns or gender restrictions.
WP22-26a b	Not sure what this proposal asks for, request is to open a sheep season for Moose Pass residents. No season or bag limit shown.
WP22-28	Extends moose season in Unit 7 by five days, from Aug. 10 to Sept. 20 to Aug. 10 to Sept. 25.
WP22-29	Same as 28, extends moose season in Unit 7 to Aug. 10 to Sept. 25.
WP22-30	Extends moose season for rural residents in Unit 15 from Aug. 10 to Sept. 20 to Aug. 10 to Sept. 25.
WP22-31	Extends moose season for rural residents in Unit 15 from Aug. 10 to Sept. 20 to Aug. 10 to Sept. 25.
WP22-32	Request for a positive finding of "rural" for the "North Fork Rural Customary and Traditional Subsistence Use Community". An individual that received a subsistence moose permit for three years was told he lived outside the rural community of Ninilchik, so his recent request was denied. This action resulted in proposal WP22-32 to expand the Ninilchik rural are to include North Fort Road. Nothing like rewarding illegal behavior!

The Kenai Chapter of Safari Club International opposes WP22-15 through WP22-32. We urge the FSB to vote NO on these proposals. KPSCI is the representative of the vast majority of the hunters, fisherman and wildlife conservationists residing on the Kenai Peninsula.

Sincerely,

Alaska's Kenai Chapter of Safari Club International

2021 Board of Directors
Mike Crawford
Joe Hardy
Shawn Killian
Bryan Vermette
Jesse Bjorkman
Sam Evanoff
Roy Smith
Ted Spraker
Rick Abbott

APPENDIX 1

Seward District Ranger
U.S. Forest Service
Chugach National Forest
P.O. Box 390
Seward, Alaska 99664

Dear Seward District Ranger:

This letter delegates specific regulatory authority from the Federal Subsistence Board (Board) to the Seward District Ranger of the Chugach National Forest to issue emergency or temporary special actions if necessary to ensure the conservation of a healthy wildlife population, to continue subsistence uses of wildlife, for reasons of public safety or to assure the continued viability of a wildlife population. This delegation only applies to the Federal public lands subject to Alaska National Interest Lands Conservation Act (ANILCA) Title VIII jurisdiction within Unit 7 for the management of Dall sheep on these lands.

It is the intent of the Board that actions related to management of Dall sheep by Federal officials be coordinated, prior to implementation, with the Alaska Department of Fish and Game (ADF&G), representatives of the Office of Subsistence Management (OSM) and the Chair of the affected Council(s) to the extent possible. The Office of Subsistence Management will be used by managers to facilitate communication of actions and to ensure proposed actions are technically and administratively aligned with legal mandates and policies. Federal managers are expected to work with managers from the State and other Federal agencies, the Council Chair or alternate, local tribes and Alaska Native Corporations to minimize disruption to subsistence resource users and existing agency programs, consistent with the need for special action.

DELEGATION OF AUTHORITY

1. Delegation: The Seward District Ranger of the Chugach National Forest is hereby delegated authority to issue emergency or temporary special actions affecting Dall sheep on Federal lands as outlined under the Scope of Delegation. Any action greater than 60 days in length (temporary special action) requires a public hearing before implementation. Special actions are governed by Federal regulation at 36 CFR 242.19 and 50 CFR 100.19.

2. **Authority**: This delegation of authority is established pursuant to 36 CFR 242.10(d)(6) and

50 CFR 100.10(d)(6), which state: "The Board may delegate to agency field officials the authority to set harvest and possession limits, define harvest areas, specify methods or means of harvest, specify permit requirements and open or close specific fish or wildlife harvest seasons within frameworks established by the Board."

3. **Scope of Delegation**: The regulatory authority hereby delegated is limited to the following authorities within the limits set by regulation at 36 CFR 242.26 and 50 CFR 100.26:

- To close the season, set the harvest quota, the number of permits to be issued and any needed permit conditions for Dall sheep.

This delegation also permits you to close and reopen Federal public lands to nonsubsistence hunting but does not permit you to specify permit requirements or harvest and possession limits for State-managed hunts.

This delegation may be exercised only when it is necessary to conserve Dall sheep populations, to continue subsistence uses, for reasons of public safety or to assure the continued viability of the populations. All other proposed changes to codified regulations, such as customary and traditional use determinations, shall be directed to the Board.

The Federal public lands subject to this delegated authority are those within Unit 7.

4. Effective Period: This delegation of authority is effective from the date of this letter and continues until superseded or rescinded.

5. **Guidelines for Delegation**: You will become familiar with the management history of the wildlife species relevant to this delegation in the region, with current State and Federal regulations and management plans and be up to date on population and harvest status information. You will provide subsistence users in the region a local point of contact about Federal subsistence issues and regulations and facilitate a local liaison with State managers and other user groups.

You will review special action requests or situations that may require a special action and all supporting information to determine (1) consistency with 50 CFR 100.19 and 36 CFR 242.19, (2) if the request/situation falls within the scope of authority, (3) if significant conservation problems or subsistence harvest concerns are indicated, and (4) what the consequences of taking an action or no action may be on potentially affected Federally qualified subsistence users and non-Federally qualified users. Requests not within your delegated authority will be forwarded to the Board for consideration. You will maintain a record of all special action requests and rationale for your decision. A copy of this record will be provided to the Administrative Records Specialist in OSM no later than sixty days after development of the document.

For management decisions on special actions, consultation is not always possible, but to the extent practicable, two-way communication will take place before decisions are implemented. You will also establish meaningful and timely opportunities for government-to-government consultation related to pre-season and post-season management actions as established in the Board's Government-to-Government Tribal Consultation Policy (Federal Subsistence Board Government-to-Government Tribal Consultation Policy 2012 and Federal Subsistence Board Policy on Consultation with Alaska Native Claim Settlement Act Corporations 2015).

You will immediately notify the Board through the Assistant Regional Director for OSM, and coordinate with the Chair(s) or alternate of the affected Council(s), local ADF&G managers and other affected Federal conservation unit managers concerning emergency and temporary special actions being considered. You will ensure that you have communicated with OSM to ensure the special action is aligned with ANILCA Title VIII, Federal Subsistence regulations and policy and that the perspectives of the Chair(s) or alternate of the affected Council(s), OSM and affected State and Federal managers have been fully considered in the review of the proposed special action.

If the timing of a regularly scheduled meeting of the affected Council(s) permits without incurring undue delay, you will seek Council recommendations on the proposed temporary special action(s). If the affected Council(s) provided a recommendation, and your action differs from that recommendation, you will provide an explanation in writing in accordance with 50 CFR 100.10(e)(1) and 36 CFR 242.10(e)(1).

You will issue decisions in a timely manner. Before the effective date of any decision, reasonable efforts will be made to notify the public, OSM, affected State and Federal managers, law enforcement personnel and Council members. If an action is to supersede a State action not yet in effect, the decision will be communicated to the public, OSM, affected State and Federal managers and the local Council members at least 24 hours before the State action would be effective. If a decision to take no action is made, you will notify the proponent of the request immediately. A summary of special action requests and your resultant actions must be provided to the coordinator of the appropriate Council(s) at the end of each calendar year for presentation to the Council(s).

You may defer a special action request, otherwise covered by this delegation of authority, to the Board in instances when the proposed management action will have a significant impact on a large number of Federal subsistence users or is particularly controversial. This option should be exercised judiciously and may be initiated only when sufficient time allows for it. Such deferrals should not be considered when immediate management actions are necessary for conservation purposes. The Board may determine that a special action request may best be handled by the Board, subsequently rescinding the delegated regulatory authority for the specific action only.

6. **Support Services**: Administrative support for regulatory actions will be provided by the Office of Subsistence Management.

Sincerely,

Anthony Christianson
Chair

Enclosures

cc: Federal Subsistence Board
Assistant Regional Director, Office of Subsistence Management
Deputy Assistant Regional Director, Office of Subsistence Management
Subsistence Policy Coordinator, Office of Subsistence Management
Wildlife Division Supervisor, Office of Subsistence Management
Southcentral Alaska Subsistence Council Coordinator, USDA-Forest Service
Chair, Southcentral Alaska Subsistence Regional Advisory Council
Deputy Commissioner, Alaska Department of Fish and Game
Special Projects Coordinator, Alaska Department of Fish and Game
Interagency Staff Committee
Administrative Record

WP22–28/29 Executive Summary	
General Description	Proposal WP22-28 requests to extend the length of the moose hunting season in Unit 7 remainder to Sep. 25. *Submitted by: Michael Adams* Proposal WP22-29 requests to extend the length of the moose hunting season in Unit 7 remainder to Sep. 25. *Submitted by: Seth Wilson*
Proposed Regulation	**Unit 7- Moose** *Unit 7, remainder—1 antlered bull with spike-fork or 50-inch antlers or with 3 or more brow tines on either antler, by Federal registration permit only.* *Aug. 10-Sep.~~20~~* ***25****.*
OSM Conclusion	**Support** Proposal WP22-28 and **Take no action** on WP22-29
Southcentral Alaska Subsistence Regional Advisory Council Recommendation	**Support with modification** to shift the season to Aug. 20-Sept. 25.
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Oppose**
Written Public Comments	**1 Oppose**

STAFF ANALYSIS
WP22-28/29

ISSUES

Wildlife Proposals WP22-28, submitted by Michael Adams of Cooper Landing and WP22-29, submitted by Seth Wilson of Glennallen, request to extend the length of the moose hunting season in Unit 7 remainder to Sep. 25.

DISCUSSION

The proponents state the Federal subsistence season should not be more restrictive than the State hunting season, which currently closes five days later than the Federal season and that this proposal would allow for more opportunity for participation by Federally qualified subsistence users.

Existing Federal Regulation

Unit 7- Moose

Unit 7, remainder—1 antlered bull with spike-fork or 50-inch antlers or with 3 or more brow tines on either antler, by Federal registration permit only.	*Aug. 10-Sept. 20.*

Proposed Federal Regulation

Unit 7- Moose

Unit 7, remainder—1 antlered bull with spike-fork or 50-inch antlers or with 3 or more brow tines on either antler, by Federal registration permit only.	*Aug. 10-Sept. ~~20~~ **25**.*

Existing State Regulation

Unit 7- Moose

Residents and Nonresidents	*7 remainder- One bull with a spike on at least one side or 50-inch antlers or antlers with 3 or more brow tines on at least one side*	*HT*	*Sept 1-Sept 25*

Extent of Federal Public Lands/Waters

Unit 7 is comprised of 77.4% Federal public lands and consist of 52.2% U.S. Forest Service (USFS) managed lands, 23.1% National Park Service (NPS) managed lands and 2.1% U.S. Fish and Wildlife Service (USFWS) managed lands.

Customary and Traditional Use Determinations

Rural residents of Chenega Bay, Cooper Landing, Hope and Tatitlek have a customary and traditional use determination for moose in Unit 7.

Regulatory History

In 2008, Karl Romig submitted proposal WP08-22a. He requested that the Federal Subsistence Board (Board) recognize the customary and traditional use (C&T) of moose by residents of Cooper Landing in Unit 7. The Board agreed with the Southcentral Alaska Subsistence Regional Advisory Council's (Southcentral Council's) recommendation and adopted the proposal. Mr. Romig also submitted WP08-22b, which requested establishing a moose season in Unit 7 remainder. The Board adopted WP08-22b with modification and established an Aug. 10 ─ Sep. 20 season with a harvest limit of 1 antlered bull with a spike-fork or 50-inch antlers or with 3 or more brow tines on either antler. This hunt had identical harvest limits as State regulations but, the Federal season started 10 days earlier than the State season.

In 2010, Paul Genne and Dennis Ressler submitted proposal WP10-33. They requested that the Board recognize the C&T of moose by residents of Hope and Sunrise in Unit 7. The Board agreed with the Southcentral Council's recommendation and adopted the proposal.

In 2011 the Board adopted Wildlife Special Action WSA11-02, submitted by the Kenai National Wildlife Refuge, which changed the harvest limits in Unit 7 remainder from 1 antlered bull with a spike-fork or 50-inch antlers or with 3 or more brow tines on either antler to 1 antlered bull with a spike-fork or 50-inch antlers or with 4 or more brow tines for the Aug. 10 ─ Sep. 20, 2011, season only. This Wildlife Special Action followed the adoption of the Alaska Board of Game (BOG) Proposal 169, which established the same harvest limits and season in State regulations. Both proposals reflected conservation concerns in Units 7 and 15.

In 2013, Alaska Board of Game (BOG) Proposal 143 requested the harvest limit in Units 7 and 15 be changed back to what they were before a population decline prompted the change to 4 brow tines. The BOG adopted an amended version of the proposal to allow the harvest of 1 antlered bull with a spike-fork in addition to the current 50-inch antlers or with 4 or more brow tines on either antler.

In 2014, Andy McLaughlin submitted Proposal WP14-10. He requested C&T for moose for residents of Chenega and Tatitlek. The Board agreed with the Southcentral Council's recommendation and adopted the proposal.

For the 2015 regulatory year (RY), the BOG shifted the moose season for Unit 7 remainder from Aug. 20 ─ Sep. 20 to Sep. 1 ─ 25. This accounted for the changing climate, as the summers had been staying warmer longer. Pushing the season back allowed users to harvest moose when conditions were cooler and allowed easier handling of the meat (ADF&G 2015).

In 2018, the BOG adopted Proposal 65, changing the harvest limit in Units 7 and 15 from 4 brow tines to 3 brow tines per side because bull:cow ratios in Unit 15 had been above the ADF&G management objective of 20-25 bulls:100 cows since 2012 (Figure 1). ADF&G adjusts regulations on a Kenai Peninsula-wide basis from information primarily from Unit 15 because of its abundant moose population data (ADF&G 2019). Although counts and estimates for Units 15A and 7 showed populations declining, the overall moose population on the Kenai Peninsula was increasing. Proposal 78, submitted by Kenai/ Soldotna Fish and Game Advisory Committee (AC), established an any-bull draw hunt in the Placer River area of Unit 7 based on these population metrics. This hunt was established with the understanding that the population in Units 15A and 7 were declining. The BOG decided to adopt the proposal and allow ADF&G biologists to determine the number of permits to allocate per unit (ADF&G 2019).

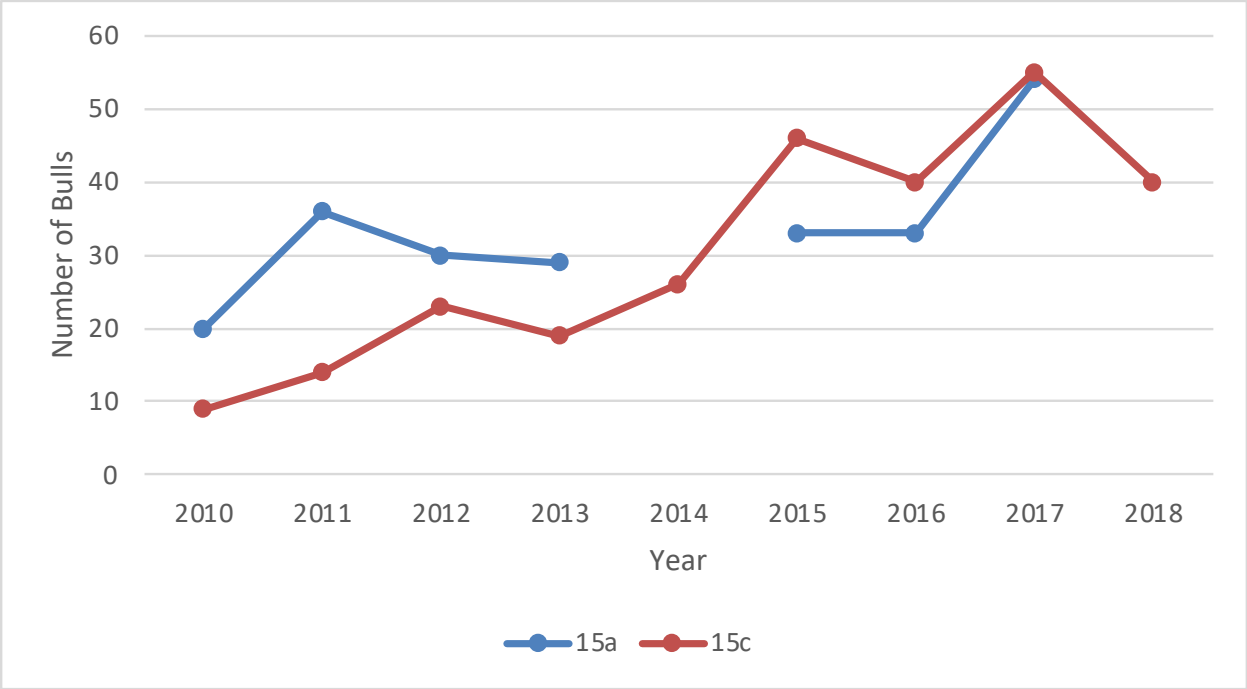


Figure 1. Bull:Cow Ratios in Units 15A and 15C (Herreman 2018)

Biological Background

A moose population estimate has never been performed for moose in Unit 7. Trend count areas were established in the 1960s but have not been consistently surveyed. However, trend counts have been conducted every other year in the Resurrection Creek and Juneau Creek count areas since the 1990s. While these surveys are not rigorously comparable, the established population trend is declining and has been since the 1970s. ADF&G management objectives for Unit 7 are to maintain a minimum bull-to-cow ratio of 20-25:100 (Herreman 2018).

Recent trend count data has bull:cow ratios of 17, 12 and 25 bulls:100 cows in 2010, 2011 and 2013, respectively. Calf to cow ratios for the same timeframe are 10, 18 and 16 calves:100 cows, respectively (Herreman 2018).

There have been no habitat assessments and few enhancement projects in Unit 7. Poor habitat is suspected of being the limiting factor for the moose population (Herreman, 2018).

Harvest History

Hunter harvest in recent years is lower than the historical highs. The historic average harvest is 104 moose per year from 1963- 1983 (Herreman 2018). The average reported harvest from 2015- 2019 was 20 moose. The previous 5-year period (2010- 2014) average was 24.4 moose (Figure 2). While harvest increased in 2014 after the antler restriction was lifted, hunter success in Unit 7 remainder has primarily declined since then (ADF&G 2021).

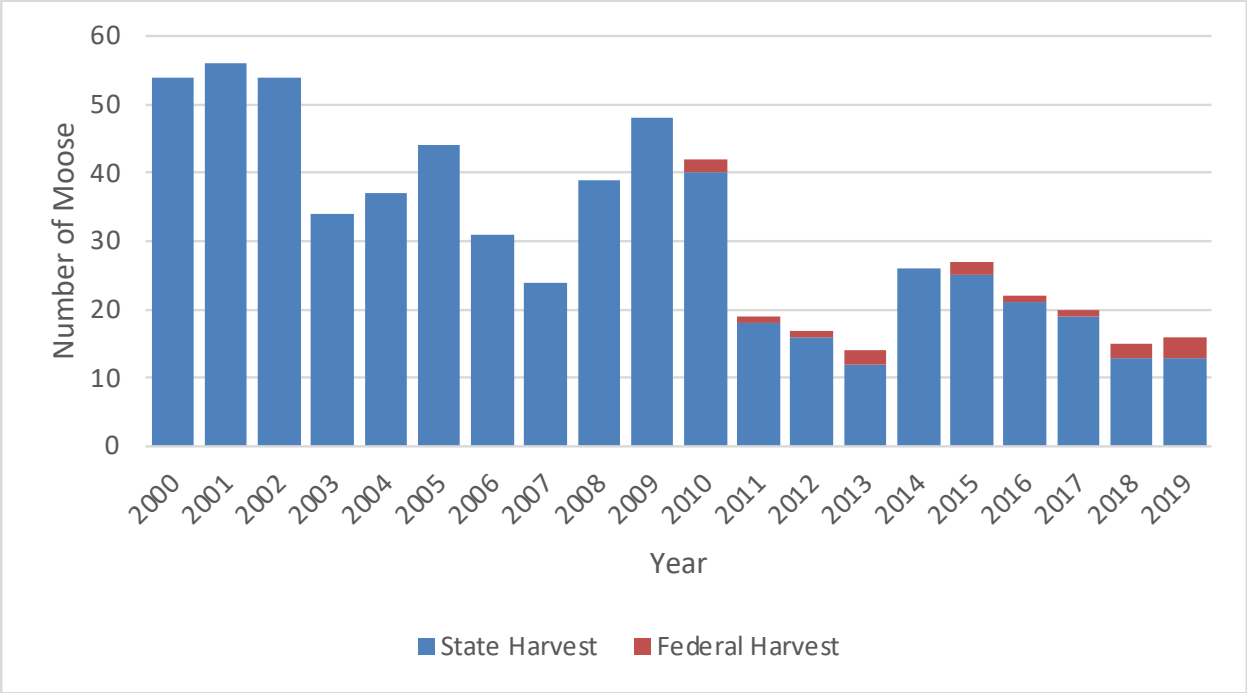


Figure 2. Total reported moose harvest for Unit 7 (ADF&G 2021 & OSM 2021).

Other Alternatives Considered

Comments from Kenai National Wildlife Refuge suggested modifying the original proposal. Since the Federal season is currently longer than the State season, the comments were to shift the season opener Aug. 10 to Aug. 20 and maintain the proposed closure date of Sep. 25. While this change would shorten the Federal season by five days overall, the season would extend into the early rut when bulls are more susceptible to harvest. This should allow for success rates consistent with what users are currently harvesting. The Federal users that hunt the early part of the season would still be able to hunt without pressure from sport hunters, as the Federal season would begin 12 days before the State season, maintaining a Federal subsistence priority (Eskelin, pers. comm., 2021). OSM chose to support the proposal as submitted so as not to reduce the opportunity of Federally qualified subsistence users because there is no conservation concern. The Board may want to consider this alternative.

Effects of the Proposal

Extending the season would allow Federally qualified subsistence users greater access to the resource and would allow them to harvest when temperatures are cooler, and conditions are better for handling and processing meat. Plus, the Federal regulation allows for the harvesting of a spike-fork bull, while State regulations allow a spike only bull. The more liberal Federal limit may allow for more Federal harvest. Currently, the State season closes later than the Federal season. Adopting this proposal will align the end date of Federal and State seasons.

The State modified their season and harvest limit in 2015 and hunter success has continued to drop. Extending the season on Federal lands may not increase the number of moose taken in Unit 7 remainder as all Federally qualified subsistence users can already hunt until September 25 under State regulations. In addition, very low annual reported Federal harvest (≤5 moose per year) suggest over-harvest should not be a concern.

OSM CONCLUSION

Support Proposal WP22-28 and **Take no action** on WP22-29

Justification

State of Alaska regulations already allow the harvesting of moose in Unit 7 remainder until September 25, mitigating any conservation concerns. There may be no cumulative impacts to moose population numbers from this extension, as all Federally qualified subsistence users can currently hunt under State regulations. Adoption of Proposal WP22-28 provides more opportunity for Federally qualified subsistence users and reduces regulatory complexity by aligning Federal and State season end dates. No action needs to be taken on WP22-29 if action is taken on WP22-28.

LITERATURE CITED

ADF&G. 2015. The Alaska Board of Game Southcentral Region Meeting, March 13- 18, 2015. Audio Transcript. Anchorage, AK.

ADF&G. 2019. The Alaska Board of Game Southcentral Region Meeting, March 14- 19, 2019. Audio Transcript. Anchorage, AK.

ADF&G. 2021. Harvest Reports, Internet: https://secure.wildlife.alaska.gov/index.cfm?fuseaction=harvest.lookup

Eskelin, T. 2021. Biologist Science Technician (Wildlife). Personal communication. E-mail. USFWS, Kenai National Wildlife Refuge, AK.

Herreman, J. H. 2018. Moose Management Report and Plan, Game Management Unit 7: Report period 1 July 2010–30 June 2015, and plan period 1 July 2015–30 June 2020. Alaska Department of Fish and Game, Species Management Report and Plan, Juneau

OSM. 2021. Wildlife Harvest Data, 05 June 2021 Internet: https://subsistence.fws.gov/apex/f?p=104:5:7708711082469::NO:RP,5::

SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Southcentral Alaska Subsistence Regional Advisory Council

Support Proposals WP22-28/29 **with modification** to shift the season to Aug. 20 ─ Sep. 25.

The modified regulation should read:

Unit 7- Moose	
Unit 7, remainder—1 antlered bull with spike-fork or 50-inch antlers or with 3 or more brow tines on either antler, by Federal registration permit only.	*Aug. ~~10~~ **20**-Sep. ~~20~~ **25**.*

The Council supports this proposal as it extends the season later in the year, providing for a subsistence priority and making moose harvest in Unit 7 available when the weather is more suitable for preservation of meat. Recently, moose harvest in Unit 7 has decreased early in the season because of climatic conditions due to climate change. Shifting the season to later dates will compensate hunting opportunity lost at the beginning of the season.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and Federal Subsistence Board action on the proposal.

ALASKA DEPARTMENT OF FISH AND GAME COMMENTS

Wildlife Proposal WP22-28/29

This proposal would extend the current federal subsistence season for moose in Game Management Unit (GMU) 7 by five days.

Background

Federal subsistence regulations in GMU 7 are already less restrictive than state hunting regulations. Federally qualified users (FQU) in GMU 7 have a season that is 17 days longer than the season for non-federally qualified users (NFQU). Additionally, the bag limit is less restrictive for FQUs as they are allowed to harvest fork antlered bulls and can harvest animals in the draw permit areas under federal subsistence regulations.

Impact on Subsistence Users

This proposal would increase the opportunity for FQUs to harvest moose by 5 days giving them 22 more days to hunt than NFQUs.

Impact on Other Users

If adopted, this proposal decreases the number of harvestable animals available to NFQUs in future years and decrease the number of bulls available for breeding. If bull ratios are driven too low, a more restrictive bag limit will have to be implemented to ensure the sustainability of moose in GMU 7.

Opportunity Provided by State

State customary and traditional use findings: The Alaska Board of Game (BOG) has not made a customary and traditional use finding for moose in GMU 7.

Amounts Reasonably Necessary for Subsistence: Alaska state law requires the BOG 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 moose in GMU 7 is 0 animals. The season and bag limit for Unit 7 is:

		Open Season (Permit/Hunt #)	
Unit/Area	**Bag Limit**	**Resident[2]**	**Nonresident**
Unit 7 Placer River drainages, and that portion of Placer Creek drainages (Bear Valley) outside the Portage Glacier Closed Area.	One bull	Aug 20 - Sept 30 (draw)	Aug 20 - Sept 30 (draw)
	One antlerless moose	Aug 20 - Oct 10 (draw)	Aug 20 - Oct 10 (draw)
Unit 7 Remainder	One bull with a spikeon at least one side or 50 inch antlers or 3 or more brow tines on at least one side.y	Sept 1-Sept 25 (HT)	Sept 1-Sept 25 (HT)

[a] subsistence and general hunts.

Conservation Issues

Excessive harvest of fork antlered bulls will lead to the decline of bull to cow ratios as seen previously in GMU 15, requiring greater antler restrictions to recover bull numbers.

Enforcement Issues

No enforcement issues are anticipated if this regulation is established.

Position

ADF&G **OPPOSES** this proposal as federal subsistence regulations already provide a significant advantage for FQUs over NFQUs. By now providing substantially more days than the federal hunting season, plus substantially less restrictive federal regulations than state regulations, and additional bull harvest could all lead to conservation issues.

WRITTEN PUBLIC COMMENT

Alaska Kenai Chapter Safari Club International
P.O. Box 2988
Soldotna, AK 99669
kenaisci@gmail.com

RE: Public Comments Processing, Office of Subsistence Management
(Attn. Theo Matuskowitz) subsistence@fws.gov
Oppose proposals WP22-15 through 32.

The Alaska Kenai Chapter of Safari Club International (KPSCI) is the largest conservation group on the Kenai Peninsula. Our chapter was founded in 1989 on three primary principles: Wildlife Conservation, Education and Humanitarian Services, and Advocacy for Hunting and Hunters Rights.

KPSCI represents hunters from across the Kenai Peninsula, including rural and non-rural communities. Our annual fundraiser is attended by 400-500 hunters, fisherman and wildlife conservationists who have a long history of customary and traditional use of harvesting fish and wildlife in Alaska. The KPSCI board and membership, consists of local hunters who participated from the beginning in opposition to the establishment of the Kenai Peninsula rural designations and customary and traditional use determinations. The chapter has a long history of not only opposing these erroneous determinations but engaged with our national chapter to pursue legal actions against them. The actions of the FSB has turned our community into "have and have nots" in regards to fish and wildlife harvest. Our organization does support a subsistence priority in rural parts of Alaska where congress had intended for the priority to apply, but not on the road connected Kenai where the characteristics of the communities have little to no difference.

Congress deliberately crafted ANILCA provisions to minimize impacts on public uses of public lands in conservation system units by Alaska residents for access and traditional activities necessarily related to harvests of fish and wildlife resources. Along with minimizing these impacts, Congress included numerous unique provisions in ANILCA to assure meaningful public involvement and to satisfy specific criteria as a threshold for federal decisions affecting those uses in Alaska. Furthermore, the congressional record clearly indicates that congress did not intend for the road connected Kenai Peninsula communities to be designated for a subsistence priority.

As an example, our organization finds the irony in WP22-15, diminishing trapping opportunity by the anti-hunting/trapping folks from the "rural designated" community of Cooper Landing. Trapping is a customary and traditional use activity protected under ANILCA. These actions clearly illustrate why communities such as Cooper Landing should not have been granted a rural designation with C&T determinations as their community characteristics do not reflect or meet the criteria of Title VIII and the intent of congress.

Another example these erroneous proposals is WP22-32. The FSB ruled against a rural determination for the Russian villages in the North Fork/Homer area. An individual that received a subsistence moose permit for three years was told he lived outside the rural community of Ninilchik so his recent request was denied. This action resulted in proposal WP22-32 to expand the Ninilchik rural area to include North Fort Road. How can the FSB justify rewarding illegal behavior?

For these reasons we adamantly oppose proposals WP22-15 through 32.

WP22-15	All furbearers in Unit 7. Establish trap setbacks along trails, road, and campground. Diminishes a subsistence activity in a "rural designated" community.
WP22-16	Adopt a customary and traditional (C&T) finding for Moose Pass residents for moose.
WP22-17	Extend moose season in Unit 7 for Moose Pass residents to Aug. 10 to Sept. 20.
WP22-18	Extend hunting area for Moose Pass to include 15A and 15B. Season Aug. 10 to Sept 20 and Oct. 20 to Nov. 10. Add a registration hunt in these areas with a bag limit of one cow moose per hunter.
WP22-19	Add 15C to the moose hunting season for Moose Pass residents, season Aug. 10 to Sept. 20. Bag limit increased to spike/FORK-50 inch or 3 brow tines on at least one side. Note: fork antlered bulls are not legal in the general non-rural season.
WP22-21	Allows Moose Pass to harvest caribou in Unit 7 under a registration permit rather than the limited entry draw, season Aug. 10 to Dec. 31. The general season is Aug. 10 to Sept. 20, in a draw hunt, for non-rural residents.
WP22	Establishes a Federal (rural resident) drawing system for Moose Pass residents in Unit 7, season Aug. 10 to Sept. 20 for caribou hunting.
WP22-23	Establishes a federal drawing system for mountain goat in Unit 7 for Moose Pass residents. Season Aug. 10 to Nov. 14. The general (non-rural) season is Aug. 10 to Oct. 15 by limited draw followed by a registration Nov. 1 to 14 in areas where the quota was not reached. The federal hunt will open all areas regardless of reaching the quota.
WP22-24	Establishes the same mountain goat special draw season in Unit 15 for Moose Pass residents.
WP22-25a/25b	Establishes a rural sheep season in Unit 7 for one sheep, no horns or gender restrictions.
WP22-26a/b	Not sure what this proposal asks for, request is to open a sheep season for Moose Pass residents. No season or bag limit shown.
WP22-28	Extends moose season in Unit 7 by five days, from Aug. 10 to Sept. 20 to Aug. 10 to Sept. 25.
WP22-29	Same as 28, extends moose season in Unit 7 to Aug. 10 to Sept. 25.
WP22-30	Extends moose season for rural residents in Unit 15 from Aug. 10 to Sept. 20 to Aug. 10 to Sept. 25.
WP22-31	Extends moose season for rural residents in Unit 15 from Aug. 10 to Sept. 20 to Aug. 10 to Sept. 25.
WP22-32	Request for a positive finding of "rural" for the "North Fork Rural Customary and Traditional Subsistence Use Community". An individual that received a subsistence moose permit for three years was told he lived outside the rural community of Ninilchik so his recent request was denied. This action resulted in proposal WP22-32 to expand the Ninilchik rural are to include North Fort Road. Nothing like rewarding illegal behavior!

The Kenai Chapter of Safari Club International opposes WP22-15 through WP22-32. We urge the FSB to vote NO on these proposals. KPSCI is the representative of the vast majority of the hunters, fisherman and wildlife conservationists residing on the Kenai Peninsula.

Sincerely,

Alaska's Kenai Chapter of Safari Club International

2021 Board of Directors
Mike Crawford
Joe Hardy
Shawn Killian
Bryan Vermette
Jesse Bjorkman
Sam Ivanoff
Roy Smith
Ted Spraker
Rick Abbott

WP22–30/31 Executive Summary	
General Description	Proposal WP22-30 requests to extend the length of the moose hunting season in Unit 15 to Sept. 25. *Submitted by: Michael Adams* Proposal WP22-31 requests to extend the length of the moose hunting season in Unit 15 to Sept. 25. *Submitted by: Chugach Regional Resources Commission*
Proposed Regulation	**Unit 15-- Moose** *Units 15A, remainder, 15B, and 15C—1 antlered bull with spike-fork or 50-inch antlers or with 3 or more brow tines on either antler, by Federal registration permit only* — *Aug. 10-Sept. ~~20~~* ***25****.* *Unit 15C—1 cow by Federal registration permit only* — *Aug. 10-Sept. ~~20~~* ***25.***
OSM Conclusion	**Support** Proposal WP22-30 and **Take no action on** WP22-31.
Southcentral Alaska Subsistence Regional Advisory Council Recommendation	**Support with modification** to shift the season to Aug. 20- Sept. 25.
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Oppose**
Written Public Comments	**1 Oppose**

STAFF ANALYSIS
WP22-30/31

ISSUES

Wildlife Proposals WP22-30, submitted by Michael Adams of Cooper Landing and WP22-31, submitted by Chugach Regional Resources Commission, request to extend the length of the moose hunting season in Unit 15 to Sept. 25.

DISCUSSION

The proponents state the Federal subsistence season should not be more restrictive than the State hunting season, which currently remains open five days later than the Federal season and would allow for more opportunity for participation by Federally qualified subsistence users.

Existing Federal Regulation

Unit 15—Moose	
Units 15A, remainder, 15B, and 15C—1 antlered bull with spike-fork or 50-inch antlers or with 3 or more brow tines on either antler, by Federal registration permit only	*Aug. 10-Sept. 20.*
Unit 15C—1 cow by Federal registration permit only	*Aug. 10-Sept. 20.*

Proposed Federal Regulation

Unit 15-- Moose	
Units 15A, remainder, 15B, and 15C—1 antlered bull with spike-fork or 50-inch antlers or with 3 or more brow tines on either antler, by Federal registration permit only	*Aug. 10-Sept. ~~20~~* ***25****.*
Unit 15C—1 cow by Federal registration permit only	*Aug. 10-Sept. ~~20~~* ***25****.*

Existing State Regulation

15A			
15A Skilak Loop Wildlife Management Area	Residents and nonresidents.		no open season
15A remainder	Residents: One bull with a spike on at least one side or 50-inch antlers or antlers with 3 or more brow tines on at least one side, by bow and arrow only. OR	HT	Aug 22-Aug 29

15A			
	Residents: One bull with a spike on at least one side or 50-inch antlers or antlers with 3 or more brow tines on at least one side.	HT	Sept 1-Sept 25
	Non-residents.		no open season
15B bounded by a line running from the mouth of Shantatalik Creek on Tustumena Lake, northward to the headwaters of the west fork of Funny River; then downstream along the west fork of Funny River to the Kenai National Wildlife Refuge boundary; then east along the refuge boundary to its junction with the Kenai River; then eastward along the north side of the Kenai River and Skilak Lake; then south along the western side of Skilak River, Skilak Glacier, and Harding Icefield; then west along the Unit 15B boundary to the mouth of Shantatalik Creek	Residents and non-residents. One bull with 50-inch antlers or antlers with 3 or more brow tines on at least one side by permit.	HT	Sept 1-Sept 20
	Residents. One bull by permit.	DM508	Sept 1-Sept 25
15B Kalgin Island	Residents and non-residents. One moose by permit available in person in Anchorage, Soldotna, Homer, and Palmer beginning Aug 4.	RM572	Aug 20-Sept 20
15B west of Sterling Hwy	Residents and non-residents. One bull with a spike on at least one side or 50-inch antlers or antlers with 3 or more brow tines on at least one side, by bow and arrow only. OR	HT	Aug 22-Aug 29
	Residents and non-residents. One bull with a spike on at least one side or 50-inch antlers or antlers with 3 or more brow tines on at least one side.	HT	Sept 1-Sept 25

15A			
15B remainder	Residents. One bull by permit. OR	DM508	Sept 1-Sept 25
	Residents and non-residents. One bull with a spike on at least one side or 50-inch antlers or antlers with 3 or more brow tines on at least one side, by bow and arrow only. OR	HT	Aug 22-Aug 29
	Residents and non-residents. One bull with a spike on at least one side or 50-inch antlers or antlers with 3 or more brow tines on at least one side.	HT	Sept 1-Sept 25
15C southwest of a line from Point Pogibshi to the point of land between Rocky and Windy bays	Residents. One bull by permit.	TM549	Aug 25-Sept 30
	Non-residents.		no open season
R 15C beginning at the mouth of Eastland Creek on Kachemak Bay, then northerly along Eastland Creek and the center fork of Eastland Creek to its headwaters, then northwesterly approximately one mile to the first branch of the south fork of Anchor River, then downstream along the south fork to the bridge at the North Fork Road, then westerly along the North Fork Road to the Sterling Hwy, then southerly on the Sterling Hwy to Diamond Creek, then downstream on Diamond Creek to Kachemak Bay, then along the mean high tide line to the point of origin	Residents. One bull with a spike on at least one side or 50-inch antlers or antlers with 3 or more brow tines on at least one side. OR	HT	Sept 1-Sept 25
	Residents. One bull by permit. OR	DM518	Sept 1-Sept 25
	Residents and non-residents. One antlerless moose by permit; taking of calves or cows accompanied by calves prohibited. OR	DM549	Oct 20-Nov 20
	Residents. One moose by permit. Applications available online Oct 1-31 at http://hunt.alaska.gov if season is announced. Hunter Education required	AM550	may be announced
	Nonresidents. One bull with 50-inch antlers or antlers with 3 or more brow tines on at least one side	HT	Sept 1-Sept 25

15A			
15C remainder	Residents. One bull with a spike on at least one side or 50-inch antlers or antlers with 3 or more brow tines on at least one side. OR	HT	Sept 1-Sept 25
	Residents. One bull by permit. OR	DM512 DM514 DM516 DM518	Sept 1-Sept 25
	Residents. One moose by permit. Applications available online Oct 1-31 at http://hunt.alaska.gov if season is announced. Hunter Education required.	AM550	may be announced
	Residents and non-residents. One bull with 50-inch antlers or antlers with 3 or more brow tines on at least one side.	HT	Sept 1-Sept 25

Extent of Federal Public Lands/Waters

Unit 15 is comprised of 47.2% Federal public lands and consist of 45.7% U.S. Fish and Wildlife Service (USFWS), 1.1% Bureau of Land Management (BLM), 0.3% U.S. Forest Service (USFS) and 0.1% National Park Service (NPS) managed lands.

Customary and Traditional Use Determinations

Rural residents of Cooper Landing, Ninilchik, Nanwalek, Port Graham and Seldovia have a customary and traditional use determination for moose in Unit 15A and 15B.

Rural residents of Ninilchik, Nanwalek, Port Graham and Seldovia have a customary and traditional use determination for moose in Unit 15C.

Regulatory History

In July 1995, the Federal Subsistence Board (Board) adopted a customary and traditional use determination (C&T) for moose for Ninilchik, Nanwalek, Port Graham, and Seldovia in Units 15B and 15C. At the same time, the Board authorized an Aug. 10 – Sept. 20 season with a harvest limit of one antlered bull with spike-fork, 50-inch or three or more brow tines on at least one antler in Units 15B and 15C.

In 1996, the District Court of Alaska remanded the Ninilchik v. US lawsuit to the Board via M96-01, which determined that residents of Nanwalek, Ninilchik, Port Graham and Seldovia have C&T for moose in Unit 15A. The District Court of Alaska also remanded M96-02 to the Board, which established an Aug. 18 ─ Sept. 20 moose season with a harvest limit of one bull with a spike-fork or 50-inch antlers or antlers with 3 or more brow tines on at least one side in Unit 15A. Proposal M96-02 was a temporary action that expired on June 30, 1998.

Wildlife Proposal P98-39, submitted by the Southcentral Alaska Subsistence Regional Advisory Council (Council) established a moose season in Unit 15A, from Aug. 18 ─ Sept. 20, with a harvest limit of one bull with a spike-fork or 50-inch antlers or antlers with 3 or more brow tines on at least one side. This proposal was identical to M96-02 and was adopted to establish a codified regulation.

In 2001, Proposal WP01-50 modified the moose season in Unit 15A, starting the season 8 days earlier. The modified season went from Aug. 10 ─ Sept. 20 allowing Federally qualified subsistence users 10 days of hunting before the State general season opened on August 20. The harvest limit remained the same.

In 2006, Proposal WP06-68 submitted by the Council established an additional moose season in Units 15B and 15C from Oct. 20 ─ Nov. 10. The establishment of this hunt provided additional subsistence opportunity that was more in line with traditional seasonal subsistence activities.

In 2008, proposal WP08-22a, submitted by Karl Romig of Cooper Landing, established C&T for moose by rural residents of Cooper Landing in Units 15A and 15B.

In 2011 the Alaska Board of Game (BOG) adopted Proposal 169 which, in part, modified the harvest limit of moose in Unit 15 from one bull with a spike-fork or 50-inch antlers or antlers with 3 or more brow tines on at least one side to one bull with 50-inch antlers or antlers with 4 or more brow tines on at least one side. This change was based on conservation concerns, as Alaska Department of Fish and Game (ADF&G) data from the 2010 fall survey showed population declines and a low bull:cow ratio.

In 2013, State Proposal 143 modified the harvest limit from one bull with 50-inch antlers or antlers with 4 or more brow tines on at least one side to one bull with 50-inch antlers or antlers with 3 or more brow tines on at least one side in all of Unit 15. Bull:cow ratios had increased above the management objective enough to allow more harvest. ADF&G recommended to the BOG to adopt this proposal.

In 2014, Proposal WP14-19, submitted by the Ninilchik Traditional Council, requested a cow moose season from Oct. 20 ─ Nov. 10 for Units 15B and 15C. Upon recommendations from the Office of Subsistence Management (OSM) to avoid additional stress on an already post-rut stressed population, the Board established an Aug. 10 ─ Sept. 20 cow moose season with a one cow harvest limit for Unit 15C, as the population was too low in the rest of Unit 15 to support cow harvest.

In 2015, the BOG adopted two proposals regarding moose in Unit 15. The first was an amended version of Proposal 157 that aligned all Unit 15 general moose seasons to Sept. 1 ─ 25. The BOG also adopted Proposal 158 based on ADF&G data that showed the moose population demographics at or above intensive management goals. This proposal established a nonresident general season hunt in Unit 15C. Harvest limits were set at 50-inch antlers or antlers with 4 or more brow tines on at least one side, with a season of Sept. 1 ─ 25.

In 2019, the BOG adopted several State proposals that changed moose harvest limits in Unit 15. Proposal 65 changed harvest limits from one bull with 50-inch antlers or 4 or more brow tines on at least one side to 50-inch antlers or 3 or more brow tines on at least one side. Proposal 69 established a general season hunt for moose in Unit 15B with a season of Sept. 1 ─ 20 and eliminated the drawing permit hunt. State Proposal 78 established a resident any-bull draw hunt in Units 15 and 7. Proposals 65 and 78 maintained the moose season of Sept. 1 ─ 25 everywhere in Unit 15 except for the new hunt in 15B. Population

data gathered by ADF&G showed increasing population and bull:cow ratios and supported the BOG's decision.

Biological Background

The State management objectives for moose in Unit 15 are as follows (Herreman 2018):

- Unit 15A: Maintain a post hunting bull:cow ratio of 25 bulls:100 cows
- Unit 15B-west: Maintain a 20-25 bull:100 cow ratio and allow for maximum hunting participation
- Unit 15B-east: Maintain a 40 bull:100 cow ratio and a harvest of large antlered bulls under aesthetically pleasing settings
- Unit 15C: Maintain a bull:cow ratio of 20-25 bulls:100 cows and a healthy and productive population

Units 15A and 15C were under Intensive Management Plans from 2012- 2017 with the following objectives (Herreman 2018):

- Unit 15A
    - Population objective: 3,000- 3,500 moose
    - Harvest objective: 180-350 moose
- Unit 15C
    - Population objective: 3,000- 3,500 moose
    - Harvest objective: 200-350 moose

Since 2012, bull:cow ratios in Units 15A and 15C have been at or above the State management objective of 20-25 bulls:100 cows (Figure 1). Population data for Unit 15A show the moose population at or below the intensive management objective since the early 1990s (Figure 2). Although there have been no population surveys in Unit 15B since 2001, ADF&G stated indications were that the population trend was increasing in 2019 (ADF&G 2019). Population surveys for 15C show populations at or above the intensive management objective since 2002 (Figure 3) (ADF&G 2019).

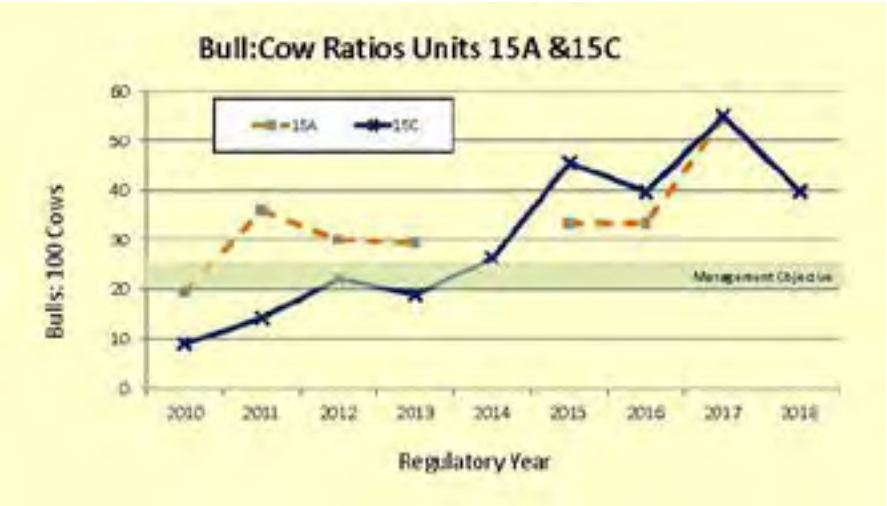


Figure 1. Bull to Cow Ratios for Unit 15 (ADF&G 2019)

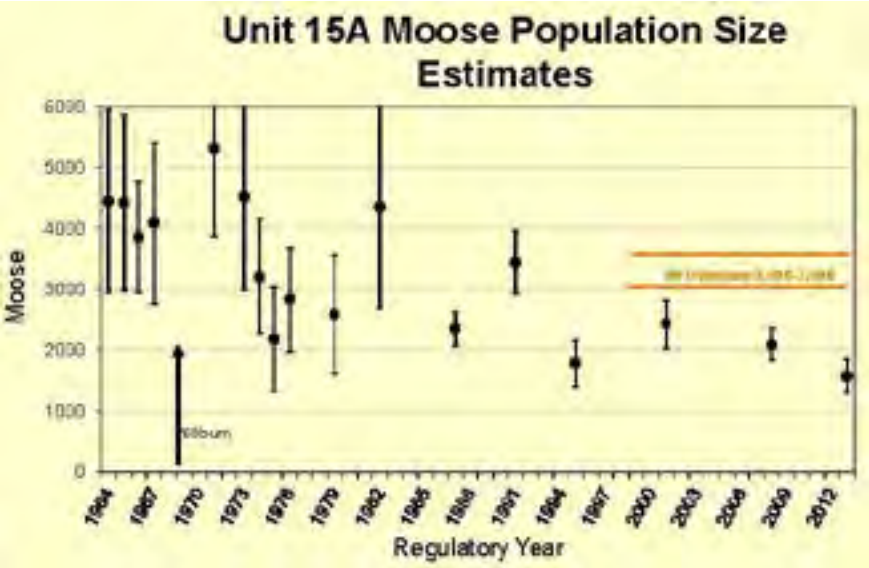


Figure 2. Moose population estimates for Unit 15A (ADF&G 2019).

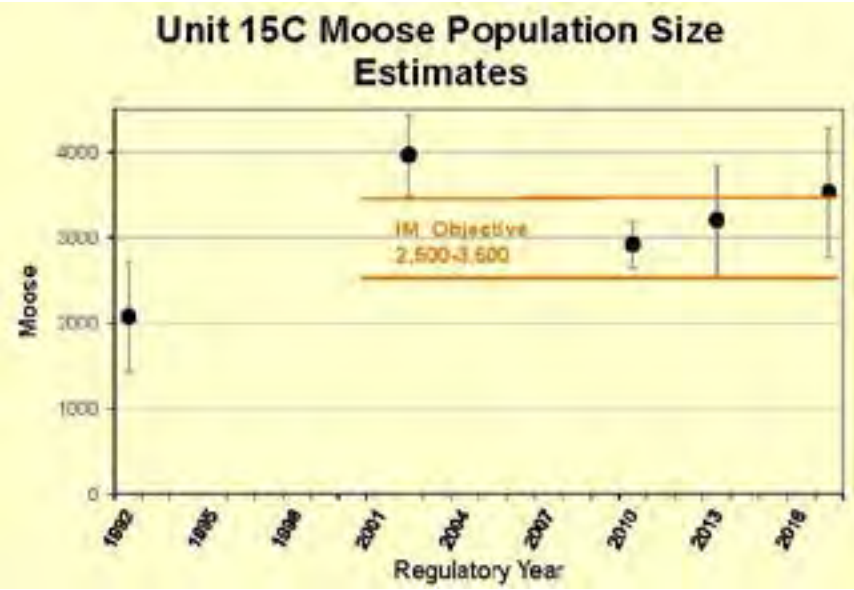


Figure 3. Moose population estimates for Unit 15C (ADF&G 2019).

Habitat

No habitat assessments were conducted during the 2010- 2015 management plan period. Several habitat improvement projects were implemented during the period. In 2013, an 85-acre plot of aspen and spruce was clear cut and replanted with birch north of the Sterling Highway in Unit 15A. Prescribed burns were planned for the entire unit to improve habitat (Herreman 2018).

Harvest History

Currently, less strict Federal (spike-fork, 50-inch antlers or 3 or more brow tines) and State (spike, 50-inch antlers or 3 or more brow tines) harvest limits compared to 2011 harvest limits of 50-inch antlers or 4 or more brow tines, allows a slightly larger harvest of Kenai Peninsula moose. In 2011 and 2012, antler

restrictions limited the number of moose harvested. Once these restrictions were changed, harvest levels started to increase to the levels seen in the early 2000's as moose harvest increased (Figure 4).

Reported harvest in Unit 15 averaged 284 moose per year from 2006 to 2019. Reported Federal harvest from 2014 to 2019 averaged 12 moose per year and accounted for 4.4% of total harvest. Since 2014, cows have made a small portion of the overall Federal moose harvest, averaging 27.2% (Figure 5). Reports from Federal hunter's state they are harvesting later in the season because temperatures are too high to properly care for harvested animals in the earlier part of the Federal season. (Eskelin, pers. comm. 2021).

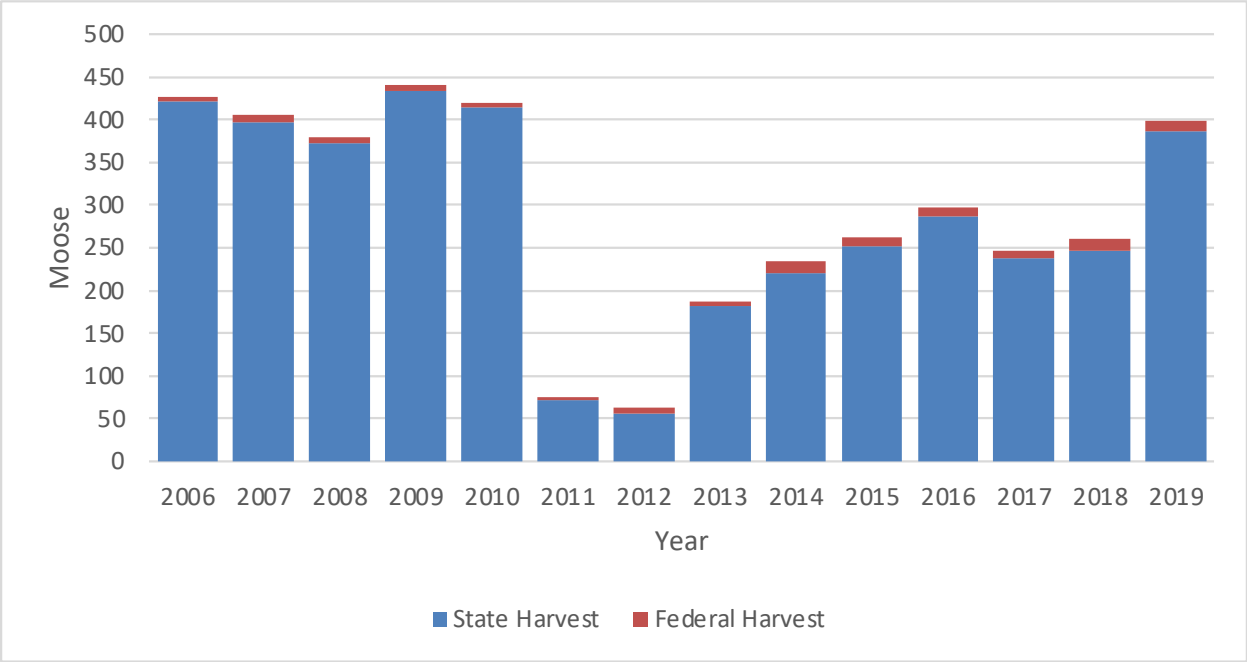


Figure 4. Reported harvest of moose in Unit 15 (ADF&G 2021 & OSM 2021).

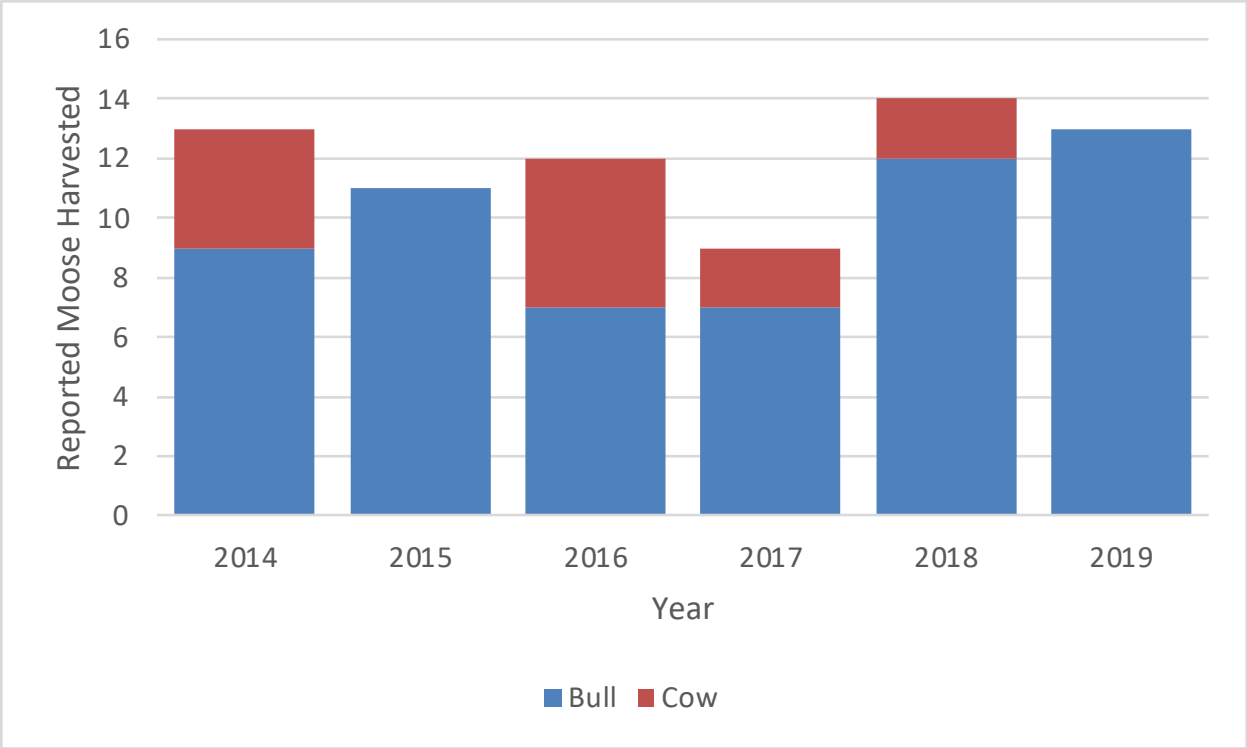


Figure 5. Reported Federal harvest of bulls and cows in Unit 15 (OSM 2021).

Other Alternatives Considered

The Kenai National Wildlife Refuge suggested modifying the original proposal to shift the season opener to Aug. 20 and maintain the proposed closure date of Sept. 25. While this change would shorten the Federal season by five days overall, the season would extend into the early rut when bulls are more susceptible to harvest. This may allow for harvest success rates consistent with current harvest levels. Federal subsistence users that hunt the early part of the season would still be able to hunt without competition from sport hunters, as the Federal season would begin 12 days before the State season (Eskelin, pers. comm., 2021). OSM chose to support the proposal as submitted so as not to reduce the opportunity of Federally qualified subsistence users because there is no conservation concern. The Board may want to consider this alternative.

Effects of the Proposal

Extending the Federal moose season would allow Federally qualified subsistence users greater access to the resource. Currently, the Federal season closes earlier than the State season. The State modified their season and harvest limit in 2013 and hunter success has increased. Extending the season on Federal lands may not substantially increase the number of moose taken in Unit 15, as all Federally qualified subsistence users can already hunt until September 25 under State regulations. The only increase in harvest may be more spike-fork bull and cow harvested under Federal regulations. But lower annual Federal harvest (average ≤10 moose per year for the last 10 years) suggest over-harvest should not be a concern (OSM 2021).

OSM CONCLUSION

Support Proposal WP22-30 and **Take no action** on WP22-31.

Justification

State regulations already allow general season moose harvest in Unit 15 until September 25. There is not likely to be additional moose harvest from this season extension, as all Federally qualified subsistence users can currently hunt under State regulations. Adoption of WP22-30 also provides more opportunity when climactic conditions are preferable and provides a meaningful priority for Federally qualified subsistence users. No action needs to be taken on WP22-31 if action is taken on WP22-30.

LITERATURE CITED

ADF&G, 2019. The Alaska Board of Game Southcentral Region Meeting, March 14- 19, 2019. Kenai Peninsula Overview. Anchorage, AK.

ADF&G. 2021. Harvest Reports, 04 June 2021 Internet: https://secure.wildlife.alaska.gov/index.cfm?fuseaction=harvest.lookup

Eskelin, T. 2021. Biologist Science Technician (Wildlife). Personal communication. E-mail. USFWS, Kenai National Wildlife Refuge, AK.

Herreman, J.H. 2018. Moose Management Report and Plan, Game Management Unit 15: Report period 1 July 2010-30 June 2015, and plan period 1 July 2015- 30 June 2020. Alaska Department of Fish and Game, Species Management Report and Plan, Juneau, AK.

OSM. 2021. Wildlife Harvest Data, 05 June 2021 Internet: https://subsistence.fws.gov/apex/f?p=104:5:7708711082469::NO:RP,5::

SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Southcentral Alaska Subsistence Regional Advisory Council

Support Proposals WP22-30/31 **with modification** to shift the season to Aug. 20 ─ Sept. 25.

The modified regulation should read:

Unit 15-- Moose	
Units 15A, remainder, 15B, and 15C—1 antlered bull with spike-fork or 50-inch antlers or with 3 or more brow tines on either antler, by Federal registration permit only	*Aug. ~~10~~ **20**-Sept. ~~20~~ **25**.*
Unit 15C—1 cow by Federal registration permit only	*Aug. ~~10~~ **20**-Sept. ~~20~~ **25**.*

The Council supports aligning the Unit 15 moose season with the Unit 7 season as recommended in Proposal WP22-28/29. This provides for subsistence priority and adds moose hunting opportunities when temperatures are better for meat preservation. Recently, moose harvest in Unit 7 has decreased early in the season because of climatic conditions due to climate change. Shifting the season to later dates will compensate hunting opportunity lost at the beginning of the season.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and Federal Subsistence Board action on the proposal.

ALASKA DEPARTMENT OF FISH AND GAME COMMENTS

Wildlife Proposal WP22-30/31

This proposal would extend the current federal subsistence season for moose in Game Management Unit (GMU) 15 by five days.

Background

Federal hunting regulations for federally qualified users (FQU) in GMU 15 are currently less restrictive than state hunting regulations. The hunting season for FQUs in GMU 15 begins 22 days before the general state season and 12 days before the bow only season in 15A and 15B. Additionally, FQUs have a late season that runs from Oct. 20-Nov. 10 for an additional 22 days, which means FQUs currently have 44 additional days to hunt moose not available to non-federally qualified users (NFQU) under the state hunting season. FQUs also have a more relaxed bag limit as they are able to harvest a fork antlered bull or a cow during the first portion of the season and a fork bull during the late season in addition to animals available for harvest under state regulations.

Impact on Subsistence Users

This proposal would increase the opportunity for FQUs to harvest moose by an additional five days on top of the additional time and relaxed bag limit they currently hunt under.

Impact on Other Users

If adopted this proposal decreases the number of harvestable animals available to NFQU in future years and decreasing the number of bulls available for breeding. If bull ratios are driven too low as has occurred in the past, a more restrictive bag limit will need to be implemented.

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 moose in GMU 15C, that portion southwest of a line from Point Pogibshi to the point of land between Rocky Bay and Windy Bay.

Amounts Reasonably Necessary for Subsistence: Alaska state law requires the BOG 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 moose in GMU 15C, that portion southwest of a line from Point Pogibshi to the point of land between Rocky Bay and Windy Bay is 5-6 animals.

The season and bag limit for GMU 15 is:

Unit/Area	Bag Limit	Open Season (Permit/Hunt #) Resident[a]	Nonresident
15A Skilak Loop Wildlife Management Area		*no open season*	*no open season*
15A	*one bull with a spike on at least one side or 50-inch antlers or antlers with 3 or more brow tines on at least one side, by* ***bow and arrow only***	*Aug 22-Aug 29 (HT)*	*Aug 22-Aug 29 (HT)*
	one bull with a spike on at least one side or 50-inch antlers or antlers with 3 or more brow tines on at least one side	*Sept 1-Sept 25 (HT)*	*Sept 1-Sept 25 (HT)*
15B Kalgin Island	*one moose*	*Aug 20-Sept 20*	*Aug 20-Sept 20*
15B remainder	*one bull*	*Sept 1-Sept 25 (Draw)*	*Sept 1-Sept 25 (Draw)*
	*one bull with a spike on at least one side or 50-inch antlers or antlers with 3 or more brow tines on at least one side,****by bow and arrow only***	*Aug 22-Aug 29 (HT)*	*Aug 22-Aug 29 (HT)*
	one bull with a spike on at least one side or 50-inch antlers or antlers with 3 or more brow tines on at least one side,	*Sept 1-Sept 25 (HT)*	*Sept 1-Sept 25 (HT)*
15C southwest of a line from Point Pogibshi to the point of land between Rocky and Windy bays	*one bull*	*Aug 25-Sept 30*	*no open season*

15C beginning at the mouth Of Eastland Creek on Kachemak Bay, then Northerly along Eastland Creek and the center fork of Eastland Creek to its headwaters, then northwesterly approximately one mile to the first branch of the south fork of Anchor River, then downstream along the south fork to the bridge at the North Fork Road, then westerly along the North Fork Road to the Sterling Hwy, then southerly on The Sterling Hwy to Diamond Creek to Kachemak Bay, then Along the mean high tide line To the point of origin	*one bull with a spike on at least one side or 50-inch antlers or antlers with 3 or more brow tines on at least one side*	*Sept 1-Sept 25 (HT)*	*Sept 1-Sept 25 (HT)*
	one bull	*Sept 1-Sept 25 (Draw)*	*Sept 1-Sept 25 (Draw)*
	one antlerless moose	*Oct 20-Nov 20 (Draw)*	*Oct20-Nov 20 (Draw)*
	one moose	*may be announced*	*no open season*
15C Remainder	*one bull with a spike on at least one side or 50-inch antlers or antlers with 3 or more brow tines on at least one side*	*Sept 1-Sept 25 (HT)*	*Sept 1-Sept 25 (HT)*
	one bull	*Sept 1-Sept 25 (Draw)*	*Sept 1- Sept 25 (Draw)*
	one moose	*may be announced*	*no open season*

[a] Subsistence and General Hunts.

Conservation Issues

Excessive harvest of fork antlered bulls could lead to the decline of bull to cow ratios as seen previously in GMU 15, requiring greater antler restrictions to recover bull numbers.

Enforcement Issues

No enforcement issues are associated with this proposal.

Position

ADF&G **OPPOSES** this proposal as federal subsistence regulations already provide a significant advantage for FQUs over NFQUs. By providing considerably more days under the federal hunting season plus substantially less restrictive federal regulations than state regulations, and additional bull harvest could now lead to developing conservation issues for moose in GMU 15.

WRITTEN PUBLIC COMMENTS

Alaska Kenai Chapter Safari Club International
P.O. Box 2988
Soldotna, AK 99669
kenaisci@gmail.com

RE: Public Comments Processing, Office of Subsistence Management
(Attn: Theo Matuskovitz) subsistence@fws.gov
Oppose proposals WP22-15 through 32.

The Alaska Kenai Chapter of Safari Club International (KPSCI) is the largest conservation group on the Kenai Peninsula. Our chapter was founded in 1989 on three primary principles: Wildlife Conservation, Education and Humanitarian Services, and Advocacy for Hunting and Hunters Rights.

KPSCI represents hunters from across the Kenai Peninsula, including rural and non-rural communities. Our annual fundraiser is attended by 400-500 hunters, fisherman and wildlife conservationists who have a long history of customary and traditional use of harvesting fish and wildlife in Alaska. The KPSCI board and membership, consists of local hunters who participated from the beginning in opposition to the establishment of the Kenai Peninsula rural designations and customary and traditional use determinations. The chapter has a long history of not only opposing these erroneous determinations but engaged with our national chapter to pursue legal actions against them. The actions of the FSB has turned our community into "have and have nots" in regards to fish and wildlife harvest. Our organization does support a subsistence priority in rural parts of Alaska where congress had intended for the priority to apply, but not on the road connected Kenai where the characteristics of the communities have little to no difference.

Congress deliberately crafted ANILCA provisions to minimize impacts on public uses of public lands in conservation system units by Alaska residents for access and traditional activities necessarily related to harvests of fish and wildlife resources. Along with minimizing these impacts, Congress included numerous unique provisions in ANILCA to assure meaningful public involvement and to satisfy specific criteria as a threshold for federal decisions affecting those uses in Alaska. Furthermore, the congressional record clearly indicates that congress did not intend for the road connected Kenai Peninsula communities to be designated for a subsistence priority.

As an example, our organization finds the irony in WP22-15, diminishing trapping opportunity by the anti-hunting trapping folks from the 'rural designated" community of Cooper Landing. Trapping is a customary and traditional use activity protected under ANILCA. These actions clearly illustrate why communities such as Cooper Landing should not have been granted a rural designation with C&T determinations as their community characteristics do not reflect or meet the criteria of Title VIII and the intent of congress.

Another example these erroneous proposals is WP22-32. The FSB ruled against a rural determination for the Russian villages in the North Fork/Homer area. An individual that received a subsistence moose permit for three years was told he lived outside the rural community of Ninilchik so his recent request was denied. This action resulted in proposal WP22-32 to expand the Ninilchik rural area to include North Fort Road. How can the FSB justify rewarding illegal behavior?

For these reasons we adamantly oppose proposals WP22-15 through 32.

WP22-15	All furbearers in Unit 7. Establish trap setbacks along trails, road, and campground. Diminishes a subsistence activity in a "rural designated" community.
WP22-16	Adopt a customary and traditional (C&T) finding for Moose Pass residents for moose.
WP22-17	Extend moose season in Unit 7 for Moose Pass residents to Aug. 10 to Sept. 20.
WP22-18	Extend hunting area for Moose Pass to include 15A and 15B. Season Aug. 10 to Sept 20 and Oct. 20 to Nov. 10. Add a registration hunt in these areas with a bag limit of one cow moose per hunter.
WP22-19	Add 15C to the moose hunting season for Moose Pass residents, season Aug. 10 to Sept. 20. Bag limit increased to spike/FORK-50 inch or 3 brow tines on at least one side. Note: fork antlered bulls are not legal in the general non-rural season.
WP22-21	Allows Moose Pass to harvest caribou in Unit 7 under a registration permit rather than the limited entry draw, season Aug. 10 to Dec. 31. The general season is Aug. 10 to Sept. 20, in a draw hunt, for non-rural residents.
WP22	Establishes a Federal (rural resident) drawing system for Moose Pass residents in Unit 7, season Aug. 10 to Sept. 20 for caribou hunting.
WP22-23	Establishes a federal drawing system for mountain goat in Unit 7 for Moose Pass residents. Season Aug. 10 to Nov. 14. The general (non-rural) season is Aug. 10 to Oct. 15 by limited draw followed by a registration Nov. 1 to 14 in areas where the quota was not reached. The federal hunt will open all areas regardless of reaching the quota.
WP22-24	Establishes the same mountain goat special draw season in Unit 15 for Moose Pass residents.
WP22-25a/25b	Establishes a rural sheep season in Unit 7 for one sheep, no horns or gender restrictions.
WP22-26a/b	Not sure what this proposal asks for, request is to open a sheep season for Moose Pass residents. No season or bag limit shown.
WP22-28	Extends moose season in Unit 7 by five days, from Aug. 10 to Sept. 20 to Aug. 10 to Sept. 25.
WP22-29	Same as 28, extends moose season in Unit 7 to Aug. 10 to Sept. 25.
WP22-30	Extends moose season for rural residents in Unit 15 from Aug. 10 to Sept. 20 to Aug. 10 to Sept. 25.
WP22-31	Extends moose season for rural residents in Unit 15 from Aug. 10 to Sept. 20 to Aug. 10 to Sept. 25.
WP22-32	Request for a positive finding of "rural" for the "North Fork Rural Customary and Traditional Subsistence Use Community". An individual that received a subsistence moose permit for three years was told he lived outside the rural community of Ninilchik so his recent request was denied. This action resulted in proposal WP22-32 to expand the Ninilchik rural are to include North Fort Road. Nothing like rewarding illegal behavior!

The Kenai Chapter of Safari Club International opposes WP22-15 through WP22-32. We urge the FSB to vote NO on these proposals. KPSCI is the representative of the vast majority of the hunters, fisherman and wildlife conservationists residing on the Kenai Peninsula.

Sincerely,

Alaska's Kenai Chapter of Safari Club International

2021 Board of Directors
Mike Crawford
Joe Hardy
Shawn Killian
Bryan Vermette
Jesse Bjorkman
Sam Ivanoff
Roy Smith
Ted Spraker
Rick Abbott

WP22-35 Executive Summary	
General Description	Proposal WP22-35 requests establishing a may-be-announced caribou season in Unit 11 with a harvest limit of one bull by Federal permit and an §804 analysis. *Submitted by: the Ahtna Intertribal Resource Commission.*
Proposed Regulation	**Unit 11—Caribou** ***Season may be announced when Nelchina caribou are present in Unit 11.*** — ~~No Federal open season~~ ***One bull caribou by Federal permit for Federally qualified subsistence users identified through a Section 804 subsistence user prioritization analysis.*** — ***May be announced***
OSM Conclusion	Support Proposal WP22-35 with modification to delegate authority to the WRST superintendent to announce season dates, harvest quotas, and the number of permits to be issued; to define harvest areas; and to open and close the season via a delegation of authority letter only (Appendix 1). The modified regulation should read: **Unit 11—Caribou** ***One bull by Federal registration permit*** — ~~No Federal open season~~ ***May be announced***
Southcentral Alaska Subsistence Regional Advisory Council	**Support** WP22-35 **with OSM modification**.
Eastern Interior Alaska Subsistence Regional Advisory Council Recommendation	**Support** WP22-35 **with OSM modification with additional modification** to reinstate and update the Mentasta Caribou Herd Management Plan.
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Oppose**
Written Public Comments	None

STAFF ANALYSIS
WP22-35

ISSUES

Wildlife Proposal WP22-35, submitted by the Ahtna Intertribal Resource Commission (AITRC), requests establishing a may-be-announced caribou season in Unit 11 with a harvest limit of one bull by Federal permit and an §804 analysis.

DISCUSSION

The proponent states:

AITRC understands that recent scientific research and assessment has determined that the Mentasta Caribou Herd (MECH) population has stabilized at a level lower than that envisioned by the now outdated Mentasta Caribou Herd Management Plan as necessary in order to resume subsistence caribou hunting opportunities in Unit 11. We understand that the population status of the MECH is not limited by the condition of the habitat within Unit 11 but has stabilized at its current population level most likely because of high levels of predation.

AITRC also understands from Alaska Department of Fish and Game (ADF&G) Area Management Biologist that recent genetic analysis of mitochondrial DNA has demonstrated that the MECH consists of genetically discrete population of cow caribou that have a high fidelity to the Mentasta range, but that the bull caribou cannot be distinguished genetically from those of the adjacent and often overlapping Nelchina Caribou Herd (NCH). Furthermore, AITRC understands that Nelchina bull caribou collar data demonstrate that Nelchina bull caribou frequent the Mentasta herd such that a bulls-only caribou hunt in Unit 11 during times the Nelchina herd is present in Unit 11 would not affect the biological status of the MECH because Mentasta-distinct cow caribou would not be open to hunting.

With this scientific information in mind, and to resume and continue subsistence uses of caribou in Unit 11 within the Ahtna Traditional Use Territory after more than a generation of no hunting, AITRC proposes to establish a limited bull-only caribou hunt in Unit 11 during times when the NCH is present in Unit 11. Because the harvestable surplus of bull caribou may be insufficient to support all Federal subsistence users with a customary and traditional use determination for caribou in Unit 11, AITRC specifically requests that a limited bulls-only caribou hunt be limited through an ANILCA Section 804 Subsistence User Prioritization Analysis to reduce the pool of eligible Federal subsistence users such that only those Federally qualified rural residents most customarily and traditionally dependent upon caribou in Unit 11 are provided the opportunity to receive a Unit 11 Federal permit for a bull caribou

Note: This analysis only considers the establishment of a season and harvest limit. The §804 analysis may be conducted at a later time if a caribou hunt is opened in Unit 11.

Existing Federal Regulation

Unit 11—Caribou

No Federal open season

Proposed Federal Regulation

Unit 11—Caribou	
Season may be announced when Nelchina caribou are present in Unit 11.	~~*No Federal open season*~~ ***May be announced***
One bull caribou by Federal permit for Federally qualified subsistence users identified through a Section 804 subsistence user prioritization analysis.	

Existing State Regulation

Unit 11—Caribou	
	No open season

Extent of Federal Public Lands/Waters

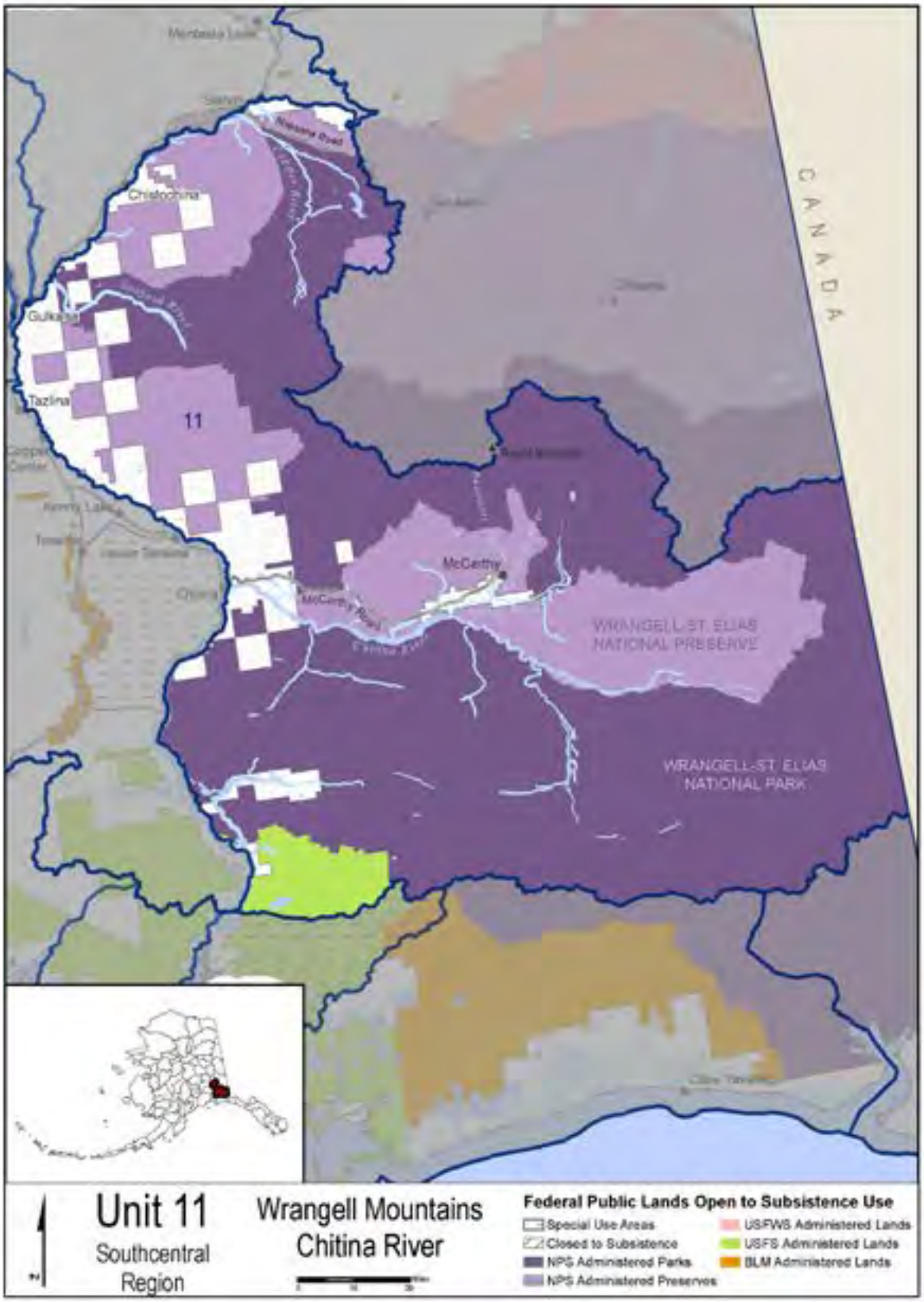
Unit 11 is comprised of 86.8% Federal public lands and consist of 83.5% National Park Service (NPS) managed lands, 3.2% U.S. Forest Service (USFS) managed lands, and 0.1% Bureau of Land Management (BLM) managed lands (Map 1).

Customary and Traditional Use Determinations

Rural residents of Units 11, 12, 13A-D, Chickaloon, Healy Lake and Dot Lake have a customary and traditional use determination for caribou in Unit 11, north of the Sanford River.

Rural residents of Units 11, 13A-D, and Chickaloon have a customary and traditional use determination for caribou in Unit 11, remainder.

Under the guidelines of Alaska National Interest Lands Conservation Act (ANILCA), National Park Service regulations identify qualified local rural subsistence users in National Parks and National Monuments by: (1) identifying Resident Zone Communities that include a significant concentration of people who have customarily and traditionally used subsistence resources on park lands; and (2) identifying and issuing subsistence use (13.440) permits to individuals residing outside of the Resident Zone Communities who have a personal or family history of subsistence use within the park or monument.


CANADA
Chistochina
Gulkana
Tazlina
11
McCarthy
WRANGELL-ST. ELIAS NATIONAL PRESERVE
WRANGELL-ST. ELIAS NATIONAL PARK
Unit 11
Southcentral Region
Wrangell Mountains
Chitina River
Federal Public Lands Open to Subsistence Use
Special Use Areas
Closed to Subsistence
NPS Administered Parks
NPS Administered Preserves
USFWS Administered Lands
USFS Administered Lands
BLM Administered Lands

Map 1. Unit 11

Regulatory History

There has not been a Federal season for caribou hunting in Unit 11 for most of the last three decades, and there have been few proposals to establish one. In 1993, Proposal P93-94 was adopted by the Federal Subsistence Board (Board) to close Federal public lands to caribou hunting in Unit 11. The combination of low caribou numbers and low recruitment were direct indicators of a continuing conservation concern that warranted protection of the small MECH population. Under ANILCA Section 815(3), restricting the take of fish and wildlife on Federal public lands can be authorized if necessary, for the conservation of healthy populations.

In 1996, Proposal 96-17 submitted by the NPS proposed establishing a limited caribou hunt (15-bull quota) based on the objectives of the Mentasta Caribou Herd Cooperative Management Plan (1995), which was signed by Wrangell-St. Elias National Park and Preserve (WRST), the Alaska Department of Fish and Game (ADF&G), and Tetlin National Wildlife Refuge (NWR). The cooperative plan was also endorsed by both the Southcentral and Eastern Interior Alaska Subsistence Regional Advisory Councils (Councils). The management objectives in the cooperative plan were based on productivity and not the population size. Therefore, the cooperative plan called for establishing a limited hunt despite a declining population due to increased productivity. The Board adopted Proposal P96-17 with modification to reopen the caribou season only to residents of Chitina, Chistochina, Copper Center, Gakona, Gulkana, Mentasta, and Tazlina with a quota of 15 bulls. These communities were identified consistent with the requirements of ANILCA Section 804.

In 1998, Proposal P98-023 was adopted by the Board to close all caribou hunting within Unit 11 because calf recruitment was below the management objectives stated in the Mentasta Caribou Herd Cooperative Management Plan (1995). ADF&G supported the closure because the State season for Mentasta caribou in this area had been closed for several years.

In 2012, the Board rejected Proposal WP12-23, which requested to establish a season of October 21-March 31 for caribou in the portion of Unit 11 within WRST. The Board rejected the proposal because of conservation concerns for the MECH, including chronically low numbers, low recruitment, and concerns about incidental take.

Also, in 2012, Proposal WP12-24 submitted by the Cheesh' Na Tribal Council was rejected by the Board to establish a season for one bull caribou from Aug. 1– Sept. 30 in Unit 11 by Federal registration permit. The Board's rejection cited conservation concerns for the Mentasta Caribou Herd.

Biological Background

Caribou in Unit 11 may be part of the NCH or MECH as the ranges of these herds overlap (Map 2). NCH and MECH are considered distinct herds because females calve in separate areas, although the herds mix during some breeding seasons, resulting in male-mediated gene flow (Roffler et al. 2012). Therefore, the Nelchina and Mentasta herds function as a genetic metapopulation, although Nelchina and Mentasta cows have discrete mitochondrial DNA (Roffler et al. 2012).

Nelchina Caribou Herd

The NCH calving grounds and summer range lie within Unit 13. The rut also generally occurs within Unit 13. About 60-95% of the NCH overwinters in Unit 20E, although Nelchina caribou also overwinter in

Unit 12 and across northern portions of Units 13 and 11 (Schwanke and Robbins 2013). Wintering areas vary widely from year to year. Sometimes the herd splits into 2 or 3 groups to winter in different areas (Hatcher 2021 pers. comm.). The Nelchina herd range overlaps the Mentasta herd range in Units 20E, 12, and the northern portion of Unit 11 (**Map 2**). The number of Nelchina bulls overwintering in Unit 11 as well as the timing of their arrival/departure into the unit varies from year to year. (Putera 2021, pers. comm.). Winter competition with the Fortymile caribou herd (FCH) in Unit 20E may be impacting the NCH and range conditions. While the location and timing of the NCH calving grounds in Unit 13 remain static, use of other seasonal ranges varies with resource availability and snow cover (Schwanke and Robbins 2013).

State management goals and objectives for the NCH are based on the principle of sustained yield and are as follows (Schwanke and Robbins 2013):

- Maintain a fall population of 35,000–40,000 caribou, with a minimum of 40 bulls:100 cows and 40 calves:100 cows.
- Provide for the annual harvest of 3,000–6,000 caribou.

The State manages the NCH for maximum sustained yield, principally by annual adjustments in harvest quotas. The population of the NCH has fluctuated over time, influenced primarily by harvest (Schwanke and Robbins 2013). Between 2003 and 2021, the NCH population ranged from 31,114 to 53,500 caribou and averaged 40,672 caribou. However, the herd exceeded State population objectives from 2010 to 2017 and in 2019 (**Table 1**). Reduced predation resulting from intensive wolf management programs intended to benefit moose in Unit 13 and the FCH in Units 12 and 20 may have contributed to NCH population increases (Schwanke and Robbins 2013, ADF&G 2021).

The NCH population has fluctuated since climbing to 41,400 animals in 2017 (Rinaldi pers. comm. 2019 as cited in OSM 2020a). In October 2018, the NCH was estimated to be 33,229, which is below the lower State population objective (Hatcher 2020, pers. comm. as cited in OSM 2020a). A combination of liberal hunts throughout their range, severe winter conditions in the eastern part of their range that resulted in high over-winter mortality, emigration of some animals to the FCH, and lower than anticipated productivity reduced the NCH population (Rinaldi pers. comm. 2019 as cited in OSM 2020a). Th summer of 2019, the NCH minimum population estimate increased to 53,500 caribou (ADF&G 2019 as cited in OSM 2020a). In October 2019, the population estimate was 46,528 caribou (BLM 2020 as cited in OSM 2020a).

Bull:cow and calf:cow ratios have similarly fluctuated over time. Between 2001 and 2021, the fall bull:cow ratio ranged from 24–64 bulls:100 cows and averaged 40 bulls:100 cows. Over the same time period, the fall calf:cow ratio ranged from 19–55 calves:100 cows and averaged 37 calves:100 cows (Table 1).

From 2008 to 2012, below average fall calf weights and low parturition rates for 3-year-old cows suggested nutritional stress, raising concern for the health of NCH population (Schwanke and Robbins 2013). Schwanke and Robbins (2013) cautioned that without a timely reduction in the NCH population, range quality and long-term herd stability may be compromised.

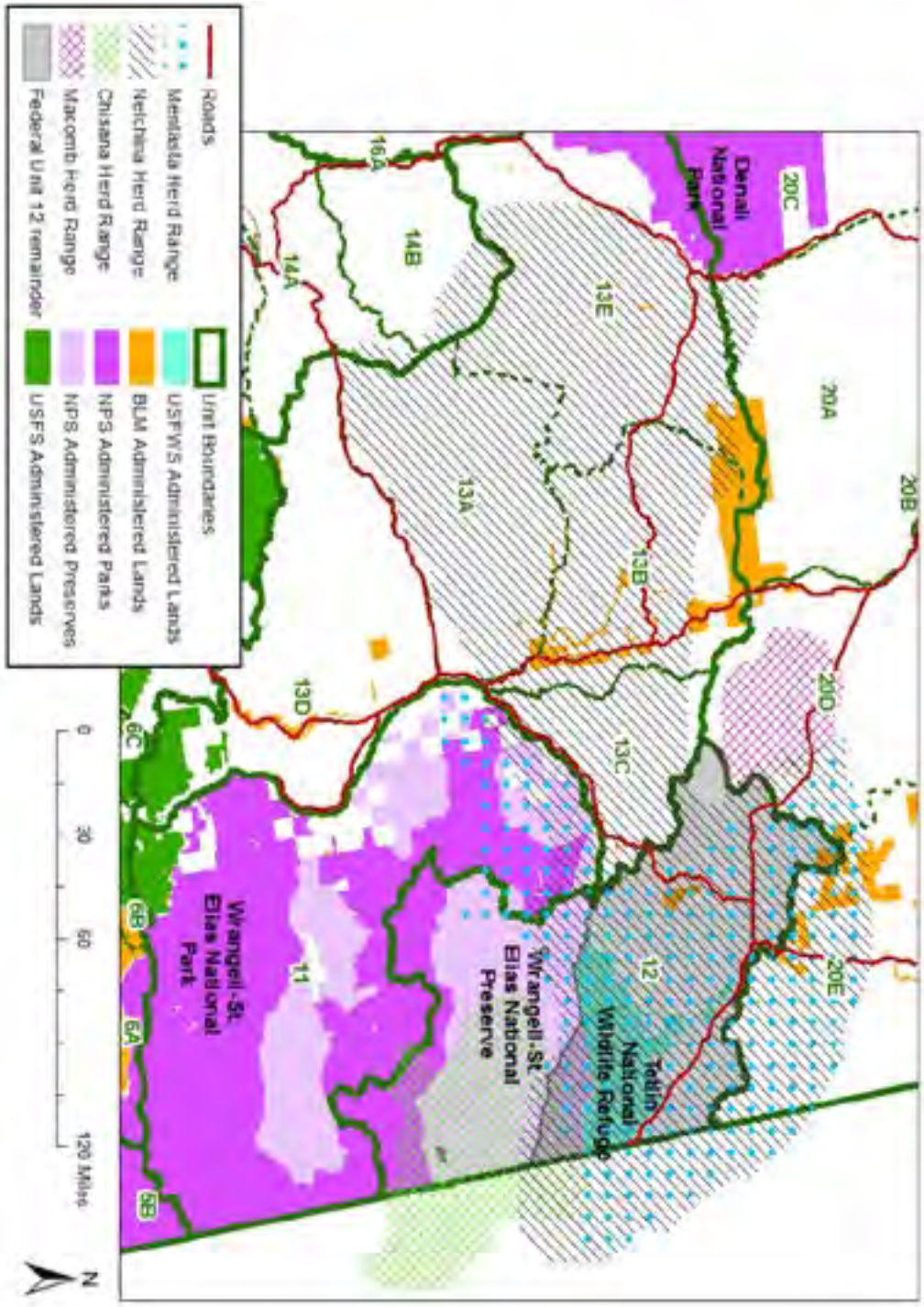

20A
20B
20C
20D
20E
Denali National Park
13E
13B
13C
13A
13D
14B
14A
16A
12
Tetlin National Wildlife Refuge
Wrangell-St. Elias National Preserve
11
Wrangell-St. Elias National Park
6C
6B
6A
5B
Roads
Unit Boundaries
Mentasta Herd Range
USFWS Administered Lands
Nelchina Herd Range
BLM Administered Lands
Chisana Herd Range
NPS Administered Parks
Macomb Herd Range
NPS Administered Preserves
Federal Unit 12 remainder
USFS Administered Lands
0
30
60
120 Miles
N

Table 1. Population size and composition of the Nelchina caribou herd (Tobey and Kelleyhouse 2007; ADF&G 2008, 2010, 2018, 2021; Schwanke 2011; Schwanke and Robbins 2013; Robbins 2015, 2016a, 2016b, 2017, pers. comm. as cited in OSM 2020a; Rinaldi 2019, pers. comm. as cited in OSM 2020a; Hatcher 2021, pers. comm.).

Year	Total bulls:100 cows[a]	Calves:100 cows[a]	Summer Population Estimates[b]	Fall Herd Estimates[d]
2003	31	35	31,114	30,141
2004	31	45	38,961	36,677
2005	36	41	36,993	36,428
2006	23[c]	40[c]	-	-
2007	34	35	33,744	32,569
2008	39[c]	40[c]	-	33,288[c]
2009	42	29	33,146	33,837
2010	64	55	44,954	48,653
2011	58	45	40,915	41,394
2012	57	31	46,496	50,646
2013	30	19	40,121	37,257
2014	42	45	-	-
2015	36	45	48,700	46,816
2016	57	48	46,673	46,673
2017	35[c]	35[c]	-	41,411[c]
2018	40	20	35,703	33,229
2019	32	41	53,500	46,528
2020	28[c]	17[c]	-	35,000[c]
2021	38	45	38,400	35,500
Average	40	37	40,672	37,326

[a] Fall Composition Counts

[b] Summer photocensus

[c] Modeled estimate

[d] Estimates are derived from summer minimum count data, combined with fall harvest and fall composition survey data.

Mentasta Caribou Herd

The MECH, the primary herd within Unit 11, calves and summers within the upper Copper River Basin and the northern and western flanks of the Wrangell Mountains within WRST (OSM 2018, MECH Mgmt. Plan 1995, **Map 2**). A portion of the MECH disperses across Unit 12 and southern Unit 20E in winter, often intermingling with the NCH (MECH Mgmt. Plan 1995). Barten et al. (2001) found that parturient female caribou from the Mentasta herd used birth sites that lowered the risk of predation and traded forage abundance for increased safety. Minimizing risk of predation of neonates may result in ungulates selecting habitats that compromise their ability to optimize foraging (Bowyer et al. 1999, Barten et al. 2001). Female Mentasta herd caribou used sites at higher elevations with sub-optimal forage, presumably to avoid predators, and, when <10 day old neonates were lost, females descended from the higher elevations to join other nonparturient females. In addition, females with neonates >10 days old also descended to join the larger group of females, which coincides with moving out of the riskiest period of predation on ungulate neonates (Adams et al. 1995a).

In 1995, Federal and State biologists completed the Mentasta Herd Cooperative Management Plan, which specifies the following management objectives (MECH Mgmt. Plan 1995):

- To the extent possible, allow for human harvest that will have minimal effects on the production, composition, and abundance of Mentasta caribou.
- To provide harvest priority to Federally eligible subsistence users and to allow State authorized hunting to occur whenever possible.
- To monitor the herd demographics and harvest such that all pertinent data on the health of the herd are collected and disseminated to all agencies and citizens concerned with their management.

The MECH Cooperative Management Plan 1995 states: “an annual fall harvest quota will be established between 15 and 20 percent of the previous 2-year mean calf recruitment as long as such recruitment is at least 80 calves. In addition, at population levels below 2,000 the harvest limit will be limited to “bulls only” and will be closed if the 2-year mean bull:cow ratio drops below 35 bulls:100 cows.” When fall annual quotas are greater than 70 caribou, both non-Federally and Federally qualified users are allowed to hunt the MECH during the fall season. When the fall annual quota falls below 70 caribou, only Federally qualified users are allowed to hunt the MECH during the fall season. Below a quota of 30 caribou, a Section 804 analysis will determine the allocation of permits among the Federally qualified subsistence users.

Since 2000, managers at the Tetlin NWR and WRST have used a 20:1 mixing ratio of NCH to MECH as the minimum threshold for considering winter season openings in Unit 12. The location and movement of NCH and MECH are monitored using aerial surveys of radio-collared caribou as well as information received remotely from satellite collars in recent years. This information is used to determine a reliable mixing ratio of the MECH with the NCH. In 2016 and 2017 the number of active collars in the MECH declined to 10, which was too few to adequately determine a reliable mixing ratio with the NCH. In 2018-19, staff from the WRST and ADF&G deployed an additional 20 GPS/Satellite radio-collars in the MECH. (Putera 2021, pers. comm.). ADF&G has also deployed several GPS/Satellite collars in the NCH.

The MECH population declined from an estimated 3,160 caribou in 1987 to an estimated 495 caribou in 2021 (Table 2). The fall population estimate in 2020 was 1150 caribou, however the increase from 2019 is not explained by calf production the previous year but may be due in part to Nelchina caribou returning late from their winter range. Some of these late returning caribou may have failed to migrate back to their

traditional calving grounds, remaining within the Mentasta summer range. This theory is supported by the presence of 3 radio collared Nelchina caribou in the Mentasta caribou summer range. The number of caribou observed during the 2021 Mentasta caribou June survey dropped back to levels observed in 2019. This supports the temporary presence of Nelchina caribou in the Mentasta caribou summer range in 2020. However, one radio collared Nelchina cow was present during the 2021 June census (Putera 2021, pers. comm.).

The extremely low calf :cow ratio of 2-6 calves: 100 cows from 1991 to 1993 (OSM 1992) resulted in a complete failure of fall recruitment of young in the MECH (Jenkins and Barton 2005). Dale (2000) postulated that this may have been due to poor body condition from poor forage quality in the summer. Poor forage quality in the summer can cause cow caribou to skip a breeding season to regain body condition due to being nutritionally stressed. The resulting decrease in body condition in female caribou can have a negative effect on productivity by causing lower weight gain or survival in calves (Crete and Huot 1993, Dale 2000).

Between 1990 and 1997, Jenkins and Barten (2005) confirmed predation, particularly by gray wolves and grizzly bears, as the proximate cause of the MECH population decline. Grizzly bears were the primary predators of neonates and gray wolves mostly predated on older juvenile caribou. The combined predation by bears and wolves was 86% during the neonate and summer periods. In comparison, predation of calves in the Denali Caribou Herd from 1984 to 1987 by wolves and bears, during the same time period, was only 53% (Adams et al. 1995b). Factors such as the timing of birth and habitat conditions at the birth site, particularly snow patterns, affected the vulnerability and survival of neonates, and birth mass affected the survival of juveniles through summer (Jenkins and Barten 2005). The MECH declined at the greatest rate from 1990-1993 compared to 1994-1997. Winter severity was postulated to decrease the birth mass of neonates and, thus, the survival and vulnerability of neonates and juveniles (Jenkins and Barton 2005).

The MECH population has remained stable at relatively low levels since 2004 based on low calf survival (Putera 2021, pers. comm.). Between 1987 and 2021, the bull:cow ratio has fluctuated widely (Putera 2019, Putera 2021, pers. comm.), ranging from 35-124 bulls:100 cows and averaging 65 bulls:100 cows. June and fall calf:cow ratios fluctuated over the same time period, ranging from 1-38 calves:100 cows and 0-33 calves:100 cows, respectively (Table 2, OSM 2018). Low calf survival and high cow mortality from 1987 and 2009 were the primary causes for the population declines in the MECH. The number of cows observed during the fall surveys declined from 2,065 in 1987 to 79 in 2009 (OSM 2012).

Fall surveys conducted within the same 23-year period also revealed severe declines in total observed Mentasta bulls from 847 bulls in 1987 to 40 bulls in the fall 2011 survey. Since 2011, the number of Mentasta bulls has sightly rebounded to 78 bulls observed in the fall 2021 survey (Table 2). Although observed fall bull:cow ratios appear high, the number of cows observed is small and the bull component likely includes Nelchina bulls. While Nelchina bulls have wintered within the range of the Mentasta herd (OSM 2018), the range of the Nelchina herd has varied widely due to lichen availability within their traditional area (Collins et al. 2011). Thus, the ability to predict the extent or frequency of mixing between Nelchina and Mentasta bulls is limited, and it would be impossible to discern whether the harvest of a bull would be from the Nelchina or Mentasta herd.

Higher numbers of adult bulls in the population are important as it helps maintain synchrony in parturition. Holand et al. (2003) showed that a skewed sex ratio and increased young male age structure of reindeer could result in fewer adult females conceiving during the first estrous cycle due to their hesitation

to mate with young bulls. Maintaining synchrony in parturition also provides increased survival chances for calves since parturition is typically timed with the start of plant growth (Bergerud 2000). Late-born offspring have been shown to have lower body mass than caribou offspring birthed earlier in the season (Holand et al. 2003), which can lead to lower juvenile survival rates from density dependent factors, including winter food limitation (Skogland 1985) and deep snows (Bergerud 2000).

The term ecotype designates populations of the same species that evolved different demographic and behavioral adaptations to cope with specific ecological constraints. The MECH is considered a sedentary and low-density ecotype (Bergerud 1996, Hinkes et al. 2005) and, thus, more susceptible to extreme random events versus a migratory and high density ecotype, such as the Nelchina. A key factor distinguishing between two ecotypes is whether animals were dispersed or aggregated when young were born (Seip 1991, Bergerud 2000). The chronic low calf survival and recruitment for Mentasta caribou could make random environmental events a primary driver for a more severe population decline (Tews et al. 2006). Increased winter mortality due to icing events may result in malnutrition and starvation for more susceptible calves and bulls with depleted energy reserves following the rut (Dau 2011, Miller and Gunn 2003). Bull caribou die at a higher rate than cows because of greater energy demands during early winter rutting activities, that greatly reduce their body reserves (Russell et al. 1993, Miller and Gunn 2003).

Table 2. Population size and composition of the Mentasta Caribou Herd, 1987-2021 (OSM 2012c, 2018; FWS 2018, OSM 2020b., Putera 2021, Putera 2021, pers. comm.).

Year	June Calves:100 Cows[a]	Fall Cows	Fall Calves	Fall Bulls	Fall Calves: 100 cows	Fall Bulls:100 cows[b]	Fall Population Estimate[c]
1987	18	2,065	248	847	12	41	3,160
1988	34	1,540	277	662	18	43	2,480
1989	31	1,615	727	258	16	45	2,600
1990	-	-	-	-	-	-	-
1991	3	1,347	27	566	2	42	1,940
1992	16	973	58	399	6	41	1,430
1993	9	683	27	260	4	38	970
1994	19	591	65	224	11	38	880
1995	26	541	119	189	22	35	850
1996	16	534	59	187	11[d]	35[d]	780
1997	15	432	23	159	5	40	610
1998	13	350	35	150	10	42	540
1999	13	230	22	177	10	77	430
2000	1	297	0	175	0	59	470
2001	11	228	12	150	5	66	586
2002	21	190	55	86	29	45	410
2003	17	223	38	101	16	46	522
2004	8	-	-	-	5[e]	-	293[f]
2005	23	113	17	78	15	69	261
2006	-	66	20	51	30	77	-
2007	23	93	27	72	29	77	280

Year	June Calves:100 Cows[a]	Fall Cows	Fall Calves	Fall Bulls	Fall Calves: 100 cows	Fall Bulls:100 cows[b]	Fall Population Estimate[c]
2008	14	89	18	65	20	73	319
2009	12	79	8	68	10	86	421
2010	25	88	22	106	25	120	336
2011	-	101	29	40	29	40	
2012	-	58	20	49	34	84	-
2013	38	88	20	68	23	77	512
2014	-	-	-		-	-	-
2015	-	60	20	44	33	73	-
2016	-	54	18	77	33	124	-
2017	11	91	18	79	18	87	389
2018	10	72	16	66	22	92	470
2019	18	113	29	100	26	95	479
2020	6	98	18	75	18	77	1150
2021	12	100	14	78	14	78	495

[a] Prior to 2001, ratios were obtained by helicopter. After 2001, includes small bulls that are indistinguishable from cows during fixed-wing flights.

[b] Observed high bull:cow ratios likely due to presence of Nelchina bulls.

[c] Population estimates between 2000 and 2020 are based on a June survey of cows corrected for sightability, the fall calf:cow and bull:cow ratios, with 2005-2020 population estimates based on a fall ratio of 30 bulls:100 cows. The 2020 estimates includes Nelchina caribou in the summer range.

[d] 1996 fall composition count was not conducted, because of early mixing with the NCH. Fall calf/cow was estimated from post calving calf/cow ratio and survival radio-collared cows(0.70; 30 Jun–30 Sep).

[e] 2004 Fall composition count was not conducted due to budget restraints. Fall calf/cow ratio estimated from post-calving calf:cow ratio and average (1987-2003) calf survivorship (0.63).

[f] 2004 population estimate is based on extrapolation from June census, adjusted for average calf survivorship and average bull ratios.

Harvest History

Nelchina Caribou Herd

The NCH is a popular herd to hunt and experiences heavy harvest pressure due to its road accessibility and proximity to Fairbanks and Anchorage. The population limits are attempted to be controlled solely by human harvest, and harvest quotas are adjusted annually in order to achieve State management objectives (Hatcher 2021 pers. comm., Schwanke and Robbins 2013). Over 95% of the NCH harvest occurs in Unit 13. Between 2001 and 2019, harvest from the NCH under State regulations ranged from 793–5,785 caribou/year and averaged 2,334 caribou/year (Robbins 2017, pers. comm. as cited in OSM 2020a, ADF&G 2021). Over the same time period, caribou harvest under Federal regulations for Units 12 and 13 combined ranged from 237–610 caribou/year and averaged 421 caribou/year (OSM 2021).

Mentasta Caribou Herd

The total harvest reported between 1977 and 1989 was 1,294 caribou. Annual harvest ranged from 149 in 1977 to 45 in 1989 (ADF&G 1993). The average annual harvest for the 13-year period was 100 caribou (ADF&G 1993). Harvest success rates decreased from 43% in 1977 to 19% in 1989. The hunting season for the MECH was closed from 1992 through 1995. There was a small Federal subsistence harvest from 1996–1998 due to management objectives being met for calf production and recruitment (MECH Cooperative Management Plan 1995). Harvest in the 1996/97 season was one caribou with 15 permits issued. In the 1997/98 season, 12 permits were issued but no harvest was reported for caribou.

There has been no reported harvest from the MECH since 1998 as there has been no State or Federal caribou season in Unit 11. However, some incidental harvest of Mentasta caribou may take place during winter hunts targeting the NCH in areas of herd overlap in adjacent units. While the MECH management plan does not specify an appropriate mixing ratio, the 20:1 ratio has been used in the adjacent units to determine winter season openings by the Board since at least 2000 (OSM 2000). The MECH management plan suggests that incidental harvest of Mentasta caribou is usually minimal (MECH Cooperative Management Plan 1995).

Other Alternatives Considered

One alternative considered is to delegate authority to the WRST superintendent, to announce season dates, harvest quotas, and the number of permits to be issued; to define harvest areas; and to open and close the season for caribou on Federal public lands in Unit 11. The timing and numbers of the NCH migrating through or wintering in Unit 11 varies year-to-year and in some years Nelchina caribou are not present in Unit 11. Granting delegated authority to the WRST superintendent would allow harvest and seasons to reflect when the NCH is present and allow use of most current biological data to minimize incidental harvest of Mentasta caribou, while providing for subsistence opportunity.

A delegation to define harvest areas would facilitate opening areas of Unit 11 to harvest where the caribou present are primarily from the Nelchina herd, while avoiding areas with concentrated numbers of Mentasta caribou.

Effects of the Proposal

If this proposal is adopted, the additional harvest is unlikely to have any biological effect on the NCH. However, impacts to the MECH are a conservation concern and conflicts with the principles in the MECH management plan. The MECH has fallen short over the past 25 years of any metric that would support opening a season. The MECH Cooperative Management Plan (1995) states "an annual fall harvest quota will be established between 15 and 20 percent of the previous 2-year mean calf recruitment as long as such recruitment is at least 80 calves." This metric has not been met for the MECH since 1996. Total calf counts in the fall has averaged around 20 for the last 15 years, far below the metric of 80 calves. The MECH population has leveled off at a lower level than planned through the MECH management Plan 1995. Current low population numbers are indicative of poor recruitment and low survival rates among cohorts within the population. An increased opportunity for incidental harvest could further exacerbate the decline of a population that is currently of conservation concern.

If Proposal WP22-35 is adopted, it would allow a harvest of caribou when the NCH migrates through Unit 11, providing increased subsistence hunting opportunity. While the MECH mixes with the NCH during migration and over winter, exact numbers and mixing ratios are unknown, which hampers management. The timing of this migration differs from year to year, and the number of Nelchina bulls that mix with the MECH within Unit 11 also varies. It is not possible to visually discern which herd an individual bull may be from. Therefore, incidental harvest of individuals from a population with chronically low productivity is likely, which would have detrimental effects on the MECH. Harvesting MECH caribou to the point where recovery is difficult would ultimately affect subsistence users in the long-term. Based on participation and harvest by Federally qualified subsistence users from 1996-1998, when a very limited open Federal caribou season occurred in Unit 11, harvest from a Unit 11 caribou hunt might be expected to be very low. However, if Nelchina caribou are easily accessible along the Nabesna Road, hunting effort and harvest could be higher than was experienced in 1996-1998.

OSM CONCLUSION

Support Proposal WP22-35 **with modification** to delegate authority to the WRST superintendent to announce season dates, harvest quotas, and the number of permits to be issued; to define harvest areas; and to open and close the season via a delegation of authority letter only **(Appendix 1**).

The modified regulation should read:

Unit 11—Caribou	
One bull by Federal registration permit	~~*No Federal open season*~~
	May be announced

Justification

The MECH currently exists in low numbers and their occupation of summer and winter ranges results in small groups distributed as a fragmented population. Because of this, total numbers and composition can be significantly affected by sightability when searching for small groups of caribou over vast terrain. Mixing of Nelchina and Mentasta caribou bulls makes interpreting fall composition surveys difficult. There is limited ability to predict the extent, timing, or frequency of mixing between the two herds and it would be impossible to discern whether the bull was from the Mentasta herd or the Nelchina herd. The possibility of increased winter mortality due to icing events may result in malnutrition and starvation for more susceptible bulls with depleted energy reserves following the rut, furthering the decline of the Mentasta caribou population. In addition, calf production and survival remain critically low and have resulted in low numbers of adult cows and bulls observed during the fall population surveys. Calf production and recruitment in particular remains below the management objective of a running two-year mean calf recruitment greater than 80 calves, as stated in the Mentasta Caribou Herd Cooperative Management Plan 1995. These declines are indicative of low production, poor recruitment, and low survival rates among cohorts within the population.

The timing and mixing rate of the two herds is variable and inconsistent year to year. WRST, in coordination with ADF&G with the use of delegated authority would be able to identify when the NCH

are in Unit 11 and allow harvest at times, locations, and levels when there would be minimal potential of incidental harvest of MECH.

LITERATURE CITED

Adams, L. G., F.J. Singer, and B.W. Dale. 1995a. Caribou calf mortality in Denali National Park, Alaska. Journal of Wildlife Management 59:584-594.

Adams, L.G., B.W. Dale, B. Shults, and L.D. Mech. 1995b. Wolf predation on caribou calves in Denali National Park, Alaska. in Ecology and conservation of wolves in a changing world. Eds. S.H. Fritz, and D.R. Seip. Occasional Publications No. 35., Canadian Circumpolar Institute, University of Alberta, Edmonton. Pp. 245-260.

ADF&G. 1993. Annual Performance Report of Surveys-Inventory Activities, 1 July 1992–30 June 1993 Caribou. November 1993. Division of Wildlife Conservation, Alaska Department of Fish and Game. Juneau, AK. Pages 6–7.

ADF&G. 2008. Caribou Annual Survey and Inventory. Federal Aid Annual Performance Report Grant W-33-6, Anchorage, AK.

ADF&G. 2010. Game Management Unit 13: Nelchina Caribou Herd Report. ADF&G. Glennallen, AK.

ADF&G. 2018. News Release: 04-07-18 – Winter Seasons closed for the Nelchina Caribou Hunts RC561, RC562, and DC485. ADF&G, Glennallen, AK.

ADF&G. 2021. General harvest reports. https://secure.wildlife.alaska.gov/index.cfm. Retrieved: June 5, 2021.

Barten, N.L., R.T. Bowyer, and K.J. Jenkins. 2001. Habitat use by female caribou: tradeoffs associated with parturition. Journal of Wildlife Management 65:77-92.

Bergerud, A.T. 1996. Evolving perspectives on caribou population dynamics, have we got it right yet? Rangifer 9:95–115.

Bergerud, A.T. 2000. Caribou. Pages 658–693 in S. Demarais and P.R. Krausman, editors. Ecology and Management of Large Mammals in North America. Prentice Hall Press. Upper saddle River, NJ. 778 pages.

Bowyer, R.T., V. Van Ballenberghe, J.G. Kie, and J.A.K. Maier. 1999. Birth-site selection in Alaska moose: maternal strategies for coping with a risky environment. Journal of Mammalogy 80: 1070-1083.

Collins, W.B., B.W. Dale, L.G. Adams, D.E. McElwain, and K. Joly. 2011. Fire, grazing history, lichen abundance, and winter distribution of caribou in Alaska's Taiga. Journal of Wildlife Management 75:369-377.

Crete, M. and J. Huot. 1993. Regulation of a large herd of caribou: Summer nutrition affects calf growth and body reserves of dams. Canadian Journal of Zoology 71:2291-2296.

Dale, B. 2000. The influence of seasonal spatial distribution on growth and age of first reproduction of Nelchina caribou with comparisons to the Mentasta herd, Research Performance Report. 1 July 1999 – 30 June 2000. Federal Aid Annual Performance Report Grant W-27-3. Study 3.44. Anchorage, AK.

Dau, J. 2011. Units 21D, 22A, 22B, 22C, 22D, 22E, 232, 24, and 26A caribou management report Pages 187-250 in P.Harper, editor. Caribou management report of survey and inventory activities 1 July 2008-30 June 2010. ADF&G, Juneau, AK.

FWS. 2018. Harvest database. Office of Subsistence Management, USFWS, Anchorage, AK.

Hatcher, H. 2021. Wildlife Biologist. Personal communication: e-mail. ADF&G. Glennallen, AK.

Hinkes, M.T., G.H. Collins, L.J. Van Daele, S.D. Kovach, A.R. Aderman, J.D. Woolington, R.J Seavoy. 2005. Influence of Population Growth on Caribou Herd Identity, Calving Ground Fidelity, and Behavior. Journal of Wildlife Management 69(3):1147–1162.

Holand, O., K.H. Roed, A. Mysterud, J. Kumpula, M. Nieminen, and M.E. Smith. 2003. The effect of sex ratio and male age structure on reindeer calving. Journal of the Wildlife Management 67:25-33.

Jenkins, K.J., and N.L. Barten. 2005. Demography and decline of the Mentasta caribou herd in Alaska. Canadian Journal of Zoology. 83: 1174-1188.

Mentasta Caribou Herd Cooperative Management Plan. 1995. Wrangell St.-Elias National Park and Preserve, Glennallen, AK 17 pp.

Miller, F.L. and A. Gunn. 2003. Catastrophic Die-off of Peary Caribou on the Western Queen Elizabeth Islands, Canadian High Arctic. Arctic 56:381–390.

OSM 1992. Staff analysis P92-18. Pages 94-95 in Federal Subsistence Board Meeting Materials April 6–10, 1992. Office of Subsistence Management, FWS. Anchorage, AK. 1254 pp.

OSM. 2000. Staff analysis P00-59. Pages 628–638 in Federal Subsistence Board Meeting Materials May 2–4, 2000. Office of Subsistence Management, FWS. Anchorage, AK. 661 pp.

OSM. 2012. Staff analysis WP12-24. Pages 575–588 in Federal Subsistence Board Meeting Materials January 17–20, 2012. Office of Subsistence Management, FWS. Anchorage, AK. 1021 pp.

OSM 2018. Staff analysis WP18-54. Pages 1195-1227 *in Federal Subsistence Board Meeting Materials April 10-13, 2018. Office of Subsistence Management, FWS, Anchorage, AK 1488 pp.*

OSM. 2020a. Staff analysis WSA20-02. Office of Subsistence Management, FWS. Anchorage, AK.

OSM. 2020b. Staff analysis WCR20-42. Office of Subsistence Management, FWS. Anchorage, AK.

OSM. 2021. Federal permits database. Office of Subsistence Management, USFWS. Anchorage, AK. Accessed June 15, 2021.

Putera, J. 2019. Wrangell-St. Elias National Park and Preserve Fall 2019 Wildlife Report. Wrangell-St. Elias National Park and Preserve, Copper Center, AK. 4 pp.

Putera, J. 2021. Wildlife Biologist. Personal communication: e-mail, phone Wrangell-St. Elias National Park and Preserve. Copper Center, AK.

Roffler, G.H., L.G. Adams, S.L. Talbot, G.K. Sage, and B.W. Dale. 2012. Range overlap and individual movements during breeding season influence genetic relationships of caribou herds in south-central Alaska. Journal of Mammalogy 93(5): 1318-1330.

Russell, D.E., A.M. Martell, and W.A.C. Nixon. 1993. Range ecology of the Porcupine Caribou Herd in Canada. Rangifer Special Issue 8:1– 167.

Schwanke, R.A. 2011. Unit 13 and 14B caribou management report. Pages 90-108 in P. Harper, editor. Caribou management report of survey and inventory activities 1 July 2008 –30 June 2010. ADF&G. Juneau, AK.

Schwanke, R.A. and W.F. Robbins. 2013. Unit 13 and 14B caribou management report. Pages 104-124 in P. Harper, editor. Caribou management report of survey and inventory activities 1 July 2010 –30 June 2012. ADF&G. ADF&G/DWC/SMR-2013-3, Juneau, AK.

Seip, D.R. 1991. Predation and caribou populations. Rangifer 7:46–72.

Skogland, T. 1985. The effects of density-dependent resource limitations on the demography of wild reindeer. Journal of Animal Ecology 54:359–374.

Tews, J., M.A.D. Ferguson, and L. Fahrig. 2006. Potential net effects of climate change on High Arctic Peary caribou: Lessons from a spatially explicit simulation model. Ecological Modelling 207:85–98.

Tobey, B. and R. Kelleyhouse. 2007. Units 13 and 14B caribou management report. Pages 83-99 in P. Harper, editor. Caribou management report of survey and inventory activities 1 July 2004-30 June 2006. ADF&G. Juneau, AK.

SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Southcentral Alaska Subsistence Regional Advisory Council

Support WP22-35 **with OSM modification**.

Justification

This proposal benefits subsistence users by providing opportunity for local residents to get their caribou. Opening a caribou hunt in Unit 11 could possibly alleviate hunter pressure in Unit 13. Mentasta and Nelchina herds will be monitored, and the Federal in-season manager can open/close the hunt when the Nelchina herd is in area.

Eastern Interior Alaska Subsistence Regional Advisory Council

Support WP22-35 **with OSM modification** with additional modification to reinstate and update the Mentasta Caribou Herd Management Plan.

Justification

The Council stated that passage of this proposal as modified by OSM would be beneficial to subsistence users and the additional modification recognizes the importance of updated caribou herd management plans for current and future subsistence needs.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and Federal Subsistence Board action on the proposal.

ALASKA DEPARTMENT OF FISH AND GAME COMMENTS

Wildlife Proposal WP22-35

This proposal would establish a may be announced caribou season in Game Management Unit (GMU) 11 with a bag limit of one bull by permit and an §804 analysis.

Background

Federal harvest opportunity for caribou in GMU 11 has not been available since 1992, in an effort to protect the Mentasta caribou herd (MECH). Two federal subsistence hunt opportunities currently exist for the Nelchina caribou herd (NCH) in GMUs 12 and 13.

Impact on Subsistence Users

While this would create a very limited opportunity to harvest caribou in some years. Opportunity would not be consistent from year to year and should not be offered without consultation and agreement with the Alaska Department of Fish & Game (ADF&G) based on sustainable harvest opportunities for the NCH. Federally qualified users (FQU) currently have both opportunities to harvest Nelchina caribou in GMUs 12 and 13 under state and federal hunting regulations.

Impact on Other Users

There are no anticipated impacts on other users if this proposal is adopted.

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 caribou in GMU 11 (Mentasta herd).

Amounts Reasonably Necessary for Subsistence: Alaska state law requires the BOG 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.

There is no ANS for caribou in GMU 11. The is currently no season or bag limit because the herd is under population objectives. State hunting opportunities have been closed since 1989 and federal hunting opportunities have been closed since 1992.

Conservation Issues

The MECH remains below the inter-agency objectives that were developed for the management of the herd and therefore no harvest opportunity is currently available.

Nelchina and Mentasta cannot be differentiated, and telemetry information shows that NCH caribou frequent the range of the Mentasta herd in GMU 11, where the two herds often mix. Research suggests that the primary factor maintaining the Mentasta herd below objectives is low recruitment due to predation. This phenomenon is common in populations that exist in low-density dynamic equilibriums mediated by predation.

Enforcement Issues

It would be extremely challenging for law enforcement to differentiate between a NCH caribou and a MECH caribou. If the season is open in GMU 11 then either NCH or MECH animals may be harvested.

Position

ADF&G **OPPOSES** what could amount to the harvest of animals from the MECH at this time. Any additional federal harvest from the NCH should only be done by cooperative inter-agency agreements to ensure the sustainable harvest of Nelchina caribou is maintained. Unrestricted federal harvest from two existing federal hunts accounts for 5%–34% of total NCH harvest annually, with a most recent 5-year average of 10% of total harvest. Federal harvest varies widely due to changes in migratory patterns, weather conditions, and hunter effort from year to year. Federal harvest for the existing two hunts is impossible to predict, which makes Nelchina management and the goal of achieving (but not exceeding) harvestable surplus annually incredibly difficult. There are already existing hunts in place that allow for the take of any harvestable surplus associated with the NCH and there is no harvestable surplus available for the MECH. This hunt would unnecessarily complicate hunt administration. Adding an additional highly variable federal harvest opportunity with no restrictions or framework for inter-agency coordination would add to the complexity and difficulty currently associated with co-management of this important subsistence resource.

Harvest when NCH caribou are present in GMU11 will require constant monitoring of the two herds to ensure MECH collars are not present in the hunt area and may not be feasible in years when GMU 13 state and federal subsistence opportunities have achieved available harvest before the herd migrates into GMU 11.

Under the Alaska National Interest Lands Conservation Act (ANILCA) the FSB may only act under certain circumstances, and one of those main reasons is for conservation concerns. If passed this has the very real potential to do the exact opposite and create a conservation concern for the MECH.

APPENDIX 1

Wrangell-St. Elias National Park and Preserve
National Park Service
PO Box 439
Copper Center, AK 99573

Dear Superintendent:

This letter delegates specific regulatory authority from the Federal Subsistence Board (Board) to the superintendent of the Wrangell-St. Elias National Park and Preserve (WRST) to issue emergency or temporary special actions if necessary to ensure the conservation of a healthy wildlife population, to continue subsistence uses of wildlife, for reasons of public safety, or to assure the continued viability of a wildlife population. This delegation only applies to the Federal public lands subject to Alaska National Interest Lands Conservation Act (ANILCA) Title VIII jurisdiction within Unit 11 for the management of caribou on these lands.

It is the intent of the Board that actions related to management of caribou by Federal officials be coordinated, prior to implementation, with the Alaska Department of Fish and Game (ADF&G), representatives of the Office of Subsistence Management (OSM), and the Chair(s) of the affected Council(s) to the extent possible. The Office of Subsistence Management will be used by managers to facilitate communication of actions and to ensure proposed actions are technically and administratively aligned with legal mandates and policies. Federal managers are expected to work with managers from the State and other Federal agencies, the Council Chair or alternate, local tribes, and Alaska Native Corporations to minimize disruption to subsistence resource users and existing agency programs, consistent with the need for special action.

DELEGATION OF AUTHORITY

1. **Delegation**: The Wrangell-St. Elias National Park and Preserve Superintendent is hereby delegated authority to issue emergency or temporary special actions affecting caribou on Federal lands as outlined under the Scope of Delegation. Any action greater than 60 days in length (temporary special action) requires a public hearing before implementation. Special actions are governed by Federal regulation at 36 CFR 242.19 and 50 CFR 100.19.

2. **Authority**: This delegation of authority is established pursuant to 36 CFR 242.10(d)(6) and 50 CFR 100.10(d)(6), which state: "The Board may delegate to agency field officials the authority to set harvest and possession limits, define harvest areas, specify methods or means of harvest, specify permit requirements, and open or close specific fish or wildlife harvest seasons within frameworks established by the Board."

3. **Scope of Delegation**: The regulatory authority hereby delegated is limited to the following authorities within the limits set by regulation at 36 CFR 242.26 and 50 CFR 100.26:

- To announce season dates, harvest quotas, and number of permits to be issued;
- To define harvest areas; and

- To close the Federal hunt early if the harvest quota is reached before the announced season closing date or Nelchina caribou are no longer present.

This delegation also permits you to close and reopen Federal public lands to nonsubsistence hunting, but does not permit you to specify permit requirements or harvest and possession limits for State-managed hunts.

This delegation may be exercised only when it is necessary to conserve caribou populations, to continue subsistence uses, for reasons of public safety, or to assure the continued viability of the populations. All other proposed changes to codified regulations, such as customary and traditional use determinations, shall be directed to the Board.

The Federal public lands subject to this delegated authority are those within Unit 11.

4. **Effective Period**: This delegation of authority is effective from the date of this letter and continues until superseded or rescinded.

5. **Guidelines for Delegation**: You will become familiar with the management history of the wildlife species relevant to this delegation in the region, with current State and Federal regulations and management plans, and be up-to-date on population and harvest status information. You will provide subsistence users in the region a local point of contact about Federal subsistence issues and regulations and facilitate a local liaison with State managers and other user groups.

You will review special action requests or situations that may require a special action and all supporting information to determine (1) consistency with 50 CFR 100.19 and 36 CFR 242.19, (2) if the request/situation falls within the scope of authority, (3) if significant conservation problems or subsistence harvest concerns are indicated, and (4) what the consequences of taking an action or no action may be on potentially affected Federally qualified subsistence users and non-Federally qualified users. Requests not within your delegated authority will be forwarded to the Board for consideration. You will maintain a record of all special action requests and rationale for your decision. A copy of this record will be provided to the Administrative Records Specialist in OSM no later than sixty days after development of the document.

For management decisions on special actions, consultation is not always possible, but to the extent practicable, two-way communication will take place before decisions are implemented. You will also establish meaningful and timely opportunities for government-to-government consultation related to pre-season and post-season management actions as established in the Board's Government-to-Government Tribal Consultation Policy (Federal Subsistence Board Government-to-Government Tribal Consultation Policy 2012 and Federal Subsistence Board Policy on Consultation with Alaska Native Claim Settlement Act Corporations 2015).

You will immediately notify the Board through the Assistant Regional Director for OSM, and coordinate with the Chair(s) or alternate of the affected Council(s), local ADF&G managers, and other affected Federal conservation unit managers concerning emergency and temporary special actions being considered. You will ensure that you have communicated with OSM to ensure the special action is aligned with ANILCA Title VIII, Federal Subsistence regulations and policy, and that the perspectives of

the Chair(s) or alternate of the affected Council(s), OSM, and affected State and Federal managers have been fully considered in the review of the proposed special action.

If the timing of a regularly scheduled meeting of the affected Council(s) permits without incurring undue delay, you will seek Council recommendations on the proposed temporary special action(s). If the affected Council(s) provided a recommendation, and your action differs from that recommendation, you will provide an explanation in writing in accordance with 50 CFR 100.10(e)(1) and 36 CFR 242.10(e)(1).

You will issue decisions in a timely manner. Before the effective date of any decision, reasonable efforts will be made to notify the public, OSM, affected State and Federal managers, law enforcement personnel, and Council members. If an action is to supersede a State action not yet in effect, the decision will be communicated to the public, OSM, affected State and Federal managers, and the local Council members at least 24 hours before the State action would be effective. If a decision to take no action is made, you will notify the proponent of the request immediately. A summary of special action requests and your resultant actions must be provided to the coordinator of the appropriate Council(s) at the end of each calendar year for presentation to the Council(s).

You may defer a special action request, otherwise covered by this delegation of authority, to the Board in instances when the proposed management action will have a significant impact on a large number of Federal subsistence users or is particularly controversial. This option should be exercised judiciously and may be initiated only when sufficient time allows for it. Such deferrals should not be considered when immediate management actions are necessary for conservation purposes. The Board may determine that a special action request may best be handled by the Board, subsequently rescinding the delegated regulatory authority for the specific action only.

6. **Support Services**: Administrative support for regulatory actions will be provided by the Office of Subsistence Management.

Sincerely,

Anthony Christianson
Chair

Enclosures

cc: Federal Subsistence Board

Assistant Regional Director, Office of Subsistence Management
Deputy Assistant Regional Director, Office of Subsistence Management
Subsistence Policy Coordinator, Office of Subsistence Management
Wildlife Division Supervisor, Office of Subsistence Management
Coordinator, Southcentral Subsistence Regional Advisory Council, USDA – Forest Service
Chair, Southcentral Alaska Subsistence Regional Advisory Council
Chair, Eastern Interior Subsistence Regional Advisory Council
Deputy Commissioner, Alaska Department of Fish and Game
Special Project Coordinator, Alaska Department of Fish and Game
Interagency Staff Committee
Administrative Record

WP22-39 Executive Summary	
General Description	Proposal WP22-39 requests to create specific harvest regulations for Alaska hare (Lepus othus) in Units 9 and 17. *Submitted by: Alaska Department of Fish and Game.*
Proposed Regulation	*§100.25(j)(2) If you take wildlife for subsistence, you must salvage the following parts for human use:* *(iv) The hide or meat of squirrels, hares, marmots, beaver, muskrats, or unclassified wildlife.* **Unit 9—Hare** *Snowshoe hare (~~Snowshoe and Tundra~~): No limit* *July 1-June 30* ***Alaska hare: 1 hare per day / 4 per season*** ***Nov. 1 – Jan. 31*** **Unit 17 - Hare** *Snowshoe hare (~~Snowshoe and Tundra~~): No limit* *July 1-June 30* ***Alaska hare: 1 hare per day / 4 per season*** ***Nov. 1 – Jan. 31***
OSM Conclusion	**Support** Proposal WP22-39 **with modification** to modify the definition of hare in Federal regulations. The modified regulations should read: **§100.25(a) Definitions:** *Hare or hares collectively refers to all species of hares (commonly called rabbits) in Alaska and includes snowshoe hare and tundra* ***or Alaska*** *hare.*
Kodiak/Aleutians Subsistence Regional Advisory Council	**Oppose**
Bristol Bay Subsistence Regional Advisory Council	**Support** Proposal WP22-39 **with modification** to change the season closing date to March 31st.
Western Interior Alaska Subsistence Reginal Advisory Council	**Defer to the affected Council(s)**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Support**
Written Public Comments	**None**

STAFF ANALYSIS
WP22-39

ISSUES

Proposal WP22-39, submitted by Alaska Department of Fish and Game (ADF&G), requests to create specific harvest regulations for Alaska hare (*Lepus othus) in Units 9 and 17.*

DISCUSSION

The proponent states that, the once (as recently as the 1980s) abundant Alaska hare in Units 9 and 17 are now at a very low density and has a patchy distribution throughout Bristol Bay and the Alaska Peninsula. In Alaska, the species ranges throughout the western and southwestern portions of the state. Very little is known about the Alaska hare, the apparent decrease in abundance may have been caused by changes in habitat, predation, human harvest, or other natural cyclical events. There are infrequent observations of Alaska hares near King Salmon, Dillingham, and other communities throughout the Bristol Bay region. Alaska hares are not highly productive; they have only one, relatively small-sized litter of young per year. The proponent believes that the limited-management approach of the last 50 years no longer sufficiently addresses appropriate conservation of this species. This proposal would reduce hunting opportunity for this species both in terms of season duration and harvest limits. The reduction in harvest may assist hare populations to increase throughout Units 9 and 17.

The proponent also requested establishing a human use salvage requirement for hare in Units 9 and 17. However, this provision already exists under Federal regulations (see existing Federal regulations section) and is therefore not considered further in this analysis.

Note: The Alaska hare is sometimes called jack rabbits, tundra hare or arctic hare (e.g. Anderson 1974; Klein 1995; Murray 2003; ADF&G 2019a). Federal subsistence regulation uses the term tundra hare, but Alaska hare appears to be the dominate term in contemporary usage, including in State regulation. This analysis contains the terms Alaska hare and tundra hare, used synonymously. It should also be noted that the Alaska or tundra hare is a distinct species from the snowshoe hare, despite the inclusion of both species in the same Federal regulation.

Existing Federal Regulation

§100.25(j)(2) If you take wildlife for subsistence, you must salvage the following parts for human use:

(iv) The hide or meat of squirrels, hares, marmots, beaver, muskrats, or unclassified wildlife.

Unit 9—Hare

Hare (Snowshoe and Tundra): No limit	*July 1-June 30*

Unit 17 - Hare

Hare (Snowshoe and Tundra): No limit	*July 1-June 30*

Proposed Federal Regulation

§100.25(j)(2) If you take wildlife for subsistence, you must salvage the following parts for human use:

(iv) The hide or meat of squirrels, hares, marmots, beaver, muskrats, or unclassified wildlife.

Unit 9—Hare

Snowshoe hare (~~Snowshoe and Tundra~~): No limit	*July 1-June 30*
Alaska hare: 1 hare per day / 4 per season	*Nov. 1 – Jan. 31*

Unit 17 - Hare

Snowshoe hare (~~Snowshoe and Tundra~~): No limit	*July 1-June 30*
Alaska hare: 1 hare per day / 4 per season	***Nov. 1 – Jan. 31***

Existing State Regulation

Unit 9—Hare

Snowshoe hare: No limit	*No closed season*
Alaska hare: One per day, four total	*Nov. 1 – Jan. 31*
Hunters must salvage the hide or meat of Alaska hares taken in Unit 9. Hunters are also encouraged to report harvest of Alaska hares to ADF&G in King Salmon at (907) 246-3340	

Unit 17 - Hare

Hare: No limit	*No closed season*
Including Alaska and snowshoe hare.	

Relevant Federal Regulation

§100.25(a) Definitions:

> *Hare or hares collectively refers to all species of hares (commonly called rabbits) in Alaska and includes snowshoe hare and tundra hare.*

Extent of Federal Public Lands

Unit 9 is comprised of 52.8% Federal public lands and consist of 28.1% National Park Service (NPS), 21.9% U.S. Fish and Wildlife Service (USFWS), and 2.8% Bureau of Land Management (BLM).

Unit 17 is comprised of 27.8% Federal public lands and consist of 21.0% USFWS, 3.5% BLM, and 3.3% NPS.

Customary and Traditional Use Determinations

The Federal Subsistence Board (Board) has not made a customary and traditional use determination for hare in Units 9 and 17. Therefore, all rural residents of Alaska may harvest this species in these units.

Regulatory History

Federal subsistence regulations for hare in Units 9 and 17 have not been changed since 1990, when the Federal management of subsistence fish and wildlife resources on Federal public lands began. At that time, a year-round season with no harvest limit was adopted from State regulation.

State regulations included a year-round season with no harvest limit for hare in Unit 9 until RY2018/19, when ADF&G submitted Proposal 135 for the BOG's consideration. Noting very low densities and patchy distribution of Alaska hares on the southern Alaska Peninsula, ADF&G originally requested that the season for Alaska hares in a portion of Unit 9 be closed entirely. After discussion with locals and staff, they amended their proposal to reduce the season throughout Unit 9 to Nov. 1 – Jan. 31, with a harvest limit of one per day and four annually, and require that either the hide or the meat be salvaged (RC55). ADF&G noted that Alaska hares are of interest to residents of Unit 9 and that offering a season, even restricted one, allows for opportunistic harvest of Alaska hares. They also noted that it provides an opportunity for biologists to gather information from hunters about Alaska hare locations and relative abundance. To this end, ADF&G recommended inclusion of language encouraging voluntary reporting of Alaska hare harvest. This proposal had the support of both active Fish and Game Advisory Committees in the region. The BOG adopted the amended version of the proposal and supported inclusion of the voluntary reporting language. The BOG also adopted a positive finding for customary and traditional use of Alaska hare in Units 9, 10 and 17 (BOG 2019).

In 2020, Proposal WP20-30, was submitted by the Alaska Peninsula/Becharof National Wildlife Refuges requesting to shorten the year-round season for Alaska hares in Unit 9 to Nov. 1 – Jan. 31, and to reduce the harvest limit from no limit to one per day and four annually, which would have aligned with the recently adopted State regulations. The proposal was rejected by the Board, stating that harvest and population numbers were unknown, and the season end date appeared to be too restrictive. The Board felt that more research was needed to understand the status of the species and prior to adopting the proposal to set season dates. Traditionally, the winter months are when hares are harvested for winter protein.

Current Events Involving the Species

ADF&G submitted Wildlife Proposal WP22-45 to create specific harvest regulations for Alaska hare in Units 18, 22, and 23.

ADF&G also submitted Proposal 24 to the BOG (January 2022) to include Unit 17 with an identical Alaskan hare management structure as Unit 9. ADF&G states that given the ongoing research, continued low abundance, and public concern about this species, it is important to consider a cohesive and comprehensive management framework for this species across the entire Alaska hare range within Alaska. This proposal was adopted as amended to clarify the season end date is January 31, to match Unit 9 on January 25, 2022.

Biological Background

Taxonomy of the three species of northern hares remains unresolved, which almost certainly contributes to the confusion around common names. Current taxonomic descriptions rely on geographic distributions, rather than morphologic or molecular distinctions, which remain ambiguous. The Arctic hare (*Lepus arcticus) is widely distributed across tundra habitats of Greenland and northern Canada.* The mountain hare (*L. timidus) occurs in northern Eurasia, from eastern Russia to Scandinavia (Cason* 2016). Alaska hares are limited to coastal western and southwestern Alaska, ranging from the Baldwin and Seward Peninsulas in the north, to the Alaska Peninsula in the south (Merizon and Carroll 2019).

Alaska hares are among the largest of the *Lepus genus, weighing approximately 8.5 – 10.5 pounds* (Murray 2003). They occupy coastal lowlands, wet meadows, and willow and alder thickets (Merizon and Carroll 2019), and feed on willow buds, leaves, and crowberries (Murray 2003). They are typically solitary, except during breeding season. Alaska hares reproduce a single litter each year, breeding between April and June and giving birth approximately 6.5 weeks later. Litters contain 6.3 young on average, which are fully weaned within 5 – 9 weeks (Murray 2003). Alaska hares can be identified by the black-tipped ears and are significantly larger than the snowshoe hare (Figure 1, ADG&G 2019).

The Alaska hare is among the most poorly understood wildlife species in Alaska. Hunter questionnaires have been the only source of information about the species and there has been no long-term population monitoring.

Alaska Peninsula/Becharof NWR ranked the Alaska hare as the Refuge's #3 prioritized Resource of Concern as an ecologically significant endemic species vulnerable to the influence of climate change. Resource managers know little about Alaska hare habitat preference (Smith 2021, pers. comm.). Alaska hares occur at low density, and exhibit much lower fecundity than snowshoe hares and are perhaps decreasing in range and numbers (Best & Henry, 1994). The last known eruptive population on the Peninsula occurred in the winter of 1953-54 (Schiller and Rausch 1956). The pervasive influence of predation on hares implies strong selection on their cryptic coloration (Merilaita 2009) and against sustained seasonal mismatch in coat color (Griffin and Mills 2009, Litvaitis 1991). It is unknown how much plasticity exists in these traits, nor how much seasonal color mismatch is expected in the future with climate change, as snow cover now lasts a shorter time in the fall and spring (Mills et al. 2013).

There is an effort to better understand this species. Beginning in 2017, ADF&G began to evaluate capture techniques. They also embarked on a tour of rural communities throughout the range of the Alaska hare to discuss local observations, historical abundance, and harvest patterns. In 2018, a multi-year study was initiated to evaluate movement and mortality, as well as long-term capture techniques. Anecdotal observations suggest that Alaska hare abundance is well below that observed in the 1950s and 1960s, throughout its range. It is unknown whether the population has been in a long-term decline, or whether it experienced a crash and now exists as a low density but relatively stable population (Merizon and Carroll 2019).

Alaska's Hare Species

Snowshoe Hare 2-3 pounds Stands 1 ft tall ¼ - 1/3 inch dia. Pellet size	**Alaska Hare** 6-12 pounds Stands 2 – 2.5 ft. tall ½ - ¾ inch dia. Pellet size

Figure 1. Comparison of Hare species in Alaska provided by ADF&G (Merizon 2021, pers. comm.)

Harvest History

Little is known about the harvest of Alaska hare, which is one of the least accessible small game species. However, it is harvested throughout the communities of western and southwestern Alaska as documented in household harvest surveys (Merizon and Carroll 2019, Table 1). Some insights into smaller wildlife species harvest are available in ADF&G's Statewide Small Game Hunter Survey, results for which were compiled for, regulatory year, RY2011/12 and RY2013/14.

The most recent results, from RY2013/14, show that half of the hunters responding to the survey reported hunting small game in Units 13, 14 or 20, while only about 5% of respondents reported hunting small game in Unit 9 and about 4% in Unit 17. Response rates were not similar among geographic areas of the State. The Alaska Peninsula (Unit 9; 24%) and Western Rural (Units 17, 18, 22, and 23; 16%) had much lower survey response rates than compared to the larger urban centers of Alaska, like Anchorage (35%) and the Mat-Su (34%). Therefore, it is difficult to accurately understand the overall harvest pressure on small game in those areas. Most Alaska resident respondents reported hunting within the geographic region where they reside, but only 3% of respondents reported participating in Federal subsistence small game hunts. Respondents reported that they hunt small game opportunistically while engaging in other activities, but also target small game specifically. Statewide, ptarmigan and spruce grouse were targeted most frequently. Within the Alaska Peninsula, respondents reported hunting for Alaska hare for an average of 2.5 days each year (Merizon et al. 2015).

Table 1. Alaska hare harvest by community (Wiita et al. 2018)

Unit 9			Unit 17		
Community	**Study Year**	**Estimated total Harvest**	**Community**	**Study Year**	**Estimated total Harvest**
Chignik City	**1984**	**4**	**Aleknagik**	**1989**	**23**
	1989	**0**		**2008**	**0**
	1991	**0**	**Clarks Point**	**1989**	**26**
Chignik Lagoon	**1984**	**0**		**2008**	**0**
	1989	**3**	**Dillingham**	**2010**	**83**
Chignik Lake	**1984**	**0**	**Ekwok**	**1987**	**13**
	1989	**3**	**Koliganek**	**1987**	**13**
	1991	**0**	**Manokotak**	**2008**	**0**
Egehik	**1984**	**3**	**New Stuyahok**	**1987**	**20**
Igiugig	**1983**	**0**	**Togiak**	**2008**	**0**
	1992	**17**			
Iliamna	**1983**	**0**			
	1991	**34**			
Ivanof Bay	**1984**	**3**			
	1989	**0**			
Unit 9					
King Cove	**1992**	**38**			
King Salmon	**1983**	**20**			
Kokhanok	**1983**	**43**			
	1992	**293**			

Unit 9			Unit 17
Levelock	1988	51	
	1992	9	
Naknek	1983	24	
	2007	3	
Newhalen	1983	0	
	1991	80	
Nondalton	1973	0	
	1980	38	
	1981	18	
	1983	0	
Pedro Bay	1982	1	
	1996	0	
Perryville	1984	7	
	1989	0	
Pilot Point	1987	7	
Port Alsworth	1983	20	
Sand Point	1992	147	
South Naknek	1983	12	
	1992	0	

*Note- Some Community/Study years not included in this table only showed harvest for "Hares, Jackrabbits, Unknown." Actual harvest maybe higher.

Effects of the Proposal

If this proposal is adopted, opportunity to harvest Alaska hares under Federal subsistence regulation would be reduced. Given that the State season has already been reduced in Unit 9, and ADF&G submitted a proposal to the BOG (January 2022) to include Unit 17, this represents an actual reduction of opportunity for Federally qualified subsistence users. This change would result in reduced harvest of Alaska hare, particularly since it includes both a daily and an annual harvest limit. Though neither harvest nor population size are quantified, harvest reduction has the potential to improve the conservation status of the Unit 9 and Unit 17 Alaska hare populations, which are reported to be well below historical size. Adoption of this proposal would also reduce regulatory complexity in Unit 9 by aligning Federal regulation with recently changed State regulation, as well as in Unit 17 if the BOG adopts Proposal 24.

OSM CONCLUSION

Support Proposal WP22-39 **with modification** to modify the definition of hare in Federal regulations.

The modified regulations should read:

§100.25(a) Definitions:

> *Hare or hares collectively refers to all species of hares (commonly called rabbits) in Alaska and includes snowshoe hare and tundra* **or Alaska** *hare.*

Unit 9—Hare

Snowshoe hare (~~Snowshoe and Tundra~~): No limit	*July 1-June 30*
Alaska hare: 1 hare per day / 4 per season	***Nov. 1 – Jan. 31***

Unit 17 - Hare

Snowshoe hare (~~Snowshoe and Tundra~~): No limit	*July 1-June 30*
Alaska hare: 1 hare per day / 4 per season	***Nov. 1 – Jan. 31***

Justification

Anecdotal information indicates that Alaska hares in Units 9 and 17 are scarcer than they have been in the past. Local managers concur that Alaska hares in this region exist at a low density and are the #3 prioritized Resource of Concern as an ecologically significant endemic species vulnerable from the influence of climate change. Biologically, it is appropriate to restrict harvest in such a situation. Reducing the season from July 1 – June 30 to Nov. 1 – Jan. 31 reduces the season by 75%, yet continues to offer Federally qualified subsistence users the opportunity to harvest Alaska hares during winter when they are engaging in other subsistence activities.

Imposing a harvest limit of 1 per day and 4 annually may have a greater effect on reducing overall harvest and promoting population recovery. Collectively, changes in season length and the harvest limit offer a balance between imposing conservation measures and allowing for the continuation of subsistence uses in the near term. Any positive effect these changes have on the Alaska hare population will benefit subsistence users in the long term.

LITERATURE CITED

ADF&G. 2019. Alaska hare (*Lepus othus) species profile. ADF&G. Juneau, AK. http://www.adfg.alaska.gov/index.cfm?adfg=alaskahare.main. Retrieved May 24, 2021.*

Anderson, H.L. 1974. Range of the tundra hare. The Murrelet. 59(2): 72-74.

Best, T. L., & Henry, T. H. 1994. Lepus othus. Mammalian Species, No. 458, 1-5

BOG. 2019. Audio transcripts of the Alaska Board of Game proceedings. February 23, 2018. Dillingham, AK. ADF&G. Juneau, AK.

Cason, M.M. 2016 Revised distribution of and Alaskan endemic, the Alaska Hare (Lepus othus), with implications for taxonomy, biogeography, and climate change. Arctic Science. 2:50 – 66.

Griffin P.C., Mills L.S. 2009. Sinks without borders: snowshoe hare dynamics in a complex landscape. Oikos 118(10), 1487-1498. (doi:10.1111/j.1600-0706.2009.17621.x).

Klein, D.R. 1995. Tundra or Arctic hare. Page 259 in E.T. LaRoe, G.S. Farris, C.E. Puckett, P.D. Doran and M.J. Mac, eds. Our living resources: A report to the nation of the distribution, abundance, and health of U.S. plants, animals, and ecosystems. U.S. Department of the Interior. National Biological Service. Washington, D.C. 530 pp.

Litvaitis, J.A. 1991. Habitat use by snowshoe hares, Lepus-americanus, in relation to pelage color. Can Field Nat 105 (2):275–277.

Merilaita, S.M. 2009. Animal camouflage: Current issues and new perspectives. Phil Trans R Soc B Biol Sci 364(1516):423–427.

Merizon, R.A., S.J. Carson and L.S. Honig. 2015. Statewide small game hunter survey, 2014. ADF&G. Juneau, AK.

Merizon, R.A. and C.J. Carroll. 2019. Status of grouse, ptarmigan, and hare in Alaska, 2017 and 2018. ADF&G. Juneau, AK.

Merizon, R.A. 2021. Small Game Program Coordinator. Personal communication: email. ADF&G. Juneau, AK.

Mills, L. S., Zimova, M., Oyler, J., Running, S., Abatzoglou, J. T., & Lukacs, P. M. 2013. Camouflage mismatch in seasonal coat color due to decreased snow duration. Proceedings of the National Academy of Sciences of the United States of America, 110, 7099–7528.

Murray, D.L. 2003. Snowshoe hares and other hares. Pages 147 – 175 in G.A Feldhamer, B.C. Thompson and J.A. Chapman, eds. Wild mammals of North America: Biology Management and Conservation. The Johns Hopkins University Press. Baltimore, MD. 1216 pp.

Schiller, E.L., and R. Rausch. 1956. Mammals of the Katmai National Monument, Alaska. Arctic 9:191-201.

Smith, W. 2021. Supervisory Wildlife biologist. Personal communication: email. USFWS. King Salmon, AK.

Wiita, A. L., J. M. Keating, and B. L. Davis. 2018. Customary and Traditional Use Worksheet, Alaska Hare and Snowshoe Hare, Game Management Units 9, 10, 11, 13, 16B, and 17. ADF&G Division of Subsistence, Special Publication No. 2018-02, Anchorage. AK.

SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Kodiak Aleutians Subsistence Regional Advisory Council

Oppose WP22-39.

Justification

The Council opposed the proposal due to the lack of biological data and population estimates. The Council remarked that they don't know what the Alaska hare population or subsistence harvest are. The Council also noted that nothing has changed since the last wildlife cycle when the Board rejected a similar proposal and that further restrictions to sport hunters should be implemented before restricting subsistence users. Hares are an important subsistence resource in the region, especially for remote areas.

Bristol Bay Subsistence Regional Advisory Council

Support WP22-39 with modification to change the season closing date to March 31st.

The modified regulations should read:

Unit 9—Hare	
Snowshoe hare (~~Snowshoe and Tundra~~): No limit	*July 1-June 30*
Alaska hare: 1 hare per day / 4 per season	**Nov. 1 – Mar. 31**
Unit 17 - Hare	
Snowshoe hare (~~Snowshoe and Tundra~~): No limit	*July 1-June 30*
Alaska hare: 1 hare per day / 4 per season	***Nov. 1 – Mar. 31***

Justification

The Council notes that the number of Alaska hares being seen in recent years has decreased, and they appreciate the effort to be attentive to the population. The Council stated that Alaska hare is a winter resource and that as winters are starting later in the year, an extension of the proposed season is reasonable.

Western Interior Alaska Subsistence Regional Advisory Council

Defer WP22-39.

Justification

This proposal does not directly affect the Western Interior Region.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and Federal Subsistence Board action on the proposal.

ALASKA DEPARTMENT OF FISH AND GAME COMMENTS

Wildlife Proposal WP22-39

This proposal would shorten the season duration for Alaska hare (Lepus othus) or "jack rabbit" from always open to establishing a season of November 1 - January 31 in Game Management Units (GMU) 9 and 17. This proposal would also reduce the bag limit from no limit to 1 per day / 4 annually and create a salvage requirement for human use (hide or meat).

Background

This proposal seeks to align federal subsistence hunting regulations for Alaska hare with state regulations in GMUs 9 and 17. In February 2018, the Alaska Board of Game (BOG) reduced the season duration and daily and annual harvest limit for Alaska hare in GMU 9. Based on observations from local rural residents from southwestern Alaska as well as state and federal biologists, Alaska hare abundance has declined from the 1980s and 1990s and as a result a more conservative management approach has been warranted.

There is no consistent abundance or productivity estimates for Alaska hare in GMUs 9 or 17. Inconsistent harvest data from the area also make it difficult to gain a comprehensive understanding about hunter effort and harvest. However, regular field observations beginning in 2017 and a concerted effort to communicate with remote local residents within GMUs 9 and 17 and throughout Southwest and Western Alaska suggest low to very low density compared to what has been observed historically. These observations resulted in ADF&G submitting a proposal to the BOG in 2018 and the subsequent adoption of these more conservative hunting regulations. In addition, beginning in 2019 the Alaska Department of Fish and Game (ADF&G) initiated a research study monitoring Alaska hare movement as well as evaluating long-term population assessment methods. Through this research and extensive time in the field it is clear this species is at low density throughout GMUs 9 and 17. As a result the ADF&G submitted Proposal 24 to the BOG to create identical regulations in GMU 17. That proposal will be heard during the January 2022 meeting.

Impact on Subsistence Users

If adopted this proposal would reduce the annual harvest limit and shorten the Alaska hare hunting season under federal regulations in GMUs 9 and 17.

Impact on Other Users

If adopted this proposal would have no effect on non-federally qualified users (NFQU).

Opportunity Provided by State

State customary and traditional use findings: In 2018, the BOG made a positive customary and traditional use findings for Alaska hare in GMUs 9 and 17.

Amounts Reasonably Necessary for Subsistence: Alaska state law requires the BOG 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.

Although a positive customary and traditional use finding has been made for Alaska hare in GMU 9 and 17, an ANS has not been set in either GMU. The current federal season and bag limit for GMU 9 and 17 is:

Open Season (Permit/Hunt #)			
Unit/Area	**Bag Limit**	**Resident [a]**	**Nonresident**
9 and 17	No Limit	No closed season	No closed season
		(Permit type)	(Permit type)

[a] Subsistence and General Hunts.

Special instructions: During the February 2018 BOG meeting in Dillingham, they adopted additional conservation measures. First, it required salvage of either the hide or meat. Second, it requested hunters report their harvest to the King Salmon ADF&G office so that biologists can gain more insight into overall harvest and locations of abundance. BOG proposal 24 seeks to add the same language for GMU 17.

Conservation Issues

Currently there are no abundance or population productivity estimates available for GMUs 9 or 17 Alaska hare. However, Federal and ADF&G staff as well as local residents have reported declines in the population throughout the GMUs. If adopted this proposal would align the federal subsistence regulations with the current state regulations, which would further reduce Alaska hare harvest in GMUs 9 and 17.

Enforcement Issues

There are no foreseeable enforcement issues with this proposal.

Position

ADF&G SUPPORTS the proposal. As the population of Alaska hares is being investigated it has been found that the population is at such a level that these restrictions are warranted.

WCR22–05 Executive Summary	
Closure Location and Species	Unit 9C (South of Naknek River drainage)—Moose
Current Regulation	**Unit 9C−Moose** *Unit 9C, that portion draining into the Naknek River from the south—1 bull by State registration permit.* — *Aug. 20-Sept. 20.* *Public lands are closed during December for the hunting of moose, except by federally qualified subsistence users hunting under these regulations* — *Dec. 1-31*
OSM Conclusion	**Maintain status quo**
Bristol Bay Subsistence Regional Advisory Council Recommendation	**Maintain status quo**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Eliminate the closure**
Written Public Comments	**None**

FEDERAL WILDLIFE CLOSURE REVIEW

WCR22-05

Closure Location: Unit 9C (South of Naknek River drainage) (Map 1)—Moose

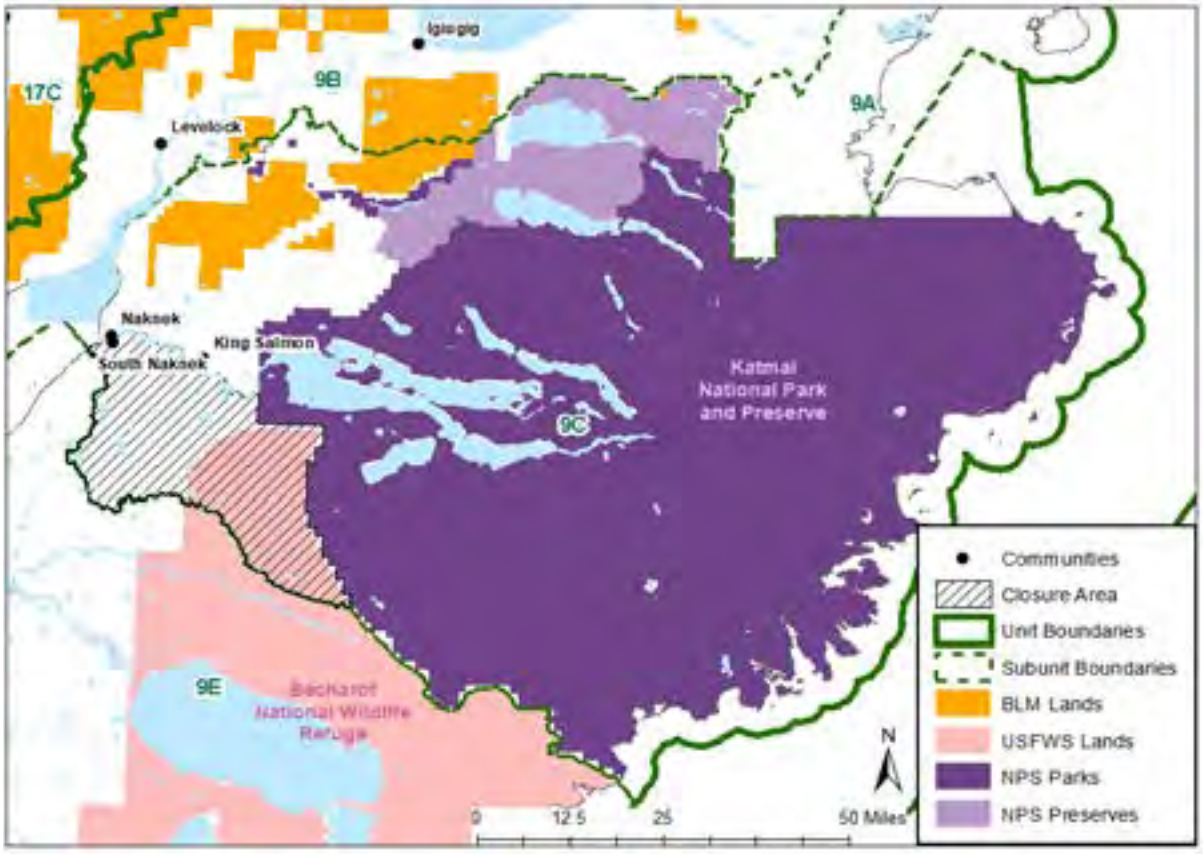


Figure 1. Unit 9C, the portion draining into the Naknek River from the south.

Current Federal Regulation

Unit 9C−Moose

Unit 9C, that portion draining into the Naknek River from the south—1 bull by State registration permit.	*Aug. 20-Sept. 20.*
Public lands are closed during December for the hunting of moose, except by federally qualified subsistence users hunting under these regulations	*Dec. 1-31*

Closure Dates: December 1-31

Current State Regulation

Unit 9C−MooseRegulation		Season	
Unit 9C, that portion draining into the Naknek River	*Residents: One bull by permit available online at http://hunt.alaska.gov or in person in King Salmon beginning Aug. 18*	*RM272*	*Sept. 1-20*
	OR		
	Residents: One antlered bull by permit available online at http://hunt.alaska.gov or in person in King Salmon beginning Nov. 17.	*RM272*	*Dec. 1-31*
	Nonresidents: One bull with 50-inch antlers or antlers with 3 or more brow tines on at least one side by permit available online at http://hunt.alaska.gov or in person in King Salmon beginning Aug. 18.	*RM282*	*Sept. 5-15*

Regulatory Year Initiated: 1992

Extent of Federal Public Lands

Unit 9C is comprised of 85% Federal public lands and consists of 78% National Park Service (NPS) managed lands, 4% Bureau of Land Management (BLM) managed lands, and 4% U.S. Fish and Wildlife Service (USFWS) managed lands.

Unit 9C, that portion draining into the Naknek River from the south is comprised of 43% Federal public lands and consists of 43% USFWS managed lands.

Customary and Traditional Use Determination

Residents of Units 9A, 9B, 9C, and 9E have a customary and traditional use determination for moose in Unit 9C.

Regulatory History

As early as 1990, the Alaska Department of Fish and Game (ADF&G) had issued Emergency Orders closing the December antlerless moose harvest in all or parts of the Naknek River drainage in Unit 9C. These antlerless hunts were originally intended to prevent the moose population from outgrowing available habitat (OSM 1992). In 1992, in response to evidence that the moose population was relatively stable, several proposals were submitted to restrict or eliminate antlerless moose harvest in the Naknek River drainage. Proposal P92-45, submitted by ADF&G, proposed that the harvest limit be changed from 1 moose to 1 bull moose in the entire drainage. Proposal P92-47, submitted by the Bureau of Land Management, also proposed restricting harvest to one bull, but only in the portion of Unit 9C

that drains into the Naknek River from the north. Proposal P92-46, submitted by the Alaska Peninsula/ Becharof National Wildlife Refuge (NWR), proposed a harvest limit of one bull for the Sept. 1 – 15 season, and the establishment of an antlerless moose quota of five for the Dec. 1 – 31 season. The Federal Subsistence Board (Board) rejected proposals P92-46 and P92-47, but adopted P92-45 with modification to incorporate some of the elements of the former two proposals. As a result of the Board's action, the Naknek drainage was divided into two hunt areas. For the area draining into the Naknek River from the north, harvest was restricted to one bull for both the Sept. 1 – 15 and the Dec. 1 – 31 seasons. Harvest during the December season required the use of a Federal registration permit. In the area draining into the Naknek River from the south, harvest was limited to one bull for the Sept. 1 – 15 season. For the Dec. 1 – 31 season, a quota of five antlerless moose was established, by Federal registration permit only. Additionally, Federal public lands in this hunt area were closed to moose harvest during December except by Federally qualified users (OSM 2016a).

In 1993, Proposal P93-39 was submitted by the Office of Subsistence Management to clarify the regulations resulting from the Board's action on P92-45. Ambiguous regulatory language had resulted in confusion about whether or not the antlered bull season would remain open once the antlerless quota was reached (OSM 1993). The Board adopted P93-39, clarifying that the antlered bull season would remain open even if the antlerless moose quota was reached (OSM 2016a).

In 1995, the Bristol Bay Native Association submitted Proposal P95-30. It requested that the fall moose season in the portion of 9C draining into the Naknek River from the south be extended from Sept. 1 – 15 to Aug. 20 – Sept. 15, and that a Federal registration permit be required for the August portion of the fall season. It also requested that the harvest limit be changed from one antlered bull to one bull for both the fall and winter seasons and that the allowance for the harvest of five antlerless moose be eliminated. Finally, it requested that the closure of Federal public lands during the December season be rescinded (OSM 1995). The Board adopted P95-30 with modification as recommended by the Bristol Bay Subsistence Regional Advisory Council (Council), which extended the fall season as proposed, and required the use of a Federal registration permit during August. This action did not result in changes to harvest limits or restrictions, nor did it address the closure (OSM 2016a).

However, harvest restrictions were addressed in 1998, when the Board considered Proposal P98-50. This proposal was submitted by the Alaska Peninsula/Becharof NWR and requested that the harvest limit of one antlered bull be changed to one bull in Units 9A, 9B, 9C in the Naknek River drainage, and 9E. This request addressed hunts that were more restrictive under Federal regulation than under State regulation (OSM 1998). With the Board's adoption of P98-50 (OSM 2016a), Federal and State harvest limits and restrictions for moose in Unit 9 were aligned.

In 2006, Proposal WP06-24, submitted by ADF&G, requested elimination of the December antlerless hunt in Unit 9C, citing a declining population and insufficient calf recruitment (OSM 2006). The Board adopted WP06-24 with modification as recommended by the Council, which resulted in elimination of antlerless harvest but required a Federal registration permit for the entirety of the fall and winter seasons (OSM 2016a).

In 2008, Proposals WP08-30 and WP08-31, addressing moose in Units 9B and 9C, were submitted by the Council. Proposal WP08-30 requested a shorter moose season in Unit 9B while WP08-31 requested a closure of Federal public lands to non-Federally qualified users in Units 9B and 9C (OSM 2008). The Council's support of WP08-30 was contingent upon adoption of WP08-31. After extensive discussion

and input from the State of Alaska and the Council Chair, the proposals were deferred by the Board so a working group could be formed to identify other management options that would address conflicts in Unit 9 subunits (FSB 2008).

Based on the direction given by the Board, the Office of Subsistence Management provided funding for, and worked in cooperation with, ADF&G to initiate a Unit 9 Moose Working Group (Working Group). The Working Group was established to better understand the conflicts in the region and to develop management strategies and recommendations. Subsequently, the Council submitted a number of proposals (WP10-47, -48, -49, -50, -52) to address user conflicts. In May 2010, the Board considered those proposals, as well as proposals WP10-45 (deferred WP08-30) and WP10-46 (deferred WP08-31). The Board deferred all of these proposals, consistent with the recommendations of the Council, until the Working Group could finish its work (FSB 2010).

The Working Group discussed a number of management strategies and came to consensus on three recommendations (ADF&G 2010):

- Submit proposals to the Alaska Board of Game and the Federal Subsistence Board to create a registration permit for all moose hunts in Unit 9.
- Conduct educational outreach directed at local moose hunters.
- Offer educational trapping seminars in the Unit 9 villages.

To address the need for more data and better exchange of information between local residents and ADF&G, the Working Group proposed creating a registration permit hunt for moose throughout Unit 9. The requirements of this hunt would increase information available to wildlife managers about the moose hunt through hunter reports. In addition, such a hunt would increase exchange of information between biologists and moose hunters during the permit distribution process. This hunt would also allow managers to redistribute hunting pressure to help eliminate user conflict.

In March 2011, the Alaska Board of Game (BOG) adopted Proposal 14, which was submitted by the Working Group. The proposal requested the establishment of registration permit hunts for moose in Unit 9. At this meeting, the BOG also adopted Proposal 17, which extended the moose season five days in Units 9C and 9E (Alaska Board of Game 2011). In Unit 9C, this changed the end date from Sept. 15 to Sept. 20. Based on the actions of the BOG, the Council supported aligning, to the maximum extent possible, Federal regulations for moose hunting in Unit 9 with the changes made in State regulation (BBSRAC 2011).

In 2012, the Board addressed deferred Proposals WP10-45, -46, -47, -48, -50 and -52. WP10-45 requested a change to the moose season dates in a portion of Unit 9. Proposals WP10-46, WP10-49 and WP10-50 requested that portions of Unit 9 be closed to the taking of moose by non-Federally qualified subsistence users. Proposals WP10-47, WP10-48 and WP10-52 requested that non-Federally qualified subsistence users hunting moose in portions of Unit 9 be restricted from harvesting moose within a two mile wide corridor on either side of waterways within Federal public lands. All of the proposals were originally deferred by the Board during its May 2010 meeting, pending the outcome of the Unit 9 Moose Working Group process (OSM 2012). In 2012, the Board rejected Proposals WP10-46, -47, -48, -49, -50 and -52 and adopted Proposal WP10-45 with modification to require a State registration permit to harvest moose during the fall season in Unit 9 and to add an additional 5 days to the fall seasons in Units 9C and

9E (FSB 2012). In Unit 9C, this changed the season end date from Sept. 15 to Sept. 20, consistent with State regulation.

The Council reviewed this closure during their winter 2016 meeting, voting to maintain status quo. Subsistence users had continued to express concerns over low moose densities and limited moose harvest in Unit 9C. As the status of the moose population was uncertain due to lack of biological data and surveys, a conservative approach was recommended by OSM and supported by the Council.

In 2015, the Alaska Peninsula/Becharof NWR submitted Emergency Special Action Request WSA15-01, requesting that a Federal permit be required for the fall 2015 season on Federal public lands within the Refuge. This request was submitted due to concern that the existing requirement for a State permit, with a later season opening date (Sept. 1 vs. Aug. 20), would result in confusion. Since there was already a Federal registration permit required for the December moose season in the affected portion of Unit 9C, the fall season dates could simply be added to that permit (OSM 2015). The Board approved WSA15-01 in March 2015 (OSM 2016a).

In 2016, this issue was revisited with the submission of Proposal WP16-22 by the Alaska Peninsula Becharof NWR. WP16-22 requested that a Federal registration permit be required to hunt moose in the portion of Unit 9C draining into the Naknek River from the south for the same reason given in WSA15-01. It also requested that a State registration permit be required for reporting purposes (OSM 2016b). The State agreed to print the Federal season dates on the State registration permit, and as a result, the Board adopted WP16-22 with modification to require a State permit for both the fall and winter seasons (OSM 2016a).

The Board also considered Proposal WP16-24 in 2016. This proposal was submitted by Richard Wilson of Naknek and requested that Federal lands in Unit 9B and 9C be closed to moose harvest except by Federally qualified subsistence users. This proposal was based on the belief that limiting harvest to local residents would be an appropriately conservative management approach, given the lack of current population estimates (OSM 2016c). The Board rejected this proposal, consistent with the recommendation of the Council. The Council stated the proposal did not meet the requirements necessary for a closure, but agreed that updated biological information for this moose population is needed (OSM 2016a).

In August 2020, the Board approved a revised closure policy, which stipulated all closures will be reviewed every four years. The policy also specified that closures, similar to regulatory proposals, will be presented to the Councils for a recommendation and then to the Board for a final decision. Previously, closure reviews were presented to Councils who then decided whether to maintain the closure or to submit a regulatory proposal to modify or eliminate the closure.

Closure last reviewed: 2016 – WCR15-05

Justification for Original Closure (ANILCA Section 815 (3) criteria):

Section 815(3) of ANILCA states:

> *Nothing in this title shall be construed as – (3) authorizing a restriction on the taking of fish and wildlife for nonsubsistence uses on the public lands (other than national parks and park monuments) unless necessary for the conservation of healthy populations of fish and wildlife, for*

the reasons set forth in Section 816, to continue subsistence uses of such populations, or pursuant to other applicable law;

In 1992, Proposal P92-45 was adopted with modification, addressing concerns about the conservation status of the Unit 9 moose population. A primary issue was whether this population could withstand the continued harvest of cow moose. In order to protect the herd and provide a priority for subsistence users, a bull-only harvest was initiated and Federal public lands draining into the Naknek River from the south were closed to moose harvest except by Federally qualified subsistence users (OSM 1992).

Council Recommendation for Original Closure:

Although local residents desired an antlerless moose season, the Council questioned whether this population could sustain a cow harvest. In order to protect the herd and to provide a priority to Federally qualified subsistence users, the Council believed that a bull-only harvest should be allowed and that Federal public lands draining into the Naknek River from the south should be closed to non-Federally qualified subsistence users. The Council believed that this would result in a greater number of bulls available for subsistence users and a larger cow base for herd expansion in the future.

State Recommendation for Original Closure:

The State recommended that the Naknek River drainage be closed to the taking of antlerless moose during the State's December season. Their recommendation was based on their concern for the population of moose north of the Naknek River in the King Salmon Creek drainage. The original recommendation from the State to close the antlerless season was presented in P92-46, but was addressed by the Board via its action on P92-45.

Biological Background

Since the early 20th century, moose on the Alaska Peninsula gradually expanded their range southwestward. This expansion was accompanied by a dramatic population increase until the 1960s, when the population peaked and then began to decline. Biologists believe that range damage from over-browsing led to the decline (Butler 2010). Even after a series of hunting restrictions and improvements in range conditions, the moose population in some subunits declined as much as 60% from its peak in the 1960s. During the 1990s and early 2000s, the Unit 9 moose population was likely stable to declining (Crowley 2017). Brown bear predation on neonatal moose was thought to be the primary limiting factor of moose in Unit 9 (Butler 2010). Suitable habitat for moose in Unit 9 is relatively limited, consisting of boreal forest along river and stream corridors as well as subalpine slopes during snow-free months (Crowley 2017).

The current State population objectives for moose in Unit 9 (Crowley 2017) are to:

1. Maintain existing densities in areas with moderate (0.5–1.5 moose/ mi2): Units 9A-9D or high (1.5–2.5 moose/ mi^2) densities: Unit 9E only
2. Increase low-density populations (where habitat conditions are not limiting) to 0.5 moose/ mi2: Units 9A-9D
3. Maintain sex ratios of at least 25 bulls:100 cows in medium-to-high density populations (Unit 9E) and at least 40 bulls:100 cows in low-density areas (Units 9A-9D).

Assessment of moose population status and trends in Unit 9 is difficult for several reasons, including low moose density, and snow and weather conditions that are frequently inadequate for surveys. As a result, population estimates are not available for Unit 9C between 2000 and 2014 (Crowley 2017, Smith 2021, pers. comm.). Since 1991, the Alaska Peninsula and Becharof National Wildlife Refuge (Refuge) has conducted aerial surveys of moose in trend count areas (TCAs) within and adjacent to the portion of Unit 9C draining into the Naknek River from the south (closure area). The Big Creek Corridor TCA (68 mi2) represents the main hunting area for the closure area, while the Park Border TCA (132 mi2) is located within Katmai National Park, which is closed to hunting. Prior to 2018, the Refuge surveyed a single, larger TCA that covered the Big Creek Corridor and most of the Park Border TCA, and is now called the historic Big Creek TCA (379 mi2). The Refuge adjusted the survey areas in the presented data to facilitate comparison across years (Smith 2021, pers. comm.). Data limitations include an air-sick observer and no snow cover during the 2019 survey of the Park Border TCA and very poor survey conditions in 2018. These factors could have biased the data toward relatively more bulls and lower overall abundance compared to 2020 when survey conditions were excellent.

Between 1991 and 2020, estimated moose densities within the Refuge-surveyed TCAs averaged 0.34 moose/mi2, ranging from 0.07-0.68 moose/mi2. These densities correspond to an average 129 moose, ranging from 28-259 moose. In recent years (2015-2020), moose densities averaged 0.35 moose/mi2, ranging from 0.27-0.41 moose/mi2 (Figure 1). Since 2018 when the TCA areas changed, the moose density with the Big Creek Corridor TCA averaged 0.54 moose/mi2, ranging from 0.37-0.67 moose/mi2. The lowest estimate occurred in 2020 when survey conditions were ideal, indicating this moose population likely declined between 2019 and 2020. Possible causes of the decline include high winter mortality and increased harvest (Smith 2021, pers. comm.).

The Refuge also estimates bull:cow and calf:cow ratios from their aerial surveys of the TCAs. Between 1991 and 2020, bull:cow ratios averaged 46 bulls:100 cows, ranging from 23-82 bulls:100 cows. In recent years (2015-2020), bull:cow ratios have been relatively high, averaging 64 bulls:100 cows, which is well above State management objectives (Smith 2021, pers. comm.). The higher bull:cow ratios in the Park Border TCA compared to the Big Creek Corridor TCA may be due to the prohibition of hunting in the Park Border TCA (Figure 2).

Calf:cow ratios of < 20 calves:100 cows, 20-40 calves:100 cows, and > 40 calves:100 cows may indicate declining, stable, and growing moose populations, respectively (Stout 2012). Between 1991 and 2020, calf:cow ratios averaged 35 calves:100 cows, ranging from 12-92 calves:100 cows. In recent years (2015-2020), calf:cow ratios averaged 30 calves:100 cows, ranging from 24-40 calves:100 cows. These data suggest that the moose population within the closure area is stable. However, between 2018 and 2020, calf:cow ratios fluctuated greatly in the Big Creek Corridor TCA, ranging from 19-64 calves:100 cows (Figure 3) (Smith 2021, pers. comm).

Twinning rates provide an index of nutritional status and can indicate whether or not a moose population is limited by forage availability. In 2014 and 2015, twinning rates in Unit 9C were high at approximately 65%, indicating cows were not nutritionally stressed (Crowley 2017). Bear predation of calves appear to be a major source of mortality in the Unit 9C moose population, although wolves are also present within the unit and responsible for some of the moose mortality. Given high twinning rates, the moose population in Unit 9C seems to be limited by predation, which is consistent with a low level dynamic equilibrium (Crowley 2017).

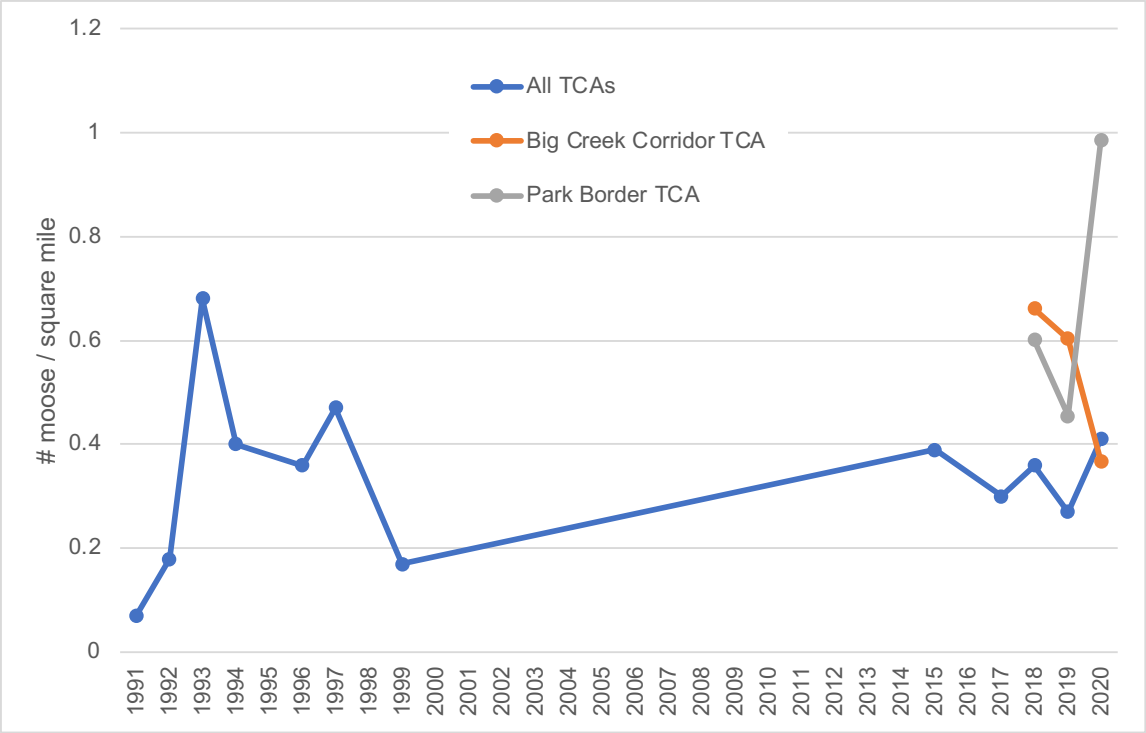


Figure 1. Moose Density Estimates. The "All TCAs" data set includes the historic Big Creek TCA from 1991-2017 and combines data from the Big Creek Corridor and Park Border TCAs from 2018-2020, accounting for differences in survey area sizes (Smith 2021, pers. comm).

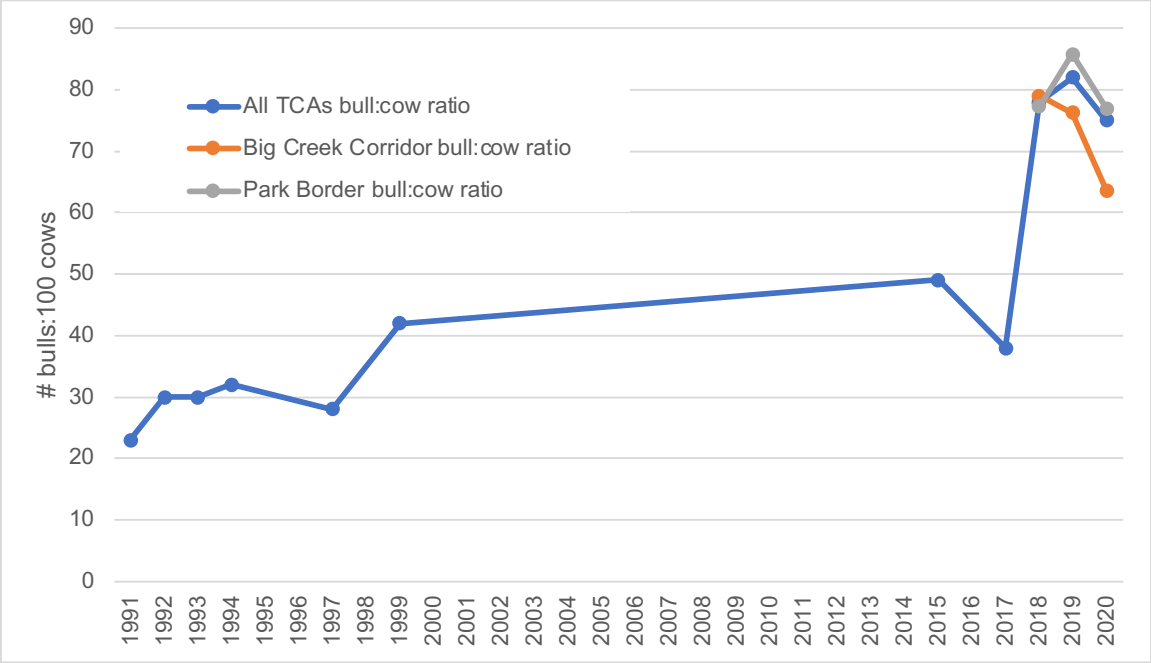


Figure 2. Bull:cow ratios. The "All TCAs" data set includes the historic Big Creek TCA from 1991-2017 and combines data from the Big Creek Corridor and Park Border TCAs from 2018-2020, accounting for differences in survey area sizes (Smith 2021, pers. comm).

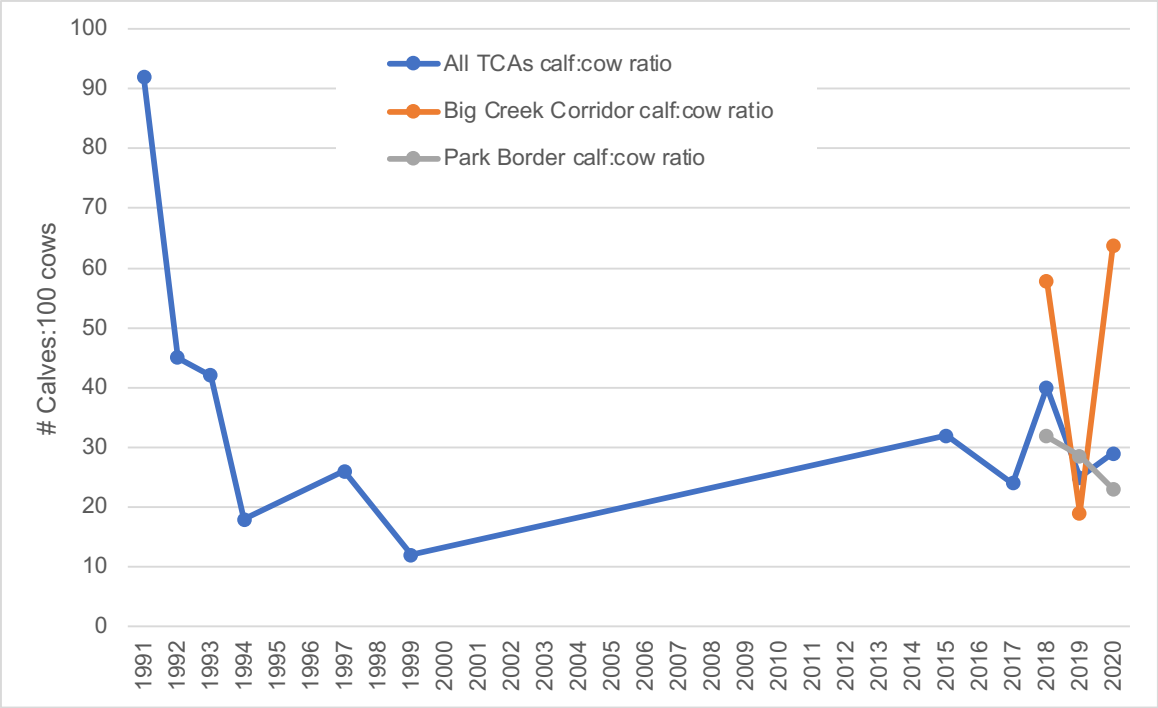


Figure 3. Calf:cow ratios. The "All TCAs" data set includes the historic Big Creek TCA from 1991-2017 and combines data from the Big Creek Corridor and Park Border TCAs from 2018-2020, accounting for differences in survey area sizes (Smith 2021, pers. comm).

Harvest History

Alaska resident moose harvest in Units 9B and 9C occurs by registration permit RM272. This permit has been used under State regulations since 2011, under Federal regulations for the fall moose season since 2012, and under Federal regulations for both the fall and winter moose seasons since 2016. Between 2012 and 2015, a Federal registration permit was used for the winter season. Non-resident moose harvest in Units 9B and 9C occurs by registration permit RM282. While reported moose harvest can be parsed out by subunit, it is not possible to distribute it by hunt area. Therefore, the number of moose reported harvested only within the closure area is not available, although reported moose harvest within all of Unit 9C provides some insights.

Between 2000 and 2019, total reported moose harvest in Unit 9C averaged 29 moose, ranging from 16-43 moose reported per year (Figure 4). Over the same time period, harvest by local users, defined as those with a customary and traditional use determination, accounted for 58% of the Unit 9C reported moose harvest on average, ranging from 36%-84% per year. The total number of hunters averaged 112 hunters, ranging from 62-139 hunters per year. Overall success rates averaged 26% during this time period, ranging from 15%-52%. The highest success rate occurred in 2019, which corresponded with the lowest number of hunters (ADF&G 2016, 2021; OSM 2016a, 2021).

The majority of moose harvest in Unit 9 occurs during the fall. Between 2010 and 2015, 80-90% of the Unit 9 moose harvest occurred in September. Harvest by local hunters depends, in part, on winter snowmachine access and weather conditions (Crowley 2017). While data is limited, the Federal winter hunt within the closure area has not appeared to be heavily utilized. In 2014 and 2015, when a Federal

registration permit was required within the closure area for the winter hunt only, only one moose was reported harvested in 2014 and two moose in 2015. In 2014, only one user attempted harvest, while in 2015, seventeen users attempted harvest. According to the Federal permits database, no users attempted harvest in 2012 and 2013 (OSM 2021). Over the same time period (2012-2015), an average of four bull moose were harvested in Unit 9C during December under State regulations (ADF&G 2021).

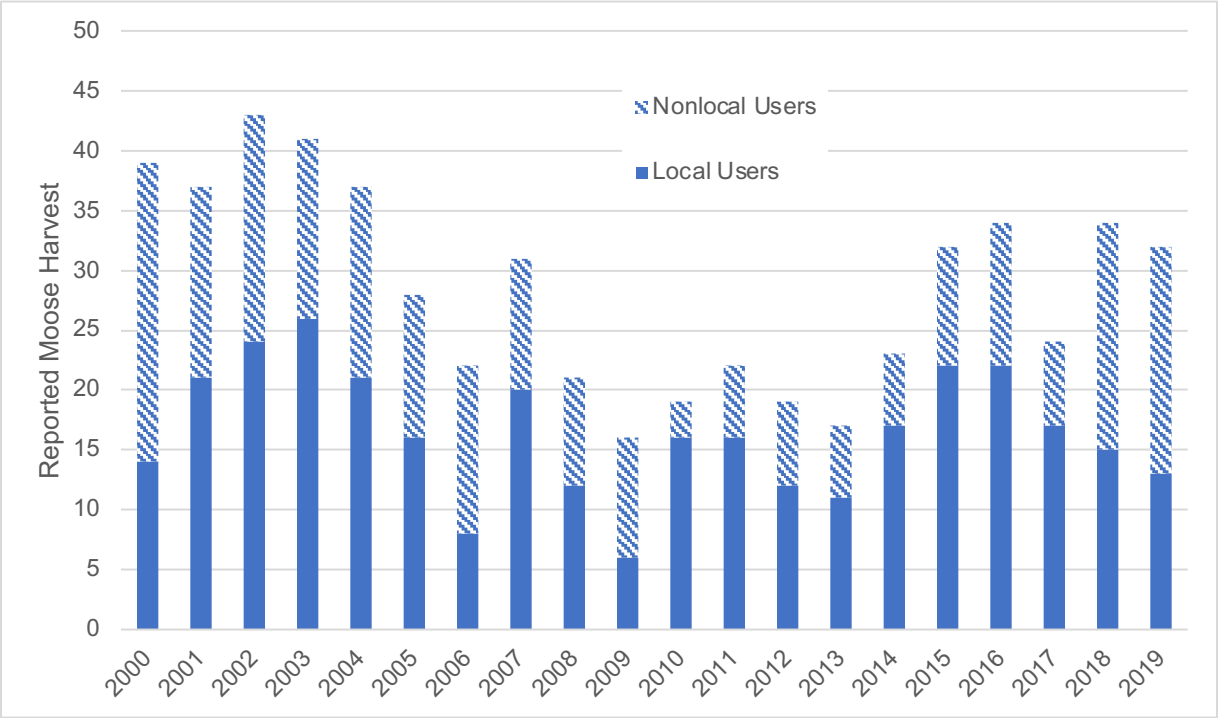


Figure 4. Unit 9C moose reported harvest by local and nonlocal users, 2000 – 2019. Local users are defined as those with a customary and traditional use determination (ADF&G 2016, 2021; OSM 2016a, 2021).

Effects

If this closure is rescinded, non-Federally qualified users would be able to harvest moose on Federal public lands within that portion of Unit 9C draining into the Naknek River from the south during December. This would reduce the Federal subsistence priority. It may also result in increased moose harvest, although increases are expected to be small since most harvest occurs during the fall. However, between 2012 and 2015, more moose harvest occurred in December under State regulations than under Federal regulations by local users. The moose density within the closure area is below State management objectives for moderate density moose populations (0.5 moose/mi^2). While bull:cow ratios are high, calf:cow ratios indicate a stable population.

OSM CONCLUSION

x maintain status quo

_ modify or eliminate the closure

Justification

Moose densities within the closure area are very low, and the population trend is uncertain. A conservative approach is to maintain the closure until moose densities increase and the population exhibits an increasing trend.

LITERATURE CITED

ADF&G. 2010. Unit 9 Moose Working Group April 28 – 29, 2010 meeting summary, final report. ADF&G. Anchorage, AK.

ADF&G. 2016. General Harvest Reports. https://secure.wildlife.alaska.gov/index.cfm?fuseaction=harvestreports.main. Retrieved: August 18, 2016.

ADF&G. 2021. General Harvest Reports. https://secure.wildlife.alaska.gov/index.cfm?fuseaction=harvestreports.main. Retrieved: May 13, 2021.

Alaska Board of Game. 2011. Alaska Board of Game Meeting Summary, March 4 – 10, 2011. ADF&G. Juneau, AK. http://www.adfg.alaska.gov/index.cfm?adfg=gameboard.meetinginfo&date=03-04-2011&meeting=wasilla. Retrieved: August 18, 2016.

BBSRAC. 2011. Transcripts of the Bristol Bay Subsistence Regional Advisory Council proceedings. March 10, 2011. Naknek, AK. Office of Subsistence Management, USFWS. Anchorage, AK.

Butler, L.G. 2010. Unit 9 moose management report. Pages 116–123 *in P. Harper, editor. Moose management report of survey and inventory activities 1 July 2007 – 30 June 2009. ADF&G. Project 1.0. Juneau, AK.*

Crowley, D. W. 2017. Moose management report and plan, Game Management Unit 9: Report period 1 July 2010–30 June 2015 and plan period 1 July 2015–30 June 2020. Alaska Department of Fish and Game, Species Management Report and Plan ADF&G/DWC/SMR&P-2017-5, Juneau, AK.

FSB. 2008. Transcripts of the Federal Subsistence Board proceedings. April 30, 2008. Office of Subsistence Management, USFWS, Anchorage, AK.

FSB. 2010. Transcripts of the Federal Subsistence Board proceedings. May 20, 2010. Office of Subsistence Management, USFWS. Anchorage, AK.

FSB. 2012. Transcripts of the Federal Subsistence Board proceedings. January 19, 2012. Office of Subsistence Management, USFWS. Anchorage, AK.

OSM. 1992. Staff Analysis P92-45. Pages 200 – 201 in Federal Subsistence Board Meeting Materials April 6 – 10, 1992. Office of Subsistence Management, USFWS. Anchorage, AK. 966 pages.

OSM. 1993. Staff Analysis P93-39. Pages 329 – 334 in Federal Subsistence Board Meeting Materials April 5 – 8, 1993. Office of Subsistence Management, USFWS. Anchorage, AK. 622 pages.

OSM. 1995. Staff Analysis P95-30. Pages 219 - 224 in Federal Subsistence Board Meeting Materials April 10 – 14 1995. Office of Subsistence Management, USFWS. Anchorage, AK. 398 pages.

OSM. 1998. Staff Analysis P98-50. Pages 634-641 in Federal Subsistence Board Meeting Materials May 4 – 8, 1998. Office of Subsistence Management, USFWS. Anchorage, AK.

OSM. 2006. Staff Analysis P06-24. Pages 254-261 in Federal Subsistence Board Meeting Materials May 16 – 18, 2006. Office of Subsistence Management, USFWS. Anchorage, AK. 578 pages.

OSM. 2008. Staff Analysis P08-30/31. Pages 445-460 in Federal Subsistence Board Meeting Materials April 29 – May 1, 2008. Office of Subsistence Management, USFWS. Anchorage, AK. 598 pages.

OSM. 2012. Staff Analysis P10-45/46/47/48/49/50/52. Pages 527-552 in Federal Subsistence Board Meeting Materials January 17 – 20, 2012. Office of Subsistence Management, USFWS. Anchorage, AK. 1020 pages.

OSM. 2015. Staff Analysis WSA15-01. Office of Subsistence Management, USFWS. Anchorage, AK.

OSM. 2016a. Alaska Federal Subsistence Program Database. https://ifw7asm-orcldb.fws.gov:8090/apex/f?p=MENU:101:4818053586714257. Retrieved: August 17, 2016.

OSM. 2016b. Staff Analysis WP16-22. Pages 555-566 in Federal Subsistence Board Meeting Materials April 12 – 14, 2016. Office of Subsistence Management, USFWS. Anchorage, AK. 945 pages.

OSM. 2016c. Staff Analysis WP16-24. Pages 149-165 in Federal Subsistence Board Meeting Materials April 12 – 14, 2016. Office of Subsistence Management, USFWS. Anchorage, AK. 945 pages.

OSM. 2021. Alaska Federal Subsistence Program Database. https://ifw7asm-orcldb.fws.gov:8090/apex/f?p=MENU:101:4818053586714257. Retrieved: May 13, 2021.

Smith, W. 2021. Supervisory Biologist. Alaska Peninsula and Becharof National Wildlife Refuge. U.S. Fish and Wildlife Service. King Salmon, AK. Personal communication: e-mail.

Stout, G.W. 2012. Unit 21D moose. Pages 496-533 in P. Harper, editor. Moose management report of survey and inventory activities 1 July 2009-30 June 2011. Alaska Department of Fish and Game. Species management report, ADF&G/SMR/DWC-2012-5, Juneau, AK, USA.

SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Bristol Bay Subsistence Regional Advisory Council

Maintain status quo on WCR22-05. The Council believes that there appears to be available moose for harvest in December. However, the population may not be high enough for the elimination of the closure to be sustainable. The Council agrees that maintaining the subsistence priority should continue.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and Federal Subsistence Board action on the proposal.

ALASKA DEPARTMENT OF FISH AND GAME COMMENTS

Wildlife Closure Review WCR22-05

If this closure is rescinded, non-federally qualified users (NFQU) would be able to harvest moose in that portion of the Becharof National Wildlife Refuge (NWR) that is south of the Naknek River and within the Big Creek drainage of Game Management Unit (GMU) 9C in December.

Background

Currently, NFQUs are allowed to hunt the GMU 9C closed area during the fall hunt, but not the winter hunt. The winter hunt is closed to nonresident hunters under state regulations. There is no actual estimate of moose density in the closure, but during recent composition counts pooled from 3 local trend count areas, approximately 0.8 moose/mi^2 were observed. Bull:cow ratios are high, and recent (2017 – 2019) calf mortality research indicated that calf survival was adequate to support a stable to increasing moose population.

Reported harvest in the Big Creek drainage (UCU 0602), which includes much of the closed area, for 2018 – 2020 was 6, 5, and 10, respectively, and the number of hunters was 34, 13 and 28. Hunter success was 25, 30, and 32%. The federal closed area does not include lands to the west of Becharof NWR as suggested by the map in OSM analysis of WCR22-05.

Impact on Subsistence Users

Any potential impact would be low because almost all subsistence harvest occurs under federal regulations during the fall hunt on federal public lands, which opens 10 days early (Aug. 20) for FQUs. Competition with NFQUs would be minimal in December.

Impact on Other Users

If the closure is rescinded, a slight increase in harvest may occur during winters with good snow and ice conditions. The average annual increase would be low because most moose harvest occurs during the fall.

Opportunity Provided by State:

State customary and traditional use findings: The Alaska Board of Game (BOG) has made a positive customary and traditional use finding for moose in GMU 9C.

Amounts Reasonably Necessary for Subsistence: Alaska state law requires the BOG 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 in GMUs 9A, 9B, 9C, and 9E combined is 100–140 moose per year.

State and federal seasons and bag limits for GMU 9C are presented in WCR22-05.

Conservation Issues

Staff at the Office of Subsistence Management relied primarily on composition counts from the Big Creek Corridor (BCC) count area, which has an area of only 68 mi2. Movements of collared cow moose indicate that nearby trend count areas should be pooled, as is traditionally done by ADF&G. Pooling with nearby Park Border and King Salmon River count areas from 2018 – 2020 results in counts of 192, 220 and 221, respectively, and a density of 0.8 moose/mi^2. Pooled calf:cow ratios were 49, 34, and 22. These data indicate a stable population of moderate density.

ADF&G submitted a proposal to the BOG to increase moose season lengths in GMUs 9B & C for resident hunters.

Enforcement Issues

There are no foreseeable enforcement issues with the lifting of this closure.

Position

ADF&G **SUPPORTS** the elimination of this closure. The current moose population in this area is stable with a density for which there is no conservation concern.

WP22-43/44 Executive Summary	
General Description	Proposal WP22-43 requests delegating authority to the Federal in-season manager to increase the moose harvest quota in Zone 1 of the Kuskokwim hunt area of Unit 18 if the water levels are too low to access Zone 2. *Submitted by: The Yukon-Kuskokwim Delta Subsistence Regional Advisory Council.* Proposal WP22-44 requests that the fall moose season in the Kuskokwim hunt area of Unit 18 be extended from Sept. 1 – 30 to Sept. 1 – Oct. 15 and that a may-be-announced season be established from Dec. 1-Jan. 31 with a harvest limit of one antlered bull by Federal registration permit. *Submitted by: Yukon Delta National Wildlife Refuge.*
Proposed Regulation	WP22-43 *Unit 18—Moose* *Unit 18 – that portion east of a line running from the mouth of the Ishkowik River to the closest point of Dall Lake, then to the east bank of the Johnson River at its entrance into Nunavakanukakslak Lake (N 60°59.41' Latitude; W162°22.14' Longitude), continuing upriver along a line 1/2 mile south and east of, and paralleling a line along the southerly bank of the Johnson River to the confluence of the east bank of Crooked Creek, then continuing upriver to the outlet at Arhymot Lake, then following the south bank east of the Unit 18 border and then north of and including the Eek River drainage[1]—1 antlered bull by State registration permit; quotas will be announced annually by the Yukon Delta National Wildlife Refuge Manager.* ***If river water levels are too low to access the Zone 2 moose hunt area, then the Refuge Manager may expand the moose harvest quota for Zone 1.*** *Sept. 1 – 30* *Federal public lands are closed to the taking of moose except by residents of Tuntutuliak, Eek, Napakiak, Napaskiak, Kasigluk, Nunapitchuk, Atmautlauk, Oscarville, Bethel, Kwethluk, Akiachak, Akiak, Tuluksak, Lower Kalskag, and Kalskag*

WP22-43/44 Executive Summary		
Proposed Regulations	WP22-44 **Unit 18—Moose** *Unit 18 – that portion east of a line running from the mouth of the Ishkowik River to the closest point of Dall Lake, then to the east bank of the Johnson River at its entrance into Nunavakanukakslak Lake (N 60°59.41' Latitude; W162°22.14' Longitude), continuing upriver along a line 1/2 mile south and east of, and paralleling a line along the southerly bank of the Johnson River to the confluence of the east bank of Crooked Creek, then continuing upriver to the outlet at Arhymot Lake, then following the south bank east of the Unit 18 border and then north of and including the Eek River drainage1—1 antlered bull by State registration permit; quotas will be announced annually by the Yukon Delta National Wildlife Refuge Manager.* ***Up to one antlered bull by Federal registration permit may be announced.*** *Federal public lands are closed to the taking of moose except by residents of Tuntutuliak, Eek, Napakiak, Napaskiak, Kasigluk, Nunapitchuk, Atmautlauk, Oscarville, Bethel, Kwethluk, Akiachak, Akiak, Tuluksak, Lower Kalskag, and Kalskag*	Sept. 1 – **Oct. 15** **Season may be announced between Dec. 1-Jan. 31**

WP22-43/44 Executive Summary	
OSM Conclusion	***Oppose*** *Proposal WP22-43 and* ***Support*** *Proposal WP22-44* ***with modification*** *to clarify the regulatory language and to delegate authority to the Yukon Delta NWR manager to announce the winter season and set harvest quotas via delegation of authority letter only* The modified regulation should read: **Unit 18—Moose** *Unit 18 – that portion east of a line running from the mouth of the Ishkowik River to the closest point of Dall Lake, then to the east bank of the Johnson River at its entrance into Nunavakanukakslak Lake (N 60°59.41' Latitude; W162°22.14' Longitude), continuing upriver along a line 1/2 mile south and east of, and paralleling a line along the southerly bank of the Johnson River to the confluence of the east bank of Crooked Creek, then continuing upriver to the outlet at Arhymot Lake, then following the south bank east of the Unit 18 border and then north of and including the Eek River drainage—1 antlered bull by State registration permit* ***during the fall season;*** ***OR*** ***1 antlered bull by Federal registration permit during a winter season.*** *Federal public lands are closed to the taking of moose except by residents of Tuntutuliak, Eek, Napakiak, Napaskiak, Kasigluk, Nunapitchuk, Atmautlauk, Oscarville, Bethel, Kwethluk, Akiachak, Akiak, Tuluksak, Lower Kalskag, and Kalskag* Sept. 1 – **Oct. 15**
Yukon-Kuskokwim Delta Subsistence Regional Advisory Council	**Oppose** WP22-43. **Support** WP22-44.
Western Interior Alaska Subsistence Regional Advisory Council	**Oppose** WP22-43. **Support** WP22-44.

WP22-43/44 Executive Summary	
Interagency Staff Committee Comments	WP22-43 The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and Federal Subsistence Board action on the proposal WP22-44 Adoption of Proposal WP22-44 would provide additional harvest opportunity for Federally qualified subsistence users though the extension of the fall moose season in the Kuskokwim hunt area of Unit 18 from Sept. 1- 30 to Sept. 1 – Oct. 15 and a winter may-be-announced season be established from Dec. 1-Jan. 31 with a harvest limit of one antlered bull by Federal registration permit. The winter hunt will not increase the quota and instead will potentially allow for the current quota to be met. Additional harvest opportunity is warranted, given that the current quota was not met in 2020 and 2021 during the Fall Moose hunt in Zone 2 despite extending the season into October by Special Action (WSA21-03). Therefore, a Winter season was proposed by the Yukon Delta National Wildlife Refuge (YDNWR). Allowing additional harvest opportunity may help to meet the quota in Zone 2, which is primarily Federal public lands, is difficult to access, and in an area where quotas have not been met. Residents of the Yukon Kuskokwim Delta region have repeatedly expressed a need for additional hunts. In addition, the caribou season has been closed for the last two years in the local area which has placed an additional burden on subsistence users. After the mid-2000 moose hunting moratorium, the USFWS along with partner agencies promised more hunting opportunities once the moose population increased; this hunt proposal is an effort to fulfill those promises. The Interagency Staff Committee recognizes the support for this proposal from the Yukon Kuskokwim Delta Regional Advisory Council and the suggestion by the Western Interior Regional Advisory Council to consider the timing of the winter may-be-announced season with respect to when moose shed their antlers. The Refuge Manager already has delegated authority to establish an annual quota and to close the season once the quota is met. The fall hunt requires the use of a State registration permit under Federal regulations. The adoption of this proposal would require the creation and issuance of a Federal registration permit for the winter season. Delegating this additional authority to the in-season manager to announce the winter season would provide management flexibility and simplify unit specific regulations.

WP22-43/44 Executive Summary	
ADF&G Comments	**Oppose** WP22-43 **Support** WP22-44 **with modification** (**Support** alignment of the Federal and State fall moose season, but **Oppose** the proposed winter season).
Written Public Comments	**None**

STAFF ANALYSIS
WP22-43/44

ISSUES

Wildlife Proposal WP22-43, submitted by the Yukon-Kuskokwim Delta Subsistence Regional Advisory Council (Council) requests delegating authority to the Federal in-season manager to increase the moose harvest quota in Zone 1 of the Kuskokwim hunt area of Unit 18 if the water levels are too low to access Zone 2.

Wildlife Proposal WP22-44, submitted by the Yukon Delta National Wildlife Refuge (NWR), requests that the fall moose season in the Kuskokwim hunt area of Unit 18 be extended from Sept. 1 – 30 to Sept. 1 – Oct. 15 and that a may-be-announced season be established from Dec. 1-Jan. 31 with a harvest limit of one antlered bull by Federal registration permit.

DISCUSSION

WP22-43

The Council voted to submit this proposal after discussion with Kwethluk residents who stated that water levels in the Kuskokwim River tributaries have been too low in recent years to successfully access Zone 2 and hunt moose. Low winter snowpack and hot, dry summers in recent years have increasingly made access to Zone 2 by prop boat more challenging. When access to Zone 2 is prohibited due to low water levels, providing for other subsistence opportunity, such as increasing the quota in the more accessible Zone 1 located along the main stem of the Kuskokwim River, is imperative.

WP22-44

The Refuge states that the average moose harvest since 2017 for the RM615 hunt within Zone 2 has been 78 moose, which is below the quota of 110 moose. Adoption of this proposal will increase harvest within sustainable levels and will not result in population declines because of the limited bulls-only harvest. The proponent further states that extending the fall season in Zone 2, which is predominantly Federal public lands, will allow for additional hunting opportunity for Federally qualified subsistence users, while also allowing the Federal manager to assess how much harvest increases during the requested two week long extension. The proponent states that announcement of a “may be announced” winter season would allow harvest of the remaining fall quota. While not explicit in their proposal, the proponent clarified that use of the Federal registration permit was only intended for the may-be-announced winter season.

Existing Federal Regulation

Unit 18—Moose

Unit 18 – that portion east of a line running from the mouth of the Ishkowik River to the closest point of Dall Lake, then to the east bank of the Johnson River at its entrance into Nunavakanukakslak Lake (N 60°59.41′ Latitude; W162°22.14′ Longitude), continuing upriver along a line 1⁄2 mile south and east of, and paralleling a line along the southerly bank of the Johnson River to the confluence of the east bank of Crooked Creek, then continuing upriver to the outlet at Arhymot Lake, then following the south bank east of the Unit 18 border and then north of and including the Eek River drainage[1]—1 antlered bull by State registration permit; quotas will be announced annually by the Yukon Delta National Wildlife Refuge Manager	*Sept. 1 – 30*

Federal public lands are closed to the taking of moose except by residents of Tuntutuliak, Eek, Napakiak, Napaskiak, Kasigluk, Nunapitchuk, Atmanutlauk, Oscarville, Bethel, Kwethluk, Akiachak, Akiak, Tuluksak, Lower Kalskag, and Kalskag

[1]Referred to as the Kuskokwim hunt area throughout the analysis.

Proposed Federal Regulation

WP22-43

Unit 18—Moose

Unit 18 – that portion east of a line running from the mouth of the Ishkowik River to the closest point of Dall Lake, then to the east bank of the Johnson River at its entrance into Nunavakanukakslak Lake (N 60°59.41′ Latitude; W162°22.14′ Longitude), continuing upriver along a line 1⁄2 mile south and east of, and paralleling a line along the southerly bank of the Johnson River to the confluence of the east bank of Crooked Creek, then continuing upriver to the outlet at Arhymot Lake, then following the south bank east of the Unit 18 border and then north of and including the Eek River drainage[1]—1 antlered bull by State registration permit; quotas will be announced annually by the Yukon Delta National Wildlife Refuge Manager. **If river water levels are too low to access the Zone 2 moose hunt area, then the Refuge Manager may expand the moose harvest quota for Zone 1.**	*Sept. 1 – 30*

Federal public lands are closed to the taking of moose except by residents of Tuntutuliak, Eek, Napakiak, Napaskiak, Kasigluk, Nunapitchuk, Atmanutlauk, Oscarville, Bethel, Kwethluk, Akiachak, Akiak, Tuluksak, Lower Kalskag, and Kalskag

[1]Referred to as the Kuskokwim hunt area throughout the analysis.

WP22-44

Unit 18—Moose	
Unit 18 – that portion east of a line running from the mouth of the Ishkowik River to the closest point of Dall Lake, then to the east bank of the Johnson River at its entrance into Nunavakanukakslak Lake (N 60°59.41′ Latitude; W162°22.14′ Longitude), continuing upriver along a line 1⁄2 mile south and east of, and paralleling a line along the southerly bank of the Johnson River to the confluence of the east bank of Crooked Creek, then continuing upriver to the outlet at Arhymot Lake, then following the south bank east of the Unit 18 border and then north of and including the Eek River drainage[1]—1 antlered bull by State registration permit; quotas will be announced annually by the Yukon Delta National Wildlife Refuge Manager. **Up to one antlered bull by Federal registration permit may be announced during a winter season.**	Sept. 1 – ~~30~~ **Oct. 15** **Season may be announced between** **Dec. 1-Jan. 31**

Federal public lands are closed to the taking of moose except by residents of Tuntutuliak, Eek, Napakiak, Napaskiak, Kasigluk, Nunapitchuk, Atmanutlauk, Oscarville, Bethel, Kwethluk, Akiachak, Akiak, Tuluksak, Lower Kalskag, and Kalskag

[1]Referred to as the Kuskokwim hunt area throughout the analysis.

Existing State Regulation

Unit 18—Moose		
Zone 1: Unit 18 – all Kuskokwim River drainages north and west of a line beginning at the confluence of Whitefish Lake and Ophir Cree k at the Unit 18 boundary and continuing south west to the confluence of Tuluksak and Fog Rivers, then southerly to the lower Kisaralik River-Kasigluk River cutoff of the Kisaralik River, then south westerly to the lower Kisaralik River-Kasigluk River cutoff of the Kasigluk River, then south westerly to the Akulikutak River where the snowmachine trail crosses the river from the east side of Three Step Mountain, then westerly to the confluence of Kwethluk Rive r and Magic Creek, then southwesterly to the confluence of Eek Rive r and Middle Fork Eek River, then southwesterly to the Unit 18 boundary at 60° 4.983' N, 161° 37.140' W; and all drainages easterly of a line from the mouth of the Ishkowik River to the closest point of Dall Lake , then to the east bank of the Johnson River at its entrance into Nunavakanukakslak Lake at 60° 59.41' N, 162° 22.14' W, continuing upriver along a line ½ mile south and east of, and paralleling a line along the southerly bank of the Johnson River to the confluence of the east bank of Crooked Creek, then continuing upriver along the east bank of Crooked Creek to the outlet at Arhymot Lake , then following the south bank of Arhymot Lake easterly to the Unit 18 boundary.	1 bull excluding male calves by permit available in person in Bethel and villages within the hunt area Aug. 1-25 and online at http://hunt.alaska.gov Aug. 1-Oct. 7	Sept. 1-Sept. 9[1]

Unit 18—Moose

Zone 2: Unit 18 – all Kuskokwim River drainages south and east of a line beginning at the confluence of Whitefish Lake and Ophir Creek at the Unit 18 boundary and continuing southwest to the confluence of Tuluksak and Fog Rivers, then southerly to the lower Kisaralik River-Kasigluk River cutoff of the Kasigluk River, then southwesterly to the lower Kisaralik River-Kasigluk River cutoff of the Kasigluk River, then southwesterly to the Akulikutak River where the snowmachine trail crosses the river from the east side of Three Step Mountain, then westerly to the confluence of Kwethluk River and Magic Creek, then southwesterly to the confluence of Eek River and Middle Fork Eek River, then southwesterly to the Unit 18 boundary at 60° 4.983' N, 161° 37.140'.	1 bull excluding male calves by permit available in person in Bethel and villages within the hunt area Aug. 1-25 and online at http://hunt.alaska.gov Aug. 1-Oct. 7	Sept. 1 – Oct. 15
Nonresidents:	No open season	

[1]full season is Sept. 1-Oct. 15, but ADF&G uses discretionary authority to set dates in Zone 1 each year

Extent of Federal Public Lands

Unit 18 is comprised of 67% Federal public lands and consists of 64% U.S. Fish and Wildlife Service (USFWS) managed lands and 3% Bureau of Land Management (BLM) managed lands

The Unit 18 Kuskokwim moose hunt area is comprised of 57% Federal public lands and consists of 56% USFWS managed lands and 1% BLM managed lands (**Figure 1**).

Zone two within the Kuskokwim moose hunt area is comprised of 82% Federal public lands and consists of 79% USFWS managed lands and 3% BLM managed lands (**Figure 1**).

Customary and Traditional Use Determinations

Residents of Unit 18, Upper Kalskag, Aniak, and Chuathbaluk have a customary and traditional use determination for moose in Unit 18, that portion of the Yukon River drainage upstream of Russian Mission and that portion of the Kuskokwim River drainage upstream of, but not including, the Tuluksak River drainage.

Residents of Unit 18, Lower Kalskag, and Upper Kalskag have a customary and traditional use determination for moose in Unit 18 remainder

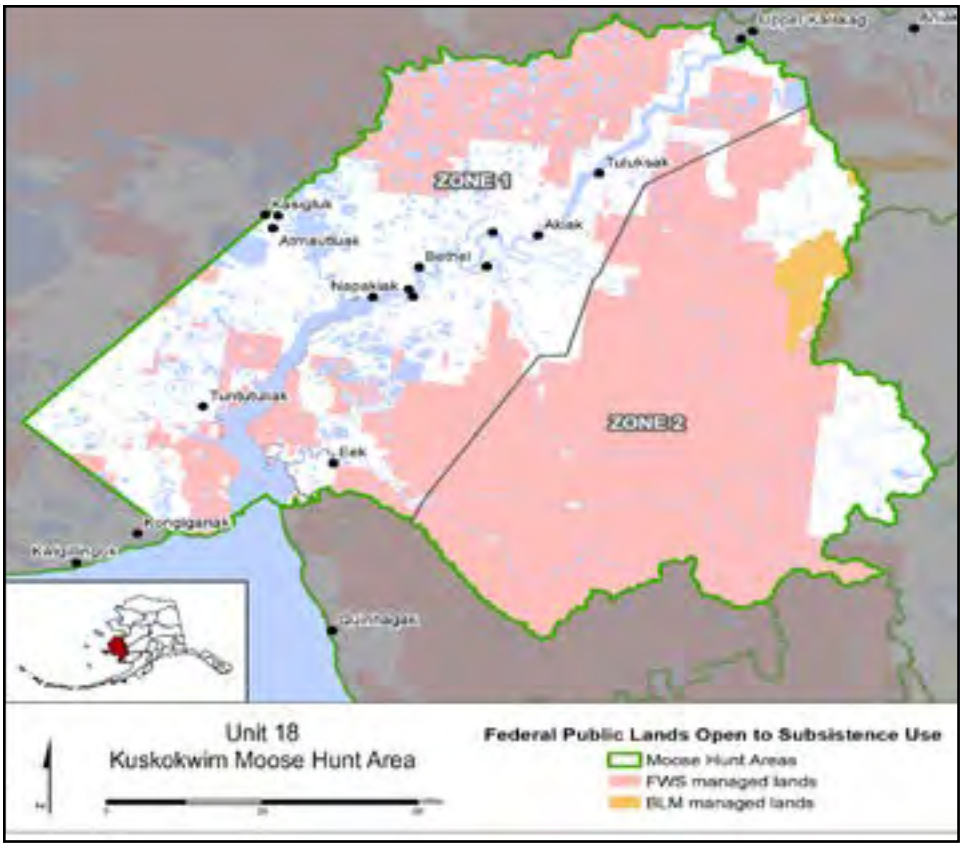


Figure 1. Federal public lands and hunt zones within the Kuskokwim moose hunt area, Unit 18.

Regulatory History

Federal public lands in the Kuskokwim area were closed to non-Federally qualified users in 1991, when the Federal Subsistence Board (Board) acted on Proposal P91-124. Submitted by the Togiak NWR, Proposal P91-124 requested that the moose season in the southern portion of Unit 18, including the Kanektok and Goodnews River drainages, be closed to allow establishment of a harvestable moose population. The Board adopted this proposal with modification to close Federal public lands throughout Unit 18 to moose harvest, except by Federally qualified subsistence users, given low moose densities throughout Unit 18.

Until 2004, Federal and State moose harvest limits for the lower Kuskokwim River area were one bull or one antlered bull, and the fall seasons lasted approximately one month. The State winter season varied widely from a continuous fall/winter season (Sept. 1–Dec. 31) to a 10-day December season and a winter "to be announced" season. The Federal winter season varied from a 10-day season to a "to be announced" season.

Both the Federal and State seasons were closed in the fall of 2004 as part of a coordinated effort to build the Kuskokwim moose population. In 2003, at the request of local residents, the Alaska Board of Game (BOG) established a five-year moratorium on moose hunting under State regulations. The Board adopted Proposal WP04-51 in April 2004 that established a five-year moratorium on Federal public lands. The intent of the moratorium was to promote colonization of underutilized moose habitat. The moratorium was largely instigated by the Lower Kuskokwim Fish and Game Advisory Committee, which worked

with the Alaska Department of Fish and Game (ADF&G), USFWS, and area residents to close the moose season for five years or when a population of 1,000 moose was counted in the lower Kuskokwim survey unit. Considerable outreach efforts were made to communicate the impact of the moratorium on the growth potential of the affected moose population to local communities.

In March 2009, the BOG established a registration hunt (RM615), in preparation for ending the moratorium on June 30, 2009. A Sept. 1 – 10 season was established, with a harvest limit of one antlered bull by registration permit. In November 2009, the BOG adopted a proposal that changed the boundary separating the Unit 18 lower Kuskokwim area from the Unit 18 remainder area.

In May 2010, the Board adopted Proposals WP10-58 and WP10-62, with modification to make boundary changes similar to the BOG actions. Adoption of these proposals helped clarify the boundary for moose hunters and law enforcement. At the same meeting, the Board adopted Proposal WP10-54 with modification to reduce the pool of Federally qualified subsistence users eligible to hunt moose on Federal public lands within the lower Kuskokwim hunt area. This was necessary because of the small number of moose available to harvest relative to the large number of subsistence users with a customary and traditional use determination for moose (42 communities including Bethel).

Special action requests were approved to establish Federal moose seasons in the lower Kuskokwim hunt area in 2010 and 2012. In 2010, Emergency Wildlife Special Action WSA10-02 was approved to establish a Sept. 1 – 5 moose season. In 2012, Emergency Wildlife Special Action WSA12-06 was approved to establish a Sept. 1 – 30 moose season. The harvest quota was set prior to the start of the season and the harvest limit was one antlered bull by State registration permit.

In April 2014, the Board adopted Proposal WP14-27 with modification, establishing a Federal moose season in the Kuskokwim hunt area. The Sept. 1 – 30 season had a harvest limit of one antlered bull by State registration permit. The Yukon Delta NWR manager was delegated the authority to establish an annual quota and close the season once the quota was met.

In August 2018, the Tuluksak Native Community submitted Emergency Special Action Request WSA18-02, requesting that the Board open the moose season early in the Kuskokwim hunt area to accommodate a food shortage emergency. The Board approved this request with modification to open an Aug. 18 – 31 emergency season only to residents of Tuluksak, with a quota of seven antlered bulls by Federal registration permit.

In 2020, the BOG adopted Proposal 7 as amended to change the State season dates for the RM615 moose hunt to Sept. 1-Oct.15 with a harvest limit of one bull, excluding the take of male calves. The first amendment to Proposal 7 was to extend the season from Sept. 1 – Sept. 30 to Sept. 1 – Oct. 15. Consideration was made to accommodate the holiday and teacher in-service days by keeping the season open date the same to allow continued opportunity for youth hunts. The second amendment to Proposal 7 changed the harvest limit from one antlered bull to one bull excluding the take of male calves. This was done to allow for proxy hunt but continue to prohibit the potential harvest of calves or incidental harvest of cows (ADF&G. 2020).

In April 2020, the Board considered Closure Review WCR20-38 and Proposal WP20-35 concerning moose in the Kuskokwim hunt area. The Board voted to maintain status quo on the Federal lands closure reviewed by WCR20-38 because demand for moose by Federally qualified subsistence user exceeds

sustainable harvest levels. Proposal WP20-35 requested the addition of a may-be-announced season between Dec. 1 – Jan. 31. The Board rejected this proposal as part of the consensus agenda because of conservation concerns. While the Council had submitted the proposal, they opposed it to allow more time for the moose population to fully recover following the harvest moratorium. Additionally, the Council noted that snowmachine access during a winter season could dramatically increase harvest pressure in the area, including accidental harvest of cows, further hampering recovery of the population.

In July 2020, the Board approved Wildlife Special Action WSA20-05, which requested extending the fall moose season in the Kuskokwim hunt area of Unit 18 from Sept. 1 – 30 to Sept. 1 – Oct. 7 for the 2020/21 regulatory year. Yukon Delta NWR submitted, and the Board approved the proposal to provide more subsistence hunting opportunity since moose harvest quotas were not being met.

ADF&G and the Yukon Delta NWR cooperatively manage the Kuskokwim hunt area in two zones (**Figure 1**). Zone 1 is primarily non-Federal lands, and quotas are set by ADF&G. Local subsistence users can easily access Zone 1 by boat along the Kuskokwim River. Therefore, quotas are quickly met, and seasons are fixed dates calculated by ADF&G to determine what date harvest objectives are expected to be met before each season. Zone 2 is primarily Federal public lands, and the Yukon Delta NWR sets quotas. Zone 2 is much more difficult to access, and quotas are not usually met.

Current Events

The Yukon Delta NWR submitted Wildlife Special Action WSA21-03, which requests the same extension to the fall moose season as Proposal WP22-44, but does not propose to establish a winter season. Wildlife Special Action WSA21-03 was Approved by the board in August 2021 which extended the fall moose season to Oct 15 in Zone 2 aligning the 2021/22 season with current state regulations.

Biological Background

Moose are believed to have begun colonization of the Yukon-Kuskokwim Delta in the 1940s (Perry 2014). By the 1990s, when the Federal public lands closure was initiated, moose densities throughout much of Unit 18 were very low. Though established populations existed in the far eastern portions of Unit 18, moose were only sparsely distributed throughout much of the unit. Harvested moose were likely immigrants from other areas, rather than part of a local breeding population (FSB 1991), and hunting pressure was effective in limiting growth of the moose population along the Kuskokwim River corridor (Perry 2014). The 2004 – 2008 hunting moratorium was effective in establishing a harvestable population, and the most recent indicators suggest that the population along the Kuskokwim River main stem and in its tributaries continues to grow.

Prior to 2020, the most recent population survey of the lower Kuskokwim survey area, which includes the main stem riparian corridor between Kalskag and Kwethluk, occurred in 2015. At that time, the population was estimated to be 1,378 moose, or 1.6 moose/mile^2 in Zone 1 (**Figure 2**). This represents an annual growth rate of 20% between 2011 and 2015. The population estimate for Zone 2 was 508 moose (YKDRAC 2019). At that time, the Kuskokwim moose population remained below the State's population objective of at least 2,000 moose in this area (Perry 2014).

Lack of snow cover in recent years precluded additional population surveys between 2015 and 2020. The survey completed in 2020 shows an increase of the moose populations in both zones. The estimated mid-

point population in Zone 1 was 3,220 moose, and the minimum count in Zone 2 was 789 moose, which exceeds State population objectives (**Figure 2**) (Jones 2021, pers. comm., YKDRAC 2019). Browse surveys indicate that the population in Zone 1 is potentially reaching a point that will limit or stop growth, and Zone 2 is about one-half of what it could be (Jones 2021, pers. comm.).

Composition estimates for the main stem were obtained in 2020, when there were 25 bulls:100 cows (ADF&G 2020). Bull:cow ratios, which were quite high during the harvest moratorium, declined when harvest resumed in 2009, but remained consistently above the minimum objective of 30 bulls:100 cows until 2020 (**Table 1**). The recent decline in the bull:cow ratio follows an increase in reported harvest and a liberal hunting season in 2019. Unreported harvest, increased winter mortality, and misclassification of young bulls with small antlers during surveys may also have contributed to the lower ratio in 2020. Bull:cow ratios in the Kuskokwim tributaries (Zone 2) are very high, although surveys have occurred infrequently. In 2015 and 2020, ratios were 83 and 42 bulls:100 cows, respectively (Oster 2020, Jones 2021, pers. comm).

Fall calf:cow ratios of < 20 calves:100 cows, 20-30 calves:100 cows, and > 30-40 calves:100 cows may indicate declining, stable, and growing moose populations, respectively (Stout 2010). Between 2007 and 2020, calf:cow ratios in the main stem survey area (Zone 1) ranged from 45-73 calves:100 cows (**Table 1**; Jones 2018, pers. comm., ADF&G 2020, Oster 2020). In 2015 and 2020, calf:cow ratios in the Kuskokwim tributaries (Zone 2) were 62 and 40 calves:100 cows, respectively (Oster 2020). High calf:cow ratios indicate a growing moose population. Twinning rates, which provide an index of nutrition, are also high, averaging 43% between 2015 and 2019 (YKDRAC 2019, ADF&G 2020).

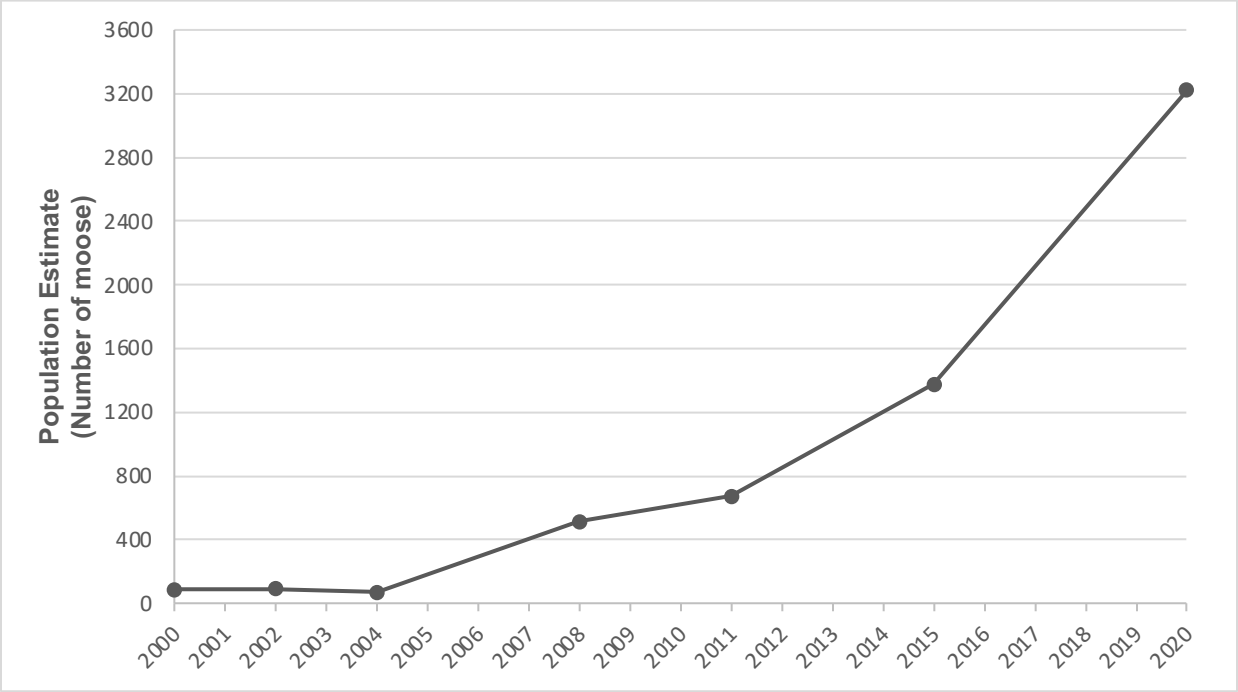


Figure 2. Estimated moose population size along the main stem of the Kuskokwim River, 2000 – 2020 (Perry 2014; Jones 2018, pers. comm.; Jones 2021, pers. comm.)

Table 1. Composition estimates for moose along the main stem of the Kuskokwim River, 2007 – 2020 (YDNWR 2015; Jones 2018, pers. comm.; ADF&G 2020; Oster 2020).

Year	Bulls:100 cows	Calves:100 cows
2007	98	73
2009	52	49
2010	51	49
2011	50	49
2013	41	72
2015	73	53
2016	70	56
2019	43	49
2020	25	45

Harvest History

Following the harvest moratorium, moose harvest on non-Federal lands was allowed under State regulation, beginning in 2009. In 2010, harvest on Federal public lands was opened to a subset of Federally qualified subsistence users, including residents of Tuntutuliak, Eek, Napakiak, Napaskiak, Kasigluk, Nunapitchuk, Atmautluak, Oscarville, Bethel, Kwethluk, Akiachak, Akiak, Tuluksak, Lower Kalskag, and Kalskag. In this analysis, this user group will be referred to as local users.

Since 2009, reported harvest has averaged 159 moose annually (ADF&G 2019a). Notably, reported harvest has increased, doubling between 2014 and 2017 (**Figure 3**). Local users have taken 95% of the reported moose harvest in the Kuskokwim hunt area since 2009, with 30% of the harvest attributable to residents of Bethel. However, non-local use is increasing, from two harvest reports in 2013 to 16 in 2017 (Figure 3). Non-local users that report harvesting moose are primarily Federally qualified subsistence users from coastal communities of Unit 18, but also include a few users from southcentral Alaska (ADF&G 2019a). About 30 moose, including around 20 cows are harvested each year for funerals and potlatches in Zone 1 (YKDRAC 2019; Moses 2020, pers. comm.).

Despite increases in quotas and harvest, demand still outweighs moose availability. Since 2009, an average of approximately 1,450 hunters have obtained permits to harvest moose in the Kuskokwim hunt area each year, but only 10% of permit holders successfully harvested moose (ADF&G 2019a). The disparity between demand and the relatively small quotas has routinely resulted in emergency closure of the State season within days of its opening (**Table 2**). This has resulted in some frustration among locals, who note that short unpredictable seasons make planning difficult. In response to this, ADF&G no longer uses quotas or closes Zone 1 with emergency closures. Fixed dates determined by estimated time needed to reach the set harvest objective is released prior to the start of each season (Jones 2021, pers. comm.). Local residents have also commented on the challenges of hunting in early September in recent years, given warm conditions that make proper meat care difficult. To this end, many subsistence users have advocated for a later moose season (YKDRAC 2017b).

In an effort to better serve users in an area of checkerboard land status, State and Federal managers adjusted the structure of the hunt in 2017, introducing a zone-based hunt (**Figure 1**). An important feature of the zones is that, while they correspond roughly to State and Federal lands, they are delineated

by easily identifiable geographical features (e.g. river confluences). Each of the two zones is managed with its own harvest objective. Zone 1, which is comprised primarily of State managed lands, is located along the main stem of the Kuskokwim River. The season and harvest objective for the main stem hunt are managed by ADF&G. Zone 2 is comprised primarily of Federal public lands, including those in the Tuluksak, Kisaralik, Kasigluk and Eek river drainages ("tributaries"). The season and harvest quota in the tributary hunt is managed by the Yukon Delta NWR (Rearden 2018, pers. comm.; YKDRAC 2017a).

There is more demand for moose in Zone 1, along the main stem, compared to Zone 2, in the tributaries. This is evidenced by the rate at which the quota is met within each zone, and the corresponding season length. On average, the main stem hunt has been open fewer than six days annually from 2011 through 2018, and the quota has been met or exceeded most years. Since ADF&G has changed to the fixed season using the harvest objective method, Zone 1 hunt was open for 11 days in 2020 and will be open 9 days in 2021 (Jones 2021, pers. comm.). For the hunt in the tributaries, the quota has only been met one time, in 2014, despite increasing season lengths (**Tables 2 and 3**). Local managers report that hunting in the tributaries is difficult, requiring specialized boats, longer travel times, and more fuel. Heavy vegetation along the banks contributes to the difficulty. It is believed that the unmet quota is a function of these difficulties, rather than lack of need for moose meat (YKDRAC 2017a, YKDRAC 2017b, Rearden 2018, pers. comm.).

ADF&G is currently managing the Kuskokwim moose population for continued growth and advises maintaining harvests within quotas and for bulls-only. However, ADF&G expects regulations in the Kuskokwim hunt area will be liberalized over the next five years if the moose population approaches carrying capacity as indicated by browse removal surveys (YKDRAC 2019).

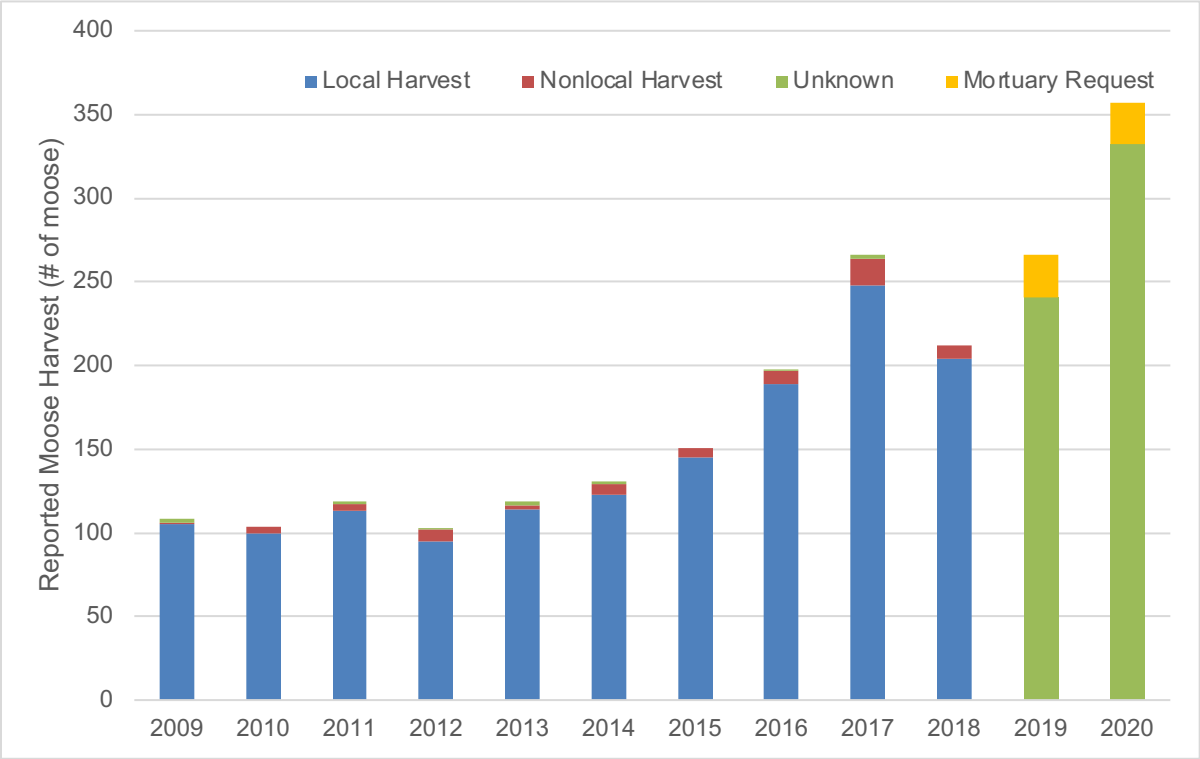


Figure 3. Reported moose harvest by RM615 in the Kuskokwim hunt area, 2009 – 2020 (ADF&G 2019a, Oster 2020, Jones 2021, pers. comm.). Note: 2019 and 2020 data does not distinguish between local and nonlocal harvest.

Table 2. State and Federal moose seasons, 2011 – 2021 (Rearden 2020, pers. comm.; ADF&G 2019b; Jones 2019, pers. comm. Jones 2021, pers. comm.; YKDRAC 2019).

	Scheduled season dates		Actual season dates		Actual season length (number of days)	
Year	State	Federal	State	Federal	State	Federal
2011	Sept. 1 - 10	Sept. 1 - 5	Sep 1 - 6	Sep 1 - 6	6	6
2012	Sept. 1 - 10	Sept. 1 - 10	Sept. 1 - 8	Sept. 1 - 8	8	8
2013	Sept. 1 - 10	Sept. 1 - 10	Sept. 1 - 6	Sept. 1 - 6	6	6
2014	Sept. 1 - 10	Sept. 1 - 10	Sept. 1 - 4	Sept. 1 - 4	4	4
2015	Sept. 1 - 10	Sept. 1 - 8	Sept. 1 - 4	Sept. 1 - 8	4	8
2016	Sept. 1 - 10	Sept. 1 - 15	Sept. 1 - 5	Sept. 1 - 15	5	15
2017[a]	Sept. 1 - 10	Sept. 1 - 25	Sept. 1 - 5	Sept. 1 - 25	5	25
2018[a]	Sept. 1 - 10	Sept. 1 - 30	Sept. 1 - 7	Sept. 1 - 30	7	30
2019[a]	Sept. 1 - 7	Sept. 1 – 30	Sept. 1 - 7	Sept. 1 - 30	7	30
2020[a]	Sept. 1 - 11	Sept. 1-Oct. 7	Sept. 1 - 11	Sept. 1-Oct. 7	11	37
2021[a]	Sept. 1 - 9	Sept. 1 – 30	Sept. 1 - 9		9	

[a] The State season corresponds to Zone 1 and the Federal season corresponds to Zone 2.

Table 3. State and Federal moose quotas and harvest, 2011 – 2018 (Rearden 2018, pers. comm.; ADF&G 2019b; Jones 2019, pers. comm.; Moses 2020, pers. comm.; ADF&G 2020; Oster 2020).

	Quota (number of moose)			Harvest (number of moose)			
Year	State	Federal	Total	State	Federal	Unknown	Total
2011	81	19	100	93	11	15	119
2012	81	19	100	82	17	4	103
2013	81	19	100	89	21	9	119
2014	81	19	100	93	15	23	131
2015	110	45	155	105	31	15	151
2016	150	90	240	136	44	14	194
2017[a]	170	110	280	186	80	0	266
2018[a]	170	110	280	142	70	0	212
2019[a]	180-200	110	290-310	160	72	-	232
2020[a]	170	110	280	215	90		305

[a] The State quota corresponds to Zone 1 and the Federal quota corresponds to Zone 2.

Other Alternatives Considered

One alternative considered was to create two separate hunt areas corresponding to Zones 1 and 2, similar to State regulations. This could reduce user confusion and regulatory complexity as the zones are managed by different harvest quotas and usually have different seasons. The Council may want to further consider this alternative.

Another alternative considered was to delegate authority to the Yukon Delta NWR manager to decide the number of Federal permits to issue each year during the winter season. This would limit harvest pressure in Zone 2 during the winter when access via snowmachine can be relatively easy and would help ensure sustainable harvest levels and that the harvest quota is not exceeded. This alternative would require modification of the delegation of authority letter (**Appendix 1**).

Effects of the Proposal

If WP22-43 is adopted, the Yukon Delta NWR manager would be delegated authority to expand the moose harvest quota in Zone 1 if the water levels are too low during the fall to access Zone 2. As the Zone 1 harvest is usually met in less than a week, there is high potential for overharvest of moose in Zone 1 if the harvest objective is increased. Additionally, the 2020 bull:cow ratios in Zone 1 were low and below State management objectives, indicating no surplus bulls for harvest. However, if the Federal manager did increase the harvest quota in Zone 1, it would only apply to Federal public lands, which are very limited in Zone 1.

If WP22-44 is adopted, the moose season in the Kuskokwim hunt area of Unit 18 would be extended 15 days, closing October 15 instead of September 30 and a winter season would be announced if the fall harvest quota was not met. This would increase hunting opportunity for Federally qualified subsistence users and could increase total moose harvest in this area. If water levels are too low in the fall to access Zone 2, a winter season could be announced, providing easier access via snowmachine, which would also address the concerns expressed in WP22-43. Alternatively, if the harvest quota is met in the fall, then the Yukon Delta NWR manager would not announce a winter season.

While the Federal season applies to the entire Kuskokwim hunt area, the Federal hunt requires use of a State registration permit, which divides the area into Zones 1 and 2. Harvest quotas in Zone 1 are generally met in less than one week, and seasons are closed. Therefore, the season extension proposed by WP22-44 functionally only applies to Zone 2, where harvest quotas are not being met due to difficulty in accessing the area. Since 2017, the Federal in-season manager has announced Zone 2 harvest quotas of 110 moose; however, an annual average of 78 moose have been reported harvested. Extending the season by two weeks could help meet harvest quotas. In 2020, the Board extended the fall season by one week to October 7 via special action, resulting in an increased harvest of 90 moose (**Table 3**). Extending the season by two weeks could help achieve harvest quotas and provide additional harvest opportunity.

State seasons in Zone 2 are now Sept. 1-Oct. 15. Adoption of this proposal would align State and Federal seasons, reducing regulatory complexity and user confusion. Adoption of this proposal would require the creation and issuance of an additional Federal registration permit during the winter season, if announced. Timely reporting of successful harvest would be important to maintain harvest objectives.

During the Council's deliberation of Proposal WP20-35 at their Fall 2019 meeting, ADF&G suggested increasing harvest opportunity by extending the fall season into mid-October instead of establishing a winter to-be-announced season, which could result in quotas quickly being exceeded due to easy access by snowmachine. ADF&G stated that extending the season into October would likely achieve harvest quotas at a manageable pace. Concerns expressed during the meeting also included inadvertent cow harvest during a winter season, hampering recovery of the moose population, and difficulty in managing a winter hunt and harvest quota when as many as 50 moose have been reported harvested in a single day during the fall season. The ADF&G area biologist also noted that the population is not so large that it is a biological necessity to meet the quota each year, and that the Kuskokwim drainage can likely support two- to three-times the number of moose currently observed. (YKDRAC 2019).

OSM CONCLUSION

Oppose Proposal WP22-43 and **Support** Proposal WP22-44 **with modification** to clarify the regulatory language and to delegate authority to the Yukon Delta NWR manager to announce the winter season via delegation of authority letter only (**Appendix 1**).

The modified regulation should read:

Unit 18—Moose	
Unit 18 – that portion east of a line running from the mouth of the Ishkowik River to the closest point of Dall Lake, then to the east bank of the Johnson River at its entrance into Nunavakanukakslak Lake (N 60°59.41′ Latitude; W162°22.14′ Longitude), continuing upriver along a line 1⁄2 mile south and east of, and paralleling a line along the southerly bank of the Johnson River to the confluence of the east bank of Crooked Creek, then continuing upriver to the outlet at Arhymot Lake, then following the south bank east of the Unit 18 border and then north of and including the Eek River drainage—1 antlered bull by State registration permit **during the fall season**;	Sept. 1 – ~~30~~ **Oct. 15** **Season may be announced** **Dec. 1-Jan. 31**
OR	
1 antlered bull by Federal registration permit during a winter season.	
~~quotas will be announced annually by the Yukon Delta National Wildlife Refuge Manager.~~	
Federal public lands are closed to the taking of moose except by residents of Tuntutuliak, Eek, Napakiak, Napaskiak, Kasigluk, Nunapitchuk, Atmanutlauk, Oscarville, Bethel, Kwethluk, Akiachak, Akiak, Tuluksak, Lower Kalskag, and Kalskag	

Justification

Conservation concerns exist for Proposal WP22-43. Harvest quotas in Zone 1 are quickly met and low bull:cow ratios in Zone 1 indicate no surplus bulls are available for harvest. The may-be-announced winter season proposed by WP22-44 provides an alternative approach to increasing subsistence

harvest opportunity if water levels are too low to access Zone 2 during the fall hunt, while not creating conservation concerns.

Proposal WP22-44 provides additional opportunity for Federally qualified subsistence users. Minimal conservation concerns exist as harvest is managed through quotas, which are not being met. The in-season manager would close the season if quotas are met. The harvest limit of one antlered bull helps ensure that cows will not be taken inadvertently. Delegating additional authority to the in-season manager via a delegation of authority letter provides management flexibility and simplifies unit specific regulations.

LITERATURE CITED

ADF&G. 2019a. Winfonet. Retrieved: May 1, 2019.

ADF&G. 2019b. News Release for EO 05-06-18. September 5, 2018. ADF&G. Juneau, AK.

ADF&G. 2020. Tab 4.2: Bethel Area Proposals. ADF&G reports and recommendations. Western Arctic/Western Region – January 17-20. Alaska Board of Game meeting information. http://www.adfg.alaska.gov/index.cfm?adfg=gameboard.meetinginfo&date=01-17-2020&meeting=nome. Accessed May 10, 2021.

FSB. 1991. Transcripts of the Federal Subsistence Board proceedings. March 6, 1991. Office of Subsistence Management, USFWS. Anchorage, AK.

Jones, P. 2018. Wildlife biologist. Personal communication: email. ADF&G. Bethel, AK.

Jones, P. 2019. Wildlife biologist. Personal communication: email. ADF&G. Bethel, AK.

Jones, P. 2021. Wildlife biologist. Personal communication: email. ADF&G. Bethel, AK.

Moses, A. 2020. Acting Subsistence Coordinator. Personal communication: email. Yukon Delta National Wildlife Refuge, USFWS. Bethel, AK.

Oster, K. 2020. 2020 GMU 18 Moose Composition Surveys Memorandum. December 16, 2020. Alaska Department of Fish and Game. Bethel, Ak.

Perry, P. 2014. Unit 18 moose management report. Chapter 20, pages 20-1 – 10-17 *in* P. Harper and L.A McCarthy, eds. Moose management report of survey and inventory activities 1 July 2011 – 30 June 2013. ADF&G. Juneau, AK.

Rearden, S. 2018. Wildlife biologist. Personal communication: email. USFWS. Bethel, AK.

Stout, G.W. 2010. Unit 21D moose. Pages 477-521 *in* P. Harper, editor. Moose management report of survey and inventory activities 1 July 2007-30 June 2009. ADF&G. Division of Wildlife Conservation, Federal Aid in Wildlife Restoration Project 1.0, Juneau, AK.

YDNWR. 2015. Unpublished survey report. USFWS. Bethel, AK. 5 pp.

YKDRAC. 2017a. Transcripts of the Yukon-Kuskokwim Delta Subsistence Regional Advisory Council proceedings. October 12 – 13, 2017. Bethel, AK. Office of Subsistence Management, USFWS. Anchorage, AK.

YKDRAC. 2017b. Transcripts of the Yukon-Kuskokwim Delta Subsistence Regional Advisory Council proceedings. February 15 – 16, 2017. Bethel, AK. Office of Subsistence Management, USFWS. Anchorage, AK.

YKDRAC. 2019. Transcripts of the Yukon-Kuskokwim Delta Subsistence Regional Advisory Council proceedings. November 6 – 8, 2019. Bethel, AK. Office of Subsistence Management, USFWS. Anchorage, AK.

SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Yukon-Kuskokwim Delta Subsistence Regional Advisory Council

Oppose WP22-43.

Justification

The Council opposed due to conservation concerns for moose in Zone 1 and hopes to support population growth in Zone 1 since the bull to cow ratios are low. Harvest quotas in Zone 1 are met very quickly and most of the accessible area in Zone 1 is State lands and would be hard to manage just for a Federal hunt. The expanded season in Zone 2 proposed in WP22-44 will benefit those who are not able get a moose in Zone 1.

Support WP22-44.

Justification

Moose harvest quotas for Zone 2 of the Kuskokwim hunt area are often not met due to difficulty in reaching upper river tributaries of this area. Extending the fall season may allow for easier access when water levels rise with the fall rains. Also, moose are not moving around as much with warmer temperatures early in the season. The Council has heard requests from local communities and Tribes in this area that an extended season will give hunters a better opportunity to be successful. The winter may be announced season will help subsistence users meet their needs if the harvest quota is not met during the fall hunt.

Western Interior Alaska Subsistence Regional Advisory Council

Oppose WP22-43.

Justification

Access to Zone 1 is easy, and the quotas are met rapidly. The Council also is concerned about the really low bull:cow ratios. The Council believes the moose population in Zone 1 can't support any additional harvest.

Support WP22-44.

Justification

By December 15, 60% of the moose have lost their antlers. Timing for the to be announced hunt should consider this information. The Council supported the proposal as submitted to align with the YKDRAC's recommendation.

INTERAGENCY STAFF COMMITTEE COMMENTS

WP22-43

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and

Federal Subsistence Board action on the proposal.

WP22-44

Adoption of Proposal WP22-44 would provide additional harvest opportunity for Federally qualified subsistence users though the extension of the fall moose season in the Kuskokwim hunt area of Unit 18 from Sept. 1- 30 to Sept. 1 – Oct. 15 and a winter may-be-announced season be established from Dec. 1-Jan. 31 with a harvest limit of one antlered bull by Federal registration permit. The winter hunt will not increase the quota and instead will potentially allow for the current quota to be met. Additional harvest opportunity is warranted, given that the current quota was not met in 2020 and 2021 during the Fall Moose hunt in Zone 2 despite extending the season into October by Special Action (WSA21-03). Therefore, a Winter season was proposed by the Yukon Delta National Wildlife Refuge (YDNWR). Allowing additional harvest opportunity may help to meet the quota in Zone 2, which is primarily Federal public lands, is difficult to access, and in an area where quotas have not been met.

Residents of the Yukon Kuskokwim Delta region have repeatedly expressed a need for additional hunts. In addition, the caribou season has been closed for the last two years in the local area which has placed an additional burden on subsistence users. After the mid-2000 moose hunting moratorium, the USFWS along with partner agencies promised more hunting opportunities once the moose population increased; this hunt proposal is an effort to fulfill those promises.

The Interagency Staff Committee recognizes the support for this proposal from the Yukon Kuskokwim Delta Regional Advisory Council and the suggestion by the Western Interior Regional Advisory Council to consider the timing of the winter may-be-announced season with respect to when moose shed their antlers.

The Refuge Manager already has delegated authority to establish an annual quota and to close the season once the quota is met. The fall hunt requires the use of a State registration permit under Federal regulations. The adoption of this proposal would require the creation and issuance of a Federal registration permit for the winter season. Delegating this additional authority to the in-season manager to announce the winter season would provide management flexibility and simplify unit specific regulations.

ALASKA DEPARTMENT OF FISH AND GAME COMMENTS

Wildlife Proposal WP22-43

This proposal would grant the authority to the federal in-season manager to increase the moose harvest quota in Zone 1 of the Kuskokwim Hunt Area of Game Management Unit (GMU) 18 if the water level in Zone 2 is too low for federally qualified users (FQU) to access the area.

Background

The moose in GMU 18 along the Kuskokwim River are currently managed under the RM615 moose registration permit. Two zones with different season lengths have been established based on the harvest history and moose distribution. Zone 1 has more moose and more access for hunters. The harvest objective for Zone 1 is currently 170 moose and that number has been reached in 7 to 11 days of hunting. Zone 2 has fewer moose and a lower objective. Access is not as good, so the hunting season has recently been extended to October 15.

Impact on Subsistence Users

If passed this proposal would provide additional opportunity to FQUs.

Impact on Other Users

There would not be a significant impact to non-federally qualified users (NFQU) as very few hunt in this area due to the fact that very little land that is state managed is not private, local, or native corporation lands.

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 moose in GMU 18.

Amounts Reasonably Necessary for Subsistence: Alaska state law requires the BOG 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 Alaska Department of Fish & Game (ADF&G) or from other sources.

ANS provides the board 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 Moose in GMU 18 is 200-400 animals. The season and bag limit for this part of GMU 18 is:

Unit 18—Moose

Zone 1: Unit 18 – all Kuskokwim River drainages north and west of a line beginning at the confluence of Whitefish Lake and Ophir Cree k at the Unit 18 boundary and continuing south west to the confluence of Tuluksak and Fog Rivers, then southerly to the lower Kisaralik River-Kasigluk River cutoff of the Kisaralik River, then south westerly to the lower Kisaralik River-Kasigluk River cutoff of the Kasigluk River, then south westerly to the Akulikutak River where the snowmachine trail crosses the river from the east side of Three Step Mountain, then westerly to the confluence of Kwethluk Rive r and Magic Creek, then southwesterly to the confluence of Eek Rive r and Middle Fork Eek River, then southwesterly to the Unit 18 boundary at 60° 4.983' N, 161° 37.140' W; and all drainages easterly of a line from the mouth of the Ishkowik River to the closest point of Dall Lake , then to the east bank of the Johnson River at its entrance into Nunavakanukakslak Lake at 60° 59.41' N, 162° 22.14' W, continuing upriver along a line ½ mile south and east of, and paralleling a line along the southerly bank of the Johnson River to the confluence of the east bank of Crooked Creek, then continuing upriver along the east bank of Crooked Creek to the outlet at Arhymot Lake , then following the south bank of Arhymot Lake easterly to the Unit 18 boundary.	*1 bull excluding male calves by permit available in person in Bethel and villages within the hunt area Aug. 1-25 and online at http://hunt.alaska.gov Aug. 1-Oct. 7*	*RM615*	*Sept. 1 – 09*
Zone 2: Unit 18 – all Kuskokwim River drainages south and east of a line beginning at the confluence of Whitefish Lake and Ophir Creek at the Unit 18 boundary and continuing southwest to the confluence of Tuluksak and Fog Rivers, then southerly to the lower Kisaralik River-Kasigluk River cutoff of the Kasigluk River, then southwesterly to the lower Kisaralik River-Kasigluk River cutoff of the Kasigluk River, then southwesterly to the Akulikutak River where the snowmachine trail crosses the river from the east side of Three Step Mountain, then westerly to the confluence of Kwethluk River and Magic Creek, then southwesterly to the confluence of Eek River and Middle Fork Eek River, then southwesterly to the Unit 18 boundary at 60° 4.983' N, 161° 37.140'.	*1 bull excluding male calves by permit available in person in Bethel and villages within the hunt area Aug. 1-25 and online at http://hunt.alaska.gov Aug. 1-Oct. 7*	*RM615*	*Sept. 1 – Oct. 7*

Conservation Issues

Additional harvest in Zone 1 is not appropriate at this time. Bull to cow ratios which were obtained in the fall of 2020 are 25 bulls to 100 cows in Zone 1. This at the lower end of the objective of maintaining 25 to 35 bulls per 100 cows. Additional harvest in one year would require shortening the season the next year.

Enforcement Issues

The majority of Zone 1 is private land and therefore are not under the jurisdiction of the Federal Subsistence Board (FSB). This could create confusion amongst enforcement officers and users hunting in the area.

Position

ADF&G **OPPOSES** this proposal as any increased harvest in Zone 1 would lead to conservation concerns for the moose population and force season restrictions in following years. It will also bring federal regulations out of alignment with state regulations.

Wildlife Proposal WP22-44

This proposal requests that the fall moose season in the Kuskokwim Hunt Area be extended for federally qualified users (FQU) on federal public land from September 1 -30 to September 1 to October 15 and that a may-be-announced season be established from December 1 to January 31 for an antlered bull by federal registration permit.

Background

The moose in Game Management Unit (GMU) 18 on the Kuskokwim River are currently managed under the RM615 moose registration permit. Two zones with different season lengths have been established based on the harvest history and moose distribution. Zone 1 has more moose and more access for hunters. The harvest objective for zone 1 is currently 170 and that number has been reached in 7 to 11 days of hunting. Zone 2 has fewer moose and a lower objective, but because access is not as good the hunting season has recently been extended to a closing date of October 15.

Impact on Subsistence Users

If passed this proposal would increase the opportunity for FQUs in Zone 2 in the fall and potentially in the winter with a may-be-announced hunt.

Impact on Other Users

There are no foreseeable impacts to other users if this proposal were to pass.

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 moose in GMU 18.

Amounts Reasonably Necessary for Subsistence: Alaska state law requires the BOG 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 board does this by reviewing extensive harvest data from all Alaskans, collected either by the Alaska Department of Fish & Game (ADF&G) or from other sources.

ANS provides the board 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 Moose in GMU 18 is 200-400 animals. The season and bag limit for this part of GMU 18 is:

Existing State Regulation

Unit 18—Moose

Zone 1: Unit 18 – all Kuskokwim River drainages north and west of a line beginning at the confluence of Whitefish Lake and Ophir Cree k at the Unit 18 boundary and continuing south west to the confluence of Tuluksak and Fog Rivers, then southerly to the lower Kisaralik River-Kasigluk River cutoff of the Kisaralik River, then south westerly to the lower Kisaralik River-Kasigluk River cutoff of the Kasigluk River, then south westerly to the Akulikutak River where the snowmachine trail crosses the river from the east side of Three Step Mountain, then westerly to the confluence of Kwethluk Rive r and Magic Creek, then southwesterly to the confluence of Eek Rive r and Middle Fork Eek River, then southwesterly to the Unit 18 boundary at 60° 4.983' N, 161° 37.140' W; and all drainages easterly of a line from the mouth of the Ishkowik River to the closest point of Dall Lake , then to the east bank of the Johnson River at its entrance into Nunavakanukakslak Lake at 60° 59.41' N, 162° 22.14' W, continuing upriver along a line ½ mile south and east of, and paralleling a line along the southerly bank of the Johnson River to the confluence of the east bank of Crooked Creek, then continuing upriver along the east bank of Crooked Creek to the outlet at Arhymot Lake , then following the south bank of Arhymot Lake easterly to the Unit 18 boundary.	*1 bull excluding male calves by permit available in person in Bethel and villages within the hunt area Aug. 1-25 and online at http://hunt.alaska.gov Aug. 1-Oct.15*	*RM615*	*Sept. 1 – 09*
Zone 2: Unit 18 – all Kuskokwim River drainages south and east of a line beginning at the confluence of Whitefish Lake and Ophir Creek at the Unit 18 boundary and continuing southwest to the confluence of Tuluksak and Fog Rivers, then southerly to the lower Kisaralik River-Kasigluk River cutoff of the Kasigluk River, then southwesterly to the lower Kisaralik River-Kasigluk River cutoff of the Kasigluk River, then southwesterly to the Akulikutak River where the snowmachine trail crosses the river from the east side of Three Step Mountain, then westerly to the confluence of Kwethluk River and Magic Creek, then southwesterly to the confluence of Eek River and Middle Fork Eek River, then southwesterly to the Unit 18 boundary at 60° 4.983' N, 161° 37.140'.	*1 bull excluding male calves by permit available in person in Bethel and villages within the hunt area Aug. 1-25 and online at http://hunt.alaska.gov Aug. 1-Oct. 15*	*RM615*	*Sept. 1 – Oct.15*

Conservation Issues

Moose populations in the Kuskokwim Hunt Area continue to increase. However, additional opportunity for a winter hunt has the potential to increase harvest to a level that could decrease bull to cow ratios quickly.

Enforcement Issues

Some enforcement issues could be alleviated by the portion of this proposal that would align state and federal regulations.

Position

ADF&G **SUPPORTS** the aspect of the proposal that would align the federal and state fall moose season but **OPPOSES** the proposed winter season due to conservation concerns and bringing state and federal regulations out of alignment.

APPENDIX 1

Refuge Manager
Yukon Delta National Wildlife Refuge
P.O. Box 346
Bethel, Alaska 99559

Dear Refuge Manager:

This letter delegates specific regulatory authority from the Federal Subsistence Board (Board) to the manager of the Yukon Delta National Wildlife Refuge to issue emergency or temporary special actions if necessary to ensure the conservation of a healthy wildlife population, to continue subsistence uses of wildlife, for reasons of public safety, or to assure the continued viability of a wildlife population. This delegation only applies to the Federal public lands subject to Alaska National Interest Lands Conservation Act (ANILCA) Title VIII jurisdiction within Unit 18, that portion east of a line running from the mouth of the Ishkowik River to the closest point of Dall Lake, then to the east bank of the Johnson River at its entrance into Nunavakankakslak Lake (N 60˚ 59.412 Latitude; W 162˚ 22.142 Longitude), continuing upriver along a line ½ mile south and east of, and paralleling a line along the southerly bank of the Johnson River to the confluence of the east bank of Crooked Creek, then continuing upriver to the outlet of Arhymot Lake, then following the south bank east of the Unit 18 border and then north of and including the Eek River drainage for the management of moose on these lands.

It is the intent of the Board that actions related to management of moose by Federal officials be coordinated, prior to implementation, with the Alaska Department of Fish and Game (ADF&G), representatives of the Office of Subsistence Management (OSM), and the Chair of the affected Council(s) to the extent possible. The Office of Subsistence Management will be used by managers to facilitate communication of actions and to ensure proposed actions are technically and administratively aligned with legal mandates and policies. Federal managers are expected to work with managers from the State and other Federal agencies, the Council Chair or alternate, local tribes, and Alaska Native Corporations to minimize disruption to subsistence resource users and existing agency programs, consistent with the need for special action.

DELEGATION OF AUTHORITY

1. <u>Delegation</u>: The manager of the Yukon Delta National Wildlife Refuge is hereby delegated authority to issue emergency or temporary special actions affecting moose on Federal lands as outlined under the Scope of Delegation. Any action greater than 60 days in length (temporary special action) requires a public hearing before implementation. Special actions are governed by Federal regulation at 36 CFR 242.19 and 50 CFR 100.19.

2. <u>Authority</u>: This delegation of authority is established pursuant to 36 CFR 242.10(d)(6) and

50 CFR 100.10(d)(6), which state: "The Board may delegate to agency field officials the authority to set harvest and possession limits, define harvest areas, specify methods or means of harvest, specify permit requirements, and open or close specific fish or wildlife harvest seasons within frameworks established by the Board."

3. <u>Scope of Delegation</u>: The regulatory authority hereby delegated is limited to the following authorities within the limits set by regulation at 36 CFR 242.26 and 50 CFR 100.26:

- To close the **fall** season, **open and close a season between December 1 and January 31**, and determine annual quotas for moose on Federal public lands ~~in Unit 18, that portion east of a line running from the mouth of the Ishkowik River to the closest point of Dall Lake, then to the east bank of the Johnson River at its entrance into Nunavakankakslak Lake (N 60o 59.412 Latitude; W 162o 22.142 Longitude), continuing upriver along a line ½ mile south and east of, and paralleling a line along the southerly bank of the Johnson River to the confluence of the east bank of Crooked Creek, then continuing upriver to the outlet of Arhymot Lake, then following the south bank east of the Unit 18 border and then north of and including the Eek River drainage~~.

This delegation also permits you to close and reopen Federal public lands to nonsubsistence hunting, but does not permit you to specify methods and means, permit requirements, or harvest and possession limits for State-managed hunts.

This delegation may be exercised only when it is necessary to conserve moose populations, to continue subsistence uses, for reasons of public safety, or to assure the continued viability of the populations. All other proposed changes to codified regulations, such as customary and traditional use determinations or adjustments to methods and means of take, shall be directed to the Board.

The Federal public lands subject to this delegated authority are those within Unit 18 that portion east of a line running from the mouth of the Ishkowik River to the closest point of Dall Lake, then to the east bank of the Johnson River at its entrance into Nunavakankakslak Lake (N 60o 59.412 Latitude; W 162o 22.142 Longitude), continuing upriver along a line ½ mile south and east of, and paralleling a line along the southerly bank of the Johnson River to the confluence of the east bank of Crooked Creek, then continuing upriver to the outlet of Arhymot Lake, then following the south bank east of the Unit 18 border and then north of and including the Eek River drainage.

4. <u>Effective Period</u>: This delegation of authority is effective from the date of this letter and continues until superseded or rescinded.

5. <u>Guidelines for Delegation</u>: You will become familiar with the management history of the wildlife species relevant to this delegation in the region, with current State and Federal regulations and management plans, and be up-to-date on population and harvest status information. You will provide subsistence users in the region a local point of contact about Federal subsistence issues and regulations and facilitate a local liaison with State managers and other user groups.

You will review special action requests or situations that may require a special action and all supporting information to determine (1) consistency with 50 CFR 100.19 and 36 CFR 242.19, (2) if the request/situation falls within the scope of authority, (3) if significant conservation problems or subsistence harvest concerns are indicated, and (4) what the consequences of taking an action or no action may be on potentially affected Federally qualified subsistence users and non-Federally qualified users. Requests not within your delegated authority will be forwarded to the Board for consideration. You will maintain a record of all special action requests and rationale for your decision. A copy of this record will be provided to the Administrative Records Specialist in OSM no later than sixty days after development of the document.

For management decisions on special actions, consultation is not always possible, but to the extent practicable, two-way communication will take place before decisions are implemented. You will also establish meaningful and timely opportunities for government-to-government consultation related to pre-season and post-season management actions as established in the Board's Government-to-Government Tribal Consultation Policy (Federal Subsistence Board Government-to-Government Tribal Consultation Policy 2012 and Federal Subsistence Board Policy on Consultation with Alaska Native Claim Settlement Act Corporations 2015).

You will immediately notify the Board through the Assistant Regional Director for OSM, and coordinate with the Chair(s) or alternate of the affected Council(s), local ADF&G managers, and other affected Federal conservation unit managers concerning emergency and temporary special actions being considered. You will ensure that you have communicated with OSM to ensure the special action is aligned with ANILCA Title VIII, Federal Subsistence regulations and policy, and that the perspectives of the Chair(s) or alternate of the affected Council(s), OSM, and affected State and Federal managers have been fully considered in the review of the proposed special action.

If the timing of a regularly scheduled meeting of the affected Council(s) permits without incurring undue delay, you will seek Council recommendations on the proposed temporary special action(s). If the affected Council(s) provided a recommendation, and your action differs from that recommendation, you will provide an explanation in writing in accordance with 50 CFR 100.10(e)(1) and 36 CFR 242.10(e)(1).

You will issue decisions in a timely manner. Before the effective date of any decision, reasonable efforts will be made to notify the public, OSM, affected State and Federal managers, law enforcement personnel, and Council members. If an action is to supersede a State action not yet in effect, the decision will be communicated to the public, OSM, affected State and Federal managers, and the local Council members at least 24 hours before the State action would be effective. If a decision to take no action is made, you will notify the proponent of the request immediately. A summary of special action requests and your resultant actions must be provided to the coordinator of the appropriate Council(s) at the end of each calendar year for presentation to the Council(s).

You may defer a special action request, otherwise covered by this delegation of authority, to the Board in instances when the proposed management action will have a significant impact on a large number of Federal subsistence users or is particularly controversial. This option should be exercised judiciously and may be initiated only when sufficient time allows for it. Such deferrals should not be considered when immediate management actions are necessary for conservation purposes. The Board may determine that a special action request may best be handled by the Board, subsequently rescinding the delegated regulatory authority for the specific action only.

6. <u>Support Services</u>: Administrative support for regulatory actions will be provided by the Office of Subsistence Management.

Sincerely,

Anthony Christianson
Chair

Enclosures

cc: Federal Subsistence Board

Assistant Regional Director, Office of Subsistence Management
Deputy Assistant Regional Director, Office of Subsistence Management
Subsistence Policy Coordinator, Office of Subsistence Management
Wildlife Division Supervisor, Office of Subsistence Management
Subsistence Council Coordinator, Office of Subsistence Management
Chair, Yukon-Kuskokwim Delta Subsistence Regional Advisory Council
Deputy Commissioner, Alaska Department of Fish and Game
Special Projects Coordinator ~~Assistant to the Commissioner~~, Alaska Department of Fish and Game
Interagency Staff Committee
Administrative Record

WP22-45 Executive Summary	
General Description	Proposal WP22-45 requests to create specific harvest regulations for Alaska hare (*Lepus othus*) in Units 18, 22, and 23. *Submitted by: Alaska Department of Fish and Game.*
Proposed Regulation	**Unit 18— Hare** *Hare (Snowshoe ~~and Tundra)~~: No limit* — *July 1 – June 30* ***Alaska Hare: 2 hare per day / 6 per season*** — ***Sept. 1 – April 15*** **Unit 22— Hare** *Hare (Snowshoe ~~and Tundra)~~: No limit* — *Sept. 1 – April 15* ***Alaska Hare: 2 hare per day / 6 per season*** — ***Sept. 1 – April 15*** **Unit 23— Hare** *Hare (Snowshoe ~~and Tundra)~~: No limit* — *July 1 – June 30* ***Alaska Hare: 2 hare per day / 6 per season*** — ***Sept. 1 – April 15***
OSM Conclusion	**Support** Proposal WP22-45 **with modification** to shorten the season to Aug. 1 – May 31 and to modify the definition of hare in Federal regulations. The modified regulations should read: **§100.25(a) Definitions:** *Hare or hares collectively refers to all species of hares (commonly called rabbits) in Alaska and includes snowshoe hare and tundra* ***or Alaska hare.*** **Unit 18— Hare** *Hare (Snowshoe ~~and Tundra~~): No limit* — *July 1 – June 30* ***Alaska Hare: 2 hare per day / 6 per season*** — ***Aug. 1 – May 31*** **Unit 22— Hare** *Hare (Snowshoe ~~and Tundra~~): No limit* — *Sept. 1 – April 15* ***Alaska Hare: 2 hare per day / 6 per season*** — ***Aug. 1 – May 31*** **Unit 23— Hare** *Hare (Snowshoe ~~and Tundra~~): No limit* — *July 1 – June 30* ***Alaska Hare: 2 hare per day / 6 per season*** — ***Aug. 1 – May 31***

WP22-45 Executive Summary	
Yukon-Kuskokwim Delta Subsistence Regional Advisory Council	**Support with OSM modification**
Western Interior Alaska Subsistence Regional Advisory Council	**Defer to the affected Council(s)**
Seward Peninsula Subsistence Regional Advisory Council	**Support with OSM modification**
Northwest Arctic Subsistence Regional Advisory Council	**Support**
North Slope Subsistence Regional Advisory Council	**Support** Proposal WP22-45 **with modification** to change the harvest limit for Alaska hare to 15 per season and support the longer season as recommended by OSM.
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**SUPPORT** Proposal WP22-45 **with modification** to match the State season of August 1 to May 31
Written Public Comments	None

STAFF ANALYSIS
WP22-45

ISSUES

Proposal WP22-45, submitted by Alaska Department of Fish and Game (ADF&G), requests to create specific harvest regulations for Alaska hare (*Lepus othus*) in Units 18, 22, and 23.

DISCUSSION

The proponent states that, the once (as recently as the 1980s) abundant Alaska hare in Units 18, 22, and 23 is now at a very low density and has a patchy distribution throughout the Yukon-Kuskokwim Delta (YKD), Seward Peninsula, and Northwestern Alaska region. In Alaska, the species resides only throughout the extreme western and southwestern portions of the state. Very little is known about the Alaska hare, but the apparent decrease in abundance may have been caused by changes in habitat, predation, human harvest, or other natural cyclical events. Although seemingly more abundant in Units 22 and 23, there are infrequent observations of Alaska hare throughout the YKD and Seward Peninsula. Alaska hares are not highly productive; they have only one, relatively small-sized litter of young per year. The proponent believes that the limited-management approach of the last 50 years no longer sufficiently addresses appropriate conservation of this species. This proposal would reduce hunting opportunity for this species both in terms of season duration and harvest limits. The reduction in harvest may assist Alaska hare populations to increase throughout Units 18, 22, and 23.

The proponent also requested establishing a human use salvage requirement for hare in Units 18, 22 and 23. However, this provision already exists under Federal regulations (see existing Federal regulations section) and is therefore not considered further in this analysis.

Note: The Alaska hare is sometimes called jack rabbits, tundra hare, or arctic hare (e.g. Anderson 1978; Klein 1995; Murray 2003; ADF&G 2019). Federal subsistence regulation uses the term tundra hare, but Alaska hare appears to be the dominate term in contemporary usage, including in State regulation. This analysis uses the terms Alaska hare and tundra hare synonymously. It should also be noted that the Alaska or tundra hare is a distinct species from the snowshoe hare, despite the inclusion of both species in the same Federal regulation.

Existing Federal Regulation

§100.25(j)(2) If you take wildlife for subsistence, you must salvage the following parts for human use:

(iv) The hide or meat of squirrels, hares, marmots, beaver, muskrats, or unclassified wildlife.

Unit 18 —Hare

Hare (Snowshoe and Tundra): No limit	*July 1-June 30*

Unit 22—Hare

Hare (Snowshoe and Tundra): No limit	*Sept. 1 – April 15*

Unit 23—Hare

Hare (Snowshoe and Tundra): No limit	*July 1- June 30*

Proposed Federal Regulation

§100.25(j)(2) If you take wildlife for subsistence, you must salvage the following parts for human use:

(iv) The hide or meat of squirrels, hares, marmots, beaver, muskrats, or unclassified wildlife.

Unit 18— Hare

Hare (Snowshoe ~~and Tundra~~): No limit	*July 1 – June 30*
Alaska Hare: 2 hare per day / 6 per season	***Sept. 1 – April 15***

Unit 22— Hare

Hare (Snowshoe ~~and Tundra)~~: No limit	*Sept. 1 – April 15*
Alaska Hare: 2 hare per day / 6 per season	***Sept. 1 – April 15***

Unit 23— Hare

Hare (Snowshoe ~~and Tundra)~~: No limit	*July 1 – June 30*
Alaska Hare: 2 hare per day / 6 per season	***Sept. 1 – April 15***

Existing State Regulation

Unit 18, 22, 23— Hare

Snowshoe hare: no limit	*No closed season*
Alaska hare: two per day, six total	*Aug 1 – May 31*

Hunters must salvage the hide or meat of Alaska hares taken 18, 22, and 23

Relevant Federal Regulation

§100.25(a) Definitions:

Hare or hares collectively refers to all species of hares (commonly called rabbits) in Alaska and includes snowshoe hare and tundra hare.

Extent of Federal Public Lands

Unit 18 is comprised of 66.7% Federal public lands and consist of 64.0% U.S. Fish and Wildlife Service (USFWS) managed lands and 2.7% Bureau of Land Management (BLM) managed lands.

Unit 22 is comprised of 43.5% Federal public lands and consist of 28.1% BLM managed lands, 12.4% NPS managed lands, and 3.0% USFWS managed lands.

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

Customary and Traditional Use Determinations

The Federal Subsistence Board (Board) has not made a customary and traditional use determination for hare in Units 18, 22, and 23. Therefore, all rural residents of Alaska may harvest this species in these units.

Regulatory History

Federal subsistence regulations for hare in Units 18 and 23 have not changed since 1990, when the Federal subsistence management program began. At that time, a year-round season with no harvest limit was adopted from State regulation.

Federal subsistence regulations for hare in Unit 22 were established in 1990, when the Federal subsistence management program began. At that time, a year-round season with no harvest limit was adopted from State regulation.

In 1992, Proposal P92-098 was submitted by a member of the public requesting complete closure of muskrat trapping and hare harvest in Unit 23 until the population rebounded. The proposal was rejected by the Board.

In 1995, Proposal P95-46 was submitted by the Seward Peninsula Subsistence Regional Advisory Council to shorten the season for hares in Unit 22 from July 1 – June 30 to Sept. 1 – April 15. The intent of the proposal was to close the season for hares during the mating, breeding and birthing season. The proposal was adopted by the Board.

ADF&G submitted Proposals 15 and 43 for the Alaska Board of Game's (BOG) consideration during the January 2020 meeting in Nome. Both proposals consisted of two parts. The first part of each proposal was for customary and traditional use findings of Alaska hares in Units 18, 22, and 23. The BOG adopted a positive finding for these units. The second part, noting very low densities and patchy distribution of Alaska hares in the units, ADF&G requested the reduction of season and harvest limits in Units 18 and 22. For consistency the BOG adopted an identical management structure in Units 18, 22, and 23 for the Alaska hare. The State adopted a harvest limit of two per day with a total of six per season and an Aug 1 – May 31 season that required hunters to salvage the hide or meat for human usage (BOG 2020).

Current Events Involving the Species

The ADF&G also submitted Wildlife Proposal WP22-39 to create specific harvest regulations for Alaska hare in Units 9 and 17.

Biological Background

Taxonomy of the three species of northern hares remains unresolved, which almost certainly contributes to the confusion around common names. Current taxonomic descriptions rely on geographic distributions, rather than morphologic or molecular distinctions, which remain ambiguous. The arctic hare (*Lepus arcticus*) is widely distributed across tundra habitats of Greenland and northern Canada. The mountain hare (*L. timidus*) occurs in northern Eurasia, from eastern Russia to Scandinavia (Cason 2016). Alaska hares are limited to coastal western and southwestern Alaska, ranging from the Baldwin and Seward Peninsulas in the north, to the Alaska peninsula in the south (Merizon and Carroll 2019).

Alaska hares are among the largest of the *Lepus* genus, weighing approximately 8.5 – 10.5 pounds (Murray 2003). They occupy coastal lowlands, wet meadows, and willow and alder thickets (Merizon and Carroll 2019), and feed on willow buds, leaves, and crowberries (Murray 2003). They are typically solitary, except during breeding season. Alaska hares reproduce a single litter each year, breeding between April and June and giving birth approximately 6.5 weeks later. Litters contain 6.3 young on average, which are fully weaned within 5 – 9 weeks (Murray 2003). Alaska hares can be identified by the black-tipped ears and are significantly larger than the snowshoe hare (**Figure 1**, ADG&G 2019).

The Alaska hare is among the most poorly understood wildlife species in Alaska. Hunter questionnaires have been the only source of information about the species and there has been no long-term population monitoring. Beginning in 2017, ADF&G began to evaluate capture techniques to better understand this species. They also embarked on a tour of rural communities throughout the range of the Alaska hare to discuss local observations, historical abundance, and harvest patterns. In 2018, a multi-year study was initiated to evaluate movement and mortality, as well as long-term capture techniques. Anecdotal observations suggest that Alaska hare abundance is well below that observed in the 1950s and 1960s, throughout its range. It is unknown whether the population has been in a long-term decline, or whether it experienced a crash and now exists as a low density but relatively stable population (Merizon and Carroll 2019).

Alaska's Hare Species

Snowshoe Hare	**Alaska Hare**
2-3 pounds	6-12 pounds
Stands 1 ft tall	Stands 2 – 2.5 ft. tall
¼ - 1/3 inch dia. Pellet size	½ - ¾ inch dia. Pellet size

Figure 1 Comparison of Hare species in Alaska provided by ADF&G (Merizon 2021, pers. comm.)

Harvest History

Little is known about the harvest of Alaska hare, which is one of the least accessible small game species. However, it is harvested throughout the communities of western and southwestern Alaska as documented

in household harvest surveys (Merizon and Carroll 2019, Table 1). Some insights into small game harvest are available in ADF&G's Statewide Small Game Hunter Survey, results for which were compiled for RY2011/12 and RY2013/14.

The most recent results, from RY2013/14, show that half of the hunters responding to the survey reported hunting small game in Units 13, 14 or 20, while only about 6% of respondents reported hunting small game in Unit 18, about 4% in Unit 22 and about 3% in Unit 23. While response rates of those receiving surveys were lower for the Western Rural area, which includes Units 18, 22, and 23 (16%) versus statewide (30%). Most Alaska resident respondents reported hunting within the geographic region where they reside, but only 3% of respondents statewide reported participating in Federal subsistence small game hunts. Respondents reported that they hunt small game opportunistically while engaging in other activities, but also target small game specifically. Statewide, ptarmigan and spruce grouse were targeted most frequently. Within the Western Rural geographical area, respondents reported hunting for Alaska hare for an average of 2.5 days each year (Merizon et al. 2015).

Table 1. Alaska hare harvest by community (Mikow et al. 2020)

Unit 18			Unit 22			Unit 23		
Community	Study Year	Estimated total Harvest	Community	Study Year	Estimated total Harvest	Community	Study Year	Estimated total Harvest
Akiachak	1998	0	Brevig Mission	1989	6	Ambler	2012	0
Akiak	2010	42	Golovin	1989	4	Buckland	2003	16
Alakanuk	1980	669		2012	0	Deering	1994	12
Bethel	2012	173	Shishmaref	1989	112		2013	3
Eek	2013	7		1995	62	Kiana	2006	0
Emmonak	1980	806		2014	16	Kivalina	1964	0
	2008	24	Stebbins	1980	110		1982	0
Kotlik	1980	552		2013	2		1983	0
Kwethluk	2010	52	Wales	1993	1		1992	0
Mountain Village	1980	66				Kobuk	2009	4
	2010	63					2012	0
Napakiak	2011	43				Kotzebue	1986	64
Napaskiak	2011	20					1991	97
Nunam Iqua (Sheldon Point)	1980	92					2014	0
Oscarville	2010	0				Noatak	1994	0
Pilot Station	2013	0				Noorvik	2008	0
							2012	31
Unit 18						Unit 23		
Quinhagak	1982	82				Selawik	2011	4
	2013	15				Shungnak	2002	0
Russian Mission	2011	2					2012	0
Scammon Bay	2013	165						

Unit 18			Unit 22			Unit 23		
Community	Study Year	Estimated total Harvest	Community	Study Year	Estimated total Harvest	Community	Study Year	Estimated total Harvest
Tuluksak	2010	20						
Tuntutuliak	2013	0						

*Note- Some Community/Study years not included in this table only showed harvest for "Hares, Jackrabbits, Unknown." Actual harvest maybe higher.

Effects of the Proposal

If this proposal is adopted, opportunity to harvest Alaska hares under Federal subsistence regulation would be reduced. Given that the State season has already been reduced for Units 18, 22, and 23, this represents an actual reduction of opportunity for Federally qualified subsistence users. This change would result in reduced harvest of Alaska hare, particularly since it includes both a daily and an annual harvest limit. Though neither harvest nor population size are quantified, harvest reduction has the potential to improve the conservation status of Alaska hare populations in Units 18, 22, and 23, which are reported to be well below historical size. Adoption of this proposal would also result in Federal regulations becoming more restrictive than State regulations.

OSM CONCLUSION

Support Proposal WP22-45 with modification to shorten the season to Aug. 1 – May 31 and to modify the definition of hare in Federal regulations.

The modified regulations should read:

§100.25(a) Definitions:

> *Hare or hares collectively refers to all species of hares (commonly called rabbits) in Alaska and includes snowshoe hare and tundra* ***or Alaska*** **hare.**
>
> **Unit 18— Hare**
>
> *Hare (Snowshoe ~~and Tundra)~~: No limit* — *July 1 – June 30*
>
> ***Alaska Hare: 2 hare per day / 6 per season*** — ***Aug. 1 – May 31***
>
> **Unit 22— Hare**
>
> *Hare (Snowshoe ~~and Tundra)~~: No limit* — *Sept. 1 – April 15*
>
> ***Alaska Hare: 2 hare per day / 6 per season*** — ***Aug. 1 – May 31***

Unit 23— Hare

Hare (Snowshoe ~~and Tundra)~~: No limit	*July 1 – June 30*
Alaska Hare: 2 hare per day / 6 per season	***Aug. 1 – May 31***

Justification

Anecdotal information indicates that Alaska hares in Units 18, 22, and 23 are scarcer than they have been in the past. Biologically, it is appropriate to restrict harvest in such a situation. Reducing the season from Jul. 1 – Jun. 30 to Aug. 1 – May 31 reduces the season by approximately 16%, yet continues to offer subsistence users the opportunity to harvest Alaska hares during fall, winter, and spring when they are engaging in other subsistence or recreational activities. The proponent requested a season which would be more restrictive than existing State regulations. Additionally, Federal qualified subsistence users would still be able to harvest Alaska hare in August and May under the more liberal State regulations. This modification would align State and Federal seasons, reducing regulatory complexity and user confusion.

Imposing a harvest limit of 2 per day and 6 annually may have a greater effect on reducing overall harvest and promoting population recovery than shortening the season. Collectively, changes in season and harvest limit offer a balance between imposing conservation measures and allowing for the continuation of subsistence uses in the near term. Any positive effect these changes have on the Alaska hare population will benefit subsistence users in the long term.

LITERATURE CITED

ADF&G. 2019. Alaska hare (*Lepus othus) species profile. Alaska Department of Fish and Game. Juneau, AK. http://www.adfg.alaska.gov/index.cfm?adfg=alaskahare.main. Retrieved May 24, 2021.*

Anderson, H.L. 1974. Range of the tundra hare. The Murrelet. 59(2): 72-74

BOG. 2020. Meeting audio and Proposal 15 and 43 slide presentation of Alaska Board of Game proceedings. January 17-20, 2020. Mini Convention Center, Nome, AK.

Cason, M.M. 2016 Revised distribution of and Alaskan endemic, the Alaska Hare (Lepus othus), with implications for taxonomy, biogeography, and climate change. Arctic Science. 2:50 – 66.

Klein, D.R. 1995. Tundra or Arctic hare. Page 259 in E.T. LaRoe, G.S. Farris, C.E. Puckett, P.D. Doran and M.J. Mac, eds. Our living resources: A report to the nation of the distribution, abundance, and health of U.S. plants, animals, and ecosystems. U.S. Department of the Interior. National Biological Service. Washington, D.C. 530 pp.

Merizon, R.A., S.J. Carson and L.S. Honig. 2015. Statewide small game hunter survey, 2014. ADF&G. Juneau, AK

Merizon, R.A. and C.J. Carroll. 2019. Status of grouse, ptarmigan, and hare in Alaska, 2017 and 2018. ADF&G. Juneau, AK.

Merizon, R.A. 2021. Small Game Program Coordinator. Personal communication: email. ADF&G. Juneau, AK.

Mikow, E.H., D.M. Runfola, and L. Naaktgeboren. 2020. Customary and Traditional Use of Hares in Game Management Units 18, 22, and 26A. ADF&G, Division of Subsistence Technical Paper No. BOG 2020-01, Fairbanks, AK.

Murray, D.L. 2003. Snowshoe hares and other hares. Pages 147 – 175 in G.A Feldhamer, B.C. Thompson and J.A. Chapman, eds. Wild mammals of North America: Biology Management and Conservation. The Johns Hopkins University Press. Baltimore, MD. 1216 pp.

SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Yukon Kuskokwim Delta Subsistence Regional Advisory Council

Support WP22-45 **with OSM modification**

Justification

The Council supports reducing the harvest limit for Alaska hare due to observed low population levels and lack of biological data for this species. The Council discussed seeing few jackrabbit (Alaska hare) tracks anymore in areas where they used to be abundant, and the decline has been a common observation around communities across the Y-K Delta region. Council members noted that Alaska hare used to be abundant in snares 30 years ago, but perhaps fast snow-machines made it easier to track them down and, based on these local observations, reducing the harvest limit is warranted. The Council requested more data but noted that it is hard to study something when it is so scarce. The Council supports the OSM season date modification so that the Federal season will not be more restrictive than the State season.

Western Interior Alaska Subsistence Regional Advisory Council

Defer WP22-45 to the affected Council(s).

Justification

This proposal does not directly affect the Western Interior Region.

Seward Peninsula Subsistence Regional Advisory Council

Support WP22-45 **with OSM modification**

Justification

The Council supports this proposal for the conservation of the Alaska hare whose population has been reported as low.

Northwest Arctic Subsistence Regional Advisory Council

Support WP22-45.

Justification

The Council notes that they have not seen the Alaska hare in the region recently. People used to teach their young children to hunt them since they were easy to catch. The Council supports maintaining the opportunity to still harvest some Alaska hare when they are available, as they are good eating and providing subsistence opportunities to help address food security is important.

North Slope Subsistence Regional Advisory Council

Support WP22-45 with modification to change the harvest limit for Alaska hare to 15 per season and support the longer season as recommended by OSM.

Justification

The Council supported a reduction in harvest and seasons to help conserve the Alaska hare, but expressed concern that only six Alaska hares per year is not enough for making traditional cultural garments like parkas or blankets. The Council considered going from 'no limit' on the hare to only 6 per year as too drastic of a change, but 15 hares per year would help provide for subsistence needs as well as conservation.

Hares are an important resource for food security and traditional, cultural fur sewing practices. The Council highlighted the importance of making fur parkas, mittens, and ruffs, especially for children and elders. March is the optimum time to harvest hare for their fur, making the longer season in the OSM preliminary conclusion preferred.

The Council stressed that because Alaska hare are not commonly seen in the North Slope region or around Point Hope in Unit 23, there is likely confusion between Alaska hare vs. a snowshoe hare. The Council reiterated the importance of making it very clear that these regulations are targeting Alaska hare only and not the more abundant snowshoe hare. They suggested using pictures to highlight the differences between the two species so that local communities are not unnecessarily restricting harvest of an important subsistence resource where snowshoe hares are plentiful.

The modified regulations should read:

Unit 18— Hare	
Hare (Snowshoe ~~and Tundra)~~: No limit	*July 1 – June 30*
Alaska Hare: 2 hare per day / 15 per season	***Aug. 1 – May 31***
Unit 22— Hare	
Hare (Snowshoe ~~and Tundra)~~: No limit	*Sept. 1 – April 15*
Alaska Hare: 2 hare per day / 15 per season	***Aug. 1 – May 31***
Unit 23— Hare	
Hare (Snowshoe ~~and Tundra)~~: No limit	*July 1 – June 30*
Alaska Hare: 2 hare per day / 15 per season	***Aug. 1 – May 31***

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and Federal Subsistence Board action on the proposal.

ALASKA DEPARTMENT OF FISH AND GAME COMMENTS

Wildlife Proposal WP22-45

This proposal would shorten the season duration for Alaska hare (Lepus othus) or "jack rabbit" in Game Management Units (GMU) 18, 22, and 23. This proposal seeks to create a season from 1 September to 15 April for all three GMUs. This season duration is currently already in place in GMU 22. This proposal would also reduce the bag limit from no limit to 2 per day / 6 annually and create a salvage requirement for human use (hide or meat).

Background

In January 2020, the Alaska Board of Game (BOG) reduced the season duration and daily and annual harvest limit for Alaska hare in GMUs 18, 22, and 23. Based on observations from local rural residents from Western Alaska as well as state and federal biologists, Alaska hare abundance has declined from the 1980s and 1990s and as a result a more conservative management approach is needed to address concerns over current population levels.

Unfortunately, no consistent abundance or productivity estimates exist for Alaska hare in GMUs 18, 22, and 23. Inconsistent harvest data from the area also make it difficult to gain a comprehensive understanding about hunter effort and harvest. However, regular field observations beginning in 2017 and a concerted effort to garner local knowledge with remote local residents within GMUs 18, 22, and 23 and throughout Southwest and Western Alaska indicated there is low to very low density compared to what has been observed historically. These observations and input from local residents resulted in the Alaska Department of Fish & Game (ADF&G) submitting a proposal to the BOG in 2020 and the subsequent adoption of more conservative hunting regulations. In addition, beginning in 2019 the ADF&G initiated a research study monitoring Alaska hare movement as well as evaluating long-term population assessment methods. Through this research and extensive time in the field it is clear this species is at low density throughout GMUs 18, 22, and 23.

Impact on Subsistence Users

If adopted this proposal would reduce the annual harvest limit and shorten the Alaska hare hunting season (GMUs 18 and 23) under federal regulations in GMUs 18, 22, and 23.

Impact on Other Users

If adopted this proposal would have no effect on other non-federally qualified users (NFQU).

Opportunity Provided by State

State customary and traditional use findings: In 2020, the BOG made a positive customary and traditional use findings for Alaska hare in GMUs 18, 22, and 23.

Amounts Reasonably Necessary for Subsistence: Alaska state law requires the BOG 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.

Although a positive customary and traditional use finding has been made for Alaska hare in GMUs 18, 22, and 23, an ANS has not been set in either GMU.

Conservation Issues

Between the combination of observations by federal and ADF&G staff as well as local residents, we are seeing declines in the population throughout the GMUs.

Enforcement Issues

This would align state and federal regulations for the hunting of Alaska hare which would reduce confusion from hunters and possibly mixing up the different bag limits currently in place whether they are on federal or state lands.

Position

ADF&G SUPPORTS this proposal with the modification to match the state season of August 1 to May 31 as it addresses the conservation concerns that local residents have expressed along with what ADF&G staff are finding. It is also important to align state and federal regulations to reduce hunter confusion.

WP22–47 Executive Summary	
General Description	Proposal WP22-47 requests that calf harvest be permitted for caribou in Unit 22. *Submitted by: Western Arctic Caribou Herd Working Group*
Proposed Regulation	See page 112
OSM Conclusion	**Support**
Yukon-Kuskokwim Delta Subsistence Regional Advisory Council Recommendation	**Support**
Western Interior Alaska Subsistence Regional Advisory Council Recommendation	**Support**
Seward Peninsula Subsistence Regional Advisory Council Recommendation	**Support**
Northwest Arctic Subsistence Regional Advisory Council Recommendation	**Oppose**
North Slope Subsistence Regional Advisory Council Recommendation	**Support with modification t**o only allow harvest of orphaned calves

WP22–47 Executive Summary	
Interagency Staff Committee Comments	Adoption of Proposal WP22-47 would provide additional harvest opportunity for Federally qualified subsistence users, though most rural residents do not target calves. Because of this, any additional harvest of calves due to adoption of this proposal is not expected to affect the conservation status of the WACH. Additional harvest opportunity may also be warranted, given that calf harvest is already allowed under State hunting regulations, and allowing such harvest may help to minimize wanton waste when calves are mistakenly shot, while also allowing for the harvest of orphaned calves. The ISC recognizes the concerns regarding calf harvest brought up by the Northwest Arctic Subsistence Regional Advisory Council. However, as previously mentioned, the minimal amount of calf harvest already occurring does not indicate that allowing such harvest under Federal regulations would cause a conservation concern for the WACH and therefore, such harvest does not violate recognized principles of fish and wildlife conservation and is consistent with ANILCA Section 805(c). One topic that the ISC would like to bring to the attention of the Board is that in December 2021, the Western Arctic Caribou Herd Working Group (the proponent for WP22-47) voted to change the management status for the WACH to the "preservative declining" level. This was in response to the recent population estimate for the herd being counted at 188,000 animals, a decline from the 2019 estimate of 244,000 caribou. One of the recommendations that may be included under this management level is a prohibition on calf harvest.
ADF&G Comments	**Support**
Written Public Comments	**None**

STAFF ANALYSIS
WP22-47

ISSUES

Proposal WP22-47, submitted by the Western Arctic Caribou Herd (WACH) Working Group requests that calf harvest be permitted for caribou in Unit 22.

DISCUSSION

The proponent states that the intent of this proposal is to allow for the harvest of orphaned calves, and that this regulation change would align Federal and State regulations.

Existing Federal Regulation

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*

Proposed Federal Regulation

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-Sept. 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 22—Caribou

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-Sept. 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*

Existing State Regulation

Unit 22—Caribou

22A, north of the Golsovia River drainage	*Residents—Twenty caribou total, up to 5 per day. Permit available online at http://hunt.alaska.gov or in person in Nome and license vendors within Unit 22 beginning June 22*	*Bulls*	*RC800*	*no closed season*
		Cows	*RC800*	*July 1-Mar. 31*
	Nonresidents—one bull		*HT*	*Aug. 1-Sept. 30*
22A remainder	*Residents—Twenty caribou total, up to 5 per day. Bulls may not be taken Oct 15-Jan 31, and cows may not be taken Apr 1-Aug 31. Permit available online at http://hunt.alaska.gov or in person in Nome and license vendors within Unit 22 beginning June 22*		*RC800*	*May be announced*
	Nonresidents—one bull		*HT*	*May be announced*

Unit 22—Caribou

Unit 22B, west of Golovnin Bay, west of the west banks of Fish and Niukluk rivers below the Libby river (excluding the Libby River drainage and Niukluk River drainage above the mouth of the Libby River)	*Residents—Twenty caribou total, up to 5 per day. Permit available online at http://hunt.alaska.gov or in person in Nome and license vendors within Unit 22 beginning June 22*	*Bulls*	*RC800*	*Oct. 1-Apr. 30*
		Cows	*RC800*	*Oct. 1-Mar. 31*
	Residents- Twenty caribou total, up to 5 per day. Cows may not be taken Apr 1-Aug 31. Permit available online at http://hunt.alaska.gov or in person in Nome and license vendors within Unit 22 beginning June 22		*RC800*	*may be announced*
	Nonresidents: one bull			*may be announced*
			HT	
22B remainder	*Residents—Twenty caribou total, up to 5 per day. Permit available online at http://hunt.alaska.gov or in person in Nome and license vendors within Unit 22 beginning June 22*	*Bulls*	*RC800*	*no closed season*
				July 1-Mar. 31
		Cows	*RC800*	
	Nonresidents—one bull			*Aug. 1-Sept. 30*
			HT	

Unit 22—Caribou

22C	*Residents—Twenty caribou total, up to 5 per day. Bulls may not be taken Oct 15-Jan 31, and cows may not be taken Apr 1-Aug 31. Permit available online at http://hunt.alaska.gov or in person in Nome and license vendors within Unit 22 beginning June 22*		*RC800*	*May be announced*
	Nonresidents—one bull			
				May be announced
			HT	
22D Pilgrim River drainage	*Residents—Twenty caribou total, up to 5 per day. Permit available online at http://hunt.alaska.gov or in person in Nome and license vendors within Unit 22 beginning June 22*	*Bulls*	*RC800*	*Oct. 1-Apr. 30*
		Cows	*RC800*	*Oct. 1-Mar. 31*
	Residents- Twenty caribou total, up to 5 per day. Cows may not be taken Apr 1-Aug 31. Permit available online at http://hunt.alaska.gov or in person in Nome and license vendors within Unit 22 beginning June 22		*RC800*	*may be announced*
	Nonresidents: one bull			
				may be announced
			HT	

Unit 22—Caribou

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. Permit available online at http://hunt.alaska.gov or in person in Nome and license vendors within Unit 22 beginning June 22*	*Bulls*	*RC800*	*no closed season*
		Cows	*RC800*	*July 1-Mar. 31*
	Nonresidents—one bull		*HT*	*Aug. 1-Sept. 30*
22D remainder	*Residents—Twenty caribou total, up to 5 per day. Bulls may not be taken Oct 15-Jan 31, and cows may not be taken Apr 1-Aug 31. Permit available online at http://hunt.alaska.gov or in person in Nome and license vendors within Unit 22 beginning June 22*		*RC800*	*May be announced*
	Nonresidents—one bull		*HT*	*May be announced*
22E, east of and including the Sanaguich River drainage	*Residents—Twenty caribou total, up to 5 per day. Permit available online at http://hunt.alaska.gov or in person in Nome and license vendors within Unit 22 beginning June 22*	*Bulls*	*RC800*	*no closed season*
		Cows	*RC800*	*July 1-Mar. 31*
	Nonresidents—one bull		*HT*	*Aug. 1-Sept. 30*
22E remainder	*Residents—Twenty caribou total, up to 5 per day. Bulls may not be taken Oct 15-Jan 31, and cows may not be taken Apr 1-Aug 31. Permit available online at http://hunt.alaska.gov or in person in Nome and license vendors within Unit 22 beginning June 22*		*RC800*	*May be announced*
	Nonresidents—one bull		*HT*	*May be announced*

Extent of Federal Public Lands/Waters

Unit 22 is comprised of 43% Federal public lands and consist of 28% Bureau of Land Management (BLM), 12% National Park Service (NPS) and 3% U.S. Fish and Wildlife Service (USFWS) managed lands.

Customary and Traditional Use Determinations

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.

Regulatory History

In 1990, the Federal caribou hunting seasons in Units 22A and 22B were open year-round with a 5 caribou/day harvest limit and a restriction on the take of cows May 16 ─ June 30. There was no open caribou season in Units 22C, 22D and 22E.

In 2000, the Federal Subsistence Board (Board) adopted Proposal WP00-53 with modification allowing the use of snowmachines to position a hunter to select individual caribou for harvest in Units 22 and 23. This was done to recognize a customary and traditional practice in the region.

In 2003, the Board adopted Proposal WP03-40 with modification to establish a harvest season of July 1 ─ June 30 and a 5 caribou per day harvest limit in portions of Units 22D and 22E. This was done because caribou had expanded their range into these subunits and harvest was not expected to impact the caribou or reindeer herds, to provide additional subsistence hunting opportunities and to align State and Federal regulations.

In 2006, the Board adopted Proposal WP06-37 with modification, which designated a new hunt area in Unit 22B with an open season of Oct. 1 ─ Apr. 30 and a closed season from May 1 ─ Sept. 30 unless opened by a Federal land manager. This was done to prevent incidental take of privately-owned reindeer and to reduce user conflicts.

In 2013, an aerial photo census indicated significant declines in the WACH population (Caribou Trails 2014). In response, the Alaska Board of Game (BOG) adopted modified Proposal 202 (RC76) in March 2015 to reduce harvest opportunities for both Alaska residents and nonresidents within the range of the WACH, including Units 22, 23, and 26A. These regulation changes, – which included lowering bag limits for nonresidents from two caribou to one bull, reductions in bull and cow season lengths, the establishment of new hunt areas and prohibiting calf harvest – were adopted to slow or reverse the population decline.

In 2016, the Board considered Proposal WP16-37, which requested that Federal caribou regulations mirror the new State regulations across the range of the WACH (Units 21D, 22, 23, 24 and 26A). The Board adopted Proposal WP16-37 with modification to reduce the harvest limit to 5 caribou per day,

restrict the bull season during rut and cow season around calving, prohibit the harvest of calves and cows with calves before weaning (mid-Oct.) in some areas, to create new hunt areas and to establish new seasons in Unit 22.

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.

In 2018, the Board 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.

In January 2020, the BOG adopted Proposal 24 as amended to remove the restriction on caribou calf harvest in Units 22, 23 and 26A.

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 to allow harvest of calves that had been orphaned or injured.

Biological Background

Caribou abundance naturally fluctuates over decades (Gunn 2001, WACH Working Group 2011). Gunn (2001) reported the mean doubling rate for Alaskan caribou populations to be 10 ± 2.3 years. The underlying mechanisms causing these fluctuations are uncertain;although climatic oscillations (i.e. Arctic and Pacific Decadal Oscillations) may play an important role (Gunn 2001, 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 2001).

Caribou calving generally occurs from late May to mid-June (Dau 2013). Weaning generally occurs in late October and early November before the breeding season (Taillon et al. 2011). Calves stay with their mothers through their first winter, which improves calf 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 (Holand et al. 2012, Joly 2000, Russell et al. 1991, Rughetti and Fest-Bianchet 2014).

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 1**, Dau 2011, WACH Working Group 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. In the fall, the majority of the herd generally moves south toward wintering grounds south of the Brooks Range (Joly 2021, pers. comm.). Rut occurs during fall migration (Dau 2011, WACH Working Group 2011).

In recent years, the timing of fall migration has been less predictable. From 2010-2019, the average dates that GPS collared caribou crossed the Noatak River ranged from Sep. 6 – Oct. 13; the Kobuk River from Sep. 24 – Nov. 3; and the Selawik River from Oct. 2 – Nov. 10 (Joly and Cameron 2020). From 2010-

2016, caribou migration was trending to occur earlier in the year. However, from 2017-2019, caribou crossed the Noatak River, but then there was substantial delay before caribou crossed the Kobuk and Selawik rivers. This appears to have been the case for 2020 as well. During the fall 2020 Northwest Arctic Regional Advisory Council meeting in early November, Council members stated that only Noatak had harvested caribou in the fall and that caribou had not yet passed through the Southern portions of Unit 23. While data has yet to be analyzed, the first GPS collared caribou did not cross the Kobuk River until November, which is the latest first crossing since data collection began in 2010 (Joly 2021, pers. comm.). Reasons for changes in migration phenology are unknown.

The proportion of caribou using certain migration paths also varies each year (Joly and Cameron 2020). Changes in migration paths are likely influenced by multiple factors including food availability, snow depth, rugged terrain and dense vegetation (Fullman et al. 2017, Nicholson et al. 2016). If caribou travelled the same migration routes every year, their food resources would likely be depleted (NWARAC 2016).

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 the NPS, USFWS, BLM and the Alaska Department of Fish and Game (ADF&G) personnel. The WACH Working Group developed a WACH Cooperative Management Plan in 2003 and revised it in 2011 and 2019 (WACH Working Group 2011, 2019). The WACH Management Plan identifies nine 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 based on population size, population trend and harvest rate. Population sizes guiding management level determinations were based on recent (since 1970) historical data for the WACH (WACH Working Group 2011, 2019). Revisions to recommended harvest levels under liberal and conservative management were made in 2015 (WACH Working Group 2015) and 2019 (WACH Working Group 2019, **Table 1**).

The WACH population declined rapidly in the early 1970s, reaching a low estimate of 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 1**). Beginning in 2003, the herd declined at an average annual rate of 7.1% from approximately 490,000 caribou to 200,928 caribou in 2016 (Caribou Trails 2014; Dau 2011, 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 ADF&G accomplished the census in 2021 and estimated the population at 188,000 caribou. This is approximately a 24% decline from the 2019 population estimate (WACH Working Group 2021).

Between 1982 and 2011, the WACH population was within the liberal management level prescribed by the WACH Working Group (**Figure 1, 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 where it has remained. In 2021, with the population declining below 200,000, the WACH Working Group voted to depress the herd's status to the preservative declining level (WACH Working Group 2021).

Between 1970 and 2017, the bull:cow ratio exceeded Critical Management levels identified in the 2019 WACH Management Plan (**Figure 2**). 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). In 2017 the bull:cow ratio was the highest since 1998 at 54 bulls:100 cows. In 2021, that ratio fell slightly to 47 bulls:100 cows (WACH Working Group 2021). 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 accounts for more annual variability than actual changes in composition.

Although factors contributing to the 2003-2021 decline are not known with certainty, increased adult cow mortality and decreased calf recruitment and survival played a role (Dau 2011). Since the mid-1980s, adult mortality has slowly increased while recruitment has slowly decreased (**Figure 3**, Dau 2013). Prichard (2009) developed a population model specifically for the WACH using various demographic parameters and found adult 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 2016, the June calf:cow ratio averaged 71 calves:100 cows/year (Figure 4, Dau 2016a). The average June calf:cow ratio increased to 79 calves:100 cows between 2017 and 2020. 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). However, in 2020 and 2021 the June calf:cow ratio dropped to 67 calves:100 cows and 68 calves:100 cows, respectively (WACH Working Group 2020, WACH Working Group 2021).

Decreased calf survival through summer and fall and recruitment into the herd likely contributed to the recent population decline (Dau 2013, 2015). Fall calf:cow ratios indicate decreased calf survival over the 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 4). Since 2008, ADF&G has recorded calf weights at Onion Portage as an index of herd nutritional status. In September 2015, calf weights averaged 100 lbs., the highest average ever recorded (Parrett 2015b).

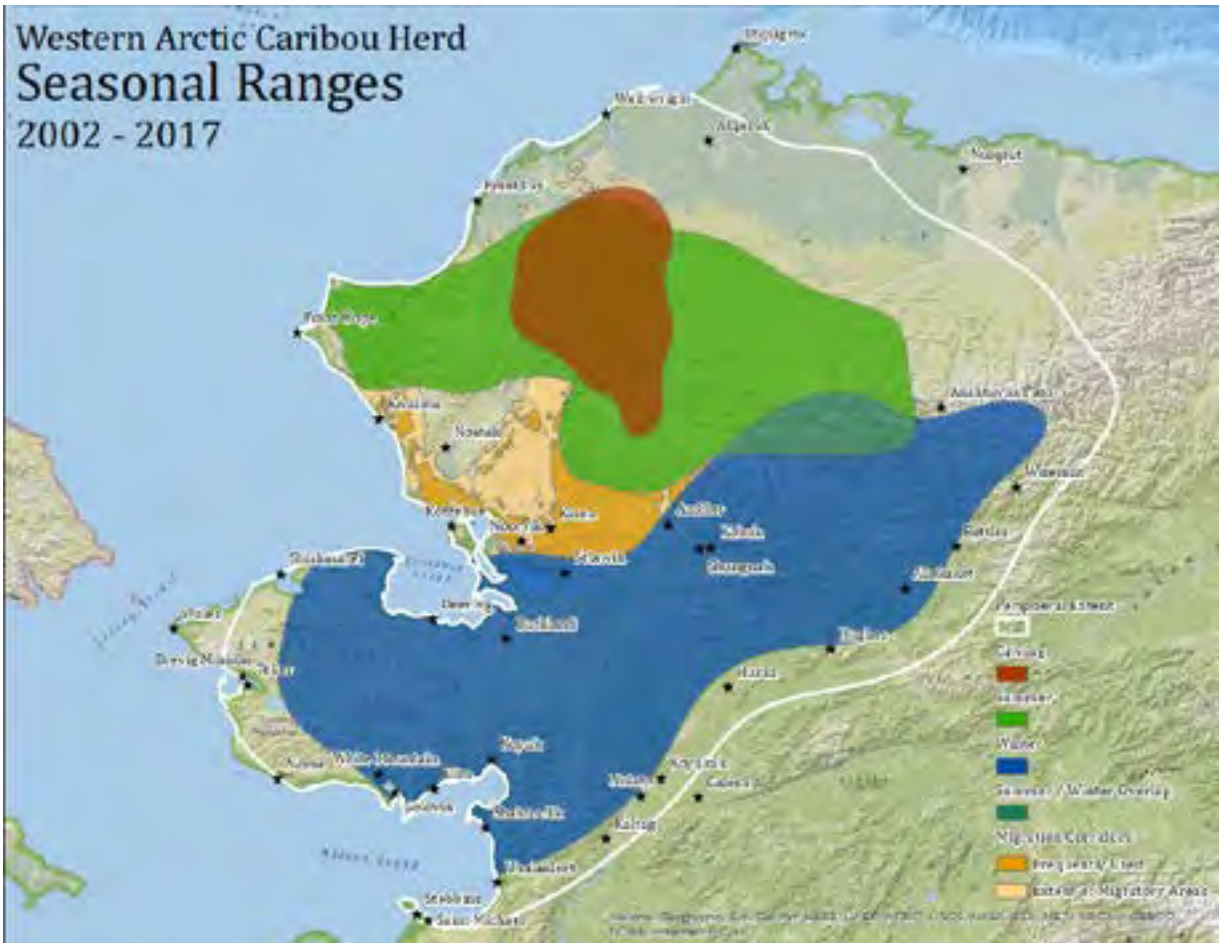
Similarly, the ratio of short yearlings (SY, 10-11 month old caribou) to adults provides a measure of overwintering calf survival and recruitment. Between 1990 and 2021, SY:adult ratios ranged from 9-26 SY:100 adults and averaged 18.1 SY:100 adults/year (Figure 4). SY:adult ratios were high from 2016-2018, ranging from 22-23 SY:100 adults (Dau 2016b, NWARAC 2019). The 2021 SY:adult ratio was 17 SY:100 adults (WACH Working Group 2021).

Cow mortality affects the trajectory of the herd (Dau 2011, 2013, Prichard 2009, NWARAC 2019). The annual mortality rate of radio-collared adult cows increased from an average of 15% between 1987 and 2003 to 23% from 2004-2014 (Figure 3, 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 be due to a low and aging sample size as few caribou have been collared in the past two years (Prichard et al. 2012, NWARAC 2019) and/or difficult weather conditions (Gurarie et al. 2020). Estimated mortality includes all causes of death including hunting (Dau 2011). Dau (2015) stated that cow mortality estimates are conservative due to exclusion of unhealthy (i.e. diseased) and yearling cows. These estimates are also susceptible to collar sample size and how long the collars have been on individuals (Prichard et al. 2012).

Far more caribou died from natural causes than from hunting between 1992 and 2012 (Dau 2013). Cow mortality remained constant throughout the year, but natural and harvest mortality for bulls spiked during the fall. However, as the WACH has declined and estimated harvest has remained relatively stable, the percentage of mortality due to hunting has increased relative to natural mortality. For example, during the period October 1, 2013 to September 30, 2014, estimated hunting mortality was approximately 42% and estimated natural mortality about 56% (Dau 2014). In previous years (1983–2013), the estimated hunting mortality exceeded 30% only once in 1997-1998 (Dau 2013). Additionally, Prichard (2009) and Dau (2015) suggest the harvest rates of cows can greatly impact population trajectory. If bull:cow ratios continue to decline, harvest of cows may increase, exacerbating the current population decline.

Dau (2015) speculated that fall and winter icing events were the primary factor initiating the population decline in 2003. Increased predation, hunting pressure, deteriorating range condition (including habitat loss and fragmentation), climate change and disease may also be contributing factors (Dau 2015, 2014, Joly et al. 2011). Joly et al. (2007) documented a decline in lichen cover in portions of the wintering areas of the WACH. Dau (2011, 2014) speculated that degradation in range condition is not thought to be a primary factor in the decline of the herd because animals have generally maintained good body condition since the decline began. Body condition is estimated using a subjective scale from 1-5. The fall body condition of adult females in 2015 was characterized as “fat” (mean= 3.9/5) with no caribou being rated as skinny or very skinny (Parrett 2015b). However, the body condition of the WACH in the spring may be a better indicator of the effects of range condition versus the fall when the body condition of the herd is routinely assessed and when caribou are in prime condition (Joly 2015, pers. comm.).

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. Western Arctic Caribou Herd seasonal range map, 2002-2017 (image from WACH Working Group 2019).

Table 1. Western Arctic Caribou Herd management levels using herd size, population trend, and harvest rate (WACH Working Group 2019).

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+	Pop: 230,000+	Pop: 200,000+	• Reduce harvest of bulls by nonresidents to maintain at least 30 bulls:100 cows
	Harvest: 14,000+	Harvest: 14,000+	Harvest: 14,000+	• No restriction of bull harvest by resident hunters unless bull:cow ratios fall below 30 bulls:100 cows

Table 1. Western Arctic Caribou Herd management levels using herd size, population trend, and harvest rate (WACH Working Group 2019).

Conservative	Pop: 200,000-265,000	Pop: 170,000-230,000	Pop: 150,000-200,000	• 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
	Harvest: 10,000-14,000	Harvest: 10,000-14,000	Harvest: 10,000-14,000	
Preservative	Pop: 130,000-200,000	Pop: 115,000-170,000	Pop: 100,000-150,000	• 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
	Harvest: 6,000-10,000	Harvest: 6,000-10,000	Harvest: 6,000-10,000	
Critical	Pop: <130,000	Pop: <115,000	Pop: <100,000	• 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
	Harvest: <6,000	Harvest: <6,000	Harvest: <6,000	

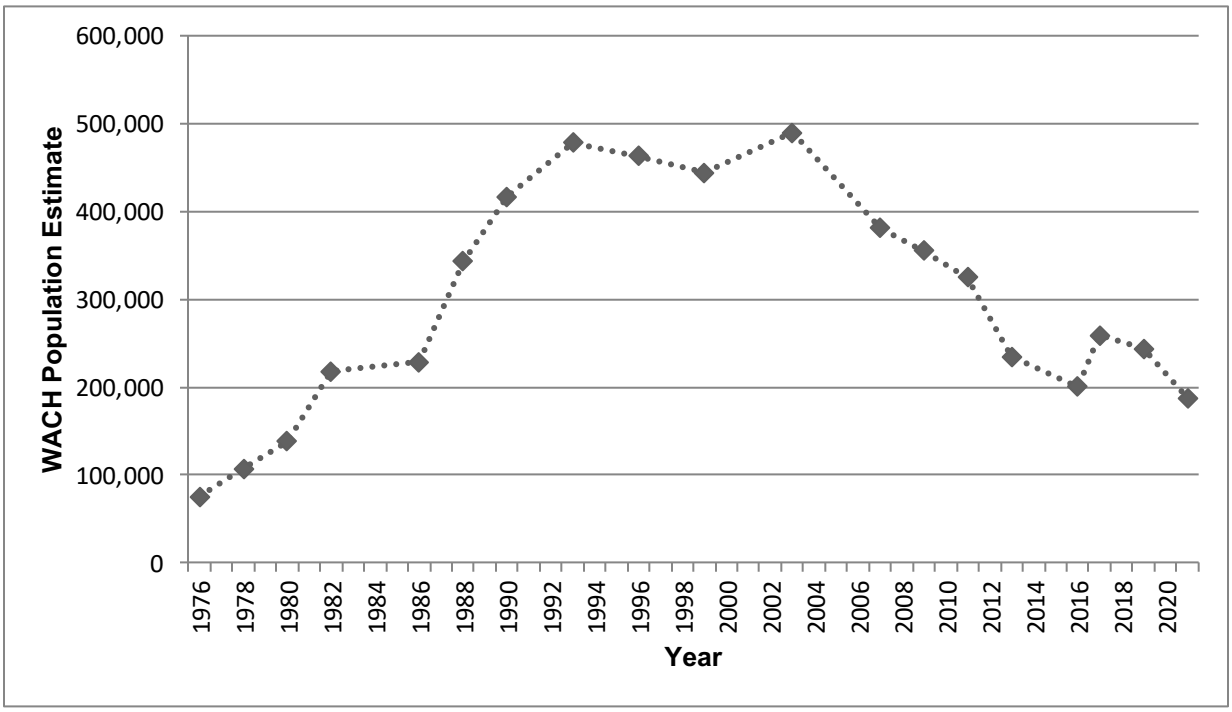


Figure 1. The WACH population estimates from 1976–2021. Population estimates from 1986–2021 are based on aerial photographs of groups of caribou that contained radio-collared animals (Dau 2011, 2013, 2014, Parrett 2016, 2017a, Hansen 2019a, WACH Working Group 2021).

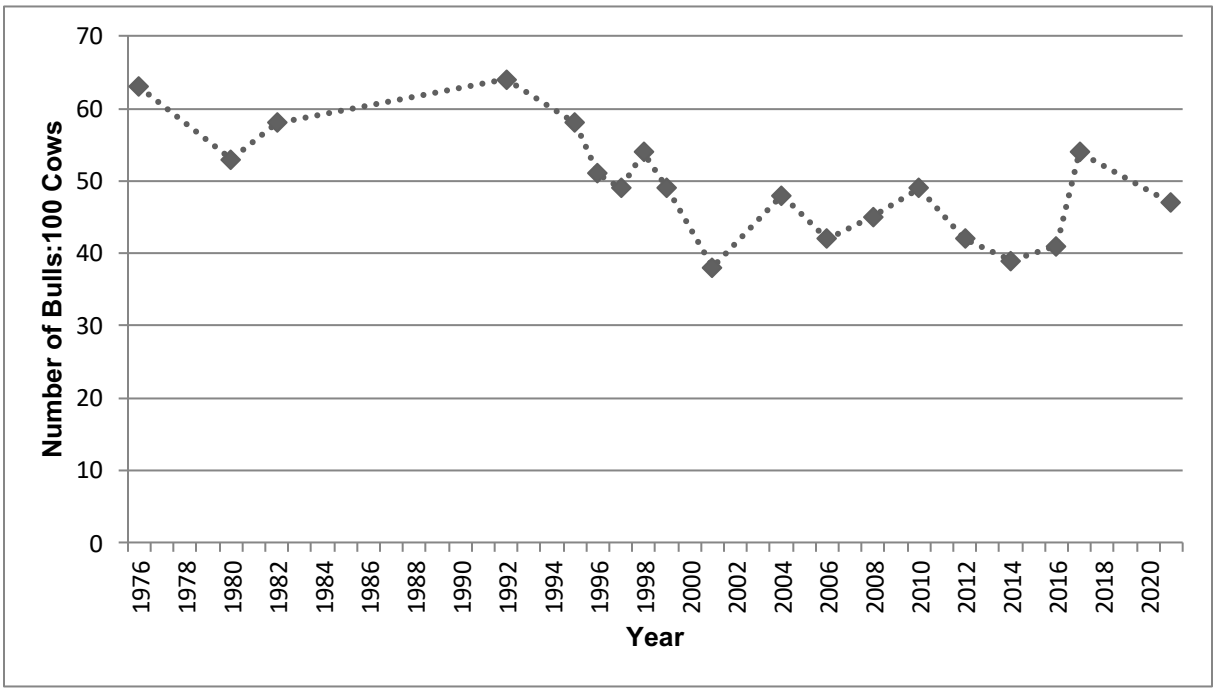


Figure 2. Bull:Cow ratios for the WACH (Dau 2015, ADF&G 2017, Parrett 2017a, WACH Working Group 2021).

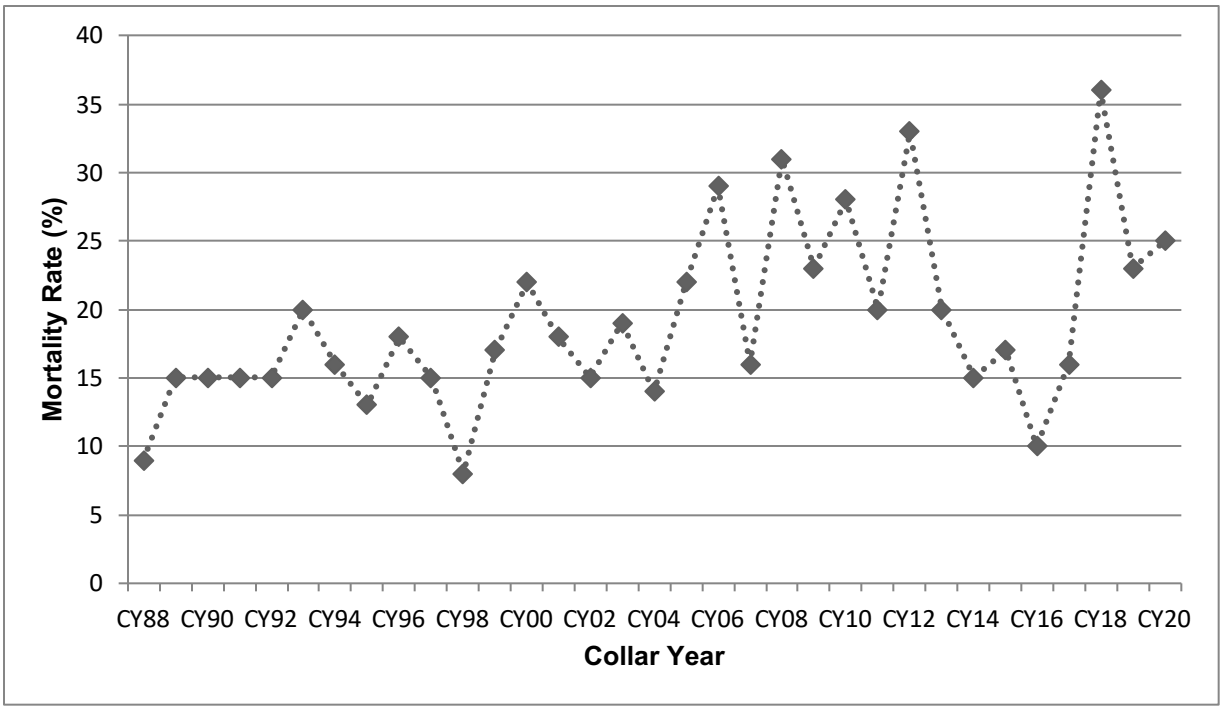


Figure 3. Mortality rate of radio-collared cow caribou in the Western Arctic caribou herd (Dau 2013, 2015, 2016b, NWARAC 2019, WACH Working Group 2020). Collar Year = 1 Oct-30 Sept.

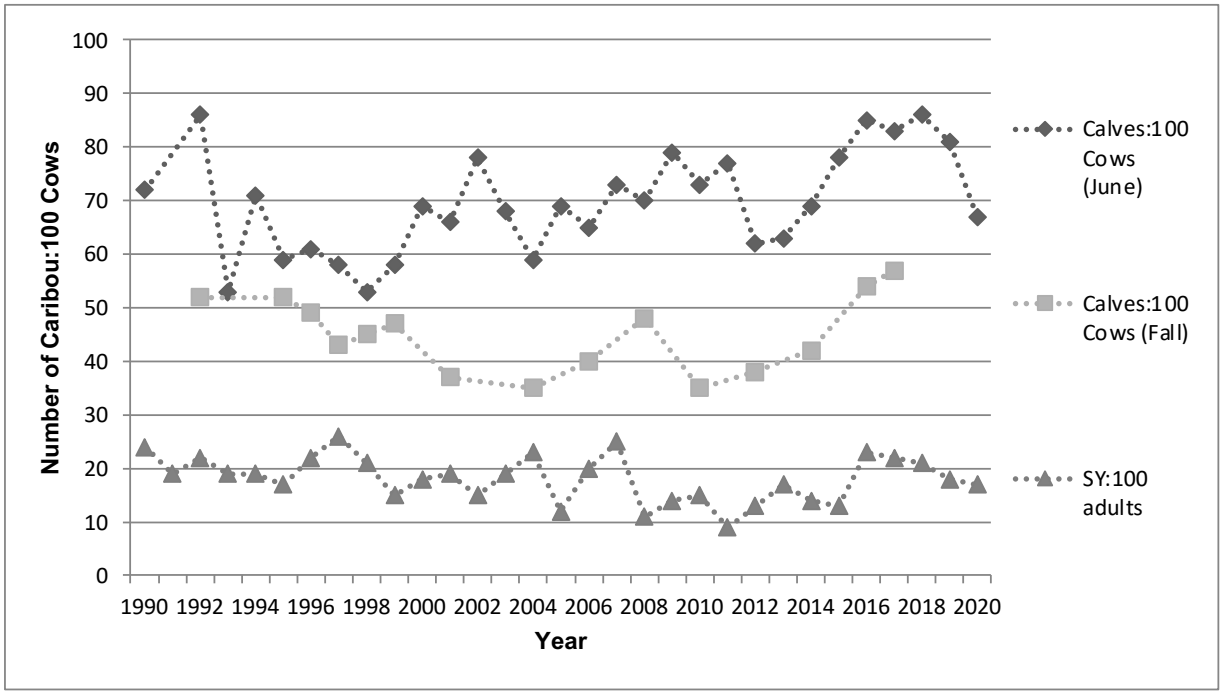


Figure 4. Calf:cow and short yearling (SY):adult ratios for the WACH (Dau 2013, 2015, 2016a, ADF&G 2017, Parrett 2017a, NWARAC 2019, WACH Working Group 2020). Short yearlings are 10-11 months old caribou.

Cultural Knowledge and Traditional Practices

Meeting the nutritional and caloric needs of Arctic communities is vitally important and is the foundation of subsistence activities. Still, the meaning of subsistence extends far beyond human nutrition for Alaska's native peoples. Holthaus (2012) describes subsistence as the base on which Alaska Native culture establishes its identity though "philosophy, ethics, religious belief and practice, art, ritual, ceremony and celebration."

Caribou have been an important resource for the Iñupiat of the Seward Peninsula for thousands of years. Caribou were traditionally a major source of both food and clothing and continues today to be the most important land animal consumed in many communities (Burch 1984, 1994, 1998, ADF&G 1992).

Historically, during fall and spring caribou migrations, people built "drive fences" out of cairns, bundles of shrubs, or upright logs. These fences were sometimes several miles long and two to three miles wide. Ideally, the closed end of the fence crossed a river, and caribou were harvested while crossing the river and retrieved later; or the fence would end in a corral where caribou were snared and killed with spears (Burch 2012).

The WACH population declined rapidly beginning in the late 1800s. At its low point, its range had shrunk to less than half its former size. Famine ensued, primarily due to the absence of caribou. In the early 1900s, reindeer were introduced to fill the need for food and hides. The WACH began to rebound in the 1940s. Currently, among large terrestrial mammals, caribou are among the most abundant; however, the population in any specific area is subject to wide fluctuations from year-to-year as caribou migration routes change (Burch 2012).

Caribou were traditionally harvested any month of the year they were available. The objective of the summer hunt was to obtain the hides of adult caribou with their new summer coats. They provided the best clothing material available to the Iñupiat. The fall hunt was to acquire large quantities of meat to freeze for winter (Burch 1994). Present-day use of caribou calves appears to be limited but does occur opportunistically.

Small groups of caribou that have over-wintered may be taken by hunters in areas that are accessible by snowmachine. Braem et al. (2015:141) explain, "Hunters harvest cows during the winter because they are fatter than bulls. Caribou harvested during the winter can be aged completely without removing the skin or viscera. Then in the spring, the caribou is thawed. Community members cut it into strips to make dried meat, or they package and freeze it." In spring, caribou start their northward migration. The caribou that are harvested are "lean and good for making dried meat (*paniqtuq) during the warm, sunny days of late spring" (Georgette and Loon 1993:80).*

Harvest History

The State manages the WACH on a sustained yield basis (i.e. managing current harvests to ensure future harvests). The harvestable surplus when the WACH population trend is declining is calculated as 6% of the estimated population (WACH working group 2011, Parrett 2017b, pers. comm.). In 2017, the WACH harvestable surplus was 15,540 caribou (6% of 259,000 caribou). The 2021 population estimate was 188,000 caribou, which means the harvestable surplus is currently 11,280 caribou (WACH Working Group 2021). Of particular concern is the overharvest of cows, which has probably 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."

Caribou harvest by local hunters is estimated from community harvest surveys, 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). In 2015, Craig's models replaced models developed by Sutherland (2005), resulting in changes to local caribou harvest estimates from past years. While Craig's models accurately reflect harvest trends, they do not accurately reflect actual harvest numbers (Dau 2015). (Note: no model accurately reflects harvest numbers). This analysis only considers the updated harvest estimates using Craig's new model as cited in Dau (2015). Caribou harvest by nonresidents is based on harvest ticket reports (Dau 2015) and registration permits for nonlocal residents. 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 in Unit 22, but do not frequently harvest Western Arctic caribou).

From 1999–2018, the average estimated total harvest from the WACH was 14,103 caribou/year, ranging from 11,729-16,219 caribou/year (Hansen 2020 and 2021, pers. comm., Figure 5). These harvest estimates are within the conservative harvest level specified in the WACH Management Plan (Table 1). However, all these harvest estimates are above the preservative harvest level specified in the WACH Management Plan. 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 2021, pers. comm, WACH Working Group 2021).

Local hunters account for approximately 95% of the total WACH harvest and residents of Unit 22 account for approximately 17% of the total harvest on average (Figure 6, ADF&G 2017). Comparison of caribou harvest by community from household survey data with yearly GPS-collared caribou migration routes demonstrates that local community harvests parallel WACH availability rather than population trends.

In 2016, the State began requiring registration permits (RC800) for resident caribou harvest in Unit 22. From 2016-2019, reported RC800 harvest ranged from 147-460 caribou and averaged 377 caribou per year. Bulls and cows comprised 74% and 26% of the reported harvest on average, respectively. Calves comprised an unknown proportion of the harvest as this information is not collected in harvest reports (ADF&G 2021).

From 1999-2013, 72% of nonlocal hunters on average accessed the WACH by plane. Most nonlocal harvest (85-90%) occurs between Aug. 25 and Oct. 7. In contrast, most local, subsistence hunters harvest WACH caribou whenever they are available using boats, 4-wheelers, and snowmachines (Dau 2015, Fix and Ackerman 2015).

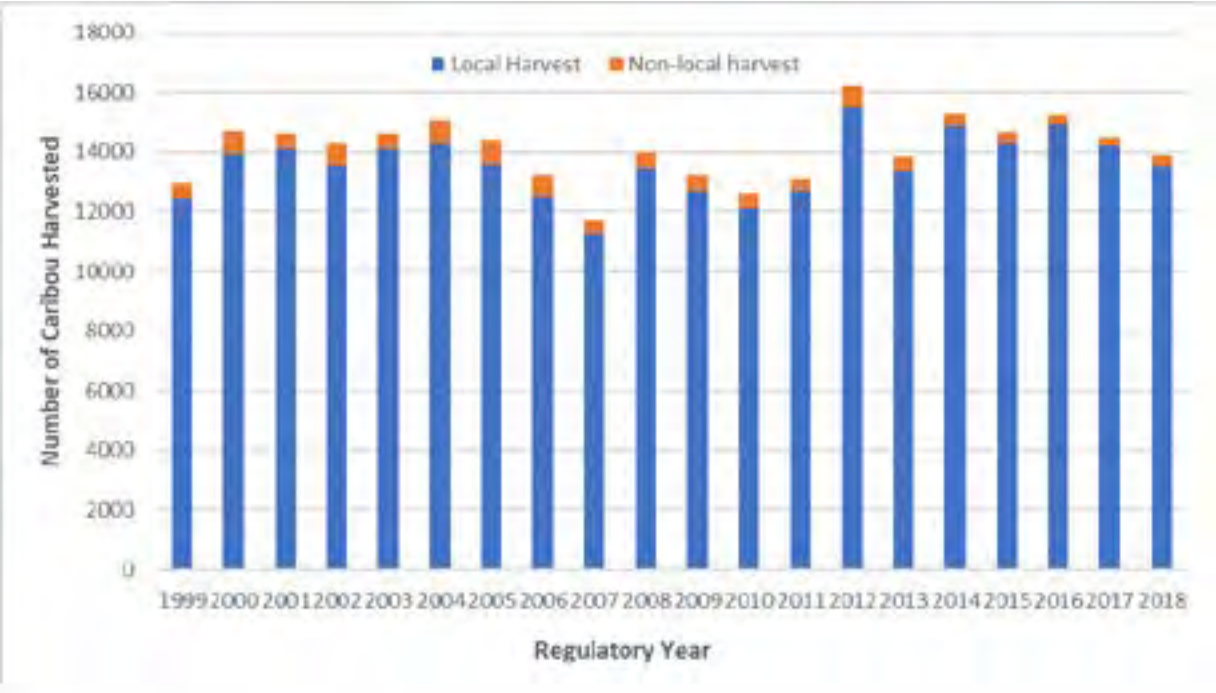


Figure 5. Estimated number of caribou harvested from the WACH by user group (Dau 2015, Hansen 2020, pers. comm.). Local harvest is an estimate derived from models; non-local harvest is from harvest reports. Estimates of local harvest are not available after 2018.

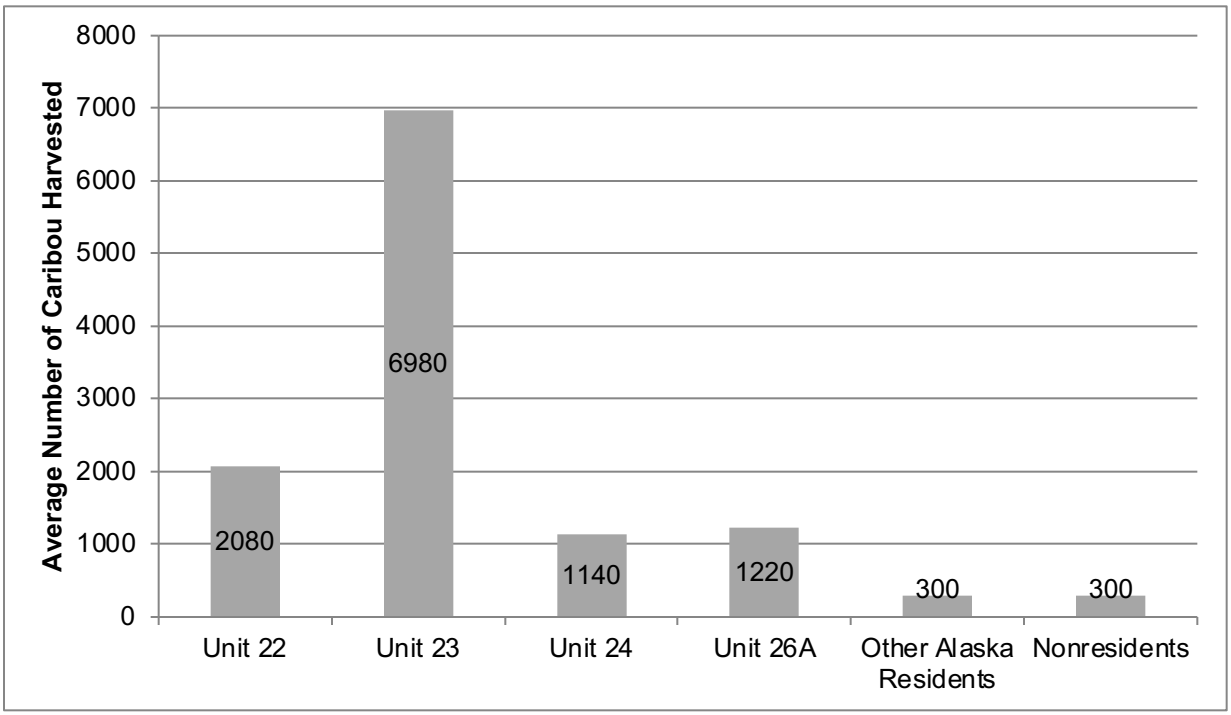


Figure 6. Average number of caribou harvested by unit and residency from 1998-2015 (ADF&G 2017).

Effects of the Proposal

If the Board adopts Proposal WP22-47, the harvest of calves would be permitted in Unit 22. This would increase harvest opportunity for Federally qualified subsistence users. Calf harvest presents minimal conservation concerns as most users do not target calves and calves may already be harvested in Unit 22 under State regulations.

Eliminating the prohibition on calf harvest would allow the harvest of orphaned calves that may otherwise succumb to predation. However, it can be difficult to identify orphaned calves as caribou are scattered across the landscape, and calves and cows can be separated by substantial distances. Additionally, orphaned calves may survive, especially if they remain with the herd. Russell et al. (1991) found survival rates of orphaned and non-orphaned calves were 63% and 78%, respectively, indicating orphaned calves still have a good chance of survival, although the sample size for orphaned calves was very small. The timing of abandonment also influences survival. Calves orphaned after weaning (October) have greater chances of survival than calves orphaned before weaning (Holand et al. 2012, Joly 2000, Russell et al. 1991, Rughetti and Fest-Bianchet 2014). As caribou typically winter on the Seward Peninsula, caribou harvest in Unit 22 usually occurs later in the year, which could improve the chances of orphaned calves surviving.

Allowing calf harvest may also reduce wanton waste. During deliberation on WP20-46, which requested allowance of calf harvest in Unit 23, a Northwest Arctic Regional Advisory Council member noted that he has seen dead calves in the field, presumably mistakenly shot and then left since they are illegal to harvest (NWARAC 2019). The ADF&G caribou biologist stated many orphaned calves have ended up around Kotzebue during the hunting season but have been unavailable to harvest. He collared a few of these orphaned calves, all of which died shortly thereafter. He also stated that he receives many reports from hunters about orphaned and wounded calves out in the field that are not legally available for harvest (NWARAC 2019). In regard to the prohibition on the take of cows accompanied by calves, an NPS staff biologist voiced concern that unethical hunters could harvest calves and then harvest its mother, who would no longer be accompanied by a calf (NWARAC 2019). However, hunters can already harvest cows with calves under State regulations, which do not have that restriction.

The Western Arctic and Teshekpuk caribou herds are the only caribou herds in Alaska where calf harvest is prohibited. These restrictions were adopted by the BOG in 2015 and the Board in 2016 as conservation measures when both herds were declining. The WACH management plan also recommends prohibiting calf harvest when the herd is within the conservative management level. However, calves comprise a very small portion of the harvest. In his population model, Prichard (2009) assumed calves comprised only 2% of the total annual WACH harvest, which would not affect the population trajectory of the WACH. As most calves die within their first year and few hunters target calves, calf harvest may be compensatory mortality, although Prichard (2009) assumed all harvest mortality to be additive. While calf recruitment influences herd abundance and population trajectory, Prichard (2009) found adult survival to have the largest impact on WACH population size. Prohibiting cow harvest would have a greater impact on herd conservation than prohibiting calf harvest.

The BOG removed the restriction on calf caribou harvest at its Arctic/Western Region meeting in January 2020. Currently, Federal regulations are more restrictive than State regulations. If the Board adopts this proposal to eliminate the prohibition on calf harvest Federal users would have the same opportunities as State users do.

OSM CONCLUSION

Support Proposal WP22-47.

Justification

Adopting Proposal WP22-47 increases harvest opportunity for Federally qualified subsistence users. As most people do not target calves, calf harvest is expected to be very low and should not affect conservation of the herd, especially since calf harvest is already permitted under State regulations. Additionally, allowing calf harvest may reduce wanton waste by allowing mistakenly shot calves to be legally salvaged, and would permit harvest of orphaned calves. Adoption of this proposal would give Federal users the same opportunities as State users.

LITERATURE CITED

ADF&G. 1992. Customary and Traditional Worksheets. Northwest Alaska GMU's 22 and 23, Black Bear, Brown Bear, Caribou, Dall Sheep, Moose, Muskoxen. Division of Subsistence, Kotzebue, Alaska.

ADF&G 2017. Region V Caribou Overview. Alaska Board of Game. Arctic and Western Region. Jan. 6-9, 2017. Bethel, AK. http://www.adfg.alaska.gov/static/regulations/regprocess/gameboard/pdfs/2016-2017/aw/Tab_1.3_RegionV_Caribou_Overview.pdf. Accessed January 20, 2017.

ADF&G. 2021. Harvest Lookup. https://secure.wildlife.alaska.gov/index.cfm?fuseaction=harvest.lookup. Accessed May 21, 2021.

Braem, N.M., E.H. Mikow, S.J. Wilson, M.L. Kostick. 2015. Wild food harvests in three upper Kobuk River communities: Ambler, Shungnak, and Kobuk, 2012-2013. ADF&G Division of Subsistence, Technical Paper No. 402. Fairbanks, AK.

Burch, Jr., E. S. 1984. The Kotzebue Sound Eskimo. In Handbook of North American Indians--Arctic. Volume 5. Edited by David Damas. Smithsonian Institution, Washington, D.C.

Burch, Jr., E. S. 1994. The Cultural and Natural Heritage of Northwest Alaska. Volume V. Nana Museum of the Arctic, Kotzebue, Alaska and U.S. National Parle Service, Alaska Region. Anchorage, Alaska.

Burch, E.S. 1998. The Inupiaq Eskimo nations of Northwest Alaska. University of Alaska Press. Fairbanks, AK.

Burch, E.S. 2012. Caribou herds of Northwest Alaska. University of Alaska Press. Fairbanks, AK.

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

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

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

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

Dau, J. 2015. Units 21D, 22A, 22B, 22C, 22D, 22E, 23, 24 and 26A. Chapter 14, pages 14-1 through 14-89. *In* P. Harper, and Laura A. McCarthy, editors. Caribou management report of survey and inventory activities 1 July 2012–30 June 2014. Alaska Department of Fish and Game, Species Management Report ADF&G/DWC/SMR-2015-4, Juneau.

Dau, J. 2016a. Memorandum to S. Machida dated June 21, 2016. 2016 Western arctic caribou herd calving survey: 4-12 June. ADF&G Division of Wildlife Conservation, Fairbanks, AK. 1 page.

Dau, J. 2016b. Memorandum to S. Machida dated April 26, 2016. 2016 Western Arctic caribou herd recruitment survey: 31 March and 5, 19, and 21 April. ADF&G Division of Wildlife Conservation, Fairbanks, AK. 1 page.

Fix, P.J. and A. Ackerman. 2015. Noatak National Preserve sport hunter survey. Caribou hunters from 2010-2013. Natural resources report. National Park Service.

Fullman, T.J., K. Joly, A. Ackerman. 2017. Effects of environmental features and sport hunting on caribou migration in northwestern Alaska. Movement Ecology. 5:4

Georgette, S., and H. Loon. 1993. Subsistence use of fish and wildlife in Kotzebue, a Northwest Alaska regional center. ADF&G, Division of Subsistence, Technical Paper No. 167. Fairbanks, AK.

Gurarie, Eliezer, P.R. Thompson, A.P. Kelly, N.C. Larter, W.F. Fagan, K. Joly. 2020. For everything there is a season: Analysing periodic mortality patterns with the cyclomortR package. Methods in Ecology and Evolution. Volume 11, Issue 1: 129-138.

Gunn, A. 2001. Voles, lemmings and caribou – population cycles revisited? Rangifer, Special Issue. 14: 105-111.

Hansen, D.A. 2019a. Wildlife Biologist. Personal communication: e-mail. Alaska Department of Fish and Game. Kotzebue, AK.

Hansen, D.A. 2019b. Wildlife Biologist. Personal communication: e-mail. Alaska Department of Fish and Game. Kotzebue, AK.

Hansen, D.A. 2020. Wildlife Biologist. Personal communication: e-mail. Alaska Department of Fish and Game. Kotzebue, AK.

Holand, O., R.B. Weladji, A. Mysterud, K. Roed, E. Reimers, M. Nieminen. 2012. Induced orphaning reveals post-weaning maternal care in reindeer. European Journal of Wildlife Research. 58: 589-596.

Holthaus, G., 2012. Learning Native wisdom: What traditional cultures teach us about subsistence, sustainability, and spirituality. University Press of Kentucky.

Joly, K. 2000. Orphan Caribou, *Rangifer tarandus, Calves: A re-evaluation of overwinter survival data. The Canadian Field Naturalist. 114: 322-323.*

Joly, K. 2015. Wildlife Biologist, Gates of the Arctic National Park and Preserve. Personal communication. email NPS. Fairbanks, AK.

Joly, K. 2021. Wildlife Biologist, Gates of the Arctic National Park and Preserve. Personal communication. email NPS. Fairbanks, AK.

Joly, K., R.R. Jandt, C.R. Meyers, and J.M. Cole. 2007. Changes in vegetative cover on the Western Arctic herd winter range from 1981–2005: potential effects of grazing and climate change. Rangifer Special Issue 17:199-207.

Joly, K., D.R. Klein, D.L. Verbyla, T.S. Rupp, and F.S. Chapin, III. 2011. Linkages between large-scale climate patterns and the dynamics of Arctic caribou populations. Ecography 34:345-352.

Joly, K., and M. D. Cameron. 2018. Caribou vital sign annual report for the Arctic Network Inventory and Monitoring Program: September 2017-August 2018. Natural Resource Report NPS/ARCN/NRR—2018/1834. National Park Service, Fort Collins, Colorado.

Joly, K., and M. D. Cameron. 2020. Caribou vital sign annual report for the Arctic Network Inventory and Monitoring Program: September 2019–August 2020. Natural Resource Report NPS/ARCN/NRR—2020/2210. National Park Service, Fort Collins, Colorado.

Miller, F.L. 2003. Caribou (Rangifer tarandus). Pages 965-997 in Feldhamer, B.C. Thompson, and J.A. Chapman, eds. Wild Mammals of North America- Biology, Management, and Conservation. John Hopkins University Press. Baltimore, Maryland.

Nicholson KL, Arthur SM, Horne JS, Garton EO, Del Vecchio PA. 2016. Modeling Caribou Movements: Seasonal Ranges and Migration Routes of the Central Arctic Herd. PLoS ONE 11(4): e0150333.

NWARAC. 2016. Transcripts of the Northwest Arctic Subsistence Regional Advisory Council proceedings, October 5-6, 2016 in Selawik, AK. Office of Subsistence Management, USFWS. Anchorage, AK.

NWARAC. 2019. Transcripts of the Northwest Arctic Subsistence Regional Advisory Council proceedings, April 9-10, 2019 in Kotzebue, AK. Office of Subsistence Management, USFWS. Anchorage, AK.

Parrett, L.S. 2015a. Western Arctic Caribou Herd Overview presentation. Presented at the Western Arctic Caribou Herd Working Group meeting. Dec. 16-17. Anchorage, AK.

Parrett, L.S. 2015b. Memorandum to P. Bente, Management Coordinator, dated October 29, 2015. 2015 Western Arctic Herd (WAH) captured conducted September 15-17, 2015. ADF&G Division of Wildlife Conservation, Fairbanks, AK.

Parrett, L.S. 2016. Memorandum for distribution, dated August 25, 2016. Summary of Western Arctic Caribou Herd photocensus conducted July 1, 2016. ADF&G Division of Wildlife Conservation, Fairbanks, AK. 6 pages.

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

Parrett, L.S. 2017b. Wildlife Biologist IV. Personal communication: phone and e-mail. Alaska Department of Fish and Game. Fairbanks, AK.

Prichard, A.K. 2009. Development of a Preliminary Model for the Western Arctic Caribou Herd. ABR, Inc. – Environmental Research and Services. Fairbanks, AK.

Prichard, A. K., Joly, K., Dau, J. 2012. Quantifying telemetry collar bias when age is unknown: A simulation study with a long-lived ungulate. The Journal of Wildlife Management. 76(7): 1441-1449. DOI:10.1002/jwmg.394

Russell, D.E., S.G. Fancy, K.R. Whitten, R.G. White. 1991. Overwinter survival of orphan caribou, *Rangifer tarandus, calves. Canadian Field Naturalist. 105: 103-105.*

*Rughet*ti, M., M. Festa-Bianchet. 2014. Effects of selective harvest of non-lactating females on chamois population dynamics. Journal of Applied Ecology. 51: 1075-1084.

Sutherland, R. 2005. Harvest estimates of the Western Arctic caribou herd, Alaska. Proceedings of the 10th North American Caribou Workshop. Girdwood, AK. 4-6 May 2004. Rangifer Special Issue No. 16: 177-184.

Taillon, J., V. Brodeur, M. Festa-Bianchet, S.D. Cote. 2011. Variation in body condition of migratory caribou at calving and weaning: which measures should we use? Ecoscience. 18(3): 295-303.

Western Arctic Caribou Herd Working Group. 2011. Western Arctic Caribou Herd Cooperative Management Plan – Revised December 2011. Nome, AK 47 pp.

Western Arctic Caribou Herd Working Group. 2015. Western Arctic Caribou Herd Cooperative Management Plan. Table 1 Revision – Dec. 2015. https://westernarcticcaribou.net/herd-management/. Accessed June 1, 2017.

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

Western Arctic Caribou Herd Working Group. 2020. Western Arctic Caribou Herd Working Group Meeting. December 9, 2020. Teleconference.

Western Arctic Caribou Herd Working Group. 2021. Western Arctic Caribou Herd Working Group Meeting. December 15, 2021. Teleconference.

SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Yukon-Kuskokwim Delta Subsistence Regional Advisory Council

Support WP22-47. The Council supports reducing regulatory confusion by aligning the more restrictive Federal regulation with the more liberal State regulation, so that subsistence hunters will not be cited for taking an orphaned caribou calf. Council members noted that while people do not target calves on the Yukon Delta, if one were orphaned, it would just die anyway.

Western Interior Alaska Subsistence Regional Advisory Council

Support WP22-47. The Council recognizes that while most people do not target calves, allowing the harvest of calves makes orphaned calves who are vulnerable to predation, available for harvest.

Seward Peninsula Subsistence Regional Advisory Council

Support WP22-47. The Council voted to support this proposal as it increases harvest opportunity for Federally qualified subsistence users. However, as hunters do not specifically target calves, no impacts to the calf population or herd recruitment are expected. Supporting this proposal will also align Federal and State regulations.

Northwest Arctic Subsistence Regional Advisory Council

Oppose WP22-47. The Council opposes allowing harvest of caribou calves because they are the future stock of the herd. The Council received feedback from local elders that calves should not be hunted in order sustain and grow the caribou herd and strongly encouraged opposition to this proposal so that calves would not be targeted.

North Slope Subsistence Regional Advisory Council

Support WP22-47 **with modification** to only allow harvest of orphaned calves. The Council supported inserting "orphaned" in front of "calves may be taken" in the regulatory language to make it clear that the intent was not to target calves but rather to legalize subsistence harvest if a calf was injured or orphaned.

Council members discussed that an orphaned caribou likely would not survive, and their meat and hides should not go to waste. The opportunity for hunting the orphaned calves would be beneficial in providing soft meat to elders and in making traditional clothing.

However, the Council considers conservation and ensuring the growth of the herd as a priority and is very concerned about the decline of the Western Arctic Caribou Herd. The Council does not want to send the wrong message with a regulation about harvest of calves when they are essential to conservation as they are the future of the herd.

The modified regulations should read:

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. ***Orphaned*** *c*alves 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. *Orphaned c*alves may ~~not~~ be taken.	*July 1-June 30*
Unit 22A, remainder—5 caribou per day by State registration permit. ***Orphaned*** *c*alves 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. ***Orphaned*** *c*alves 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. ***Orphaned*** *c*alves may ~~*not*~~ be taken.	*July 1-June 30, season may be announced*

INTERAGENCY STAFF COMMITTEE COMMENTS

Adoption of Proposal WP22-47 would provide additional harvest opportunity for Federally qualified subsistence users, though most rural residents do not target calves. Because of this, any additional harvest of calves due to adoption of this proposal is not expected to affect the conservation status of the WACH. Additional harvest opportunity may also be warranted, given that calf harvest is already allowed under State hunting regulations, and allowing such harvest may help to minimize wanton waste when calves are mistakenly shot, while also allowing for the harvest of orphaned calves.

The ISC recognizes the concerns regarding calf harvest brought up by the Northwest Arctic Subsistence Regional Advisory Council. However, as previously mentioned, the minimal amount of calf harvest already occurring does not indicate that allowing such harvest under Federal regulations would cause a conservation concern for the WACH and therefore, such harvest does not violate recognized principles of fish and wildlife conservation and is consistent with ANILCA Section 805(c).

One topic that the ISC would like to bring to the attention of the Board is that in December 2021, the Western Arctic Caribou Herd Working Group (the proponent for WP22-47) voted to change the management status for the WACH to the "preservative declining" level. This was in response to the recent population estimate for the herd being counted at 188,000 animals, a decline from the 2019 estimate of 244,000 caribou. One of the recommendations that may be included under this management level is a prohibition on calf harvest.

ALASKA DEPARTMENT OF FISH AND GAME COMMENTS

Wildlife Proposal WP22-47

This proposal would allow the harvest of caribou calves by federally qualified users (FQU) under federal regulations on federal public land in Game Management Unit (GMU) 22.

Introduction

From 2003 to 2016, the Western Arctic Caribou Herd (WAH) population saw a steady decline from its peak of nearly 500,000 to 201,000 (Dau 2015). This decline prompted a reassessment of hunting regulations. Proposals to the Alaska Board of Game (BOG) included a prohibition on the take of calves and a shortened bull season as tools to minimize harvest impact while maintaining hunter needs. The proposal was adopted by the BOG and beginning in RY15, the major GMUs within the WAH range (Units 23, 26A & 22) prohibited the take of calves.

Without age-specific harvest data prior to, during, or after the prohibition on calf take, it is difficult to discern what impact the regulation has had. Public reports and agency observations have identified several instances of orphaned or wounded calves following the passage of caribou near populated areas. Western Arctic Caribou Herd Working Group members have proposed that, if the calf restriction were removed, these animals could be harvested for human consumption rather than left to fend for themselves.

Proposals to adopt similar regulatory changes were submitted as proposals 24 and 25 for consideration at the 2020 Western and Arctic BOG meeting. Proposal 24 was adopted with a modification to apply throughout GMUs 22, 23 and 26A.

In general, discussion at the community level seems to imply that calves would not intentionally be targeted but opportunistically harvested if abandoned, orphaned or injured. With herd animals it can often be difficult to determine which cows have attending calves; as a result, maternal cows are occasionally harvested unintentionally, leaving a calf orphaned. In general, the removal of these calves through human harvest would be largely compensatory in nature, and not consume a significant portion of the harvestable surplus.

Currently, the hunt reporting portion of the RC800 permit only asks for the sex of the harvested animals, leaving no way for the department to track or monitor calf harvest in GMU 22. Given the lack of age class reporting, it would be difficult for the department to determine whether allowing calf harvest had any appreciable effect on calf recruitment.

Impact on Subsistence Users

This would give FQUs additional opportunity on federal public land to harvest caribou calves for the purposes of making traditional clothing and handicrafts.

Impact on Other Users

There are no foreseeable impacts on other users at this time.

Opportunity Provided by State

State customary and traditional use findings: The BOG has made positive customary and traditional use findings for caribou in GMU 22.

Amounts Reasonably Necessary for Subsistence: Alaska state law requires the BOG 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 board does this by reviewing extensive harvest data from all Alaskans, collected either by the Alaska Department of Fish & Game (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 the WAH in GMUs 21, 22, 23, 24 and 26 is 8000-12000 animals. Current seasons and bag limits for caribou in GMU 22 under state regulations vary by hunt area, however the current bag limit does not prohibit the harvest of calves.

Conservation Issues

The harvest of calves is likely to be compensatory in nature and as a result does not pose a conservation concern.

Enforcement Issues

Enforcement issues would be alleviated by the alignment of state and federal regulations.

Position

ADF&G **SUPPORTS** this proposal as it will reduce hunter confusion by aligning state and federal regulations.

WP22–49 Executive Summary	
General Description	Proposal WP22-49 requests that the Federal public lands closure for moose in the portion of Unit 22 north of and including the Tagoomenik and Shaktoolik River drainages be rescinded Sept. 1 – 20, to coincide with the State's nonresident moose season. *Submitted by: Lance Kronberger*
Proposed Regulation	**Unit 22A—Moose** *Unit 22A—that portion north of and including the Tagoomenik and Shaktoolik River drainages—1 bull. Federal public lands are closed to hunting* ***Sept. 21 – Aug. 31*** *except by federally qualified users hunting under these regulations* — *Aug. 1 – Sept. 30*
OSM Conclusion	**Support**
Seward Peninsula Subsistence Regional Advisory Council Recommendation	**Oppose**

WP22–49 Executive Summary	
Interagency Staff Committee Comments	Adoption of Proposal WP22-49 would open Federal public lands within the Unit 22A North moose hunt area to all users Sept. 1 – 20, a period that coincides with the State's nonresident season. Recent surveys completed in 2020 and 2021 in Unit 22A Central (adjacent to the area in question) showed extremely high bull:cow ratios and a population estimate that is above State management objectives. Additionally, low reported harvest, and estimates of total harvest that are below the harvestable surplus indicate that the Unit 22A North moose population can withstand increases in harvest that may result from rescinding the closure during September. Furthermore, current hunting pressure seems to focus on the area of more easily accessible State lands along river corridors, whereas Federal lands are more remote and more difficult to access. Part of the Boards rationale for not rescinding the closure in 2020 was due to the lack of recent biological information for the Unit 22A North hunt area. The Board now has current biological metrics from an adjacent hunt area to make an informed decision on WP22-49. The Boards closure policy states that Federal public lands and waters should be reopened "*as soon as practicable once the conditions that originally justified the closure have changed to such an extent that the closure is no longer necessary*." The original justification for the closure in this area was due to conservation concerns. Recent surveys indicate that these conversation concerns may no longer exist, warranting rescinding of the current closure. It should be noted that BLM does not limit the number of guides permitted in the area, or the number of hunters they can bring in. Therefore, guided hunts do have the potential to take more moose from 22A North if Federal lands are opened. Harvest in this area by non-Federally qualified users should be closely monitored if the closure is rescinded. The Seward Peninsula Subsistence Regional Advisory Council opposes this proposal because poor access to the area in question makes hunting difficult for Federally qualified subsistence users and because the biological metrics used to justify rescinding the closure are based on extrapolations from the adjacent Unit 22A Central hunt area. Recent surveys indicate that rescinding the current closure would not violate recognized principles of fish and wildlife conservation and that retaining the closure is not supported by substantial evidence, both of which are consistent with ANILCA Section 805(c).
ADF&G Comments	**Support**
Written Public Comments	**None**

STAFF ANALYSIS
WP22-49

ISSUES

Wildlife Proposal WP22-49, submitted by Lance Kronberger of Eagle River, requests that the Federal public lands closure for moose in the portion of Unit 22 north of and including the Tagoomenik and Shaktoolik River drainages (Unit 22A North, **Figure 1**) be rescinded Sept. 1 – 20, to coincide with the State's nonresident moose season.

DISCUSSION

The proponent states that Federal public lands, which are remote and difficult to access, comprise a large portion of this hunt area, while the communities in the area are surrounded by State-managed land. He states that the Federal public lands closure serves to concentrate all moose hunting activities onto a small area of State-managed land, and that rescinding the closure would reduce the potential for conflicts in the field.

Existing Federal Regulation

Unit 22A—Moose

Unit 22A—that portion north of and including the Tagoomenik and Shaktoolik River drainages—1 bull. Federal public lands are closed to hunting except by federally qualified users hunting under these regulations	*Aug. 1 – Sept. 30*

Proposed Federal Regulation

Unit 22A—Moose

Unit 22A—that portion north of and including the Tagoomenik and Shaktoolik River drainages—1 bull. Federal public lands are closed to hunting Sept. 21 – Aug. 31 except by federally qualified users hunting under these regulations	*Aug. 1 – Sept. 30*

Existing State Regulation

Unit 22A—Moose

Residents: One bull	*HT*	*Aug. 1 – Sept. 30*
Nonresidents: One bull with 50 inch antlers or antlers with 4 or more brow tines on at least one side	*HT*	*Sept. 1 – Sept. 20*

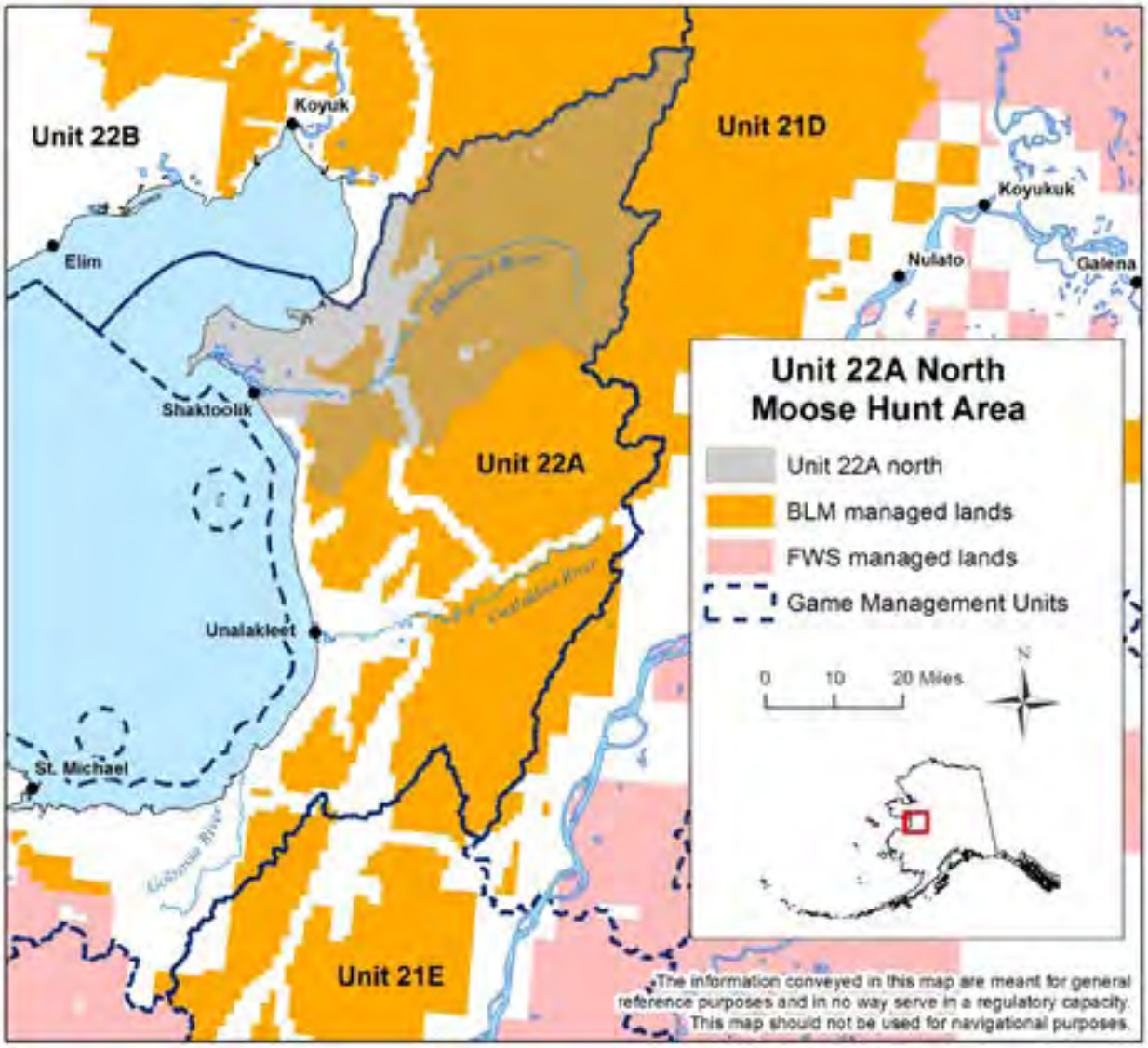


Figure 1. Unit 22 A North moose hunt area.

Extent of Federal Public Lands/Waters

The Unit 22A North hunt area is comprised of 78% Federal public lands, all of which are managed by the Bureau of Land Management (BLM) (Figure 1).

Customary and Traditional Use Determinations

Rural residents of Unit 22 have a customary and traditional use determination for moose in Unit 22.

Regulatory History

Prior to 1995, Federal public lands in Unit 22A were open to moose harvest by all users. In 1995, the Seward Peninsula Subsistence Regional Advisory Council (Council) submitted Proposal P95-42, requesting that the fall moose season in Unit 22A be extended from Aug. 1 – Sept. 30 to Aug. 1 – Oct.

10. The Federal Subsistence Board (Board) adopted this proposal with modification to extend the season, as proposed, and to close Federal public lands for the Oct. 1 –10 portion of the season to all users except residents of Unit 22A (FSB 1995a).

The Alaska Department of Fish and Game (ADF&G) subsequently submitted a Request for Reconsideration, R95-11, asserting that the Oct. 1 –10 Federal public lands closure was not substantiated, and that the season extension violated established principles of wildlife management. The Board reversed their decision on P95-42, concurring that the season extension was not consistent with the maintenance of a healthy moose population. The Board recognized that residents of Unit 22A traditionally harvested moose in October but were concerned that the October season extension overlapped the rut and could have led to an unsustainable harvest. As a result of the Board's decision, the fall moose season was open Aug. 1 – Sept. 30. The Board also took action to close Federal public lands in Unit 22A to the harvest of moose to all users except residents of Unit 22A during the Dec. 1 – Jan. 31 season (FSB 1995b). This pool of eligible users is smaller than the pool of Federally qualified subsistence users, defined as those who have a customary and traditional use determination and includes all residents of Unit 22.

Proposal P96-50 was submitted by the Council in 1996 to ensure continuation of the Aug. 1 – Sept. 30 season in Unit 22A, as well as to request closure of Federal public lands to the harvest of moose except by Federally qualified subsistence users during this season. The Board rejected this proposal (FSB 1996) but retained the Aug. 1 – Sept. 30 season.

Proposal P98-86, submitted by the Council, requested the harvest limit be changed from one antlered bull to one moose for the Aug. 1 – Sept. 30 and Dec. 1 – Jan. 31 seasons. The Board adopted this proposal with modification to change the harvest limit to one bull, which provided additional harvest opportunity, particularly during the winter season when many bulls have shed their antlers, while protecting cows (OSM 1998).

In 2003, the Alaska Board of Game (BOG) made a number of regulatory changes for moose in Unit 22. In Unit 22A, three distinct hunt areas were established, and seasons and harvest limits were adjusted to account for localized patterns of harvest. Prior to these changes, the State resident season was Aug. 1 – Sept. 30 and Dec. 1 – Jan. 31, and the harvest limit was one bull throughout Unit 22A. The BOG's actions: 1) closed the winter season in Unit 22A North (north of and including the Tagoomenik and Shaktoolik River drainages); 2) shortened the fall season to Aug. 15 – Sept. 25 and closed the winter season in Unit 22A Central (Unalakleet River drainage area); and 3) shortened the winter season to Dec. 1 – 31 and changed the harvest limit for the winter season to one antlered bull in Unit 22A remainder (Persons 2004). These changes were scheduled to become effective in regulatory year 2004/05. However, data showing steep declines in the Unit 22A moose population prompted ADF&G to issue Emergency Order 05-05-03 in November 2003, which implemented the new regulations immediately. Due to the timing of the Emergency Order, only the winter seasons were affected. The same changes to the winter seasons were made in Federal regulation through Special Action WSA03-14, approved by the Board in December 2003.

In 2004, the Council submitted Proposal WP04-70, requesting, in part, retention of the temporary changes made through Special Action WSA03-14. Specifically, the proposal requested: 1) changing the harvest limit from one bull to one antlered moose throughout Unit 22A; 2) eliminating the winter seasons in Unit 22A North and Central; 3) shortening the fall season from Aug. 1 – Sept. 30 to Aug. 15 – Sept. 30 in Unit 22A Central; and 4) closing Federal public lands throughout Unit 22A to the harvest of moose in

all seasons, except by residents of Unit 22A (OSM 2004). The Board adopted Proposal WP04-70 with modification to set the harvest limit at one bull for the fall seasons and one antlered bull for the winter season in Unit 22A Remainder, and further reduce the Unit 22A Central season, to Aug. 15 – Sept. 25 (OSM 2016). These changes resulted in alignment of State and Federal moose seasons and harvest limits in Unit 22A. They also resulted in the Federal lands closure as it currently exists.

Since 2004, there have been several regulatory changes and special action requests in the Central and Remainder hunt areas. However, Federal moose harvest regulations in Unit 22A North have remained unchanged, with an Aug. 1 – Sept.30 season, a harvest limit of one bull and a Federal public lands closure.

The State nonresident season in the North hunt area was extended in 2017, from Sept. 1 – 14 to Sept. 1 – 20, when the BOG adopted Proposal 27 at their January 2017 meeting in Bethel. The BOG expressed concern about increasing nonresident harvest in an area where subsistence harvest is high, and deliberated the merits of requiring a registration permit, in order to closely monitor harvest. Ultimately, they concluded that the high bull:cow ratio in the area provided sufficient protection against overharvest and adopted the proposal without modification.

In 2018, Proposal WP18-38 was submitted by Lance Kronberger. He requested that the Federal public lands closure in Unit 22A North, which restricted the harvest of moose to residents of Unit 22A, be rescinded Sept. 1 – 20, to coincide with the State's nonresident season. The Board adopted WP18-38 with modification to open Federal public lands to the harvest of moose by all Federally qualified users, which includes all residents of Unit 22. The Board noted that, though growing, the Unit 22 moose population was still at low densities and opening Federal public lands to all users may be premature.

In January 2020, the BOG adopted Proposal 38 as amended, which extended the resident fall and winter seasons in Unit 22A Central. The amendment was to change the boundary between the Unit 22A North and Unit 22A Central hunt areas to Egavik Creek drainage. The Village of Shaktoolik and the Southern Norton Sound Fish and Game Advisory Committee (AC) supported the amendment to change the hunt area boundary to allow Shaktoolik residents to hunt near the Tagoomenik River without influence from the RM841 hunt and to better align with traditional hunting areas.

In April 2020, the Board rejected Proposal WP20-41. Proposal WP20-41, also submitted by Lance Kronberger, made the same request as Proposal WP18-38 and this proposal, WP22-49. The Council opposed WP20-41 due to lack of biological information for moose in this hunt area. Additionally, the Council expressed concern over the negative impacts on subsistence users and the moose population from non-local and guided airplane hunters who could easily access habitat where the moose currently go for protection. The Board rejected WP20-41 in deference to the Council. However, several Board members supported WP20-41 as they did not think it would create a biological concern or result in lost subsistence hunting opportunity due to low harvests and increases in the moose population. The Board also committed to working with ADF&G to conduct moose surveys in Unit 22A in 2020 (FSB 2020).

Current Events

Proposal WP22-48 requests modifying the hunt area boundary for moose in Unit 22A. Specifically, the proposal requests changing the boundary between Unit 22A Central and 22A North from the Tagoomenik and Shaktoolik river drainages to the Egavik Creek drainage.

Biological Background

Prior to 1930, moose were scarce on the Seward Peninsula, but became a resident species by the late 1960s. Moose populations increased during the 1970s and peaked during the 1980s (Gorn 2012). There were several severe winters during the 1990s, which may have contributed to population declines during that time (Nelson 1995). Populations within Unit 22 have not recovered to peak levels of the 1980s, with brown bear predation on moose calves suspected to be a contributing factor (Gorn 2012). Current population objectives for Unit 22A, established by ADF&G, are to maintain a population of 600 – 800 moose and maintain a minimum bull:cow ratio of 30:100 (Gorn and Dunker 2014).

In 2020, ADF&G estimated the total Unit 22 moose population as 6,775 moose, which is within State management objectives for all of Unit 22. ADF&G also considered the status of the Unit 22A moose population to be increasing (ADF&G 2020). In 2017, ADF&G estimated the total Unit 22A moose population as 2,043 moose, indicating the Unit 22A moose population may be well above population objectives. In 2017, ADF&G's extrapolated estimate for 22A North was 645 moose with a density of 0.35 moose/mi^2 (BOG 2017).

In Unit 22, moose surveys are limited to select drainages because of logistics, weather and the prioritization of regional resources (Gorn and Dunker 2014, Dunker 2022, pers. comm.). Consequently, management decisions for moose throughout Unit 22A have typically been made based on surveys conducted in and around the Unalakleet River drainage. The Unit 22A survey area is located specifically in the Unit 22A Central hunt area and contains similar habitat and conditions to Unit 22A North. In this area, geospatial and composition surveys are used to assess moose population status. Spring abundance surveys were conducted between 2003 and 2021 to estimate the size of the moose population in Unit 22A Central (Table 1). The population in this area has been increasing since 2003 and was estimated to be 766 moose (± 16%), or 0.32 moose/mi2, in 2021 (Dunker 2021, pers. comm). This estimate approaches the upper bound of the Unit 22A management objective of 600 – 800 moose (Gorn and Dunker 2014).

In addition to estimates of population size, spring surveys generated age class estimates. The percent short yearlings, or ten-month-old calves, is an estimate of recruitment, and was 10% in 2021 (Table 1). This was lower than recruitment estimates in the previous decade but was characterized as adequate by the Unit 22 Area Biologist (SPRAC 2017).

Fall composition surveys were conducted between 2003 and 2020 in the Unalakleet drainage (Table 2). The bull:cow ratio increased substantially between 2006 and 2016, remaining high in 2020 at 122 bulls:100 cows. This unusually high bull:cow ratio is well above the goal of at least 30 bulls:100 cows and raises questions about the influences of local harvest patterns and moose movements, because comparison of late fall and late winter moose distributions suggest seasonal movements between different parts of Unit 22A north. This movement may lead to moose being more accessible by Federally qualified subsistence users as moose move between headwaters and lower reaches of river systems seasonally (Dunker 2022, pers. comm.). Local biologists believe that this issue warrants further investigation (BOG 2017, SPRAC 2017).

Table 1. Population and age class estimates for moose in the Central Unit 22A hunt area during spring, 1989 – 2021 (Gorn and Dunker 2014, SPRAC 2017, Dunker 2021, pers. comm.).

Survey area	Year	Population estimate (moose)	Density estimate (per mi²)	% Short yearlings	Survey method
Unalakleet drainage	1989	325	0.29	16	Gassaway
	2003	75	0.04	15	Geospatial
	2005	123	0.15	8	Geospatial
	2008	339	0.14	18	Geospatial
	2012	545	0.24	19	Geospatial
	2017	840	0.35	12	Geospatial
	2021	766	0.32	10	Adaptive Cluster

Table 2. Composition estimates for moose in the Central Unit 22A hunt area during fall, 2003 – 2020 (Gorn and Dunker 2014, SPRAC 2017, Dunker 2021, pers. comm.).

Survey Area	Year	Bulls: 100 Cows	Calves: 100 Cows	Total moose observed
Golsovia River	2003	50	67	26
Unalakleet River	2003	69	20	66
	2006	69	34	78
	2016	124	30	250
	2020	122	34	297

Cultural Knowledge and Traditional Practices

The Seward Peninsula region has been inhabited by humans for at least 12,000 years. The Inupiaq, Siberian Yupik, and Central Yup'ik people of the area have a deeply rooted practice of subsistence hunting, fishing and gathering of wild resources. Until European contact in the early 19th century, many of these groups were semi-nomadic, moving with the seasons based on the availability of wild resources (Ray 1984). During the winter months, people often lived in permanent villages along the coast where they harvested seals, belugas, other marine mammals, fish and small land mammals. During warmer months they established family fish camps near rivers and lakes to harvest fish and plant resources.

Large ungulates were not readily available on the Seward Peninsula in the 1800s. Moose did not start migrating into the area until the 1940s, and while caribou were hunted traditionally, their numbers declined in the mid-1800s (Dau 2000). Reindeer were introduced from Siberia in 1892 under a Federal program initiated by Sheldon Jackson to provide more meat for the Inupiat people in the area (Dau 2000), but as caribou moved into the area in the 1990s, the reindeer industry has declined (Finstad et al. 2007). Historically, people in the Seward Peninsula area hunted a variety of species opportunistically. As moose increased in the region during the second half of the 20th century, harvest of the animals grew.

The Unit 22A community of Shaktoolik is located on the eastern shore of Norton Sound, 125 miles east of Nome and 33 miles north of Unalakleet (Kawerak 2019). The Tagoomenik and Shaktoolik Rivers converge two miles northwest of the village. The village first appears in the written records of an Imperial Russian Navy officer in 1842 (Strickling 2013) and identifies as primarily Inupiat. Shaktoolik's economy is based on subsistence and supplemented by wage earnings (Strickling 2013). The community resettled several times due to storms and flooding in recent times. In 2019, Shaktoolik had an estimated population of 272 (ADLWD 2020).

ADF&G provides some information on the harvest of moose from subsistence harvest surveys, but these surveys are not conducted on a regular basis. Based on the survey administered for 2009, the most recent year for which data are available, Shaktoolik harvested more caribou than moose, but moose were still an important part of the subsistence diet for many households (Braem 2012). That year, Shaktoolik residents harvested an estimated 8 moose, or 18 pounds of moose per capita, and 27% of the community used moose through direct harvest or sharing (Braem 2012).

Subsistence research conducted in 1980 found that moose are important to Shaktoolik residents because they "can be harvested in the fall when caribou are not accessible due to lack of snow cover" (Thomas 1982:232). Based on subsistence surveys from 2009, surveyed households in Shaktoolik obtained 57% of their moose harvest in August and the remaining 43% in September (Braem 2012:55).

Thomas (1982) also documented the preferred hunting area for moose by local residents as including the Shaktoolik River, and particularly the portions upstream of "Punuk" (Figure 2). Hunters preferred this area because "from Punuk upriver, hills are available to allow the hunters to climb to higher elevations and glass the surrounding area" (Thomas 1982:233). While dated, this information may still be useful for demonstrating spatial and temporal factors shaping the local search for moose. As freeze-up begins, hunters have less success finding moose along the river. At the winter 2019 Seward Peninsula Council meeting, a Council member explained that moose avoid the river during freeze-up because of the sounds of ice cracking. Moose "disappear into the high hills until that activity…ceases" (SPRAC 2019).

Figure 2. Map of Shaktoolik place names, including "Punuk." Source: Thomas 1982:19).

Harvest History

Most of the reported harvest within all of Unit 22A is attributable to local residents, defined here as Federally qualified subsistence users. On average, reported harvest was 27 moose annually for the 2003 – 2018 regulatory years. During this period, 72% of the reported moose harvest was taken by local residents, while nonlocal residents harvested 7%, and nonresidents harvested 18% of the total reported harvest (ADF&G 2019a). More recently, from 2014-2018, reported harvest has been higher, averaging 39 moose annually for all of Unit 22A. For those years, local residents took a smaller percentage of the reported harvest (66%) while non-residents took a larger percentage (24%) (ADF&G 2019a; OSM 2019).

Reported moose harvest in Unit 22A is not evenly distributed among the three hunt areas. This observation cannot be explained solely on the basis of human population size and expected harvest pressure. For instance, the Unit 22A Central hunt area is home to 36% of Unit 22A residents, but accounts for 58% of the total reported harvest. In contrast, the remaining two hunt areas (Unit 22A North and Unit 22A Remainder) contain 64% of the human population but account for only 40% of the total moose harvest (ADLWD 2020; ADF&G 2019a; OSM 2019). One likely explanation for this disparity is the difference among hunt areas in permit requirements and associated reporting rates. Specifically, Unit 22A Central requires a State or Federal registration permit, which includes penalties for non-reporting, while the remaining hunt areas only require a harvest ticket that includes no such penalties.

This suggests that reported harvest (**Figure 3**) does not sufficiently represent actual harvest within Unit 22A North. This may be particularly true for harvest among local users, who reported no harvest between 2016-2018. Additional insight can be gained by considering results from household surveys. These

surveys show that moose harvest by residents of Shaktoolik, the only community within this hunt area, was 21, 14, 10 and 8 moose in 1998, 1999, 2003 and 2009, respectively (ADF&G 2019b). This contrasts with the reported harvest of two moose in 2003 by local residents within Unit 22A North, for example (ADF&G 2019a). ADF&G estimates approximately 10-15 additional moose are harvested each year by local residents in Unit 22A North but are not reported (BOG 2017).

Between 2015 and 2020, a total of 14 moose were reported harvested by 18 total hunters in 22A North, for an average hunter success rate of 61%. Over this period, reported annual moose harvest in Unit 22A North averaged 2.3 moose, ranging from zero to 6 moose. Of the hunters that reported hunting in Unit 22A North, 50% were nonresidents and 50% were Alaskan residents (BOG 2017). While the BOG extended the non-resident season by a week in 2017, no increase in non-resident harvest has been observed (FSB 2020, Figure 3). Accounting for unreported harvest by local residents, ADF&G estimates as many as 20 moose may be harvested each year from Unit 22A North (BOG 2017). In 2019, the harvestable surplus of moose in Unit 22A North was 32 moose, indicating current harvests are within sustainable levels and that the moose population could withstand some increase in harvest (BOG 2017).

Although reported harvest in Unit 22A North likely does not represent the magnitude of harvest, it may provide insight into hunting patterns among local users. But, ADF&G reports with the observed adult sex ratios present in the unit, that they believe hunting pressure to be very low (Dunker 2022, pers. comm.). Of local hunters who reported their harvest from 2003 - 2018, 53% harvested moose in the month of August, while 41% harvest in September. This pattern does not hold in recent years, however, with all reported harvest since 2013 occurring in September (ADF&G 2019a). Hunting occurs primarily along the Shaktoolik River corridor, which provides access well into the eastern portion of the hunt area (BOG 2017), and 71% percent of local harvest occurred in either the Shaktoolik or Tagoomenik drainages (ADF&G 2019a).

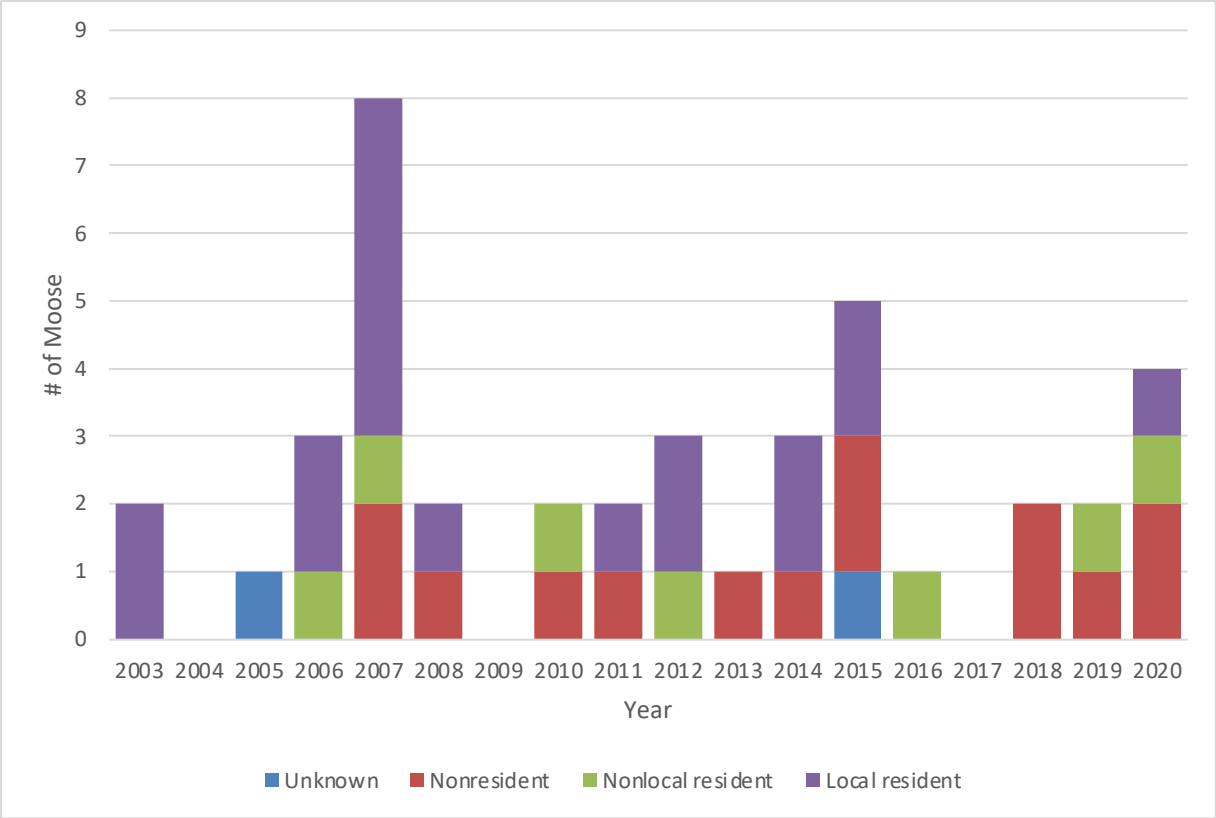


Figure 3. Reported moose harvest among local users in Unit 22A North, 2003 – 2020 (ADF&G 2019a; OSM 2019, Dunker, 2021, pers. comm.).

Guide and Transporter Use

Guides are regulated by the Alaska Big Game Commercial Services Board. To operate within a specific guide use area, a guide must be registered in that guide use area and it must be within a game management unit in which they are licensed to conduct hunts. In addition, guides must be authorized to operate within a given area by the public or private landowner (ADCCE 2019). BLM, the only Federal land manager in Unit 22A North, requires that guides be permitted to operate on BLM managed lands. The BLM permit authorizes a guide to establish a hunting camp at a specific location (Seppi 2019, pers. comm.). Though transporters must also be licensed by the Alaska Big Game Commercial Services Board, they are not required to secure permits to operate on BLM lands. Consequently, there is no cap on the number of transporters operating on BLM lands (ADCCE 2019; Seppi 2019, pers. comm.).

In Guide Use Area 22-07, which encompasses Unit 22A North, there are five active guides, none of whom are currently permitted to operate moose hunts on Federal public lands on account of the Federal public lands closure (ADCCE 2019; Seppi 2019, pers. comm.). At its April 2019 meeting, the Council expressed concern about the potential impacts of guided moose hunting on moose migration into Unit 22A.

Effects of the Proposal

If this proposal is adopted, Federal public lands within the Unit 22A North moose hunt area will be open to all users Sept. 1 – 20, a period that coincides with the State's nonresident season. Rescinding the Federal public lands closure will allow any of the five guides registered to operate within the hunt area

to seek BLM permits to operate on Federal public land. It will also allow transporters to operate on these lands in support of non-Federally qualified users.

This action may result in additional harvest by nonlocal users. In particular, nonresident hunting pressure may increase, given the 2017 addition of 6 days to what was previously a 14-day nonresident State season, combined with the potential for increased guide use. Hunting pressure from nonlocal residents may increase as well, as moose hunting on Federal public lands will be allowed for 20 days of a 61-day resident State season. The Shaktoolik River provides access to Federal public lands, which increases the chances that rescinding the closure will result in additional nonlocal hunting pressure.

Given our limited understanding of the population status in the specific area, there is some uncertainty whether increased harvest will have a significant impact on the moose population. Recent surveys in Unit 22A indicate that the population has increased over the past decade and is above State population objectives, but it remains at a low density. Very high bull:cow ratios suggest that the population can sustain additional bull harvest, although these ratios also raise questions about local population dynamics and patterns of dispersal. While recent estimates of the harvestable surplus and harvest numbers also suggest additional bulls are available, rescinding the closure during September may or may not result in increasing harvest above sustainable levels.

Federally qualified subsistence users in Unit 22 may be affected by rescission of the Federal lands closure. If additional harvest has detrimental effects on the moose population, there will be long-term negative effects for local users. In addition, an increase in nonlocal users may result in increased user conflict in the area, particularly along the Shaktoolik River. While the lower portion of the river is bounded by non-Federal lands and is currently open to all users, most of the upper portion of the river is bounded by Federal lands and is currently open only to residents of Unit 22. In addition, local harvest in recent years occurs primarily in September, which coincides with the State's nonresident season.

Conversely, rescinding the closure during September could also mitigate user conflicts by spreading out the non-local users across the unit. At the April 2020 Board meeting, the proponent of this proposal provided testimony to the Board that many of the Federal public lands in Unit 22A North are extremely remote and accessible only by airplane, and that the current closure serves to concentrate all users on the same travel corridors along the Shaktoolik and Niukluk Rivers (FSB 2020).

OSM CONCLUSION

Support Proposal WP22-49.

Justification

Extremely high bull:cow ratios and population estimates in 22A Central (adjacent to the area in question) that are above management objectives, as well as low reported harvests, and estimates of total harvest that are below the harvestable surplus indicate that the Unit 22A North moose population can withstand the potential increases in harvest that may result from rescinding the closure during September. Additionally, harvest is not expected to increase substantially as reported harvest did not increase following the BOG's 2017 season extension to non-resident hunters and reported harvest did not increase after the Board opened Unit 22A North to all Federally qualified subsistence users.

In 2020, the Board and Council rejected rescinding the closure, in part, due to the lack of biological information. In spring 2021, a population survey in 22A Central indicated the Unit 22A moose population remained high and in fall 2020, a composition survey indicated the bull:cow ratio remained extraordinarily high.

While the closure was originally enacted due to conservation concerns, the effects of rescinding the closure on subsistence users is unknown but may increase their hunting opportunity. Currently, all moose hunters are concentrated on the easily accessible State-managed lands along river corridors. Rescinding the Federal lands closure during September may help spread non-Federally qualified users out across the hunt area, reducing user conflicts and competition for moose.

LITERATURE CITED

ADF&G. 2019a. Winfonet. Retrieved May 22, 2019.

ADF&G. 2019b. Community Subsistence Information System. http://www.adfg.alaska.gov/sb/CSIS/. Retrieved: May 28, 2019.

ADF&G. 2020. Tab 7.1 Nome Area Overview. ADF&G Western Arctic/Western Region Alaska Board of Game meeting. January 17-20, 2020. Nome, AK. http://www.adfg.alaska.gov/index.cfm?adfg=gameboard.meetinginfo&date=01-17-2020&meeting=nome. Accessed May 14, 2021.

ADCCE. 2019. Alaska Department of Commerce, Community, and Economic Development. https://www.commerce.alaska.gov/web/cbpl/ProfessionalLicensing/BigGameCommercialServicesBoard.aspx. Retrieved May 23, 2019.

ADLWD. 2020. Alaska Population Overview, 2019 Estimates. Alaska Department of Labor and Workforce Development, Research and Analysis Section, Juneau, AK.

BOG. 2017. Audio transcripts of the Alaska Board of Game proceedings. January 9, 2017. Bethel, AK. ADF&G. Juneau, AK.

Braem, N. M. 2012. Subsistence wildlife harvests in Ambler, Buckland, Kiana, Kobuk, Shaktoolik, and Shishmaref, Alaska 2009-2010. Special Publication No. SP2012-003. Fairbanks, AK.

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

Dunker, B. 2021. Area 22 Wildlife Biologist. Personal communication: email. ADF&G Nome, AK.

Dunker, B. 2022. Area 22 Wildlife Biologist. Personal communication: email. ADF&G Nome, AK.

Finstad, G. L., Kielland, K. K., and W.S. Schneider, W. S. 2007. Reindeer herding in transition: historical and modern day challenges for Alaskan reindeer herders. Nomadic Peoples, 10(2): 31–49.

FSB. 1995a. Transcripts of Federal Subsistence Board proceedings. April 12, 1995. Office of Subsistence Management, FWS. Anchorage, AK.

FSB. 1995b. Transcripts of Federal Subsistence Board proceedings. September 26, 1995. Office of Subsistence Management, FWS. Anchorage, AK.

FSB. 1996. Transcripts of Federal Subsistence Board proceedings. May 1, 1996. Office of Subsistence Management, FWS. Anchorage, AK.

FSB. 2020. Transcripts of Federal Subsistence Board proceedings. April 22-23, 2020. Office of Subsistence Management, FWS. Anchorage, AK.

Gorn, T. 2012. Unit 22 moose management report. Pages 534–559 in P. Harper, editor. Moose management report of survey and inventory activities 1 July 2009–30 June 2011. ADF&G. Juneau, AK.

Gorn, T. and W.R. Dunker. 2014. Unit 22 management report. Pages 31-1 – 31-38 in P. Harper and L.A. McCarthy, editors. Moose management report of survey and inventory activities 1 July 2011 – 30 June 2013. ADF&G. Juneau, AK.

Kawerak, Inc. 2019. Shaktoolik. https://kawerak.org/our-region/shaktoolik/. Retrieved: May 28th, 2019.

Nelson, R. R. 1995. Unit 22 moose survey-inventory progress report. Pages 405–419 in M. V. Hicks, editor. Management report of survey-inventory activities 1 July 1993 – 30 June 1995. ADF&G. Juneau, AK.

OSM. 1998. Staff analysis WP98-86. Pages Seward Peninsula Region 33 – 42 in Federal Subsistence Board Meeting Materials. May 4 – 8, 1998. Office of Subsistence Management, USFWS. Anchorage, AK. 1449 pages.

OSM. 2004. Staff analysis WP04-70. Pages 660–677 in Federal Subsistence Board Meeting Materials. May 18-21, 2004. Office of Subsistence Management, USFWS. Anchorage, AK. 849 pages.

OSM. 2016. Federal subsistence permit system. Microcomputer database, accessed June 10, 2016. Anchorage, AK.

OSM. 2019. OSM proposal document library. Microcomputer database, accessed May 26, 2010. Anchorage, AK.

Persons, K. 2004. Unit 22 moose management report. Pages 496–522 in C. Brown, ed. Moose management report of survey and inventory activities 1 July 2001–30 June 2003. ADF&G. Juneau, AK.

Ray, D.J. 1984. Bering Strait Eskimo. Pages 285–302 in W.C Sturtevant, ed. The handbook of North American Indians, Volume 5: Arctic. Smithsonian Institution, Washington D.C.

Seppi, B. 2019. Wildlife biologist. Personal communication: phone and email. Anchorage Field Office. BLM. Anchorage, AK.

SPRAC. 2017. Transcripts of the Seward Peninsula Subsistence Regional Advisory Council proceedings. March 6 – 7, 2017. Nome, AK. Office of Subsistence Management, USFWS. Anchorage, AK.

SPRAC. 2019. Transcripts of the Seward Peninsula Subsistence Regional Advisory Council proceedings. March 5 – 6, 2019. Nome, AK. Office of Subsistence Management, USFWS. Anchorage, AK.

Strickling, S. E. 2013. Shaktoolik local economic development plan 2013-2018. Kawerak. Nome, AK.

Thomas, D. C. 1982. The role of local fish and wildlife resources in the community of Shaktoolik, Alaska. ADF&G, Div. of Subsistence Tech. Paper No. 13. Nome, AK. 312 pages.

SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Seward Peninsula Subsistence Regional Advisory Council

Oppose WP22-49. The Council opposes this proposal because the idea of opening Federal land to non-residents if locals are not able to hunt there (due to access difficulties) does not favor the subsistence user. The population estimate is not based on data from Unit 22A north, but rather is extrapolated from data from the neighboring hunt area (Unit 22A central). The Council considers it wiser to protect resources for subsistence uses until proven they can support sport uses.

INTERAGENCY STAFF COMMITTEE COMMENTS

Adoption of Proposal WP22-49 would open Federal public lands within the Unit 22A North moose hunt area to all users Sept. 1 – 20, a period that coincides with the State's nonresident season. Recent surveys completed in 2020 and 2021 in Unit 22A Central (adjacent to the area in question) showed extremely high bull:cow ratios and a population estimate that is above State management objectives. Additionally, low reported harvest, and estimates of total harvest that are below the harvestable surplus indicate that the Unit 22A North moose population can withstand increases in harvest that may result from rescinding the closure during September. Furthermore, current hunting pressure seems to focus on the area of more easily accessible State lands along river corridors, whereas Federal lands are more remote and more difficult to access.

Part of the Boards rationale for not rescinding the closure in 2020 was due to the lack of recent biological information for the Unit 22A North hunt area. The Board now has current biological metrics from an adjacent hunt area to make an informed decision on WP22-49. The Boards closure policy states that Federal public lands and waters should be reopened "as soon as practicable once the conditions that originally justified the closure have changed to such an extent that the closure is no longer necessary." The original justification for the closure in this area was due to conservation concerns. Recent surveys indicate that these conversation concerns may no longer exist, warranting rescinding of the current closure.

It should be noted that BLM does not limit the number of guides permitted in the area, or the number of hunters they can bring in. Therefore, guided hunts do have the potential to take more moose from 22A North if Federal lands are opened. Harvest in this area by non-Federally qualified users should be closely monitored if the closure is rescinded.

The Seward Peninsula Subsistence Regional Advisory Council opposes this proposal because poor access to the area in question makes hunting difficult for Federally qualified subsistence users and because the biological metrics used to justify rescinding the closure are based on extrapolations from the adjacent Unit 22A Central hunt area. Recent surveys indicate that rescinding the current closure would not violate recognized principles of fish and wildlife conservation and that retaining the closure is not supported by substantial evidence, both of which are consistent with ANILCA Section 805(c).

ALASKA DEPARTMENT OF FISH AND GAME COMMENTS

Wildlife Proposal WP22-49

This proposal would allow non-federally qualified users (NFQU) to harvest moose on federal public land in the Game Management Unit (GMU) 22A North hunt area Sept 1-Sept 20.

Background

Hunt area specific abundance information is not available for the GMU 22A North hunt area. The Alaska Department of Fish & Game (ADF&G) relies on moose abundance and composition surveys completed in the central portion of the GMU to provide information on the status of the moose population in the northern portion of the GMU because of habitat similarities that exist between the two areas and their proximity to one another.

The moose population in the central portion of GMU 22A is believed to have grown 14% annually 2003-2021 with a current estimated abundance of 766 moose (90% CI: 643-888). The population appears to have been stable 2017-2021. Post hunt fall composition surveys were completed in the central portion of GMU 22A in late November of 2016 and 2020. Bull:Cow ratio estimates were 123 bulls:100 cows and 122 bulls:100 cows respectively, well above the management objective of 30 bulls:100 cows.

The estimated proportion of short yearlings observed in the GMU 22A Central hunt area during spring abundance surveys completed in 2017 and 2021 were 12% and 10% respectively. These recruitment rates were previously characterized as sufficient considering the populations continued growth and/or stability. Composition surveys in the area revealed that the skewed sex ratio in favor of bulls may be limiting recruitment, the populations rate of increase and its ability to sustain harvest in the future. Additional harvest of the bull component may skew the composition of the population in favor of cows resulting in a more productive population. The opportunity to harvest moose from the area now may not persist as older large bulls, that on average 2016-2020 made up 45% of the bull population, age and become increasing susceptible to mortality.

The moose population in the GMU 22A North hunt area is believed to have experienced similar growth and to have similarly high bull:cow ratios. ADF&G revised the estimated harvestable surplus in the 22A North hunt area for regulatory year (RY) 2021. Using estimates of composition and abundance from surveys completed during the fall and late spring of 2020-2021, the harvestable surplus of moose in the 22A North hunt area is 47 bulls.

The reported harvest from the area by resident and non-resident hunters combined has averaged less than 2 moose annually RY 2016-2020. A portion of the harvest, primarily by residents of the GMU, is not reported to the department through the moose harvest ticket reporting system. Unreported harvest from the 22A North Hunt area is accounted for through the completion of household subsistence surveys in the community of Shaktoolik 1999-2010. Survey results indicate that residents of Shaktoolik harvest 8-14 moose annually. Ultimately the estimated harvest of moose from the 22A North hunt area is believed to be below what is currently sustainable for the area. The GMU 22A North hunt area can sustain additional bull harvest particularly if that harvest is focused on older bulls.

Recent regulatory changes have been adopted by both the Alaska Board of Game and the Federal Subsistence Board. In 2017, the state nonresident season in the 22A North hunt area was extended from Sept. 1 – Sept. 14 to Sept. 1 – Sept. 20. The FSB adopted WP18-38 with modification to open federal

public lands to the harvest of moose by all federally qualified users (FQU), which includes all residents of GMU 22. Neither of these most recent regulatory changes adopted by both the BOG and the FSB have resulted in an increase in moose harvest from the 22A North hunt area.

Impact on Subsistence Users

Allowing for the take of moose by NFQUs on federal public land in the GMU 22A North hunt area may reduce user conflicts on state managed lands in coastal areas and near the community of Shaktoolik by distributing hunting effort by NFQUs on federal public land in more remote portions of the hunt area.

Impact on Other Users

If adopted NFQUs would have an opportunity to harvest moose on federal public lands in the Northern portion of GMU 22A.

Opportunity Provided by State

State customary and traditional use findings: The BOG has made positive customary and traditional use findings for Moose in GMU 22.

Amounts Reasonably Necessary for Subsistence: Alaska state law requires the BOG 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 the 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 Moose in GMU 22 is 250-300 animals. The season and bag limit for moose in GMU22A North and GMU 22A Central is:

GMU 22 Moose Harvest Regulations		
Unit/Area	**Bag Limit**	**Open Season (Permit/Hunt #)**
Unit 22A, that portion north of the Egavik River drainage	Resident[a], 1 Bull	Aug 1-Sept 30 (GM000)
	Nonresident 1 Bull with 50-inch antlers or antlers with4 or more brow tines on one side	Sept 1-Sept 20 (GM000)
Unit 22A, that portion in the Unalakleet River drainage and all drainages flowing into Norton Sound north of the Golsovia River drainage and south of and including the Egavik Creek river drainage.	**Resident 1 Bull, by registration permit**	**Sept 1-Sept 30 (RM841)**
	Resident 1 Antlered Bull by registration permit	Season May be Announced Dec 1 – Jan 31 (RM844)
	Nonresident	No Open Season

[a] Subsistence and General Hunts

Conservation Issues

Should the moose population in the area continue to grow nutritional stress may need to be evaluated and potentially addressed. The current federal lands closure limits the harvest potential in the area which as a result is insufficient to address these concerns through management action.

Enforcement Issues

There are no foreseeable enforcement issues with this proposal.

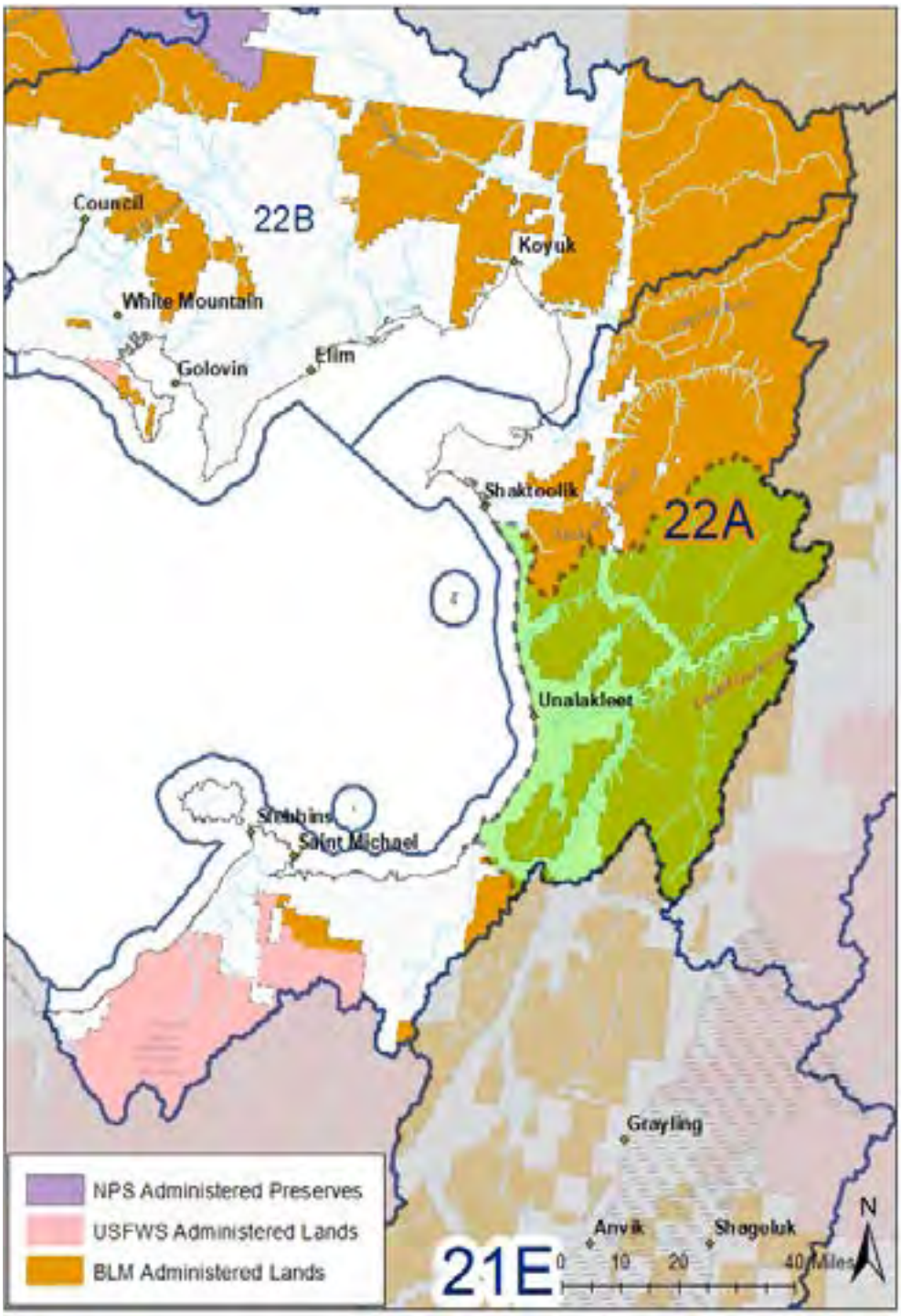
Position

ADF&G **SUPPORTS** this proposal. The biological circumstances that warranted the federal lands closure established in 2003 no longer exist. ADF&G recommends that additional harvest opportunity be provided for in the short term, monitored, evaluated and if necessary managed through changes to the state regulations utilizing input from a variety of user groups.

WCR22–09b Executive Summary	
Closure Location and Species	Unit 22A, that portion in the Unalakleet drainage and all drainages flowing into Norton Sound north of the Golsovia River drainage and south of the Tagoomenik and Shaktoolik River drainages – Moose
Current Regulation	**Unit 22A−Moose** *Unit 22A, that portion in the Unalakleet drainage and all drainages flowing into Norton Sound north of the Golsovia River drainage and south of the Tagoomenik and Shaktoolik River drainages—Federal public lands are closed to the taking of moose, except that residents of Unalakleet, hunting under these regulations, may take 1 bull by Federal registration permit, administered by the BLM Anchorage Field Office with the authority to close the season in consultation with ADF&G* — *Aug. 15-Sep. 14*
OSM Conclusion	**Modify** the closure to open to all Federally qualified subsistence users.
Seward Peninsula Subsistence Regional Advisory Council Recommendation	**Maintain status quo**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Eliminate the closure**
Written Public Comments	**None**

FEDERAL WILDLIFE CLOSURE REVIEW
WCR22-09b

Closure Location: Unit 22A, that portion in the Unalakleet drainage and all drainages flowing into Norton Sound north of the Golsovia River drainage and south of the Tagoomenik and Shaktoolik River drainages (Unit 22A Central) **(Map 1**) —Moose



Map 1. Unit 22A Central moose hunt area. The closure area is depicted in green.

Current Federal Regulation

Unit 22A−Moose

Unit 22A, that portion in the Unalakleet drainage and all drainages flowing into Norton Sound north of the Golsovia River drainage and south of the Tagoomenik and Shaktoolik River drainages—Federal public lands are closed to the taking of moose, except that residents of Unalakleet, hunting under these regulations, may take 1 bull by Federal registration permit, administered by the BLM Anchorage Field Office with the authority to close the season in consultation with ADF&G	*Aug. 15-Sep. 14*

Closure Dates: Year-round

Current State Regulation

Unit 22A−Moose

Unit 22A, Unalakleet River drainage and all drainages flowing into Norton Sound north of Golsovia River drainage and south of and including the Egavik Creek drainage	Residents: One bull by permit available online at *http://hunt.alaska.gov* and in person in Unalakleet beginning Aug. 3. Harvest quota to be announced. Season will be closed by emergency order when quota is reached.	*RM841*	*Sept. 1-30*
	OR		
	Residents: One antlered bull by permit available online at *http://hunt.alaska.gov* and in person at license vendors in Unalakleet (a season may be announced Dec. 1-Jan. 31)	*RM844*	*May be announced*
	Nonresidents		*No open season*

Regulatory Year Initiated: 1995/96

Extent of Federal Public Lands

Unit 22A is comprised of 68% Federal public lands and consists of 56% Bureau of Land Management (BLM) and 12% U.S. Fish and Wildlife Service (USFWS) managed lands (**Map 1**).

Customary and Traditional Use Determination

Rural residents of Unit 22 have a customary and traditional use determination for moose in Unit 22.

Regulatory History

Prior to 1995, Federal public lands in Unit 22A were open to moose harvest by all users. In 1995, the Seward Peninsula Subsistence Regional Advisory Council (Council) submitted Proposal P95-42, requesting that the 1995 fall moose season in Unit 22A be extended from Aug. 1 – Sep. 30 to Aug. 1 – Oct. 10. The Federal Subsistence Board (Board) adopted this proposal with modification to extend the season, as proposed, and to close Federal public lands for the Oct. 1 – 10 portion of the season to all users except residents of Unit 22A (FSB 1995a).

The Alaska Department of Fish and Game (ADF&G) subsequently submitted a Request for Reconsideration, R95-11, asserting that the Oct. 1 – 10 Federal public lands closure was not substantiated, and that the season extension violated established principles of wildlife management. The Board reversed their decision on P95-42, concurring that the season extension was not consistent with the maintenance of a healthy moose population. The Board recognized that residents of Unit 22A traditionally harvested moose in October but were concerned that the October season extension overlapped the rut and could have led to an unsustainable harvest. As a result of the Board's decision, the fall moose season was open Aug. 1 – Sep. 30. The Board also acted to close Federal public lands in Unit 22A to the harvest of moose to all users except residents of Unit 22A during the Dec. 1 – Jan. 31 season (FSB 1995b).

Proposal P96-50 was submitted by the Council in 1996 to ensure continuation of the Aug. 1 – Sep. 30 season in Unit 22A, as well as to request closure of Federal public lands to the harvest of moose except by Federally qualified subsistence users during this season. The Board rejected this proposal (FSB 1996) but retained the Aug. 1 – Sep. 30 season.

Proposal P98-86, submitted by the Council, requested the harvest limit be changed from one antlered bull to one moose for the Aug. 1– Sep. 30 and Dec. 1 – Jan. 31 seasons. The Board adopted this proposal with modification to change the harvest limit to one bull, which provided additional harvest opportunity, particularly during the winter season when many bulls have shed their antlers, while protecting cows (OSM 1998).

In 2003, the Alaska Board of Game (BOG) made several regulatory changes for moose in Unit 22. In Unit 22A, three distinct hunt areas were established, and seasons and harvest limits were adjusted to account for localized patterns of harvest. Prior to these changes, the State resident season was Aug. 1 – Sep. 30 and Dec. 1 – Jan. 31, and the harvest limit was one bull throughout Unit 22A. The BOG's actions: 1) closed the winter season in Unit 22A North (north of and including the Tagoomenik and Shaktoolik River drainages); 2) shortened the fall season to Aug. 15 – Sep. 25 and closed the winter season in Unit 22A Central; and 3) shortened the winter season to Dec. 1 – Dec. 31 and changed the harvest limit for the winter season to one antlered bull in Unit 22A remainder (Persons 2004). These changes were scheduled to become effective in regulatory year 2004/05. However, data showing steep declines in the Unit 22A moose population prompted ADF&G to issue Emergency Order 05-05-03 in November 2003, which implemented the new regulations immediately. Due to the timing of the Emergency Order, only the winter seasons were affected. The same changes to the winter seasons were made in Federal regulation through Special Action WSA03-14, approved by the Board in December 2003.

In 2004, the Council submitted Proposal WP04-70, requesting, in part, retention of the temporary changes made through Special Action WSA03-14. Specifically, the proposal requested: 1) changing the harvest limit from one bull to one antlered moose throughout Unit 22A; 2) eliminating the winter seasons in Unit 22A North and Central; 3) shortening the fall season from Aug. 1 – Sep. 30 to Aug. 15 – Sept. 30

in Unit 22A Central; and 4) closing Federal public lands throughout Unit 22A to the harvest of moose in all seasons, except by residents of Unit 22A (OSM 2004). The Board adopted Proposal WP04-70 with modification to set the harvest limit at one bull for the fall seasons and one antlered bull for the winter season in Unit 22 remainder, and further reduce the Unit 22A Central season, to Aug. 15 – Sep. 25 (OSM 2021a). These changes resulted in alignment of State and Federal moose seasons and harvest limits in Unit 22A.

Portions of Unit 22A were affected by temporary regulatory changes in 2005 that were subsequently adopted into Federal regulation by Board action in 2006. In Unit 22A Central, moose harvest was temporarily closed in 2005 when the Board approved Special Action WSA05-03 due to low population and recruitment estimates (OSM 2021a). The State moose season was also closed in Unit 22A Central in 2005 by Emergency Order 05-04-05. In 2006, the Board adopted Proposal WP06-39, which closed Federal public lands to the harvest of moose in Unit 22A Central. The modified season in Unit 22A mirrored State regulation changes associated with the adoption of State Proposal 6 and Emergency Order 05-08-05 in 2005.

The Unit 22A Central closure to all users was modified in 2008 when the Board adopted Proposal WP08-36/37 with modification to allow residents of Unalakleet to harvest one bull moose during an Aug. 15–Sep. 14 season, by Federal registration permit. As part of the analysis for this proposal, a Section 804 analysis was conducted in Unit 22A Central, which determined that residents of Unalakleet were the most dependent on moose in the area (OSM 2021a). This action also resulted in the Federal lands closure, as it currently exists in Unit 22A Central. The BOG also lifted the State closure in 2007 via adoption of State Proposal 19 and established a Sep. 1– 14 moose season in Unit 22A Central.

In regulatory years 2011 and 2012, the State's harvest quotas were not met during the Sep. 1– 14 seasons in Unit 22A Central. Subsequently, in 2013, ADF&G submitted State Proposal 14 to establish a Dec. 1 – Dec. 31 may be announced season in this hunt area. The BOG adopted Proposal 14 at their January 2014 meeting, establishing a winter may be announced season in 2014. Harvest during this season was limited to one antlered bull and was open to residents only.

In 2013, 2014 and 2015, State harvest quotas remained unmet for the registration hunt in Unit 22A Central. As a result, the season was extended from Sep. 1 – 14 to Sep. 1 – 20 each year by Emergency Order (05-05-13, 05-11-14, 05-08-15, respectively). In 2015, the quota was met during the extended season and as a result, the season was closed by Emergency Order on September 17, 2015 (05-09-15).

The Council reviewed the closure in Unit 22A Central during its winter 2016 meeting when it recommended maintaining the status quo.

In 2017, the State changed its fall season dates in Unit 22A Central from Sep. 1 – 14 to Sep. 1 – 20 to align regulations with the season dates provided through season extension by emergency order in RY2011-2015. However, a 2017 population survey demonstrated an increase in the Unit 22A Central moose population, resulting in an increased harvest quota. ADF&G issued an emergency order to first open, then extend the winter season until January 31, 2018, although the quota was still not met. In 2018, ADF&G extended the fall moose season until Sep. 30 as the quota had not been met and petitions from RM841 permit holders and the Native Village of Unalakleet indicated preference for increased fall hunting opportunity over winter.

In January 2020, the BOG adopted Proposal 38 as amended, which extended the resident fall season (RM841) from Sept. 1 ─ 20 to Sept. 1 ─ 30 and the *may be announced* winter season (RM844) from Dec. 1 ─ 31 to Dec. 1 ─ Jan. 31 in Unit 22A Central. The proposal also changed the fall harvest limit from one antlered bull to one bull. The amendment was to change the boundary between the Unit 22A North and Unit 22A Central hunt areas to the Egavik Creek drainage. ADF&G submitted the proposal to provide the flexibility to administer the fall and winter hunts during the full range of season dates historically provided for by emergency order without the need to continually extend seasons by emergency order. Additionally, ADF&G would maintain the authority to close seasons early if quotas were met, mitigating any conservation concerns. The Village of Shaktoolik and Southern Norton Sound Fish and Game Advisory Committee (AC) supported the amendment to change the hunt area boundary to allow Shaktoolik residents to hunt west of the headwaters of the Tagoomenik River without influence from the RM841 hunt and to better align with traditional hunting areas.

In August 2020, the Board approved a revised closure policy, which stipulated all closures will be reviewed every four years. The policy also specified that closures, similar to regulatory proposals, will be presented to the Councils for a recommendation and then to the Board for a final decision. Previously, closure reviews were presented to Councils who then decided whether to maintain the closure or to submit a regulatory proposal to modify or eliminate the closure.

Current Events

Proposal WP22-48 requests modifying the hunt area boundary for moose in Unit 22A. Specifically, the proposal requests changing the boundary between Unit 22A Central and Unit 22A North from the Tagoomenik and Shaktoolik river drainages to the Egavik Creek drainage. While this would reduce the size of the Unit 22A Central hunt area, it would align the area with the new State boundaries and better align with the traditional use areas of Shaktoolik and Unalakleet residents.

Closure last reviewed: 2015 – WCR15-09a/b/c

Justification for Original Closure (ANILCA Section 815 (3) criteria):

Section §815(3) of ANILCA states:

> *Nothing in this title shall be construed as – (3) authorizing a restriction on the taking of fish and wildlife for nonsubsistence uses on the public lands (other than national parks and monuments) unless necessary for the conservation of healthy populations of fish and wildlife, for the reasons set forth in section 816, to continue subsistence uses of such populations, or pursuant to other applicable law…*

The Board believed there was a conservation concern due to the observed decline in the moose population, along with poor calf recruitment in Unit 22A. With concurrence from ADF&G, the Board chose to limit the harvest to residents of Unit 22A (FSB 1995a).

Council Recommendation for Original Closure:

The Council supported Proposal P95-42, extending the season dates from Aug. 1 – Sep. 30 to Aug. 1 – Oct. 10. The Board made the modification to close the October portion of the season to all users, except residents of Unit 22A, as suggested by the State. The Council did not have the opportunity to make a

recommendation on this modification; however, the Council Chair was supportive of the amendment as nonlocal use of the area during October was low (FSB 1995a).

State Recommendation for Original Closure:

ADF&G opposed Proposal 95-42 because the proposal did not indicate users were not being accommodated by current regulations, and the 10-day season extension could result in increased harvest that could adversely impact the low-density moose population. ADF&G stated that if the Board were to approve the proposal, they should restrict harvest within the 10-day season extension to residents of Unit 22A (FSB 1995a).

Biological Background

Prior to 1930, moose were scarce on the Seward Peninsula, but became a resident species by the late 1960s. Moose populations increased during the 1970s and peaked during the 1980s (Gorn 2012). There were several severe winters during the 1990s, which may have contributed to population declines during that time (Nelson 1995). Populations within Unit 22 have not recovered to peak levels of the 1980s, with brown bear predation on moose calves suspected to be a contributing factor (Gorn 2012). In 2020, ADF&G estimated the total Unit 22 moose population as 6,775 moose, which is within State management objectives. ADF&G also considered the status of the Unit 22A moose population to be increasing (ADF&G 2020a).

Spring surveys were conducted between 1989 and 2021 to estimate the size of the moose population in Unit 22A Central (Table 1). The population in this area has been increasing since 2003 and was estimated to be 766 moose (± 16%), or 0.32 moose/mi^2, in 2021. This estimate approaches the upper bound of the Unit 22A management goal of 600 – 800 moose. In addition to estimates of population size, spring surveys generated age class estimates. The percent of short yearlings, or ten-month-old calves, is an estimate of recruitment and was 10% in 2021 (Table 1). This was lower than recruitment estimates in the previous decade but was characterized as adequate by the Unit 22 Area Biologist (SPRAC 2017).

Fall composition surveys were conducted between 2003 and 2020 in the Unalakleet drainage (Table 2). The bull:cow ratio increased substantially between 2006 and 2016, remaining high in 2020 at 122 bulls:100 cows. This unusually high bull:cow ratio is well above the goal of at least 30 bulls:100 cows and raises questions about the influences of local harvest patterns and moose movements. Local biologists believe that this issue warrants further investigation (BOG 2017, SPRAC 2017).

Table 1. Population and age class estimates for moose in the Unit 22A Central hunt area during spring, 1989 – 2021 (Gorn and Dunker 2014, SPRAC 2017, Dunker 2021, pers. comm.).

Survey area	Year	Population estimate (moose)	Density estimate (per mi^2)	% Short yearlings	Survey method
Unalakleet drainage	1989	325	0.29	16	Gassaway
	2003	75	0.04	15	Geospatial
	2005	123	0.15	8	Geospatial
	2008	339	0.14	18	Geospatial
	2012	545	0.24	19	Geospatial

Survey area	Year	Population estimate (moose)	Density estimate (per mi²)	% Short yearlings	Survey method
	2017	840	0.35	12	Geospatial
	2021	766	0.32	10	Adaptive Cluster

Table 2. Composition estimates for moose in Unit 22A Central hunt area during fall, 2003 – 2020 (Gorn and Dunker 2014, SPRAC 2017, Dunker 2021, pers. comm.).

Survey Area	Year	Bulls: 100 Cows	Calves: 100 Cows	Total moose observed
Golsovia River	2003	50	67	26
Unalakleet River	2003	69	20	66
	2006	69	34	78
	2016	124	30	250
	2020	122	34	297

Cultural Knowledge and Traditional Practices

The Seward Peninsula region has been inhabited by humans for at least 12,000 years. The Inupiaq, Siberian Yupik, and Central Yup'ik people of the area have a deeply rooted practice of subsistence hunting, fishing and gathering of wild resources. As moose increased in the region during the second half of the 20th century, harvest of the animals grew.

The village of Unalakleet is located approximately 148 miles southeast of Nome (Kawerak 2021). In 2019, Unalakleet had an estimated population of 721 (ADLWD 2020). A 2003 subsistence study found that surveyed Unalakleet households harvested most of their moose between August and October (Georgette et al. 2017). Table 3 shows surveyed Unalakleet households' harvest of moose, as documented in the Community Subsistence Information System (CSIS) (ADF&G 2021). Note that in 2006, the year in which Unit 22A Central was closed to all moose harvest, few surveyed Unalakleet households used or attempted to harvest moose. There has not been a subsistence survey conducted for Unalakleet since the moose closure was removed for Unalakleet residents in 2008. At recent meetings of the Seward Peninsula Council, representatives from Unalakleet have reported that moose seasons have been "good," with adequate harvest (SPRAC 2019, 2020).

Table 3. Four measures of moose hunting and use by surveyed Unalakleet households, as documented in subsistence surveys (ADF&G 2021).

Year	Percent using	Percent attempting to harvest	Percent harvesting	Pounds per person
2006	6%	3%	2%	2.4
2004	53%	40%	4%	6.5
2002	67%	38%	12%	20.5

Harvest History

The Unit 22A Central moose population is managed through a shared quota by Federal and State permits. Harvest under Federal regulations occurs by Federal registration permit (FM2201) during a fall season. Harvest under State regulations occurs by registration permit hunt (RM841) during a fall season and by RM844 during a winter *may be announced* season. Both State hunts are only open to residents.

Between 2008 and 2020, total annual reported moose harvest for Unit 22A Central ranged from 18-39 moose, with quotas and therefore harvest, increasing over time (**Table 4**). Federal harvest accounted for 16.5% of the total reported harvest on average. Success rates of users hunting under Federal regulations is very low, averaging 13% between 2008 and 2020 (ADF&G 2020b, 2020c; OSM 2021b).

Table 4. State and Federal moose harvest in Unit 22A Central (ADF&G 2020b, 2020c; OSM 2021b).

Year	State Quota	State Harvest (Federally Qualified Subsistence User)	State Harvest (Non-Federally Qualified Subsistence User	Fall Season (RM841)	Winter season (RM844)	Federal Harvest (FM2201)	Total Reported Harvest
2008	14	8	1	Sept. 1-14		5	14
2009	14	11	0	Sept. 1-14		10	21
2010	14	6	0	Sept. 1-13		9	15
2011	14	15	0	Sept. 1-17		4	19
2012	22	15	0	Sept. 1-20	Dec. 1-31	2	17
2013	22	18	0	Sept. 1-20		3	21
2014	22	20	0	Sept. 1-20		3	24
2015	22	15	1	Sept. 1-17		0	19
2016	22	20	1	Sept. 1-9		5	26
2017	34	23	0	Sept. 1-20	Dec. 1-Jan. 31	5	28
2018	34	34	1	Sept. 1-30		0	35
2019	34	26	2	Sept. 1-20		3	32
2020	70*	44*	2*	Sept. 1-30	Dec. 7-Jan. 31		45

*Fall harvest quota in 2020 was 50 bulls; winter quota was 20 bulls

Effects

If modified, this closure could either be lifted to allow moose hunting on Federal public lands by all Federally qualified subsistence users or it could be completely rescinded to allow harvest by all users. As the hunt is closely managed by harvest quotas, little conservation concerns exist for overharvest if this closure is completely lifted. While this closure was originally enacted for reasons of conservation, opening to all users may decrease hunting opportunity for Federally qualified subsistence users on Federal public lands within Unit 22A Central due to increased competition with non-Federally qualified users and a more conservative and incremental approach is warranted at this time.

OSM CONCLUSION:

_ maintain status quo

x modify or eliminate the closure to open to all Federally qualified subsistence users

The modified regulation should read:

Unit 22A−Moose	
Unit 22A, that portion in the Unalakleet drainage and all drainages flowing into Norton Sound north of the Golsovia River drainage and south of the Tagoomenik and Shaktoolik River drainages—Federal public lands are closed to the taking of moose, except that ~~residents of Unalakleet~~ ***Federally qualified subsistence users****, hunting under these regulations, may take 1 bull by Federal registration permit, administered by the BLM Anchorage Field Office with the authority to close the season in consultation with ADF&G*	*Aug. 15-Sep. 14*

Justification

The moose population and harvest quotas have increased in Unit 22A Central and the bull:cow ratio is extraordinarily high, indicating surplus bulls available for harvest. Therefore, providing harvest opportunity for all Federally qualified subsistence users in Unit 22A remainder is warranted. Opening to only Federally qualified subsistence users rather than all users represents a conservative, incremental approach that is consistent with Board action in Unit 22A North and Unit 22A remainder in 2018.

LITERATURE CITED

ADF&G. 2020a. Tab 7.1 Nome Area Overview. ADF&G. Western Arctic/Western Region Alaska Board of Game meeting. January 17-20, 2020. Nome, AK. http://www.adfg.alaska.gov/index.cfm?adfg=gameboard.meetinginfo&date=01-17-2020&meeting=nome. Accessed May 14, 2021.

ADF&G. 2020b. Tab 7.2 Nome Area Proposals. ADF&G. Western Arctic/Western Region Alaska Board of Game meeting. January 17-20, 2020. Nome, AK. http://www.adfg.alaska.gov/index.cfm?adfg=gameboard.meetinginfo&date=01-17-2020&meeting=nome. Accessed May 14, 2021.

ADF&G. 2020c. Hunting and Trapping Emergency Order. 05-13-20. ADF&G. December 7, 2020. Nome, AK. https://www.adfg.alaska.gov/index.cfm?adfg=wcnews.main. Accessed June 4, 2021.

ADF&G. 2021. Community Subsistence Information System. http://www.adfg.alaska.gov/sb/CSIS/. Retrieved: August 18, 2021.

ADLWD. 2020. Alaska Population Overview, 2019 Estimates. Alaska Department of Labor and Workforce Development, Research and Analysis Section, Juneau, AK.

BOG. 2017. Audio transcripts of the Alaska Board of Game proceedings. January 9, 2017. Bethel, AK. ADF&G. Juneau, AK

Dunker, B. 2021. Unit 22 Area biologist. Personal communication: email. ADF&G. Nome, AK.

FSB. 1995a. Transcripts of Federal Subsistence Board proceedings. April 12, 1995. Office of Subsistence Management, FWS. Anchorage, AK.

FSB. 1995b. Transcripts of Federal Subsistence Board proceedings. September 26, 1995. Office of Subsistence Management, FWS. Anchorage, AK.

FSB. 1996. Transcripts of Federal Subsistence Board proceedings. May 1, 1996. Office of Subsistence Management, FWS. Anchorage, AK.

Georgette, S., K. Persons, and A. Ahmasuk. 2017. Subsistence wildlife harvests in 5 communities on the Western Seward Peninsula, Alaska 2001-2003. ADF&G, Div. of Subsistence Special Publication No. 2017-08. Kotzebue, AK.

Gorn, T. 2012. Unit 22 moose management report. Pages 534–559 *in* P. Harper, editor. Moose management report of survey and inventory activities 1 July 2009–30 June 2011. ADF&G. Juneau, AK.

Gorn, T. and W.R. Dunker. 2014. Unit 22 management report. Pages 31-1 – 31-38 *in* P. Harper and L.A. McCarthy, editors. Moose management report of survey and inventory activities 1 July 2011 – 30 June 2013. ADF&G. Juneau, AK.

Kawerak, Inc. 2021. Unalakleet. https://kawerak.org/our-region/unalakleet/. Retrieved: August 19, 2021.

Nelson, R.R. 1995. Unit 22 moose survey-inventory progress report. Pages 405–419 *in* M. V. Hicks, editor. Management report of survey-inventory activities 1 July 1993 – 30 June 1995. ADF&G. Juneau, AK.

OSM. 1998. Staff analysis WP98-86. Pages Seward Peninsula Region 33 – 42 *in* Federal Subsistence Board Meeting Materials. May 4 – 8, 1998. Office of Subsistence Management, USFWS. Anchorage, AK. 1449 pages.

OSM. 2004. Staff analysis WP04-70. Pages 660–677 *in* Federal Subsistence Board Meeting Materials. May 18-21, 2004. Office of Subsistence Management, USFWS. Anchorage, AK. 849 pages.

OSM. 2021a. OSM proposal document library. Microcomputer database accessed 1 June 2021. Anchorage, AK.

OSM. 2021b. Federal permits database. Office of Subsistence Management. https://subsistence.fws.gov/apex/f?p=MENU:101::. Accessed June 4, 2021.

Persons, K. 2004. Unit 22 moose management report. Pages 496–522 *in* C. Brown, ed. Moose management report of survey and inventory activities 1 July 2001–30 June 2003. ADF&G. Juneau, AK.

SPRAC. 2017. Transcripts of the Seward Peninsula Subsistence Regional Advisory Council proceedings. March 6 – 7, 2017. Nome, AK. Office of Subsistence Management, USFWS. Anchorage, AK.

SPRAC. 2019. Transcripts of the Seward Peninsula Subsistence Regional Advisory Council proceedings. October 22-23. Nome, AK. Office of Subsistence Management, USFWS. Anchorage, AK.

SPRAC. 2020. Transcripts of the Seward Peninsula Subsistence Regional Advisory Council proceedings. October 28. Teleconference. Office of Subsistence Management, USFWS. Anchorage, AK.

SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Seward Peninsula Subsistence Regional Advisory Council

Maintain status quo on WCR22-09b. The Council voted 4 to 1 to maintain status quo on the closure. The majority of the Council felt that the residents of Unalakleet rely the most on moose in Unit 22A central; therefore, they deserve most of the harvest. Moose harvest is improving for residents of Unalakleet, but still is not like it was historically.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and Federal Subsistence Board action on the proposal.

ALASKA DEPARTMENT OF FISH AND GAME COMMENTS

Wildlife Closure Review WCR22-09b

If the federal lands closure outlined in WCR22-09b were eliminated, non-federally qualified users (NFQU) would have the opportunity to harvest moose on federal public lands in Game Management Unit (GMU) 22A, that portion in the Unalakleet drainage and all drainages flowing into Norton Sound north of the Golsovia River drainage and south of the Tagoomenik and Shaktoolik River drainages (GMU 22A Central).

Background

Survey results indicate that the moose population in the central portion of GMU 22A grew 14% annually from 2003 to 2021 with a current estimated abundance of 766 moose (90% CI: 643-888). Survey results obtained within this period indicate that the bulk of the population growth occurred prior to 2017 and that the population has been stable from 2017 to 2021. Post-hunt fall composition surveys were completed in the central portion of GMU 22A in late November of 2016 and 2020. Bull:cow ratio estimates were 123 bulls:100 cows and 122 bulls:100 cows respectively, well above the management objective of 30 bulls:100 cows.

The estimated proportion of short yearlings observed in the GMU 22A Central Hunt area during spring abundance surveys completed in 2017 and 2021 were 12% and 10% respectively. These recruitment rates were previously characterized as sufficient considering the population's continued growth and/or stability. Composition surveys in the area revealed that the skewed sex ratio in favor of bulls may be limiting recruitment, the population's rate of increase, and its ability to sustain harvest in the future. Additional harvest of the bull component may skew the composition of the population in favor of cows resulting in a more productive population. The opportunity to harvest moose from the area now may not persist as older large bulls, that on average from 2016 to 2020 made up 45% of the bull population, age and become increasingly susceptible to mortality. From RY2016 to RY2020 the harvest quota ranged from 22 to50 bulls and averaged 35 bulls. The average annual harvest during this period was 33 bulls. Based on the most current biological information the harvestable surplus estimated for RY2021 was 61 bulls.

Historical harvest patterns suggest that the resident harvest of moose is not expected to exceed the harvestable surplus during the 47 days of combined hunting opportunity provided to FQUs under state and federal regulations during the fall season.

Since the moose hunting moratorium in the GMU 22A Central ended in 2007 the department has administered resident registration permit hunt RM841 cooperatively with federal managers. Annual harvest quotas and emergency order closures were used to maintain harvest at sustainable levels from RY2008 to RY2020. The hunt has been incrementally liberalized in response to increases in the harvestable surplus for the area. Permits for the hunt are currently available online and at license vendors within the hunt area.

Impact on Subsistence Users

Eliminating or modifying the federal closure would provide additional hunting opportunity on federal public land to subsistence users outside the community of Unalakleet.

Impact on Other Users

Eliminating the federal lands closure would provide additional hunting opportunity on federal public land to NFQUs. Non-resident opportunity would not be affected by the elimination of the federal lands closure because no non-resident hunting opportunity is available in the GMU 22A Central hunt area.

Opportunity Provided by State

State customary and traditional use findings: The Alaska Board of Game (BOG) has made a positive customary and traditional use finding for moose in GMU 22.

Amounts Reasonably Necessary for Subsistence: Alaska state law requires the BOG 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 moose in GMU 22 is 250-300 animals. The season and bag limit for GMU 22A Central is:

GMU/Area	Bag Limit	Open Season (Permit/Hunt #)	
GMU 22A, Unalakleet River drainage and all drainages flowing into Norton Sound north of Golsovia River	*Residents: One bull by permit available online at http://hunt.alaska.gov and in person in Unalakleet beginning Aug. 3. Harvest quota to be announced. Season will be closed by emergency order when quota is reached.*	*RM841*	*Sept. 1-30*
drainage and south of and including the Egavik Creek drainage	*Residents: One antlered bull by permit available online at http://hunt.alaska.gov and in person at license vendors in Unalakleet (a season may be announced Dec. 1-Jan. 31)*	*RM844*	*May be announced*
	Nonresidents		*No open season*

Conservation Issues

There are no conservation concerns if this closure was to be eliminated.

Enforcement Issues

There are no foreseeable enforcement issues it this closure was to be eliminated.

Position

ADF&G **SUPPORTS** eliminating the current closure prohibiting NFQUs from hunting for moose on federal public lands in GMU 22A Central. The biological circumstances that originally warranted the closure in 2004 no longer exist. The current estimated abundance of moose and estimates of the population composition in the area has changed since the closure was last reviewed in 2016 and warrants reconsideration.

The current composition and historical harvest levels indicate that additional harvest opportunity is warranted. There is no concern that the harvest of moose by non-resident hunters in the area would increase because there is no non-resident season in the area. Dramatic increases in the harvest of moose by resident hunters are not likely to occur because of challenges associated with accessing the hunt area. Even a substantial harvest of bulls by NFQUs that are Alaska residents would have little effect on the population due to the extremely high bull:cow ratio. Furthermore, ADF&G has the authority to issue emergency order closures as needed to maintain harvest at sustainable levels within the hunt area, eliminating overharvest concerns.

WCR22-11/12 Executive Summary	
Closure Location and Species	Unit 22B, west of the Darby Mountains—Moose
Current Regulation	**WCR22-11** *Unit 22B, west of the Darby Mountains—1 bull by State registration permit. Quotas and any needed closures will be announced by the Anchorage Field Office Manager of the BLM, in consultation with NPS and ADF&G.* — *Sept. 1-Sept. 14* *Federal public lands are closed to the taking of moose except by federally qualified subsistence users hunting under these regulations.* **WCR22-12** *Unit 22B, west of the Darby Mountains—1 bull by either Federal or State registration permit. Quotas and any needed season closures will be announced by the Anchorage Field Office Manager of the BLM, in consultation with NPS, and ADF&G.* — *Jan. 1-Jan. 31* *Federal public lands are closed to the taking of moose except by residents of White Mountain and Golovin hunting under these regulations.*
OSM Conclusion	**Maintain status quo**
Seward Peninsula Subsistence Regional Advisory Council Recommendation	**Maintain status quo**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Eliminate the closure**
Written Public Comments	**None**

FEDERAL WILDLIFE CLOSURE REVIEW
WCR22-11/12

Closure Location: Unit 22B, west of the Darby Mountains—Moose

Current Federal Regulation

Unit 22B – Moose

WCR22-11

Unit 22B, west of the Darby Mountains—1 bull by State registration permit. Quotas and any needed closures will be announced by the Anchorage Field Office Manager of the BLM, in consultation with NPS and ADF&G.	**Sept. 1- Sept. 14**

Federal public lands are closed to the taking of moose except by federally qualified subsistence users hunting under these regulations.

WCR22-12

Unit 22B, west of the Darby Mountains—1 bull by either Federal or State registration permit. Quotas and any needed season closures will be announced by the Anchorage Field Office Manager of the BLM, in consultation with NPS, and ADF&G.	**Jan. 1- Jan. 31**

Federal public lands are closed to the taking of moose except by residents of White Mountain and Golovin hunting under these regulations.

Closure Dates: Year-round

Current State Regulation

Unit 22B−Moose			
Unit 22B, remainder	*Residents: One bull by permit available in person in Brevig Mission, Golovin, Nome, Teller, and White Mountain from July 25-Aug. 25. Harvest quota to be announced. Season will be closed by emergency order when quota is reached.*	*RM840*	*Sept. 1-14*
	OR		
	Residents: One antlered bull by permit available in person in White Mountain and Golovin beginning Dec. 1. Harvest quota to be announced. Season will be closed by emergency order when quota is reached.	*RM843*	*Jan. 1-31.*
	Nonresidents		*No open season*

Regulatory Year Initiated: 2002

Extent of Federal Public Lands

Unit 22B is comprised of approximately 42% of Federal public lands and consists of 39% Bureau of Land Management (BLM) and 3% National Park Service (NPS) managed lands.

Customary and Traditional Use Determination

Rural residents of Unit 22 have a customary and traditional use determination for moose in Unit 22.

Regulatory History

In 2002, the Federal Subsistence Board (Board) adopted Proposal WP02-34 as modified by the Office of Subsistence Management (OSM) to revise the moose season and harvest limit, and to restrict harvest to Federally qualified subsistence users for the conservation of a declining moose population in the affected area of Unit 22B. The Board reduced the season from Aug. 1 – Jan. 31 to Aug. 10 ─ Sept. 23 and Jan. 1 ─ 31 in Unit 22B west of the Darby Mountains. The Board adopted a requirement for a State registration permit with a combined State/Federal harvest not to exceed 42 moose for the fall hunt. For the winter hunt, the Board adopted a requirement for either a Federal or State registration permit with a total combined Federal/State harvest for both the August/September and January seasons not to exceed 48 moose.

In 2004, Special Action Requests WSA04-01 and WSA04-02 were submitted to adjust the moose harvest quotas in Unit 22B, west of the Darby Mountains for both the fall and winter seasons. Special Action WSA04-01 was approved by the Board to reduce the combined fall Federal/State harvest quota to 23 moose. Special Action WSA04-02 also was approved by the Board to reduce the total Federal/State harvest quota for both the August/September and January seasons to 30 moose.

In 2005, the Board adopted Proposal WP05-14a which codified the regulatory changes made by Special Action Requests WSA04-01 and WSA04-02. The Board also adopted Proposal WP05-15 to allow the winter harvest quota to remain flexible and delegate authority for quota announcements and closures to the Anchorage Field Office Manager of the BLM, in consultation with NPS and ADF&G.

In 2006, the Board adopted Proposal WP06-40, which shifted season dates, removed the quota numbers from regulation and delegated authority to the Anchorage Field Office Manager of the BLM, in consultation with NPS and ADF&G to announce any needed closures and quotas.

At their winter 2011 and 2015 meetings, during the previous closure reviews (WCR10-11, WCR10-12, and WCR14-11/12), the Seward Peninsula Subsistence Regional Advisory Council (Council) recommended to retain the closures because of the continued low moose population in Unit 22B.

In both September 2013 and 2014, the State announced emergency orders to close the fall moose season in Unit 22B west of the Darby Mountains. This hunt area was covered under registration permit hunt RM840 with fall harvest quota of 20 bulls.

At the 2020 Board of Game (BOG) meeting, proposal 35 was adopted as amended to change the availability of moose permits in Unit 22. Moose permits are only available in person in Unit 22 from July 25 to August 25. This change applies to moose permits RM843 and RM840.

In August 2020, the Board approved a revised closure policy, which stipulated all closures will be reviewed every four years. The policy also specified that closures, similar to regulatory proposals, will be presented to the Councils for a recommendation and then to the Board for a final decision. Previously, closure reviews were presented to Councils who then decided whether to maintain the closure or to submit a regulatory proposal to modify or eliminate the closure.

Closure last reviewed: 2014 – WCR14-11/12

Justification for Original Closure (ANILCA Section 815 (3) criteria):

> *Nothing in this title shall be construed as – (3) authorizing a restriction on the taking of fish and wildlife for nonsubsistence uses on public lands (other than national parks and monuments) unless necessary for the conservation of healthy populations of fish and wildlife, for the reasons set forth in section 816, to continue subsistence uses of such populations, or pursuant to other applicable law…*

In 2002, the Board adopted Proposal WP02-34 as modified by OSM to revise the moose season and harvest limit, and to restrict harvest to Federally qualified subsistence users for the conservation of a declining moose population in the affected area of Unit 22B. The Board also reduced the season from Aug. 1 – Jan. 31 to Aug. 10 ─ Sept. 23 and Jan. 1 ─ 31 in Unit 22B west of the Darby Mountains. The Board approved a requirement for a State registration permit with a combined State/Federal harvest not to exceed 42 moose for the fall hunt. For the winter hunt, the Board approved a requirement for either a Federal or State registration permit with a total combined Federal/State harvest for both the August/September and January seasons not to exceed 48 moose.

Council Recommendation for Original Closure:

The Council unanimously supported Proposal WP02-34 as modified by OSM. The Council believed this proposal would provide sufficient opportunity for Federally qualified subsistence users while taking the most conservative approach to preserving the moose population.

State Recommendation for Original Closure:

The State supported Proposal WP02-34 as modified by OSM to revise the moose season, set a harvest quota, require a registration permit and restrict harvest to Federally qualified subsistence users.

Biological Background

Moose migrated into the Seward Peninsula in the 1930s and by the late 1960s became a resident species due to suitable habitat in Unit 22. Moose populations increased during the 1970s and peaked in the mid-1980s (Gorn 2010). Density independent factors, specifically severe winters, were believed to have caused the population decline during the early 1990s (Nelson 1995). Populations within Unit 22 have never recovered to the peak levels of the 1980s. Brown bear predation on calves is considered the main limiting factor on Unit 22 moose populations (Gorn 2010).

- State management goals for moose in Unit 22B include (Gorn and Dunker 2014):
- Unit 22 unit-wide: maintain a combined population of 5,100 – 6,800 moose
- Unit 22B West: increase and stabilize the population at 1,000 ─ 1,200 moose
- Maintain a minimum bull:cow ratio of 30 bulls:100 cows in Units 22A, 22B, 22D, and 22E.

In 2020, ADF&G estimated the total Unit 22 moose population to be 6,775 moose, which is within State management objectives. ADF&G also considered the status of the Unit 22B moose population to be stable-increasing, but below State management objectives (ADF&G 2020a). Between 1999 and 2016 the Unit 22B west moose population ranged from 570-798 moose and averaged 690 moose. As survey area size differed slightly between years, density is included for comparison. Over the same period, moose density in Unit 22B west ranged from 0.24-0.38 moose/mi2 (Figure 1) (Gorn and Dunker 2014, Dunker 2021, pers. comm.).

Since 2008, the only composition survey conducted in Unit 22B west occurred in 2015. Bull:cow ratios were 41 bulls:100 cows, which is above State management objectives (Dunker 2021, pers. comm.). Between 1992 and 2008, bull:cow ratios across Unit 22B ranged from 12-58 bulls:100 cows (Gorn and Dunker 2014).

Fall calf:cow ratios of < 20 calves:100 cows, 20-40 calves:100 cows, and > 40 calves:100 cows may indicate declining, stable, and growing moose populations, respectively (Stout 2012). In 2015, the calf:cow ratio was 20 calves:100 cows in Unit 22B west (Dunker 2021, pers. comm.). Between 1992 and 2008, calf:cow ratios across Unit 22B ranged from 0-28 calves:100 cows (Gorn and Dunker 2014). Between 1999 and 2016, the percentage of short-yearlings measured in the Unit 22B moose population ranged from 6-14%, with the highest percent occurring in 2016 (Gorn and Dunker 2014, Dunker 2021, pers. comm.).

Winter browse habitat is no longer believed to be a major limiting factor for moose at their current population levels. However, brown bear predation on calves is thought to be a significant factor

suppressing moose populations in Unit 22 (Gorn 2010). Brown bear densities may have increased over the last decade, and moose recruitment rates have generally been low. A study between 1996 and 1998 on calf survival indicated that 71% of calves died within the first month and up to 75% died by three months (Gorn 2010). Additionally, wolves may be a factor in suppressing the moose population because wolves have become more numerous (SPRAC 2011). Bear and wolf numbers may be higher because many residents do not actively hunt wolves or bears as they have in the past (SPRAC 2011).

Figure 1. Moose abundance and density in Unit 22B West (Gorn and Dunker 2014, Dunker 2021, pers. comm.).

Harvest History

ADF&G estimates an average of 250-300 moose are harvested from all of Unit 22 each year. The Regulatory Year (RY) 2019 harvestable surplus was 326 moose, and the RY 2018 harvestable surplus was 313 moose (ADF&G 2020a, Dunker 2021, pers. comm.). In Unit 22B specifically, harvest occurs by Alaska residents under State regulations by registration permit RM840 during the September hunt and registration permit RM843 during a January season. No non-resident harvest has occurred in Unit 22B remainder since the nonresident season was eliminated in 2002. Within the closure area, harvest occurs by Federally qualified subsistence users under Federal regulations by State registration permit during the September season and by State (RM843) or Federal (FM2202) registration permit during the January season. All harvest under State regulations has occurred on non-Federal lands since 2002 due to the Federal lands closure. Only one moose was reported harvested by Federal permit (FM2202) in 2001, which was before this closure was enacted (OSM 2021).

Moose harvests in Unit 22B west are managed by quotas. Between 2014 and 2019, total reported moose harvest ranged from 30-38 moose. During the fall RM840 hunt, moose harvest met or exceeded harvest quotas in all years except 2018, when reported harvest was just under quota. The fall RM840 hunt closed early by emergency order every year since 2014, with seasons ranging from 4-9 days (**Table 1**) (ADF&G 2019, 2020a, 2020b, 2021).

Between 2005 and 2013 the reported fall harvest ranged from 14–23 moose and the reported winter harvest ranged from 2–6 moose. Local residents of Unit 22 accounted for 69%–74% of moose harvested between 1994 and 2004 and 78%–90% between 2005 and 2013 (Gorn 2010). Residents of White Mountain and Golovin were the primary users of moose in Unit 22B west of the Darby Mountains and moose are their primary food source (FSB 2002).

Table 1. RM840 (fall) and RM843 (winter) moose harvest and quotas in Unit 22B West (ADF&G 2019, 2020a, 2020b, 2021, Dunker 2021, pers. comm.).

Year	RM840 Quota	RM840 Harvest	RM840 Season Length (days)	RM843 Quota	RM843 Harvest	RM843 Season Length (days)	Total Harvest
2014/15	20	20	8	11	10		30
2015/16	20	22	6	11	10		32
2016/17	23	24	9	10	13		37
2017/18	23	25	7	9	13		38
2018/19	23	21	6	13	16		37
2019/20	23	27	6	7	7	13	34
2020/21	23	26	4	8	8	4	34

Other Alternatives Considered

An alternative for WCR22-12, which limits harvest to residents of White Mountain and Golovin, would be to open the winter hunt to all Federally qualified subsistence users, but maintain a closure to non-Federally qualified users. If all Federally qualified subsistence users from Unit 22 were allowed to harvest in the winter hunt, residents of Golovin and White Mountain may lose a meaningful priority to harvest a moose. The possible increase in hunting pressure and competition from Federally qualified subsistence users within Unit 22 alone would likely reach the quota within several days as all State hunts in Unit 22 currently do. The demand for moose in Unit 22 is high, and if there were another hunt open to all Federally qualified subsistence users, the demand may exceed availability, and the quota may be reached before residents of White Mountain and Golovin had a chance to harvest what they need.

Effects

If these closures are rescinded, non-Federally qualified users would be able to harvest moose on Federal public lands within Unit 22B, west of the Darby Mountains. The Unit 22B west moose population is below State management objectives, and Federally qualified subsistence users may experience increased competition and decreased harvest success.

As the moose harvest in Unit 22B west is managed by harvest quotas, rescinding or modifying these closures would likely result in a zero to minimal increase in harvest. However, competition with non-Federally and other Federally qualified users on Federal lands could reduce harvest opportunity for residents of White Mountain and Golovin.

OSM CONCLUSION:

x maintain status quo

_ modify or eliminate the closure

Justification

The moose population in the portion of Unit 22B west of the Darby Mountains continues to be below State management objectives and recruitment remains low. Therefore, Federal public lands should remain closed to non-Federally qualified users for the conservation of a healthy population and to allow the continuation of subsistence uses of moose (Section 815(3)) during the fall and winter hunts.

The winter hunt should remain open to the harvest of moose by residents of White Mountain and Golovin only. The Federal closure during the winter hunt will help ensure the continuation of subsistence uses of moose (Section 815(3)) for residents of these communities due to the continued low number of animals available for harvest.

LITERATURE CITED

ADF&G 2019. Emergency Order 05-06-19. Issued September 6, 2019. Alaska Department of Fish and Game. Nome, AK. https://www.adfg.alaska.gov/index.cfm?adfg=wcnews.ordersarchive

ADF&G. 2020a. Tab 7.1 Nome Area Overview. Alaska Department of Fish and Game. Western Arctic/Western Region Alaska Board of Game meeting. January 17-20, 2020. Nome, AK. http://www.adfg.alaska.gov/index.cfm?adfg=gameboard.meetinginfo&date=01-17-2020&meeting=nome. Accessed May 14, 2021.

ADF&G 2020b. Emergency Order 05-08-19. Issued September 4, 2020. Alaska Department of Fish and Game. Nome, AK. https://www.adfg.alaska.gov/index.cfm?adfg=wcnews.ordersarchive

ADF&G. 2021. General harvest reports. Internet: <https://secure.wildlife.alaska.gov/index.cfm?fuseaction=harvestreports.main>. Retrieved: May 14, 2021.

Dunker, B. 2021. Unit 22 Area Biologist. Personal communication: e-mail. Alaska Department of Fish and Game. Nome, AK.

FSB. 2002. Transcripts of Federal Subsistence Board proceedings. May 13- 14, 2002. Office of Subsistence Management, FWS. Anchorage, AK.

Gorn, T. 2010. Unit 22 moose management report. Pages 522-550 in P. Harper, editor. Moose management report of survey and inventory activities 1 July 2007 – 30 June 2009. Alaska Department of Fish and Game. Project 1.0. Juneau, AK.

Gorn, T. 2014. 2014 Unit 22D and 22E moose population survey summary. Alaska Department of Fish and Game, Nome, AK.

Gorn, T. 2015. Wildlife Biologist. Personal communication: phone. ADF&G. Nome, AK.

Gorn, T. and W. R. Dunker. 2014. Unit 22 moose management report. Pages 31-1 through 31-38 in P. Harper and Laura A. McCarthy, editors. Moose management report of survey and inventory activities 1 July 2011–30 June 2013. ADF&G, Species Management Report ADF&G/DWC/SMR-2014-6, Juneau, AK.

Nelson, R.R. 1995. Unit 22 moose survey-inventory progress report. Pages 405–419 in M. V. Hicks, editor. Management report of survey-inventory activities 1 July 1993 – 30 June 1995. ADF&G. Juneau, AK.

OSM. 2021. OSM Permits database. Office of Subsistence Management, USFWS. Anchorage, AK. https://subsistence.fws.gov/apex/f?p=MENU:101::. Accessed May 27, 2021.

SPRAC. 2011. Transcripts of the Seward Peninsula Subsistence Regional Advisory Council proceedings. September 21 – 22, 2011. Nome, AK. Office of Subsistence Management, USFWS. Anchorage, AK.

Stout, G.W. 2012. Unit 21D moose. Pages 496-533 in P. Harper, editor. Moose management report of survey and inventory activities 1 July 2009-30 June 2011. Alaska Department of Fish and Game. Species management report, ADF&G/SMR/DWC-2012-5, Juneau, Alaska, USA.

SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Seward Peninsula Subsistence Regional Advisory Council

Maintain status quo on WCR22-11/12. The Council believes that since the moose population is below State management objectives and recruitment is low, Federal lands should remain closed to all but local residents. This will allow for the continuation of subsistence uses.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and Federal Subsistence Board action on the proposal.

ALASKA DEPARTMENT OF FISH AND GAME COMMENTS

Wildlife Closure WCR22-11/12

If the closure outlined in WCR22-11were eliminated, non-federally qualified users (NFQUs) would be able to harvest moose on federal public lands within Game Management Unit (GMU) 22B, West of the Darby Mountains during the fall RM840 registration moose hunt.

If the closure outlined in WCR22-12 were eliminated, NFQUs would be able to harvest moose on federal public lands within GMU 22B, West of the Darby Mountains during the winter RM843 registration moose hunt.

Background

Moose populations throughout the Seward Peninsula increased during the 1970s and peaked in abundance during the mid-1980s. Density independent factors, specifically severe winters, are believed to have caused the population to decline dramatically in the early 1990s.

The moose population in GMU 22B, West of the Darby Mountains has since persisted at lower densities compared to the peaks in abundance observed in the late 1980s.

The Alaska Department of Fish and Game (ADF&G), in cooperation with the Bureau of Land Management (BLM), completed an abundance survey in GMU 22B West of the Darby Mountains in 2016 resulting in an estimated abundance of 728 observable moose (90% CI: 609-848). The proportion of short yearlings within the population was estimated at 14%. Previous estimates of the proportion of short yearlings within the population indicated that recruitment was low, averaging 9% from 1999 to 2013.

In 2002, the Alaska Board of Game (BOG) adopted a registration permit requirement for moose hunting in GMU 22B West of the Darby Mountains to prevent overharvest. Since that time ADF&G has administered both fall and winter registration permit hunts with harvest quotas and emergency order closures issued as need be to prevent overharvest. The quota for the fall RM840 permit was 23 bulls annually from RY2016 to RY2020. The quota for the winter RM843 registration permit hunt is based on estimates of the harvestable surplus for the hunt area and the total reported harvest during the fall RM840 season. The quota for this hunt averaged 9 bulls annually with a range of 7-13 bulls.

The availability of registration permits for moose hunts in GMU 22B West of the Darby Mountains is limited. In 2020, the BOG directed ADF&G to limit the availability of registration permits for the fall RM840 hunt. Permits for this hunt are only available in person at license vendors within the hunt area from July 25 to August 25. The restriction has only been in place since RY2020, and additional time will be needed to evaluate the effects of this restriction on hunter participation.

Following the recommendations of the BOG and the Northern Norton Sound Fish and Game Advisory Committee (NNSAC), similar restrictions have been applied to the availability of RM843. Permits for this hunt are only available in person at license vendors in White Mountain and Golovin beginning in early December. The specific date the permits begin to be available varies annually and is published in the current edition of Alaska Hunting Regulations.

On average, 92% of the hunters that participated in the fall RM840 moose hunt in GMU 22B West of the Darby mountains from RY2016 to RY2020 were FQUs. During that same period FQUs harvested on average 88% of the moose taken annually during the fall RM840 hunt.

On average, 99% of the hunters that participated in the winter RM843 moose hunt from RY2016 to RY2020 were FQUs. During this same period, all of the moose harvested during the winter RM843 moose hunt were taken by FQUs. Residents of Golovin and White Mountain harvested on average 90% of the moose taken annually during the winter RM843 hunt.

Impact on Subsistence Users

It is highly unlikely that FQUs will be impacted by the elimination or modification of these federal lands closures since restrictions on the availability of state registration permits for hunts administered in GMU 22B West of the Darby Mountains are extremely high.

Impact on Other Users

Restrictions on the availability of state registration permits for hunts administered in GMU 22B West of the Darby Mountains will make it extremely unlikely that NFQUs will benefit by the elimination of the closures in GMU 22B West.

Opportunity Provided by State

State customary and traditional use findings: The BOG has made positive customary and traditional use findings for moose in GMU 22.

Amounts Reasonably Necessary for Subsistence: Alaska state law requires the BOG 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 Moose in GMU 22 is 250-300 animals. The season and bag limit for GMU 22B is:

GMU/Area	Bag Limit	Open Season (Permit/Hunt #)	
Unit 22B, remainder	Residents: One bull by permit available in person in Brevig Mission, Golovin, Nome, Teller, and White Mountain from July 25-Aug. 25. Harvest quota to be announced. Season will be closed by emergency order when quota is reached.	Sept 1-Sept 20 (GM000)	Sept. 1-14
	OR		
	Residents: One antlered bull by permit available in person in White Mountain and Golovin beginning Dec. 1. Harvest quota to be announced. Season will be closed by emergency order when quota is reached.	RM843	Jan. 1-31.
	Nonresident	No Open Season	

[a] Subsistence and General Hunts.

Special instructions: ADF&G administers registration permit RM840 and RM843 with harvest quotas. These seasons are subject to emergency order closures once the quota is met. Successful hunters are required to report their harvest within 2 days of the kill. Registration permit RM840 is only available in person at license vendors within the hunt area from July 25 to August 25. Registration permit RM843 is only available in person at license vendors in White Mountain and Golovin beginning in early December. The specific date the permits begin to be available varies annually and is published in the current edition of Alaska Hunting Regulations.

Conservation Issues

There are no conservation concerns with the elimination of these two closures.

Enforcement Issues

There are no enforcement issues with the elimination of these two closures.

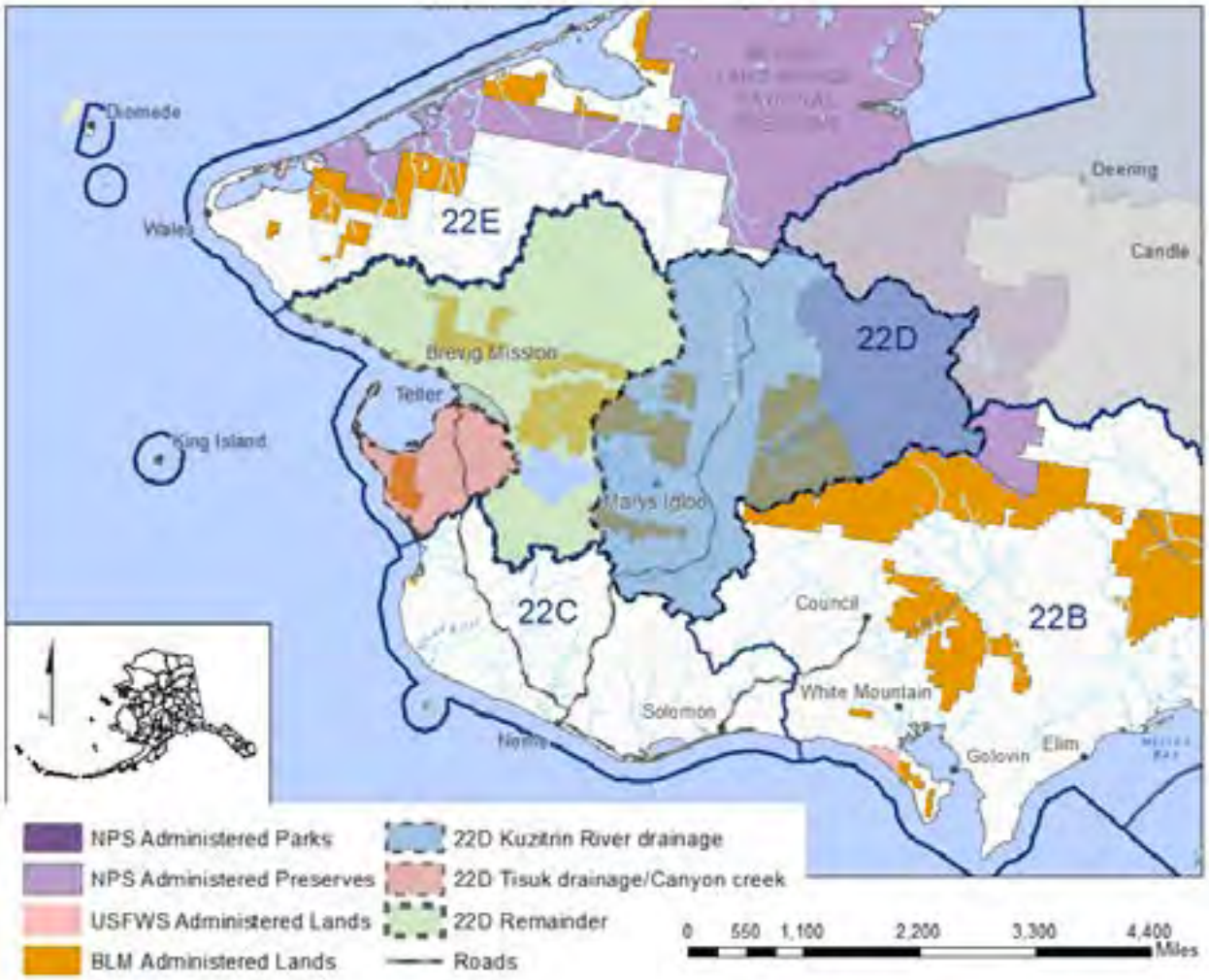
Position

ADF&G **SUPPORTS** the elimination of these two closures. The measures ADF&G and the BOG have taken in managing moose populations in GMU 22B West makes it so that maintaining the closure in the area is unlikely to result in providing any additional harvest opportunity to FQUs. ADF&G is more than capable of sustainably managing the moose population in this GMU while providing reasonable opportunities for subsistence hunters.

WCR22-13 Executive Summary	
Closure Location and Species	Unit 22D, within the Kougarok, Kuzitrin, and Pilgrim River drainages —Moose
Current Regulation	**Unit 22D−Moose** Unit 22D, that portion within the Kougarok, Kuzitrin, and Pilgrim River drainages—1 bull by State registration permit. Quotas and any needed closures will be announced by the Anchorage Field Office Manager of the BLM, in consultation with NPS and ADF&G. *Sept. 1-Sept. 14* *Federal public lands are closed to the taking of moose except by residents of Units 22D and 22C hunting under these regulations*
OSM Conclusion	Maintain status quo
Seward Peninsula Subsistence Regional Advisory Council Recommendation	**Maintain status quo**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Eliminate the closure**
Written Public Comments	**None**

FEDERAL WILDLIFE CLOSURE REVIEW
WCR22-13

Closure Location: Unit 22D, within the Kougarok, Kuzitrin, and Pilgrim River drainages —Moose (**Map 1**).



Map 1. Federal moose hunt areas in Unit 22D.

Current Federal Regulation

Unit 22D−Moose

Unit 22D, that portion within the Kougarok, Kuzitrin, and Pilgrim River drainages—1 bull by State registration permit. Quotas and any needed closures will be announced by the Anchorage Field Office Manager of the BLM, in consultation with NPS and ADF&G. *Sep. 1-14*

Federal public lands are closed to the taking of moose except by residents of Units 22D and 22C hunting under these regulations

Closure Dates: Year-round

Current State Regulation

Unit 22D−Moose			
Unit 22D, Kuzitrin River drainage (includes Kougarok and Pilgrim rivers), and Southwest area located west of Tisuk River drainage, west of the west bank of Canyon Creek beginning at McAdam's Creek continuing to Tuksuk Channel	*Residents: One bull by permit available in person in Brevig Mission, Golovin, Nome, Teller, and White Mountain from July 25-Aug. 25. Harvest quota to be announced. Season will be closed by emergency order when quota is reached.*	*RM840*	*Sept. 1-14*
	OR		
	Residents: One antlered bull by permit available online at http://hunt.alaska.gov or in person in Brevig Mission, Golovin, Nome, Teller, and White Mountain (a season may be announced Jan. 1-Jan. 31).	*RM849*	*May be announced*
	Nonresidents		*No open season*

Regulatory Year Initiated: 2002

Extent of Federal Public Lands

Unit 22D is comprised of approximately 23% of Federal public lands and consists of 12% Bureau of Land Management (BLM) and 11% National Park Service (NPS) managed lands.

Customary and Traditional Use Determination

Rural residents of Unit 22 have a customary and traditional use determination for moose in Unit 22.

Regulatory History

The Federal subsistence moose harvest in the portion within the Kuzitrin drainage in Unit 22D was restricted to antlered bulls in 1998 by the Federal Subsistence Board (Board) due to a declining local moose population and heavy hunting pressure. The Board approved a special action request in 2001 (WSA01-09), closing Federal public lands to moose hunting except by Federally qualified subsistence users and modifying the seasons and harvest limits for the 2001 fall and winter seasons (OSM 2001a and 2001b). This special action was prompted, in part, by an Alaska Department of Fish and Game (ADF&G) Emergency Order issued on July 3, 2001 which shortened the upcoming resident and nonresident moose season in the most heavily hunted parts of Units 22B and 22D (Persons 2002).

In 2002, the Board adopted a modification of Proposal WP02-34 to change the Federal subsistence moose hunting regulations in Unit 22 by defining new hunt areas, setting the fall season to Aug. 20 – Sep. 30, setting moose harvest limits to 1 bull by Federal registration permit and establishing the combined Federal/State moose harvest quota of 33 moose for the newly defined areas. In addition, Federal public lands in Unit 22D were closed to the taking of moose except by Federally qualified subsistence users (OSM 2003a). The Board also adopted a modification of Proposal WP02-35 which further restricted

moose harvest to rural residents of Unit 22C and 22D based on an ANILCA Section 804 analysis (OSM 2003b).

In 2005, the Board approved Special Action Request WSA05-01 to reduce the hunting season for all of Unit 22 from Aug. 20 – Sep. 30 to Sep. 1 – 14, in response to conservation concerns from harvests exceeding the joint Federal/State harvest quota for the Kuzitrin River drainage in 2003 and 2004 (OSM 2005). Overharvesting occurred in 2003 and 2004 despite efforts by the Board and State to reduce the harvest by closing the seasons early via special actions and emergency orders.

In 2006, the Board adopted Proposal WP06-40 with modification to reduce the moose season from Aug. 20 – Sep. 30 to Sep. 1 – 14. The action on Proposal WP06-40 was consistent with the temporary action taken on Special Action WSA05-01 (OSM 2006). Proposal WP06-40 also removed the quota numbers from the regulations and delegated the authority to announce any needed closures and quotas to the Bureau of Land Management (BLM) Field Office Manager, in consultation with National Park Service (NPS) and ADF&G (OSM 2006).

In 2011 and 2014, the Seward Peninsula Regional Advisory Council (Council) was presented with a review of the closure (WCR10-13 and WCR14-13, respectively) and recommended that the closure be maintained (SPSRAC 2011, OSM 2010).

In August 2020, the Board approved a revised closure policy, which stipulated all closures will be reviewed every four years. The policy also specified that closures, similar to regulatory proposals, will be presented to the Councils for a recommendation and then to the Board for a final decision. Previously, closure reviews were presented to Councils who then decided whether to maintain the closure or to submit a regulatory proposal to modify or eliminate the closure.

Closure last reviewed: 2014 – WCR14-13

Justification for Original Closure (ANILCA Section 815 (3) criteria):

> *Nothing in this title shall be construed as – (3) authorizing a restriction on the taking of fish and wildlife for nonsubsistence uses on public lands (other than national parks and monuments) unless necessary for the conservation of healthy populations of fish and wildlife, for the reasons set forth in section 816, to continue subsistence uses of such populations, or pursuant to other applicable law…*

The combination of low moose numbers and low recruitment indicated of a continuing conservation concern which warranted protection of the population. In response to this concern and the need for conservative management actions, the Board closed Federal public lands to moose hunting in Unit 22D except by rural residents of Unit 22D and Unit 22C (OSM 2003a, 2003b).

Council Recommendation for Original Closure:

The Council supported Proposal WP02-34 to close the moose harvest on Federal public lands in Unit 22B, west of the Darby Mountains, Unit 22D within the Kougarok, Kuzitrin, and Pilgrim river drainages, west of the Tisuk River drainage and Canyon Creek, and Unit 22E to non-Federally qualified users. In addition, harvest quotas were established, and the harvest season reduced from Aug. 1 – Jan. 31 to Aug. 20 – Sep. 30. The Council also supported Proposal WP02-35 which restricted the harvest of moose in

Unit 22D to residents of Unit 22D and Unit 22C. The Council stated that the modified proposals would provide sufficient opportunity for Federally qualified subsistence users while taking the most conservative approach to managing the moose population.

State Recommendation for Original Closure:

The State supported a modification to revise the moose season to Aug. 20 – Sep. 14, set the harvest limit to 1 antlered bull by State registration permit and restrict the harvest to Federally qualified subsistence users. It also supported the conclusions of the Section 804 analysis to give a priority to rural residents of Unit 22D and 22C to hunt moose in the Kougarok, Kuzitrin, and Pilgrim River drainages.

Biological Background

Moose migrated into the Seward Peninsula in the 1930s and by the late 1960s became a resident species due to suitable habitat in Unit 22. Moose populations increased during the 1970s and peaked in the mid-1980s (Gorn 2010). Density independent factors, specifically severe winters, were believed to have caused the population to decrease during the early 1990s (Nelson 1995). Populations within Unit 22 have never recovered to the peak levels of the 1980s. Brown bear predation on calves is considered the main limiting factor on Unit 22 moose populations (Gorn 2010).

State management goals for moose in Unit 22D include (Gorn and Dunker 2014):

- Unit 22 unit-wide: maintain a combined population of 5,100 – 6,800 moose
- Unit 22D: maintain a population of 2,000-2,500 moose
- Maintain a minimum bull:cow ratio of 30 bulls:100 cows in Units 22A, 22B, 22D, and 22E.

In 2020, ADF&G estimated the total Unit 22 moose population as 6,775 moose which is within State management objectives. ADF&G also considered the status of the Unit 22D moose population to be decreasing-stable (ADF&G 2020). Between 1993 and 2020, the moose population in Unit 22D ranged from 1,106 ─ 1,829 moose with the lowest estimate occurring in 2014. Between 1993 and 2014, for the Kuzitrin drainage area specifically, the moose population ranged from 615 ─ 1,251 moose with the lowest count occurring in 2014 (**Figure 1**) (ADF&G 2020, Dunker 2021, pers. comm.).

Between 2000 and 2019, bull:cow ratios within the Kuzitrin River survey area ranged from 15-40 bulls:100 cows, averaging 26 bulls:100 cows (**Figure 2**). In recent years (2016-2019), bull:cow ratios were below State management objectives in 2016 (20 bulls:100 cows) and just above objectives in 2017 and 2019 (32-33 bulls:100 cows, respectively) (Gorn and Dunker 2014, Dunker 2021, pers. comm.).

Fall calf:cow ratios of < 20 calves:100 cows, 20-40 calves:100 cows, and > 40 calves:100 cows may indicate declining, stable, and growing moose populations, respectively (Stout 2012). Between 2000 and 2019, calf:cow ratios within the Kuzitrin River survey area ranged from 9-33 calves:100 cows and averaged 16 calves:100 cows (**Figure 2**). In recent years (2016-2019), calf:cow ratios ranged from 10-14 calves:100 cows. Low recruitment rates such as these may be an indicator that the moose population within the Kuzitrin River Drainage is declining (Gorn and Dunker 2014, Dunker 2021, pers. comm.). From 1993-2020, the percentage of yearlings measured in the spring population surveys within the Kuzitrin drainage ranged from 10-19% and averaged 13% (ADF&G 2020, Dunker 2021 pers. comm.).

There is limited habitat data for Unit 22D. Although winter browse was seen as a limiting factor when moose density/numbers were at their highest during the mid-1980s. Moose populations had been managed based on what winter browse can easily support throughout Unit 22D. Browse is no longer viewed as a limiting factor to moose in this unit and brown bear predation on calves is now seen as the most significant factor influencing moose numbers (Gorn and Dunker 2014).

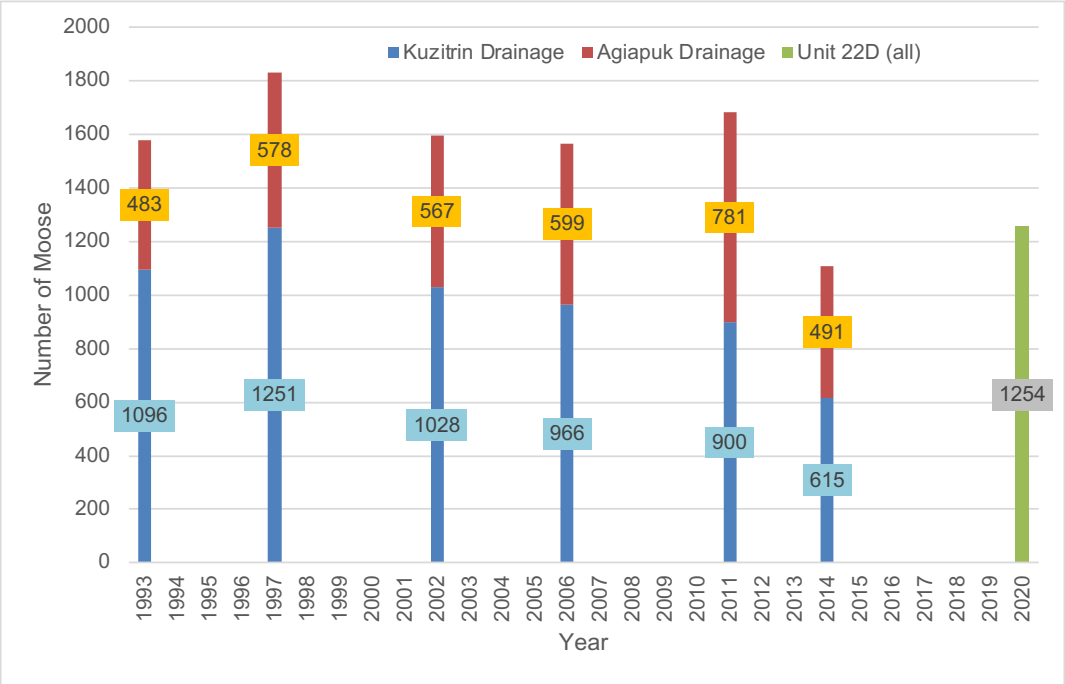


Figure 1. Moose population estimates within Unit 22D (ADF&G 2020, Dunker 2021, pers. comm.).

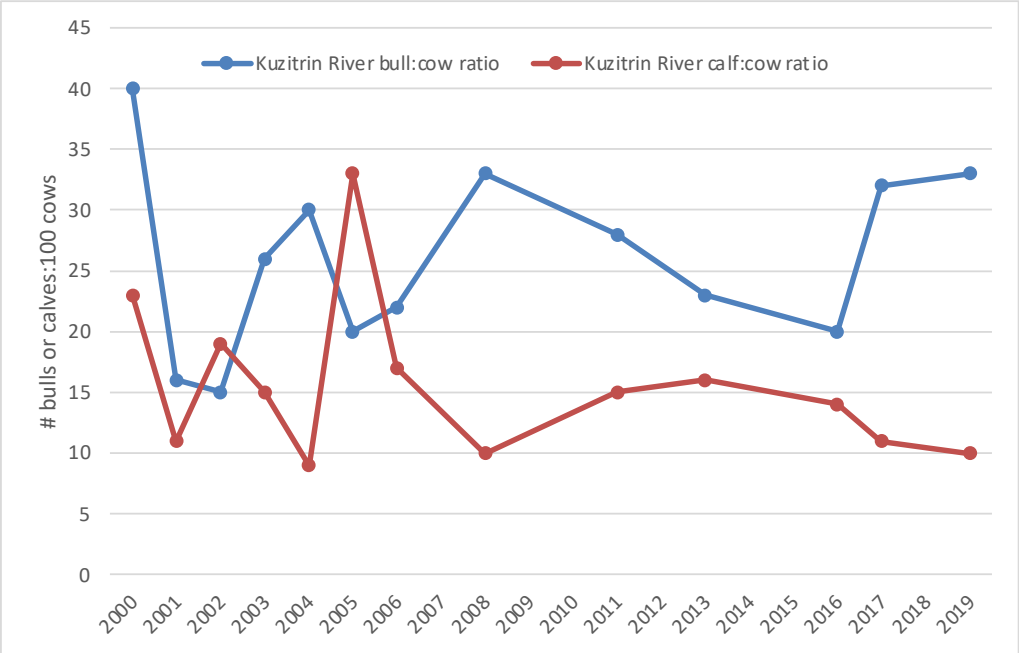


Figure 2. Bull:cow and calf:cow ratios within the Kuzitrin survey area of Unit 22D (Gorn and Dunker 2014, Dunker 2021, pers. comm.).

Harvest History

ADF&G estimates an average of 250-300 moose are harvested from all of Unit 22 each year, and that the 2019 harvestable surplus was 326 moose, while the 2018 harvestable surplus was 313 moose (ADF&G 2020, Dunker pers. comm. 2021). In Unit 22D specifically, harvest occurs by Alaska residents under State regulations by registration permit RM840 during the September hunt and registration permit RM849 during a *may be announced* season. No non-resident harvest has occurred in Unit 22D since the nonresident season closed in 2002. Within the closure area, harvest occurs by Federally qualified subsistence users under Federal regulations by State registration permit during the September season and by Federal registration permit (FM2204) during the December season. All harvest under State regulations has occurred on non-Federal lands since 2002 due to the Federal lands closure. No harvest has occurred during the Federal winter season.

Moose harvests in Unit 22D are managed by quotas. Between 2014 and 2019, reported moose harvest in the Kuzitrin River drainage and southwest hunt areas of Unit 22D ranged from 24-46 moose, exceeding harvest quotas in all years (**Table 2**). The hunts were also closed by emergency order in all years except 2016. Since 2017, the seasons have closed in five days or less (ADF&G 2019, 2020, 2021).

Table 1. RM840 moose harvest and quotas in Unit 22D Kuzitrin and Southwest (ADF&G 2019, 2020, 2021).

Year	Quota	Harvest	EO closure	Season Length (days)
2014	37	41	Yes	8
2015	37	46	Yes	10
2016	30	39	No	14
2017	22	36	Yes	5
2018	22	29	Yes	3
2019	22	24	Yes	4
2020	27		Yes	3

Effects

If the closure was rescinded, non-Federally qualified users would be able to harvest moose on Federal public lands within Unit 22D, in the Kougarok, Kuzitrin, and Pilgrim river drainages. As the State hunt is managed by harvest quotas, rescinding the closure would likely result in a zero to minimal increase in harvest. However, lifting the closure would decrease opportunity for Federally qualified subsistence users who would have to compete with non-Federally qualified users for moose harvest on Federal public lands. If the closure was modified to allow all Federally qualified subsistence users to hunt, there may be an increase in competition for rural residents of Unit 22.

OSM CONCLUSION:

x maintain status quo

_ modify or eliminate the closure

Justification

The Unit 22D moose population is below management objectives, bull:cow ratios are relatively low indicating few surplus bulls available for harvest, and calf:cow ratios are very low indicating a declining population. While harvests under State regulations are managed by a quota, this quota is usually exceeded. Rescinding or modifying the closure would also decrease harvest opportunity for Federally qualified subsistence users by increasing competition for a small, quickly met quota of harvestable moose.

LITERATURE CITED

ADF&G 2019. Emergency Order 05-05-19. Issued September 4, 2019. ADF&G. Nome, AK. https://www.adfg.alaska.gov/index.cfm?adfg=wcnews.ordersarchive

ADF&G. 2020. Tab 7.1 Nome Area Overview. ADF&G. Western Arctic/Western Region Alaska Board of Game meeting. January 17-20, 2020. Nome, AK. http://www.adfg.alaska.gov/index.cfm?adfg=gameboard.meetinginfo&date=01-17-2020&meeting=nome. Accessed May 14, 2021.

ADF&G. 2021. General harvest reports. Internet: <https://secure.wildlife.alaska.gov/index.cfm?fuseaction=harvestreports.main>. Retrieved: May 14, 2021.

Dunker, B. 2021. Unit 22 Area Biologist. Personal communication: e-mail. ADF&G. Nome, AK.

Gorn, T. 2010. Unit 22 moose management report. Pages 522-550 *in P. Harper, editor. Moose management report of survey and inventory activities 1 July 2007–30 June 2009. ADF&G. Project 1.0. Juneau, AK.*

Gorn, T. and W. R. Dunker. 2014. Unit 22 moose management report. Pages 31-1 through 31-38 in P. Harper and Laura A. McCarthy, editors. Moose management report of survey and inventory activities 1 July 2011–30 June 2013. ADF&G, Species Management Report ADF&G/DWC/SMR-2014-6, Juneau, AK.

Nelson, R.R. 1995. Unit 22 moose survey-inventory progress report. Pages 405–419 in M.V. Hicks, editor. Management report of survey-inventory activities 1 July 1993 – 30 June 1995. Federal Ad in Wildlife Restoration Progress Report Project W-24-2, W-24-3, Study 1.0, Juneau, AK. 488 pp.

OSM 2010. Staff Analysis WCR10–13, Office of Subsistence Management, FWS, Anchorage, AK

OSM 2006. Staff analysis WP06–40. Office of Subsistence Management. FWS. Anchorage, AK.

OSM 2005. Staff analysis WSA05–01. Office of Subsistence Management. FWS. Anchorage, AK.

OSM 2003a. Staff analysis WP02–34. Office of Subsistence Management. FWS. Anchorage, AK.

OSM 2003b. Staff analysis WP02–35. Office of Subsistence Management. FWS. Anchorage, AK.

OSM 2001a. Staff analysis WSA01–09. Office of Subsistence Management. FWS. Anchorage, AK.

OSM 2001b. Staff analysis WSA01–11. Office of Subsistence Management. FWS. Anchorage, AK.

Persons, K. 2002. Unit 22 moose survey-inventory progress report. Pages 475-495 *in* C. Healy, ed. Moose management report of survey and inventory activities 1 July 1999–30 June 2001. ADF&G. Federal Aid Wildlife Restoration Progress Report. Grant W–24–4 and W–24–5 Study 1.0 Juneau.

SPSRAC. 2011. Transcripts of the Seward Peninsula Subsistence Regional Advisory Council proceedings, February 15, 2011 in Nome, Alaska. Office of Subsistence Management, FWS, Anchorage, AK. pp. 25-41.

Stout, G.W. 2012. Unit 21D moose. Pages 496-533 *in P. Harper, editor. Moose management report of survey and inventory activities 1 July 2009-30 June 2011. ADF&G. Species management report, ADF&G/SMR/DWC-2012-5, Juneau, Alaska, USA.*

SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Seward Peninsula Subsistence Regional Advisory Council

Maintain status quo on WCR22-13. The Council felt that with populations below State management objectives and low bull:cow and calf:cow ratios, that the population in the unit is declining. Since the State manages harvest in this unit using a quota system that is usually met or exceeded, the closure should be maintained at this time.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and Federal Subsistence Board action on the proposal.

ALASKA DEPARTMENT OF FISH AND GAME COMMENTS

Wildlife Closure WCR22-13

If the closure outlined in WCR22-13 is eliminated, non-federally qualified users (NFQUs) would be able to harvest moose on federal public lands within Game Management Unit (GMU) 22D, that portion within the Kougarok, Kuzitrin, and Pilgrim River drainages. Alternatively, the closure may be modified to allow for the harvest of moose by all or a larger subset of those residents identified as FQUs.

Background

Moose populations throughout the Seward Peninsula increased during the 1970s and peaked in abundance during the mid-1980s. Density-independent factors, specifically severe winters, are believed to have caused the population to decline dramatically in the early 1990s.

The Alaska Department of Fish & Game (ADF&G), in cooperation with the Bureau of Land Management and the National Park Service, completed an abundance survey throughout subunits of GMU 22D and 22E in spring of 2020. The GMU 22D estimate of abundance was 1,254 observable moose (90% CI: 1056-1451). The proportion of short yearlings within the population was estimated at 11%.

In 2002, the Alaska Board of Game (BOG) adopted a registration permit requirement for moose hunting in GMU 22D within the Kougarok, Kuzitrin, and Pilgrim River drainages to prevent overharvest. Since that time the department has administered both fall registration permit hunts under RM840 with harvest quotas. Emergency order closures were issued as needed once the harvest quota was reached. Winter hunts in the area may be announced if the harvestable surplus is not taken during the fall season and are administered as registration permit RM849. The quota for the fall RM840 permit hunt averaged 25 bulls a year from RY2016 to RY2020. The winter RM849 registration permit hunt was last administered in 2013.

The availability of registration permits for fall moose hunts in GMU 22D within the Kougarok, Kuzitrin, and Pilgrim River drainages is limited. In 2020, the BOG directed ADF&G to limit the availability of registration permits for the fall RM840 hunt. Permits for this hunt are only available in person at license

vendors within the hunt area from July 25 to August 25. The restriction has only been in place since RY2020: additional time will be needed to evaluate the effects of this restriction on hunter participation.

On average 89% of the hunters that participated in the fall RM840 moose hunt in GMU 22D within the Kougarok, Kuzitrin, and Pilgrim River drainages from RY2016 to RY2020 were FQUs. During that same period FQUs harvested an average of 87% of the moose taken annually from this area during the fall RM840 hunt.

Impact on Subsistence Users

Restrictions on the availability of state registration permit RM840 make it unlikely that FQUs will be impacted by the elimination of the federal land closure in the area. Modification of the federal land closure to include all or a larger subset of those residents identified as FQUs would provide additional hunting opportunity on federal public lands for residents of GMU 22 communities outside of GMU 22C and GMU 22D.

Impact on Other Users

Restrictions on the availability of state registration permit RM840 make it highly unlikely that non-federally qualified subsistence users (NFQU) will be impacted by the elimination of the federal land closure in the area.

Opportunity Provided by State

State customary and traditional use findings: The BOG has made positive customary and traditional use findings for moose in GMU 22.

Amounts Reasonably Necessary for Subsistence: Alaska state law requires the BOG 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 moose in GMU 22 is 250-300 animals. The season and bag limit for GMU 22D within the Kougarok, Kuzitrin and Pilgrim River drainages is:

GMU/Area	Bag Limit		Open Season (Permit/Hunt #)
GMU 22D, Kuzitrin River drainage (includes Kougarok and Pilgrim rivers), and Southwest area located west of Tisuk River drainage, west of the west bank of Canyon Creek beginning at McAdam's Creek continuing to Tuksuk Channel	*One bull by permit available in person in Brevig Mission, Golovin, Nome, Teller, and White Mountain from July 25-Aug. 25. Harvest quota to be announced. Season will be closed by emergency order when quota is reached.*	*RM840*	*Sept. 1-14*
	OR		
	One antlered bull by permit available online at http://hunt.alaska.gov or in person in Brevig Mission, Golovin, Nome, Teller, and White Mountain (a season may be announced Jan. 1-Jan. 31).	*RM849*	*May be announced*
	Nonresidents		*No open season*

[a] Subsistence and General Hunts.

Special instructions: ADF&G administers registration permit RM840 with harvest quotas. These seasons are subject to emergency order closures once the quota is met. Successful hunters are required to report their harvest within 1 day of the kill. Registration permit RM840 is only available in person at license vendors within the hunt area from July 25 to August 25.

Conservation Issues

There are no conservation issues with the elimination of this closure.

Enforcement Issues

There are no enforcement issues with the elimination of this closure.

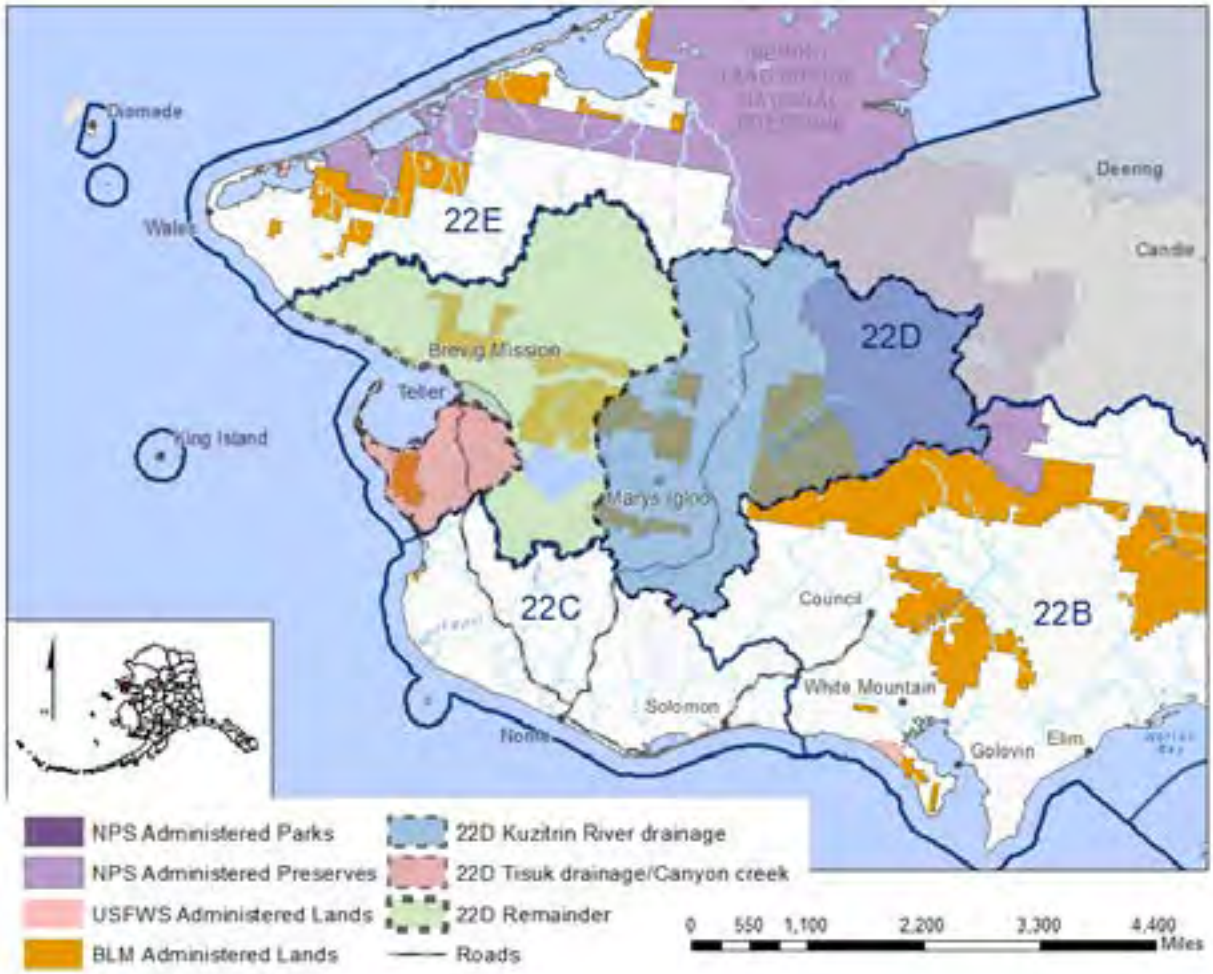
Position

ADF&G **SUPPORTS** the elimination of this closure. Elimination of the federal lands closure in the area is unlikely to result in any substantial changes to the harvest opportunity for FQUs. Modification of the federal lands closure to include a larger subset of residents identified as FQUs may increase opportunity for all FQUs. Retention of the federal lands closure is not likely to effect moose harvest by NFQUs within the hunt area since harvest by NFQUs is authorized on state managed land.

WCR22-14 Executive Summary	
Closure Location and Species	Unit 22D, west of the Tisuk River drainage and Canyon Creek — Moose
Current Regulation	**Unit 22D−Moose**
	Unit 22D, that portion west of the Tisuk River drainage and Canyon Creek—1 bull by State registration permit. Quotas and any needed closures will be announced by the Anchorage Field Office Manager of the BLM, in consultation with NPS and ADF&G — *Sep. 1-14*
	Unit 22D, that portion west of the Tisuk River drainage and Canyon Creek—1 bull by Federal registration permit. Quotas and any needed closures will be announced by the Anchorage Field Office Manager of the BLM, in consultation with NPS and ADF&G. *Federal public lands are closed to the taking of moose except by residents of Units 22D and 22C hunting under these regulations* — *Dec. 1-31*
OSM Conclusion	**Maintain status quo**
Seward Peninsula Subsistence Regional Advisory Council Recommendation	**Maintain status quo**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Eliminate the closure**
Written Public Comments	**None**

FEDERAL WILDLIFE CLOSURE REVIEW
WCR22-14

Closure Location: Unit 22D, west of the Tisuk River drainage and Canyon Creek —Moose (**Map 1).**



Map 1. Federal moose hunt areas in Unit 22D.

Current Federal Regulation

Unit 22D−Moose

Unit 22D, that portion west of the Tisuk River drainage and Canyon Creek—1 bull by State registration permit. Quotas and any needed closures will be announced by the Anchorage Field Office Manager of the BLM, in consultation with NPS and ADF&G	*Sep. 1-14*
Unit 22D, that portion west of the Tisuk River drainage and Canyon Creek—1 bull by Federal registration permit. Quotas and any needed closures will be announced by the Anchorage Field Office Manager of the BLM, in consultation with NPS and ADF&G.	*Dec. 1-31*

Federal public lands are closed to the taking of moose except by residents of Units 22D and 22C hunting under these regulations

Closure Dates: Year-round

Current State Regulation

Unit 22D−Moose			
Unit 22D, Kuzitrin River drainage (includes Kougarok and Pilgrim rivers), and Southwest area located west of Tisuk River drainage, west of the west bank of Canyon Creek beginning at McAdam's Creek continuing to Tuksuk Channel	*Residents: One bull by permit available in person in Brevig Mission, Golovin, Nome, Teller, and White Mountain from July 25-Aug. 25. Harvest quota to be announced. Season will be closed by emergency order when quota is reached.*	*RM840*	*Sept. 1-14*
	OR		
	Residents: One antlered bull by permit available online at *http://hunt.alaska.gov* or in person in Brevig Mission, Golovin, Nome, Teller, and White Mountain (a season may be announced Jan. 1-Jan. 31).	*RM849*	*May be announced*
	Nonresidents		*No open season*

Regulatory Year Initiated: 2002

Extent of Federal Public Lands

Unit 22D is comprised of approximately 23% of Federal public lands and consists of 12% Bureau of Land Management (BLM) and 11% National Park Service (NPS) managed lands.

Customary and Traditional Use Determination

Rural residents of Unit 22 have a customary and traditional use determination for moose in Unit 22.

Regulatory History

The Federal subsistence moose harvest in Unit 22D west of the Tisuk River drainage and Canyon Creek drainage was restricted to antlered bulls in 1998 by the Federal Subsistence Board (Board) due to a declining local moose population and heavy hunting pressure. The Board approved a Special Action Request in 2001 (WSA01-09), closing Federal public lands to moose hunting except by Federally qualified subsistence users and modified the seasons and harvest limits for the 2001 fall and winter seasons (OSM 2001a and 2001b). This Special Action was prompted, in part, by an Alaska Department of Fish and Game (ADF&G) Emergency Order issued on July 3, 2001 which shortened the upcoming resident and nonresident moose season in the most heavily hunted parts of Units 22B and 22D (Persons 2002).

In 2002, the Board adopted a modification of Proposal WP02-34 to change the Federal subsistence moose hunting regulations in Unit 22 by defining new hunt areas, setting the fall season to Aug. 20 – Sep. 30, setting moose harvest limits to 1 bull by Federal registration permit and establishing the combined Federal/State moose harvest quota of 33 moose for the newly defined areas. In addition, Federal public

lands in Unit 22D were closed to the taking of moose except by Federally qualified subsistence users (OSM 2003a). The Board also adopted a modification of Proposal WP02-35, which further restricted moose harvest to rural residents of Unit 22D and 22C based on an ANILCA Section 804 analysis (OSM 2003b).

In 2005, the Board approved Special Action Request WSA05-01 to reduce the hunting season for all of Unit 22 from Aug. 20 – Sep. 30 to Sep. 1 – 14, in response to conservation concerns from harvests exceeding the joint Federal/State harvest quota for the Kuzitrin River drainage in 2003 and 2004 (OSM 2005). Overharvesting occurred despite efforts by the Board and State to reduce the harvest by closing the seasons early via special actions and emergency orders.

In 2006, the Board adopted Proposal WP06-40 with modification to reduce the moose season from Aug. 20 – Sep. 30 to Sep. 1 – 14. The action on Proposal WP06-40 was consistent with the temporary action taken on Special Action WSA05-01 (OSM 2006). Proposal WP06-40 also removed the quota numbers from the regulations and delegated the authority to announce any needed closures and quotas to the Bureau of Land Management (BLM) Field Office Manager, in consultation with NPS and ADF&G (OSM 2006).

In 2011 and 2014, the Council was presented with a review of the closures (WCR10-14 and WCR14-14, respectively) and recommended that the closure be maintained (SPSRAC 2011, OSM 2010).

In August 2020, the Board approved a revised closure policy, which stipulated all closures will be reviewed every four years. The policy also specified that closures, similar to regulatory proposals, will be presented to the Councils for a recommendation and then to the Board for a final decision. Previously, closure reviews were presented to Councils who then decided whether to maintain the closure or to submit a regulatory proposal to modify or eliminate the closure.

Closure last reviewed: 2014 – WCR14-14

Justification for Original Closure (ANILCA Section 815 (3) criteria):

> *Nothing in this title shall be construed as – (3) authorizing a restriction on the taking of fish and wildlife for nonsubsistence uses on public lands (other than national parks and monuments) unless necessary for the conservation of healthy populations of fish and wildlife, for the reasons set forth in section 816, to continue subsistence uses of such populations, or pursuant to other applicable law…*

The combination of low moose numbers and low recruitment were direct indicators of a continuing conservation concern which warranted protection of this moose population. In response to this concern and the need for conservative management actions, the Board closed Federal public lands to moose hunting in Unit 22D except by rural residents of Unit 22D and Unit 22C (OSM 2003a, 2003b).

Council Recommendation for Original Closure:

The Council supported Proposal WP02-34 to close the moose harvest on Federal public lands in Unit 22B, west of the Darby Mountains; Unit 22D within the Kougarok, Kuzitrin and Pilgrim River drainages and west of the Tisuk River drainage and Canyon Creek; and Unit 22E to non-Federally qualified users. In addition, harvest quotas were established, and the harvest season reduced from Aug. 1 – Jan. 31 to

Aug. 20 – Sep. 30. The Council also supported Proposal WP02-35 which restricted the taking of moose in Unit 22D to residents of Unit 22D and Unit 22C. The Council stated that the modified proposals would provide sufficient opportunity for Federally qualified subsistence users while taking the most conservative approach to managing the moose population.

State Recommendation for Original Closure:

The State supported a modification to revise the moose season to Aug. 20 – Sep. 14, set the harvest limit to 1 antlered bull by State registration permit and restrict the harvest to Federally qualified subsistence users. It also supported the conclusions of the Section 804 analysis to give a priority to rural residents of Unit 22D and 22C to hunt moose in the area west of the Tisuk River drainage and Canyon Creek.

Biological Background:

Moose migrated into the Seward Peninsula in the 1930s and by the late 1960s became a resident species due to suitable habitat in Unit 22. Moose populations increased during the 1970s and peaked in the mid-1980s (Gorn 2010). Density independent factors, specifically severe winters, were believed to have caused the population to decrease during the early 1990s (Nelson 1995). Populations within Unit 22 have never recovered to the peak levels of the 1980s. Brown bear predation on calves is considered the main limiting factor on Unit 22 moose populations (Gorn 2010).

State management goals for moose in Unit 22D include (Gorn and Dunker 2014):

- Unit 22 unit-wide: maintain a combined population of 5,100 – 6,800 moose
- Unit 22D: maintain a population of 2,000-2,500 moose
- Maintain a minimum bull:cow ratio of 30 bulls:100 cows in Units 22A, 22B, 22D, and 22E.

In 2020, ADF&G estimated the total Unit 22 moose population to be 6,775 moose, which is within State management objectives. ADF&G also considered the status of the Unit 22D moose population to be decreasing-stable (ADF&G 2020). Between 1993 and 2020, the moose population in Unit 22D ranged from 1,106-1,829 moose with the lowest estimate occurring in 2014 (**Figure 1**). While ADF&G does not conduct moose surveys specifically within the closure area, surveys are conducted within the Kuzitrin and Agiapuk River drainages within Unit 22D. The Agiapuk drainage survey area is in Unit 22D remainder (**Map 1**). Between 1993 and 2014, for the Kuzitrin drainage area specifically, the moose population ranged from 615-1,251 moose with the lowest count occurring in 2014. Over the same time within the Agiapuk drainage, the moose population ranged from 483-781 moose (**Figure 1**) (ADF&G 2020, Dunker 2021, pers. comm.).

Between 2000 and 2019 bull:cow ratios within the Kuzitrin River survey area ranged from 15-40 bulls:100 cows, averaging 26 bulls:100 cows. Over the same period, bull:cow ratios within the Agiapuk (Unit 22D remainder) survey area ranged from 18-44 bulls:100 cows, averaging 28 bulls:100 cows (**Figure 2**). In recent years (2016-2019), bull:cow ratios were below State management objectives in all years within the Agiapuk survey area (18-24 bulls:100 cows) and were below objectives within the Kuzitrin survey area in 2016 (20 bulls:100 cows) and just above objectives in 2017 and 2019 (32-33 bulls:100 cows, respectively). (Gorn and Dunker 2014, Dunker 2021, pers. comm.).

Fall calf:cow ratios of < 20 calves:100 cows, 20-40 calves:100 cows and > 40 calves:100 cows may indicate declining, stable, and growing moose populations, respectively (Stout 2012). Between 2000

and 2019, calf:cow ratios within the Kuzitrin River survey area ranged from 9-33 calves:100 cows and averaged 16 calves:100 cows. Over the same period, calf:cow ratios within the Agiapuk survey area ranged from 6-29 calves:100 cows, averaging 21 calves:100 cows (**Figure 3**). In recent years (2016-2019), calf:cow ratios in the Kuzitrin River survey area ranged from 10-14 calves:100 cows. Low recruitment rates such as these may be an indicator that the moose population within the Kuzitrin River Drainage is declining (Gorn and Dunker 2014, Dunker 2021, pers. comm.). From 1993-2020, the percentage of yearlings measured in the spring population surveys within the Kuzitrin and Agiapuk river drainages averaged 13% and 17%, respectively (ADF&G 2020, Dunker 2020, pers. comm.).

There is limited habitat data for Unit 22D. Although winter browse was seen as a limiting factor when moose density/numbers were at their highest during the mid-1980s. Moose populations had been managed based on what winter browse can easily support throughout Unit 22D. Browse is no longer viewed as a limiting factor to moose in this unit, and brown bear predation on calves is now seen as the most significant factor influencing moose numbers (Gorn and Dunker 2014).

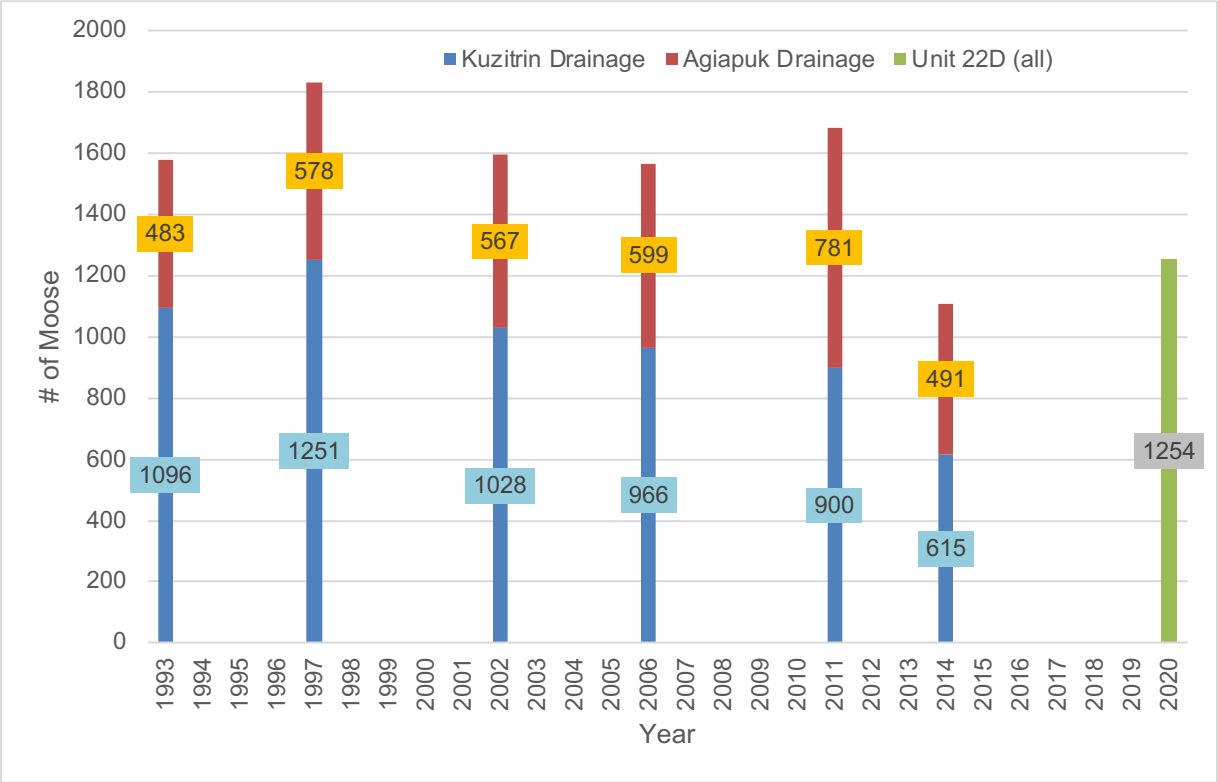


Figure 1. Moose population estimates within Unit 22D (ADF&G 2020, Dunker 2021, pers. comm.).

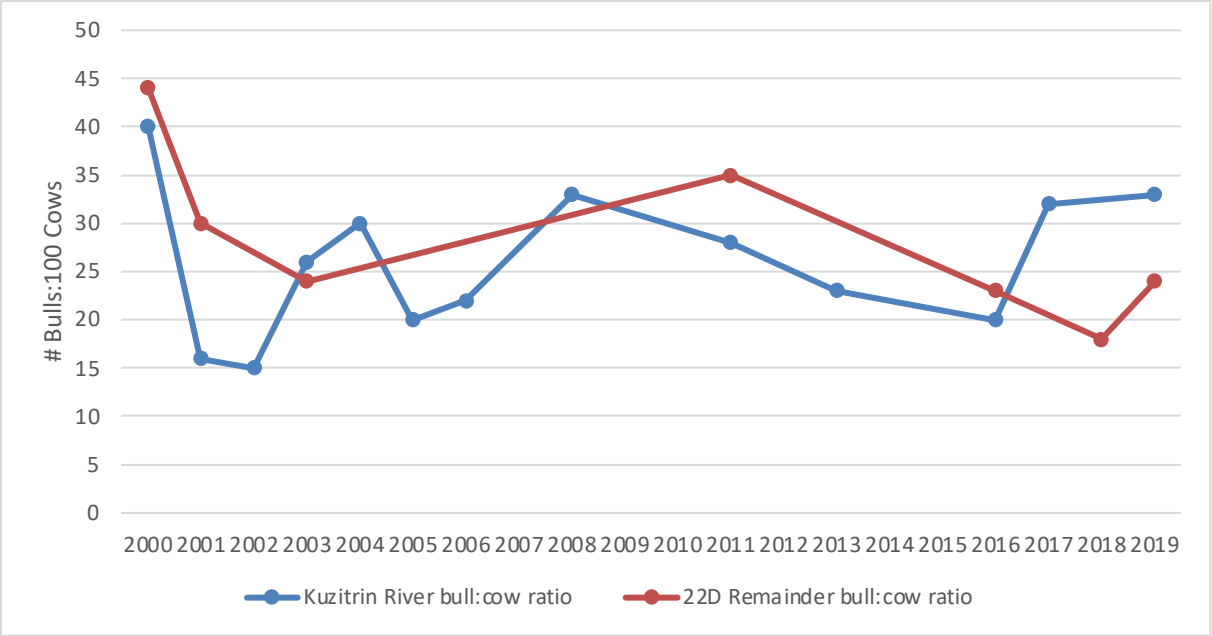


Figure 2. Bull:cow ratios within the Kuzitrin and Unit 22D remainder (Agiapuk) survey area of Unit 22D (Gorn and Dunker 2014, Dunker 2021, pers. comm.).

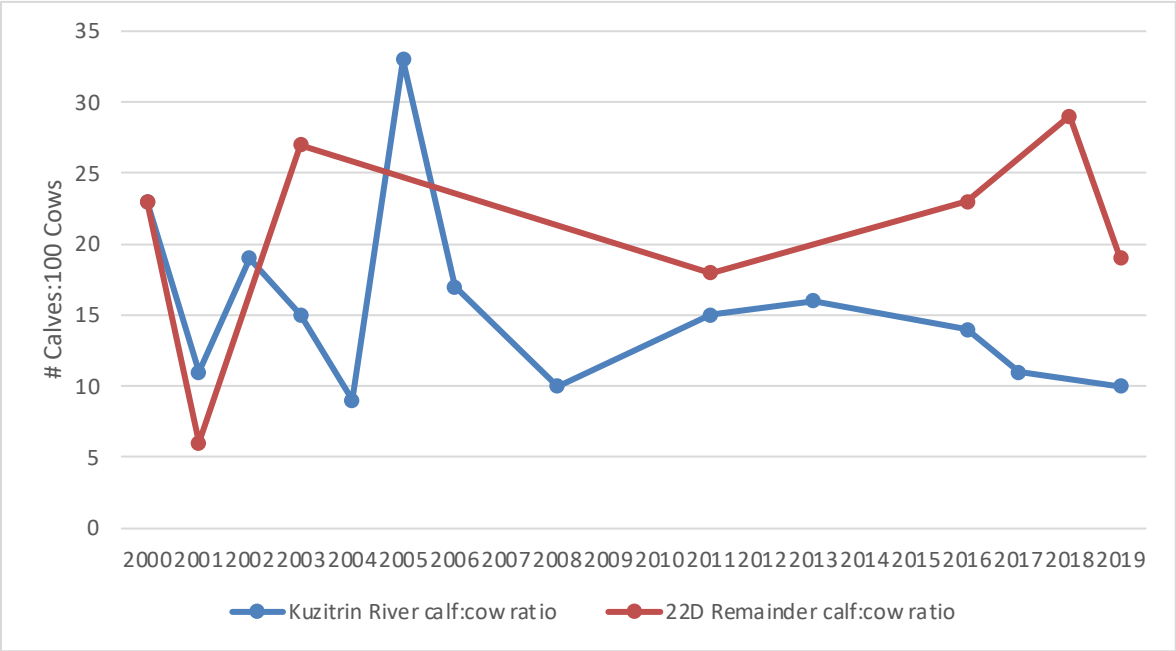


Figure 3. Calf:cow ratios within the Kuzitrin and Unit 22D remainder (Agiapuk) survey area of Unit 22D (Gorn and Dunker 2014, Dunker 2021, pers. comm.).

Harvest History

ADF&G estimates an average of 250-300 moose are harvested from all of Unit 22 each year and that the 2019 harvestable surplus was 326 moose, while the 2018 harvestable surplus was 313 moose (ADF&G 2020, Dunker pers. comm. 2021). In Unit 22D specifically, harvest occurs by Alaska residents under

State regulations by registration permit RM840 during the September hunt and registration permit RM849 during a *may be announced season*. No non-resident harvest has occurred in Unit 22D since the State non-resident season closed in 2002. Within the closure area, harvest occurs by Federally qualified subsistence users under Federal regulations by State registration permit during the September season and by Federal registration permit (FM2204) during the December season. All harvest under State regulations has occurred on non-Federal lands since 2002 due to the Federal lands closure. No harvest has occurred during the Federal winter season.

Moose harvests in Unit 22D are managed by quotas. Between 2014 and 2019 reported moose harvest in the Kuzitrin River drainage and southwest hunt areas of Unit 22D ranged from 24-46 moose, exceeding harvest quotas in all years (**Table 1**). The hunts were also closed by emergency order in all years except 2016. Since 2017, the seasons have closed in five days or less (ADF&G 2019, 2020, 2021).

Table 1. RM840 moose harvest and quotas in Unit 22D Kuzitrin and Southwest (ADF&G 2019, 2020, 2021).

Year	Quota	Harvest	EO closure	Season Length (days)
2014	37	41	Yes	8
2015	37	46	Yes	10
2016	30	39	No	14
2017	22	36	Yes	5
2018	22	29	Yes	3
2019	22	24	Yes	4
2020	27	32	Yes	3

Effects

If the closure is rescinded, non-Federally qualified users would be able to harvest moose on Federal public lands within Unit 22D, west of the Tisuk River drainage and Canyon Creek. As the State hunt is managed by harvest quotas, rescinding the closure would likely result in zero to minimal increases in harvest. If the closure was modified to allow all Federally qualified subsistence users to harvest moose, there may be an increase in competition for a limited resource. However, lifting the closure would decrease opportunity for Federally qualified subsistence users who would have to compete with non-Federally qualified users for moose on Federal public lands.

OSM CONCLUSION:

x maintain status quo

_ modify or eliminate the closure

Justification

The Unit 22D moose population is below management objectives, bull:cow ratios are relatively low indicating few surplus bulls available for harvest, and calf:cow ratios are very low indicating a declining population. While harvests under State regulations are managed by a quota, this quota is usually

exceeded. The Unit 22D moose population within the closure area cannot withstand any increases in harvest. Opening or modifying the closure area would also decrease opportunity for Federally qualified subsistence users as they would have to compete with other Federally qualified subsistence users statewide and non-Federally qualified subsistence users.

LITERATURE CITED

ADF&G 2019. Emergency Order 05-05-19. Issued September 4, 2019. ADF&G. Nome, AK. https://www.adfg.alaska.gov/index.cfm?adfg=wcnews.ordersarchive

ADF&G. 2020. Tab 7.1 Nome Area Overview. ADF&G. Western Arctic/Western Region Alaska Board of Game meeting. January 17-20, 2020. Nome, AK. http://www.adfg.alaska.gov/index.cfm?adfg=gameboard.meetinginfo&date=01-17-2020&meeting=nome. Accessed May 14, 2021.

ADF&G. 2021. General harvest reports. Internet: <https://secure.wildlife.alaska.gov/index.cfm?fuseaction=harvestreports.main>. Retrieved: May 14, 2021.

Dunker, B. 2021. Unit 22 Area Biologist. Personal communication: e-mail. ADF&G. Nome, AK.

Dunker, B. 2020. Unit 22 Area Biologist. Personal communication: e-mail. ADF&G. Nome, AK. Gorn, T. 2010. Unit 22 moose management report. Pages 522-550 *in P. Harper, editor. Moose management report of survey and inventory activities 1 July 2007 – 30 June 2009. ADF&G. Project 1.0. Juneau, AK.*

Gorn, T. 2010. Unit 22 moose management report. Pages 522-550 in P. Harper, editor. Moose management report of survey and inventory activities 1 July 2007 – 30 June 2009. Alaska Department of Fish and Game. Project 1.0. Juneau, AK.

Gorn, T. and W. R. Dunker. 2014. Unit 22 moose management report. Pages 31-1 through 31-38 in P. Harper and Laura A. McCarthy, editors. Moose management report of survey and inventory activities 1 July 2011–30 June 2013. ADF&G, Species Management Report ADF&G/DWC/SMR-2014-6, Juneau, AK.

Nelson, R.R. 1995. Unit 22 moose survey-inventory progress report. Pages 405-419 in M.V. Hicks, editor. Management report of survey-inventory activities 1 July 1993 – 30 June 1995. Federal aid in wildlife restoration progress report, Project W-24-2, W-24-3, Study 1.0. Juneau, AK. 48 pages.

OSM 2010. Staff Analysis WCR10–13, Office of Subsistence Management, FWS, Anchorage, AK

OSM 2006. Staff analysis WP06–40. Office of Subsistence Management. FWS. Anchorage, AK.

OSM 2005. Staff analysis WSA05–01. Office of Subsistence Management. FWS. Anchorage, AK.

OSM 2003a. Staff analysis WP02–34. Office of Subsistence Management. FWS. Anchorage, AK.

OSM 2003b. Staff analysis WP02–35. Office of Subsistence Management. FWS. Anchorage, AK.

OSM 2001a. Staff analysis WSA01–09. Office of Subsistence Management. FWS. Anchorage, AK.

OSM 2001b. Staff analysis WSA01–11. Office of Subsistence Management. FWS. Anchorage, AK.

Persons, K. 2002. Unit 22 moose survey-inventory progress report. Pages 475-495 *in* C. Healy, ed. Moose management report of survey and inventory activities 1 July 1999–30 June 2001. ADF&G. Federal Aid Wildlife Restoration Progress Report. Grant W–24–4 and W–24–5 Study 1.0 Juneau.

SPSRAC. 2011. Transcripts of the Seward Peninsula Subsistence Regional Advisory Council proceedings, February 15, 2011 in Nome, Alaska. Office of Subsistence Management, FWS, Anchorage, AK. pp. 25-41.

Stout, G.W. 2012. Unit 21D moose. Pages 496-533 *in P. Harper, editor. Moose management report of survey and inventory activities 1 July 2009-30 June 2011. ADF&G. Species management report, ADF&G/SMR/DWC-2012-5, Juneau, Alaska, USA.*

SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Seward Peninsula Subsistence Regional Advisory Council

Maintain status quo on WCR22-14. The Council feels that with populations below State management objectives and low bull:cow and calf:cow ratios that the population in Unit 22D is declining. If the State is managing harvest with a quota, then the moose population is not strong enough to support removing the closure, and it should be maintained at this time.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and Federal Subsistence Board action on the proposal.

ALASKA DEPARTMENT OF FISH AND GAME COMMENTS

Wildlife Closure WCR22-14

If the closure outlined in WCR22-14 is eliminated, non-federally qualified users (NFQUs) would be able to harvest moose on federal public lands within Game Management Unit (GMU) 22D, that portion west of the Tisuk River drainage and Canyon Creek (GMU 22D, Southwest). Alternatively, the closure may be modified to allow for the harvest of moose by all or a larger subset of those residents identified as federally qualified users (FQU).

Background

Moose populations throughout the Seward Peninsula increased during the 1970s and peaked in abundance during the mid-1980s. Density-independent factors, specifically severe winters, are believed to have caused the population to decline dramatically in the early 1990s. Due to its size, hunt-area-specific estimates of abundance are not available for the GMU 22D Southwest hunt area.

In 2002, the Alaska Board of Game (BOG) adopted a registration permit requirement for moose hunting in GMU 22D Southwest to prevent overharvest. Since 2009 the Alaska Department of Fish and Game (ADF&G) has administered fall registration permit hunt RM840 with a combined harvest quota for GMU 22D Southwest and the GMU 22D Kuzitrin River drainage hunt areas. Emergency order closures are issued as needed once the combined harvest quota is reached. A winter hunt in the area may be announced if the harvestable surplus is not taken during the fall season and is administered as registration permit RM849. The combined harvest quota for the fall RM840 permit hunt averaged 25 bulls annually from 2016 to 2020. The winter RM849 registration permit hunt was last administered in 2013.

The availability of registration permits for fall moose hunts in GMU 22D Southwest is limited. In 2020, the BOG directed ADF&G to limit the availability of registration permits for the fall RM840 hunt. Permits for this hunt are only available in person at license vendors within the hunt area from July 25 to August 25. The restriction has only been in place since RY2020, and additional time will be needed to evaluate the effects of this restriction on hunter participation.

Federal public land within the hunt area is comprised predominately of lowland coastal areas, sedge tussock tundra, and rocky benches covered in dryas tundra. Harvest from GMU 22D Southwest hunt area averaged 3 bulls annually from RY2016 to RY2020. A review of harvest reports indicate that no moose were taken on federal public lands in the area during this period, and 1 bull moose was harvested by a NFQU on state-managed land.

Impact on Subsistence Users

Restrictions on the availability of state registration permit RM840 make it highly unlikely that FQUs will be impacted by the elimination of the closures in the area. Modification of the federal public lands closure to include all or a larger subset of those residents identified as FQUs would provide additional hunting opportunity on federal public lands for residents of GMU 22 communities outside of GMU 22C and GMU 22D.

Impact on Other Users

Restrictions on the availability of state registration permit RM840 make it highly unlikely that NFQUs would be positively impacted by the elimination of the federal land closures in the area.

Opportunity Provided by State

State customary and traditional use findings: The BOG has made a positive customary and traditional use finding for moose in GMU 22.

Amounts Reasonably Necessary for Subsistence: Alaska state law requires the BOG 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 Moose in GMU 22 is 250-300 animals. The season and bag limit for GMU 22D Southwest is:

GMU/Area	*Bag Limit*		*Open Season (Permit/Hunt #)*
GMU 22D, Kuzitrin River drainage (includes Kougarok and Pilgrim rivers), and Southwest area located west of Tisuk River drainage, west of the west bank of Canyon Creek beginning at McAdam's Creek continuing to Tuksuk Channel	*One bull by permit available in person in Brevig Mission, Golovin, Nome, Teller, and White Mountain from July 25-Aug. 25. Harvest quota to be announced. Season will be closed by emergency order when quota is reached.*	*RM840*	*Sept. 1-14*
	OR		
	One antlered bull by permit available online at http://hunt.alaska.gov or in person in Brevig Mission, Golovin, Nome, Teller, and White Mountain (a season may be announced Jan. 1-Jan. 31).	*RM849*	*May be announced*
	Nonresidents		*No open season*

[a] Subsistence and General Hunts.

Special instructions: ADF&G administers registration permit RM840 with harvest quotas. These seasons are subject to emergency order closures once the quota is met. Successful hunters are required to report their harvest within 1 day of the kill. Registration permit RM840 is only available in person at license vendors within the hunt area from July 25 to August 25.

Conservation Issues

Given the regulatory structure in place ADF&G has no conservation concerns if the closure was eliminated.

Enforcement Issues

There are no foreseeable enforcement issues if the closure was eliminated.

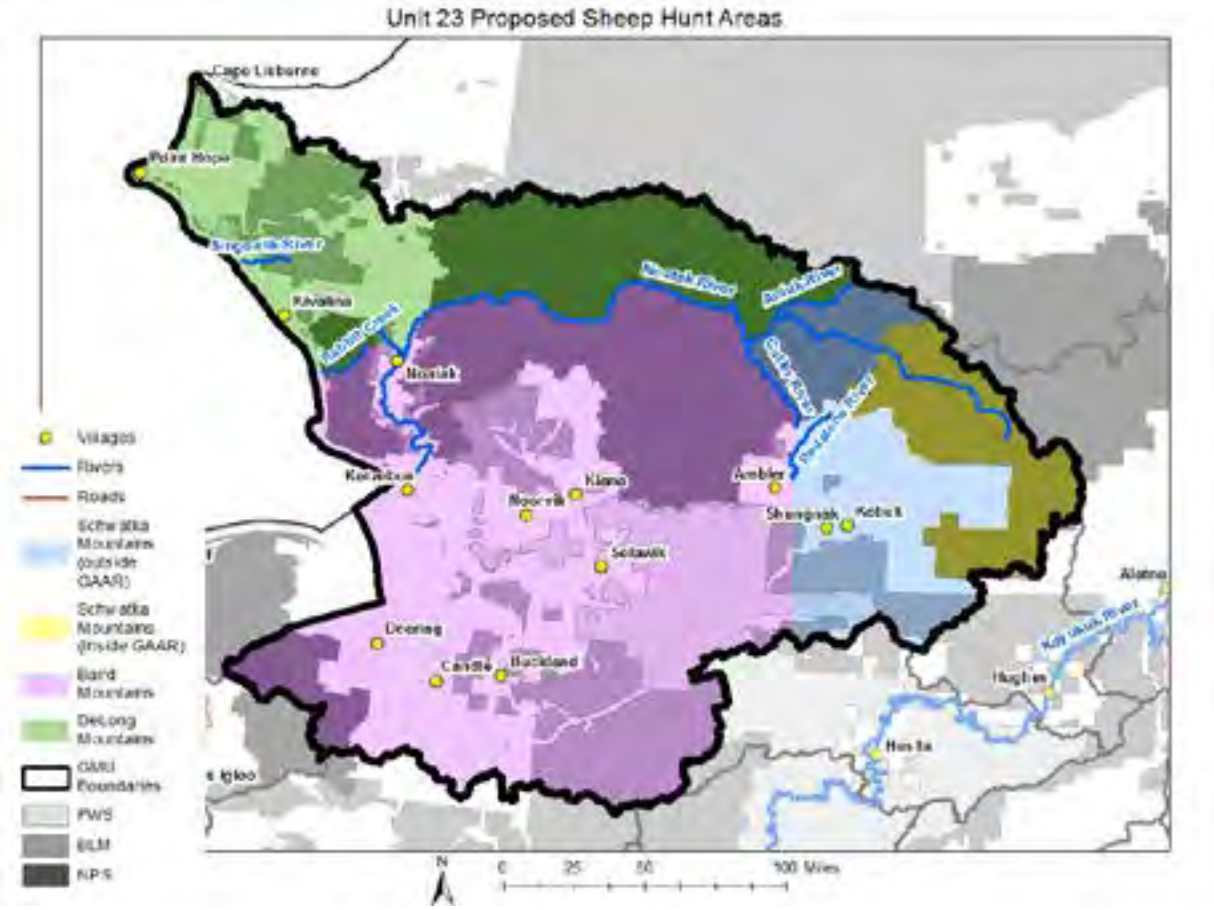
Position

ADF&G **SUPPORTS** the elimination of the closure to NFQUs on federal public lands in this area. It is highly unlikely to result in any substantial changes to the harvest opportunity for moose in the area given the limited extent of federal public lands, the habitat contained within, and the current state regulatory structure.

WCR22–18 Executive Summary	
Closure Location and Species	Unit 23 (Baird Mountains) - Sheep
Current Regulation	**Unit 23−Sheep** *Unit 23, south of Rabbit Creek, Kiyak Creek, and the Noatak River, and west of the Cutler and Redstone Rivers (Baird Mountains)—1 sheep by Federal registration permit.* *May be announced* *Federal public lands are closed to the taking of sheep except by federally qualified subsistence users hunting under these regulations*
OSM Conclusion	**Maintain status quo**
Northwest Arctic Subsistence Regional Advisory Council Recommendation	**Maintain status quo**
North Slope Subsistence Regional Advisory Council Recommendation	**Maintain status quo**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Eliminate the closure**
Written Public Comments	**None**

FEDERAL WILDLIFE CLOSURE REVIEW
WCR22-18

Closure Location: Unit 23 (Baird Mountains) (**Map 1)**—Sheep



Map 1. Federal subsistence sheep hunt areas in Unit 23.

Current Federal Regulation

Unit 23−Sheep

Unit 23, south of Rabbit Creek, Kiyak Creek, and the Noatak River, and west of the Cutler and Redstone Rivers (Baird Mountains)—1 sheep by Federal registration permit.	*May be announced*

Federal public lands are closed to the taking of sheep except by federally qualified subsistence users hunting under these regulations

Closure Dates: **Y**ear-round

Current State Regulation

Unit 23−Sheep

Unit 23, residents and non-residents	*No open season*

Regulatory Year Initiated: 1999

Extent of Federal Public Lands

Unit 23 is comprised of 71% Federal public lands and consists of 40% National Park Service (NPS) managed lands, 22% Bureau of Land Management (BLM) managed lands, and 9% US Fish and Wildlife Service (USFWS) managed lands.

Customary and Traditional Use Determination

Residents of Unit 23 north of the Arctic Circle and Point Lay have a customary and traditional use determination for sheep in Unit 23.

Regulatory History

Declining sheep populations during the late 1980s prompted a series of State harvest closures. The requirement for State registration permits for sheep hunting in the Baird Mountains was established in 1982. The initial Federal subsistence hunting regulations in 1991 were established by adopting the existing State harvest limit of one ram with 7/8 curl in the fall hunt and one sheep with a harvest quota of 30 animals in the winter hunt. However, in 1991, low sheep numbers in the Baird Mountains prompted State emergency hunt closures, which continued through 1997. In 1991 and 1992, special actions adopted by the Federal Subsistence Board (Board) closed the sheep harvest south and east of the Noatak River (Baird Mountains), which was repeated by Special Actions through 1997/98 (FWS 1991, 1992, 1993, 1994).

The Alaska Board of Game (BOG) met in November 1997 and revisited sheep regulations in Unit 23. The western portion was re-described, dividing it into the Baird and Delong Mountain ranges. The number of sheep needed for subsistence was investigated by the State and determined to be 1-9 sheep for the DeLong Mountains and 18-47 sheep for the Baird Mountains. Based on that information and the fact that the surveys showed the first increase in sheep numbers in several years, the BOG preliminarily decided not to close the 1998/99 State season by Emergency Order and proceed with a Tier I harvest of 20 sheep in the Baird Mountains, with the final decision based on the results of the 1998 sheep surveys. The State season was scheduled to run August 10-April 30.

In July 1998, the Board approved a Special Action S98-04 adopting the State's sheep harvest zones in Unit 23 (Baird, Delong, and Schwatka Mountains), closing Federal public lands to non-Federally qualified users in the Baird Mountains, and setting up an August-April season for one full-curl ram (maximum of 20 for each mountain range). In May 1999, the Board adopted Proposal P99-48, putting the special action changes into the permanent regulations with the addition of allowing the Superintendent of the Western Arctic National Parklands (WEAR) to annually announce the harvest quota and to divide the harvest into two seasons (fall and winter).

In May 2002, the Board adopted Proposal WP02-39, which implemented regulations for sheep harvest in Units 23 and 26A, including the requirement for trophy destruction of the harvested sheep horns. In 2004, the Board adopted Proposal WP04-72/73 with modification to eliminate the trophy destruction requirement and adopt a mixed-sex hunt with fixed quotas.

On August 8, 2014, ADF&G issued an Emergency Order closing sheep seasons in Units 23 and 26A for all resident and nonresident hunters. This was done in response to severe declines in sheep numbers in the Delong and Schwatka Mountains. The State initially issued no permits for its drawing hunt (DS384) in 2014, and the hunt was closed by Emergency Order later that year (Saito 2014, pers. comm.).

On August 25, 2014, the Board approved Temporary Special Action WSA14-03, which closed the sheep season on Federal public lands in Unit 23 and in Unit 26A, that portion west of Howard Pass and the Etivluk River for the 2014/15 season. This was done due to the same conservation concerns detailed in the State's Emergency Order.

In March of 2015, the BOG adopted Proposal 203, which closed all sheep seasons in Unit 23 and in Unit 26A, west of Howard Pass and the Etivluk River in response to the drastic population declines in the area. Hunt areas and hunt types were retained so that similar hunt regimes could be restored once the population recovered. Sheep seasons in Unit 23 have remained closed under State regulations.

In 2016, the Board adopted Proposal WP16-53 with modification to establish may-be-announced sheep seasons in the Baird and DeLong Mountain hunt areas of Unit 23 and to delegate authority to open and close the season, determine annual harvest quotas and limits to the Superintendent of WEAR.

Designated Hunter Permit System

In 1999, the Board adopted Proposal P99-48, which instituted a designated hunter permit system for sheep in the Baird and DeLong Mountain hunt areas of Units 23 and 26A. In 2002, Proposal WP02-38, submitted by the Northwest Arctic Subsistence Regional Advisory Council, requested that the designated hunter permit system be discontinued due to hunters abusing the system. The Board denied this request, but adopted Proposal WP02-39, which implemented the destruction of the horns for trophy value as a way to address the problems of one hunter taking too many sheep. The Board felt that removing the designated hunter permit system would have a detrimental effect on subsistence users.

Designated hunter permits are distributed by the NPS in their Kotzebue office to anyone who qualifies. To qualify, the person must be a rural resident of Unit 23 from any of the communities north of the Arctic Circle (all communities in Unit 23 except Deering and Buckland). In addition, the person must have a hunting license and a permit to hunt sheep. There is no limit to the number of sheep permits distributed. The hunt is closed once the quota has been reached.

Closure last reviewed: 2016 – WP16-53

Justification for Original Closure (ANILCA Section 815 (3) criteria):

> *Nothing in this title shall be construed as – (3) authorizing a restriction on the taking of fish and wildlife for nonsubsistence uses on public lands (other than national parks and monuments) unless necessary for the conservation of healthy populations of fish and wildlife, for the reasons set forth in section 816, to continue subsistence uses of such populations, or pursuant to other applicable law…*

The Board adopted the closure to allow for continued subsistence uses of a sheep population that was recovering from a severe decline associated with severe winters. The population was increasing, but was associated with a weak cohort of 4- to 8-year old sheep and a surplus of older rams (at least 9 years old and generally full-curl). It was determined that a small surplus of older rams was available in the Baird Mountains for a limited subsistence hunt (FSB 1999, FWS 1999).

Council Recommendation for Original Closure:

The Northwest Arctic Subsistence Regional Advisory Council supported Proposal P99-48 with modification to include a designated hunter system, to change the language from "up to 20 permits" to "up to 20 full-curl rams" and to change the phrase "Northwest Areas Parks Superintendent" to "Superintendent of Western Arctic National Parklands."

The North Slope Subsistence Regional Advisory Council supported Proposal P99-48 with modification to change the language from "up to 20 permits" to "up to 20 full curl rams" and to change the phrase "Northwest Area Park Superintendent" to "Superintendent of Western Arctic National Parklands."

State Recommendation for Original Closure:

The State did not support the portion of Proposal P99-48 pertaining to the DeLong Mountains, stating it was premature to make the temporary regulations permanent. ADF&G recommended the Board reevaluate the regulations after one or two years to determine if the subsistence harvest would justify the retention of the closure to Federal public land in the DeLong Mountains. ADF&G commented that since the Baird Mountains are virtually all Federal land, adjusting the Federal quota in this hunt area to allow for some harvest under State regulations is a not an issue.

Biological Background

The Dall's sheep in the Baird Mountains of Unit 23 are at the northwestern margin of their range in Alaska and because of this, stochastic weather events affect their populations more than sheep populations in areas with more abundant habitat and stable range conditions (Shults 2004, Westing 2011). In addition, declines in the presence and/or population of the Western Arctic caribou herd may also impact the Unit 23 sheep population as wolves prey more on sheep than caribou.

Sheep densities in Units 23 are low compared to other areas of the State (Singer 1984). Severe winters in the 1990s resulted in high natural mortality, dramatically reduced sheep numbers in the area, and caused the closure of the general and subsistence hunts between 1991 and 1995 (Shults 2004). Sheep hunting in the Baird Mountains has been administered by the NPS since 1995.

ADF&G management objectives for sheep in Units 23 and western 26A are to monitor sheep with the NPS within each area at least once every 3 years to detect changes in population status. In addition, harvest is also monitored through harvest tickets, permits, and community-based harvest surveys (Westing 2011).

NPS management objectives for Dall's sheep include monitoring sheep abundance and sex-age composition across WEAR and Gates of the Arctic National Park and Preserve (GAAR) by conducting surveys every five years across these parklands and every other year in the western Baird Mountains

subarea of WEAR (Lawler et al. 2009). The NPS now intends to try and monitor sheep on an annual basis, when funding and weather conditions allow.

Aerial surveys for sheep in the western Baird Mountains are conducted during July, following the formation of post-lambing aggregations (Shults 2004; Rattenbury 2015, pers. comm.). The survey area encompasses habitat that has the highest density of sheep in the Baird Mountains. However, the population is not closed and sheep are distributed, albeit at lower densities, throughout the Baird and Schwatka Mountains to the east (FWS 2004). During surveys, sheep are counted and classified as ewes, lambs, and rams (by horn size). The "ewe" class includes small rams that are indistinguishable from ewes during aerial surveys. A new survey methodology, using distance sampling (Schmidt et al. 2013) to estimate total abundance and sex and age composition, was implemented in the Western Baird Mountains in 2011. Consequently, the estimate from 2011 is not directly comparable to earlier minimum population counts and herd composition data (Rattenbury 2015, pers. comm.).

The NPS, in coordination with ADF&G, completed sheep surveys in the Western Baird Mountains in 2011 and from 2014-2019. Between 2011 and 2019, the sheep population ranged from 174-643 sheep The highest and lowest estimates occurred in 2011 and 2019, respectively, representing a 73% population decline (**Figure 1**) (Deacy 2020, pers. comm.).

Between 2011 and 2019, the lamb:100 ewe-like sheep ratio ranged from 1-52 lambs:100 ewe-like sheep with the highest ratio occurring in 2019 (**Figure 2**) (Deacy 2020, pers. comm.). Low lamb productivity in 2013 was partially attributed to the long and cold 2012-2013 winter, late spring and record cold temperatures in May 2013 (NPS 2014, unpublished data; Rattenbury et al. 2018).

Over the same time period, the total number of rams:100 ewe-like sheep ranged from 17-29 rams:100 ewe-like sheep (**Figure 2**). Between 2011 and 2018, the full curl ram:ewe-like sheep ratio ranged from 1-9 full curl rams:100 ewe-like (Deacy 2020, pers. comm.). These low ratios indicate there are very few to no large rams available for harvest (NPS 2014, unpublished data).

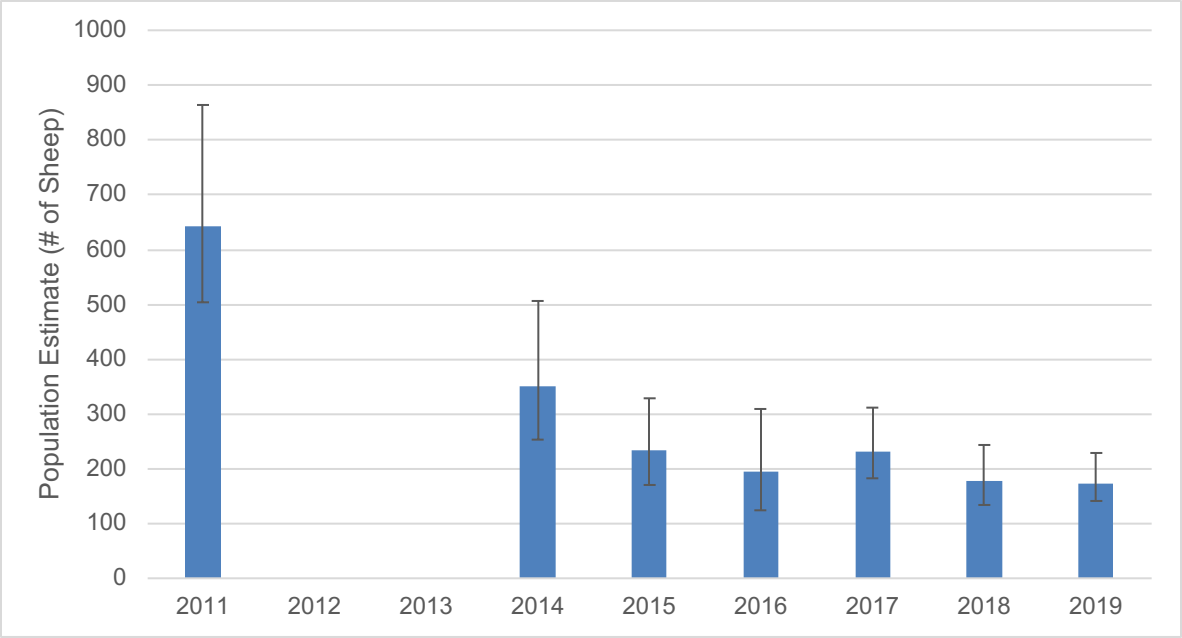


Figure 1. Sheep population estimates in the Western Baird Mountains. Error bars represent 95% confidence intervals (Deacy 2020, pers. comm.).

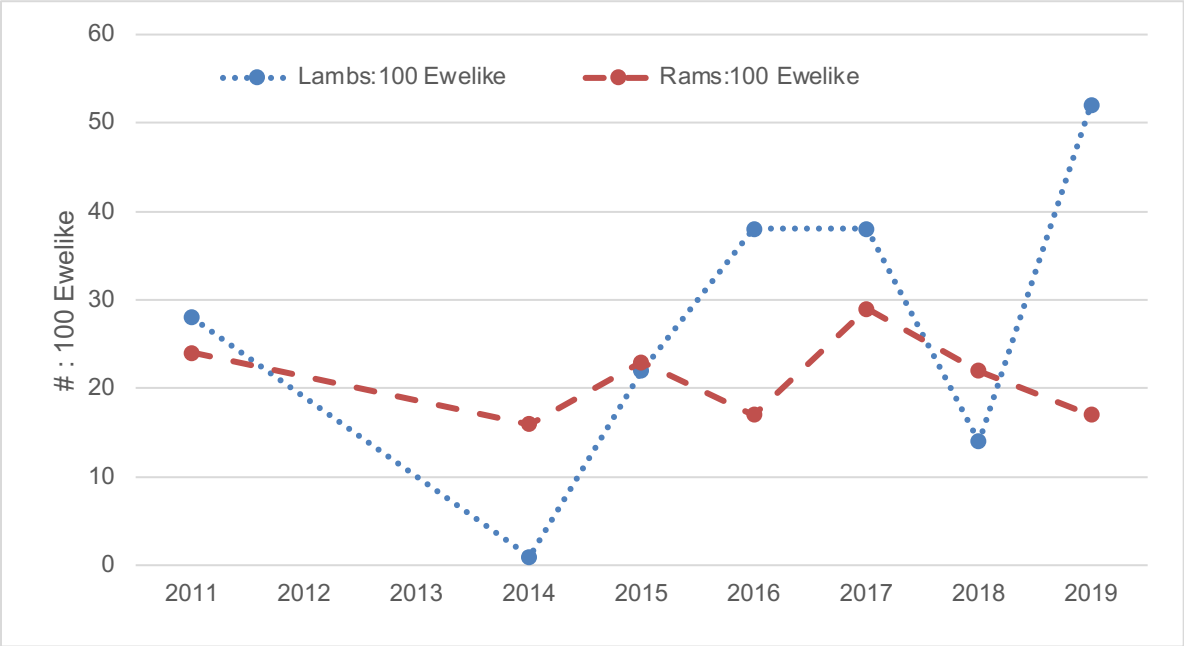


Figure 2. Number of lambs:100 ewe-like sheep and number of rams:100 ewe-like sheep in the Western Baird Mountains (Deacy 2020, pers. comm.).

Harvest History

Low sheep abundance resulted in closures for both the State and Federal hunting seasons in the Baird Mountains from 1991–1994. The Federal subsistence hunt was opened in the 1998/99 regulatory year and harvest occurred each year through 2014 except 1999/00 and 2000/01, when low numbers of full-curl rams were observed during surveys and the hunt was closed. In the Baird Mountains, only Federally

qualified subsistence users have been able to harvest sheep since the hunt reopened in 1998; whereas, harvest quotas in the DeLong Mountains are divided between State and Federal permits. Only full-curl rams were allowed to be harvested until 2004/05, when harvest was open to any sheep and quotas were set at 15 rams and 6 ewes. Harvest reports show that the sheep harvest in the Baird Mountains portion of Unit 23 remained under the quota each year that a hunt occurred since 1998, except for 2005/06 when the harvest went over quota by one ram. No sheep harvest has occurred in the Baird Mountains under State or Federal regulations since 2014 when seasons were closed due to conservation concerns.

Between 2004 and 2014, the annual reported sheep harvest in Units 23 and 26A averaged 23 animals under both State hunting and Federal subsistence regulations, ranging from 17-31 sheep. The majority of harvest came from Federal subsistence registration hunts in Unit 23.

Other Alternatives Considered

A considered alternative was to modify the closure by removing the closure language from unit specific regulations and enacting closures to non-Federally qualified users via an existing delegation of authority only. Currently, the WEAR Superintendent has delegated authority to close and reopen Federal public lands in the Baird Mountains hunt area to sheep hunting by non-Federally qualified users if necessary to conserve sheep populations, to continue subsistence uses, or for reasons of public safety (**Appendix 1**). This delegated authority provides flexibility in hunt management and renders the current closure in regulation unnecessary. Additionally, the State sheep season in Unit 23 has been closed to residents and non-residents since 2015.

However, this sort of modification requires adequate public notice and opportunity for public input. As the Federal register notice for the proposed rule did not specify such possible Board actions, this modification is beyond the current scope of this closure review.

Effects

The sheep population in the Baird Mountains remains low, declining 73% since 2011 with few large rams and no harvestable surplus. If this closure were lifted, non-Federally qualified subsistence users would be allowed to sheep hunt on Federal public lands in the Baird Mountains. However, the State sheep season has been closed since 2014, and the WEAR superintendent currently has delegated authority to close sheep hunting to non-Federally qualified users if necessary (**Appendix 1**). Therefore, rescinding the closure would likely have little effect on the sheep population as hunting by non-Federally qualified users could be curtailed by other means.

The WEAR Superintendent also has delegated authority to announce a Federal sheep season. A season has not been announced since 2015 due to conservation concerns. Therefore, extending the closure to all Federally qualified subsistence users would also not have any effect on the sheep population. However, maintaining the may be announced season and delegated authority allows for hunt flexibility and harvest opportunity in the event that the sheep population recovers and a harvest surplus exists.

OSM CONCLUSION:

x maintain status quo

_ modify or eliminate the closure

Justification

The sheep population in the Baird Mountains remains very low. The population cannot withstand any harvest. The closure should be maintained because of conservation concerns.

LITERATURE CITED

Adkisson, K. 2014. Personal communication: email. Subsistence Specialist. National Park Service. Nome, AK.

Braem, N.M., E.H. Mikow, S.J. Wilson, and M.L. Kostick. 2015. Wild Food Harvests in 3 Upper Kobuk River Communities: Ambler, Shungnak, and Kobuk, 2012-2013. Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 402, Fairbanks.

Deacy, W.W. 2020. Biologist. Personal communication: e-mail. Arctic Network. Inventory and Monitoring Program. National Park Service. Fairbanks, AK.

FWS. 1991. Special Action 91-01 administrative record. Office of Subsistence Management, FWS, Anchorage AK.

FWS. 1992. Special Action 92-08 administrative record. Office of Subsistence Management, FWS, Anchorage AK.

FWS. 1993. Special Action 93-02 administrative record. Office of Subsistence Management, FWS, Anchorage AK.

FWS. 1994. Special Action 94-06 administrative record. Office of Subsistence Management, FWS, Anchorage AK.

Lawler, J. P., S. D. Miller, D. M. Sanzone, J. M. Ver Hoef, and S. B. Young. 2009. Arctic Network vital signs monitoring plan. Natural Resource Report NPS/ARCN/NRR-2009/088. National Park Service, Fort Collins, Colorado, USA. Link, W. A., and R. J. Barker.

OSM. 2014. Alaska Federal Subsistence Program Harvest Database. Office of Subsistence Management.

NPS. 2014. Unpublished data, 2014 sheep surveys in Units 23 and 26A. Nome, AK.

Rattenbury, K. 2015. Wildlife Biologist. Gates of the Arctic National Park and Preserve. Unpublished data. Personal communication: e-mail. December 1, 2015.

Rattenbury, K.L., J.H. Schmidt, D.K. Swanson, B.L. Borg, B.A. Mangipane, and P.J. Sousanes. 2018. Delayed spring onset drives declines in abundance and recruitment in a mountain ungulate. Ecosphere. 9(11): 1-15.

Saito, B. 2014. Personal communication: email. Wildlife Biologist. Alaska Department of Fish and Game. Kotzebue, AK.

Schmidt, J.S., and K.L. Rattenbury. 2013. Reducing Effort While Improving Inference: Estimating Dall's Sheep Abundance and Composition in Small Areas. The Journal of Wildlife Management 77:1048–1058.

Shults, B. 2004. Abundance survey of Dall's sheep in the western Baird Mountains, Alaska, July 2004. Technical Report NPS/AR/NRTR-2004- 46. U.S. Department of the Interior, National Park Service, Kotzebue, Alaska, USA.

Singer, F.J. 1984. Aerial Dall sheep count, 1982, 1983, and 1984. Gates of the Arctic National Park and Preserve. Natural resources survey and inventory report. AR/84-2. National Park Service. Anchorage, AK.

Westing, C. 2011. Units 23 and 26A Dall sheep management report. Pages 134-147 *in* P. Harper, editor. Dall sheep management report of survey and inventory activities 1 July 2007 – 30 June 2010. ADF&G. Project 6.0. Juneau, AK.

SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Northwest Arctic Subsistence Regional Advisory Council

Maintain status quo on WCR22-18. The sheep population remains very low and needs to continue to be protected. The Council noted that the population has been too low even for a "to be announced winter season" for Federally qualified subsistence users. Local observations indicate a low and dwindling sheep population that is stressed by challenging winter weather conditions and predation. The Council requests ongoing monitoring of this sheep population.

North Slope Subsistence Regional Advisory Council

Maintain status quo on WCR22-18. The Council supported maintaining the closure due to continuing conservation concerns. The Council member from Point Hope noted that sheep haven't been seen locally in the DeLong Mountains, or Cape Lisburne area for quite some time as their population has declined.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and Federal Subsistence Board action on the proposal.

ALASKA DEPARTMENT OF FISH AND GAME COMMENTS

Wildlife Proposal WCR22-18

The elimination of this closure would allow non-federally qualified users (NFQU) to sheep hunt on federal public lands within the Baird Mountains Area.

Background

Sheep within Game Management Unit (GMU) 23 are at the northwestern margin of their habitat and populations can be strongly affected by stochastic environmental events. In 2012 and 2013, harsh winter weather likely led to poor recruitment and high adult mortality. Population estimates for the Baird Mountains declined by roughly 50% between 2011 and 2014 (587 sheep to 309 sheep) and prompted the closure of all sheep seasons by emergency order in August of 2014. The Federal Subsistence Board (FSB) took similar measures through a Temporary Special Action which closed the sheep season on federal public lands in GMU 23. In March of 2015, the Alaska Board of Game (BOG) adopted a proposal submitted by the Alaska Department of Fish & Game (ADFG&) to close all state sheep seasons in GMU 23 beginning RY2015. The FSB adopted a 2016 proposal, with modifications, that gave delegated authority to the Superintendent of the Western Arctic National Parklands (WEAR) to open and close a may-be-announced season and determine annual harvest quotas and limitations. These state and federal regulations have remained in place since that time.

Surveys of sheep within the Baird Mountains are conducted in partnership with the National Park Service and were completed in 2014 through2019. Due to poor weather and logistical constraints, a survey was not completed in 2020 or 2021. The last abundance estimate within the Baird Mountains was 174

sheep (95% CI: 141-230). Estimates between 2014 and 2019 indicate that sheep abundance remains low throughout the GMU.

Impact on Subsistence Users

Elimination of this closure will not impact federally qualified users (FQU), since the Superintendent of WEAR would still hold delegated authority to open or close federal public lands to NFQUs.

Impact on Other Users

Elimination of this closure will not impact NFQUs since the hunt is currently closed under state regulations.

Opportunity Provided by State

State customary and traditional use findings: The BOG has made positive customary and traditional use findings for sheep in GMU 23 Baird Mountains.

Amounts Reasonably Necessary for Subsistence: Alaska state law requires the BOG 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 board 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 sheep within the Baird Mountains of GMU 23 is 18-47 animals. The season and bag limit for sheep is:

		Open Season (Permit/Hunt #)	
Unit/Area	**Bag Limit**	**Resident[2]**	**Nonresident**
Unit 27		No open season	No open season

[a] Subsistence and General Hunts.

Conservation Issues

Due to concern over low abundance, there has been no open season for sheep on state managed lands since 2015. Removal of the closure to NFQUs would not currently result in a conservation concern since there is no opportunity for legal harvest under state management within GMU 23.

Enforcement Issues

No enforcement issues would be expected since currently there are no opportunities for legal harvest under state management within GMU 23.

Position

ADF&G **SUPPORTS** the elimination of this closure. There is no open state season for sheep within GMU 23 and what harvest does occur, the Superintendent of WEAR has the delegated authority on federal public lands to provide opportunities to FQUs until such a time as the population reaches a size ADF&G would consider establishing a season for Dall sheep within GMU 23.

APPENDIX 1

Federal Subsistence Board

1011 East Tudor Road, MS121
Anchorage, Alaska 99503-6199

USDA

FISH and WILDLIFE SERVICE
BUREAU of LAND MANAGEMENT
NATIONAL PARK SERVICE
BUREAU of INDIAN AFFAIRS

FOREST SERVICE

OCT 2 6 2018

OSM 180111.CM

Superintendent
Western Arctic National Parklands
PO Box 1029
Kotzebue, Alaska 99752

Dear Superintendent:

This letter delegates specific regulatory authority from the Federal Subsistence Board (Board) to the Superintendent of the Western Arctic National Parklands to issue emergency or temporary special actions if necessary to ensure the conservation of a healthy wildlife population, to continue subsistence uses of wildlife, for reasons of public safety, or to assure the continued viability of a wildlife population. This delegation only applies to the Federal public lands subject to Alaska National Interest Lands Conservation Act (ANILCA) Title VIII jurisdiction within Unit 23, except for that portion of Unit 23 remainder (Schwatka Mountains) within Gates of the Arctic National Park; and in that portion of Unit 26A west of Howard Pass and the Etivluk River (DeLong Mountains) for the management of sheep on these lands.

It is the intent of the Board that actions related to management of sheep by Federal officials be coordinated, prior to implementation, with the Alaska Department of Fish and Game (ADF&G), representatives of the Office of Subsistence Management (OSM), the National Park Service (Superintendent for Gates of the Arctic National Park), the Bureau of Land Management, and the Chair of the affected Council(s) to the extent possible. The Office of Subsistence Management will be used by managers to facilitate communication of actions and to ensure proposed actions are technically and administratively aligned with legal mandates and policies. Federal managers are expected to work with managers from the State and other Federal agencies, the Council Chair or alternate, local tribes, and Alaska Native Corporations to minimize disruption to subsistence resource users and existing agency programs, consistent with the need for special action.

DELEGATION OF AUTHORITY

1. **Delegation:** The Superintendent of Western Arctic National Parklands is hereby delegated authority to issue emergency or temporary special actions affecting sheep on Federal lands as

outlined under the **Scope of Delegation**. Any action greater than 60 days in length (temporary special action) requires a public hearing before implementation. Special actions are governed by Federal regulation at 36 CFR 242.19 and 50 CFR 100.19.

2. Authority: This delegation of authority is established pursuant to 36 CFR 242.10(d)(6) and 50 CFR 100.10(d)(6), which state: "The Board may delegate to agency field officials the authority to set harvest and possession limits, define harvest areas, specify methods or means of harvest, specify permit requirements, and open or close specific fish or wildlife harvest seasons within frameworks established by the Board."

3. Scope of Delegation: The regulatory authority hereby delegated is limited to the following authorities within the limits set by regulation at 36 CFR 242.26 and 50 CFR 100.26:

- To set opening and closing dates for the sheep season on Federal public lands in Unit 23, except for that portion of Unit 23 remainder (Schwatka Mountains) within Gates of the Arctic National Park and Preserve; and in that portion of Unit 26A west of Howard Pass and the Etivluk River (DeLong Mountains).

- As needed, set or adjust the annual harvest quotas and limits for sheep on Federal public lands in Unit 23, except for that portion of Unit 23 remainder (Schwatka Mountains) within Gates of the Arctic National Park; and in that portion of Unit 26A west of Howard Pass and the Etivluk River (DeLong Mountains).

This delegation also permits you to close and reopen Federal public lands to nonsubsistence hunting, but does not permit you to specify methods and means, permit requirements, or harvest and possession limits for State-managed hunts.

This delegation may be exercised only when it is necessary to conserve sheep populations, to continue subsistence uses, for reasons of public safety, or to assure the continued viability of the populations. All other proposed changes to codified regulations, such as customary and traditional use determinations or adjustments to methods and means of take, shall be directed to the Board.

The Federal public lands subject to this delegated authority are those within Unit 23, except for that portion of Unit 23 remainder (Schwatka Mountains) within Gates of the Arctic National Park; and in that portion of Unit 26A west of Howard Pass and the Etivluk River (DeLong Mountains).

4. Effective Period: This delegation of authority is effective from the date of this letter and continues until superseded or rescinded.

5. Guidelines for Delegation: You will become familiar with the management history of the wildlife species relevant to this delegation in the region, with current State and Federal regulations and management plans, and be up-to-date on population and harvest status

information. You will provide subsistence users in the region a local point of contact about Federal subsistence issues and regulations and facilitate a local liaison with State managers and other user groups.

You will review special action requests or situations that may require a special action and all supporting information to determine (1) consistency with 50 CFR 100.19 and 36 CFR 242.19, (2) if the request/situation falls within the scope of authority, (3) if significant conservation problems or subsistence harvest concerns are indicated, and (4) what the consequences of taking an action or no action may be on potentially affected Federally qualified subsistence users and non-Federally qualified users. Requests not within your delegated authority will be forwarded to the Board for consideration. You will maintain a record of all special action requests and rationale for your decision. A copy of this record will be provided to the Administrative Records Specialist in OSM no later than sixty days after development of the document.

For management decisions on special actions, consultation is not always possible, but to the extent practicable, two-way communication will take place before decisions are implemented. You will also establish meaningful and timely opportunities for government-to-government consultation related to pre-season and post-season management actions as established in the Board's Government-to-Government Tribal Consultation Policy (Federal Subsistence Board Government-to-Government Tribal Consultation Policy 2012 and Federal Subsistence Board Policy on Consultation with Alaska Native Claim Settlement Act Corporations 2015).

You will immediately notify the Board through the Assistant Regional Director for OSM, and coordinate with the Chair(s) or alternate of the affected Council(s), local ADF&G managers, and other affected Federal conservation unit managers concerning emergency and temporary special actions being considered. You will ensure that you have communicated with OSM to ensure the special action is aligned with ANILCA Title VIII, Federal Subsistence regulations and policy, and that the perspectives of the Chair(s) or alternate of the affected Council(s), OSM, and affected State and Federal managers have been fully considered in the review of the proposed special action.

If the timing of a regularly scheduled meeting of the affected Council(s) permits without incurring undue delay, you will seek Council recommendations on the proposed temporary special action(s). If the affected Council(s) provided a recommendation, and your action differs from that recommendation, you will provide an explanation in writing in accordance with 50 CFR 100.10(e)(1) and 36 CFR 242.10(e)(1).

You will issue decisions in a timely manner. Before the effective date of any decision, reasonable efforts will be made to notify the public, OSM, affected State and Federal managers, law enforcement personnel, and Council members. If an action is to supersede a State action not yet in effect, the decision will be communicated to the public, OSM, affected State and Federal managers, and the local Council members at least 24 hours before the State action would be effective. If a decision to take no action is made, you will notify the proponent of the request immediately. A summary of special action requests and your resultant actions must be provided

to the coordinator of the appropriate Council(s) at the end of each calendar year for presentation to the Council(s).

You may defer a special action request, otherwise covered by this delegation of authority, to the Board in instances when the proposed management action will have a significant impact on a large number of Federal subsistence users or is particularly controversial. This option should be exercised judiciously and may be initiated only when sufficient time allows for it. Such deferrals should not be considered when immediate management actions are necessary for conservation purposes. The Board may determine that a special action request may best be handled by the Board, subsequently rescinding the delegated regulatory authority for the specific action only.

6. Support Services: Administrative support for regulatory actions will be provided by the Office of Subsistence Management.

Sincerely,

Anthony Christianson
Chair

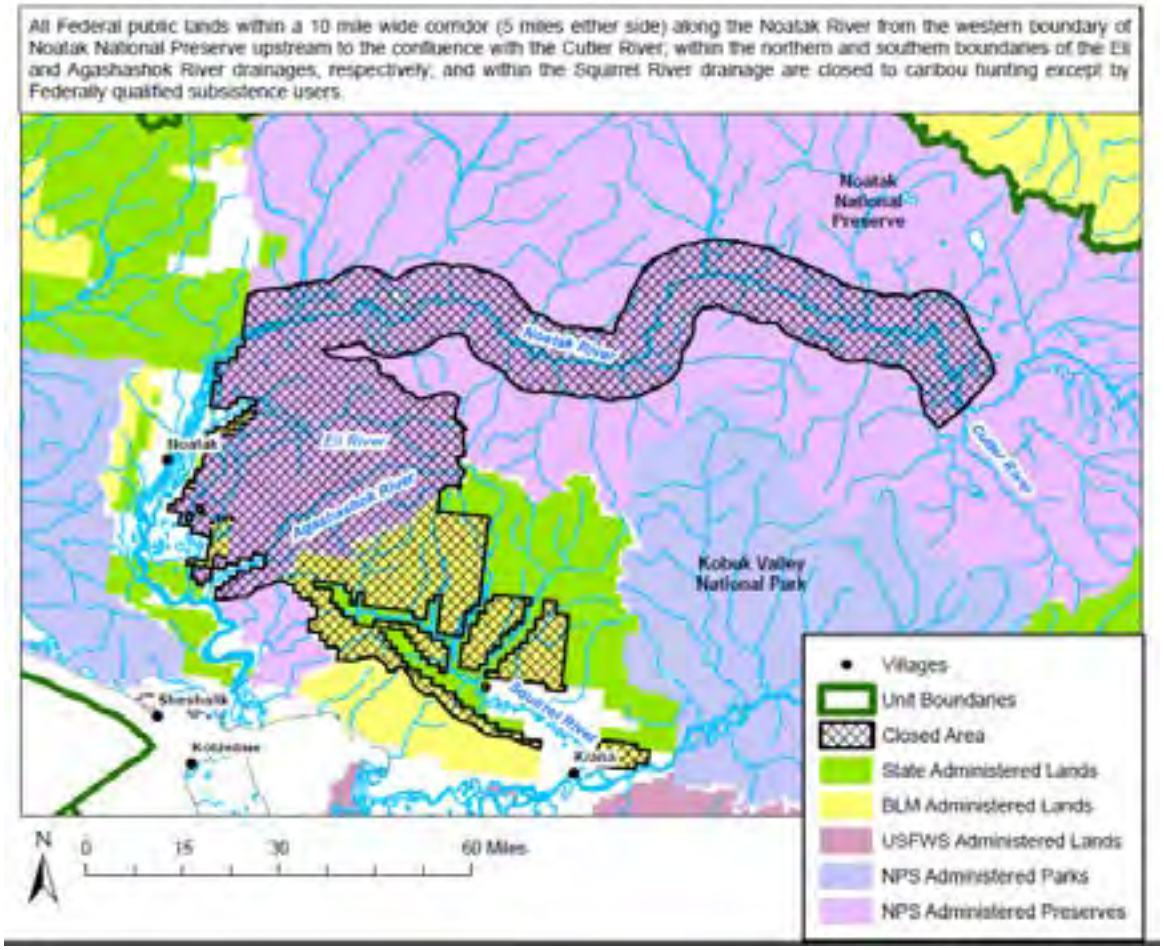
Enclosures

cc: Federal Subsistence Board
Assistant Regional Director, Office of Subsistence Management
Deputy Assistant Regional Director, Office of Subsistence Management
Subsistence Policy Coordinator, Office of Subsistence Management
Wildlife Division Supervisor, Office of Subsistence Management
Subsistence Council Coordinators, Office of Subsistence Management
Chair, Northwest Arctic Subsistence Regional Advisory Council
Chair, North Slope Subsistence Regional Advisory Council
Superintendent, Gates of the Arctic National Park and Preserve
Manager, BLM Arctic Field Office
Manager, BLM Anchorage Field Office
Commissioner, Alaska Department of Fish and Game
Special Assistant to the Commissioner, Alaska Department of Fish and Game
Interagency Staff Committee
Administrative Record

WCR22–45 Executive Summary	
Closure Location and Species	Unit 23—Caribou
Current Regulation	**Unit 23—Caribou** *Unit 23, remainder—5 caribou per day by State registration permit, as follows:* *Bulls may be harvested* — *Jul. 1-Jun. 30.* *Cows may be harvested. However, cows accompanied by calves may not be taken July 31-Oct. 14* — *Jul. 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.*
OSM Conclusion	**Maintain status quo**
Western Interior Alaska Subsistence Regional Advisory Council Recommendation	**Defer** to affected region
Seward Peninsula Subsistence Regional Advisory Council Recommendation	**Maintain status quo**
Northwest Arctic Subsistence Regional Advisory Council Recommendation	**Maintain status quo**
North Slope Subsistence Regional Advisory Council Recommendation	**Maintain status quo**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Eliminate closure**
Written Public Comments	**1 Eliminate closure**

FEDERAL WILDLIFE CLOSURE REVIEW
WCR22-45

Closure Location: Unit 23 (Map 1)—Caribou



Map 1. Closure to caribou hunting by non-Federally qualified users in Unit 23.

Current Federal Regulation

Unit 23—Caribou

Unit 23, remainder—5 caribou per day by State registration permit, as follows:

Bulls may be harvested *Jul. 1-Jun. 30.*

Unit 23—Caribou

Cows may be harvested. However, cows accompanied by calves may not be taken July 31-Oct. 14	*Jul. 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.

Closure Dates: Year-round

Current State Regulation

Unit 23—Caribou

23, north of and including Singoalik River drainage	*Residents—Five caribou per day by permit available online at http://hunt.alaska.gov or in person in Kotzebue, Utqiagvik, and at license vendors in Units 23 and 26A beginning June 22.*	*Bulls*	*RC907*	*No closed season*
		Cows	*RC907*	*July 15-Apr 30*
	Nonresidents—One bull		*HT*	*Aug. 1- Sept 30*
23 remainder	*Residents—Five caribou per day by permit available online at http://hunt.alaska.gov or in person in Kotzebue, Utqiagvik, and at license vendors in Units 23 and 26A beginning June 22.*	*Bulls*	*RC907*	*No closed season*
		Cows	*RC907*	*Sept 1- Mar 31*
	Nonresidents—One bull		*HT*	*Aug 1-Sept 30*

Regulatory Year Initiated: 2018

Extent of Federal Public Lands

Federal public lands comprise approximately 71% of Unit 23 and consist of 40% National Park Service (NPS), 22% Bureau of Land Management (BLM), and 9% U.S. Fish and Wildlife Service (USFWS) managed lands.

Customary and Traditional Use Determination

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

Regulatory History

In 2013, an aerial photocensus indicated significant declines in the Teshekpuk Caribou herd (TCH), WACH, and possibly the Central Arctic Caribou Herd (CACH) populations (Caribou Trails 2014). In response, the Alaska Board of Game (BOG) adopted modified Proposal 202 (RC76) in March 2015 to reduce harvest opportunities for both Alaska residents and nonresidents within the range of the WACH and the TCH. These regulation changes – which included lowering harvest limits for nonresidents from two caribou to one bull, reductions in bull and cow season lengths, the establishment of new hunt areas, and prohibiting calf harvest – were adopted to slow or reverse the population decline. The regulatory changes took effect on July 1, 2015.

In 2015, four temporary special actions, WSA15-03/04/05/06, requesting changes to caribou regulations in Units 23, 24, and 26, were submitted by the North Slope Subsistence Regional Advisory Council (North Slope Council) and approved with modification by the Board, effective July 1, 2015. Temporary Special Action WSA15-03 requested designation of a new hunt area for caribou in the northwest corner of Unit 23 where the harvest limit would be reduced from 15 to 5 caribou per day, the harvest season would be shortened for bulls and cows, and the take of calves would be prohibited. The Board did not establish a new hunt area, applying the restrictions to all of Unit 23 and also prohibited the take of cows with calves. These State and Federal regulatory changes were the first time that harvest restrictions had been implemented for the WACH in over 30 years.

Five proposals (WP16-37, WP16-48, WP16-49/52, and WP16-61) concerning caribou regulations in Unit 23 were submitted to the Board for the 2016-2018 wildlife regulatory cycle. The Board adopted WP16-48 with modification to allow the positioning of a caribou, wolf, or wolverine for harvest 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 5 caribou per day, restrict bull season during rut and cow season around calving, prohibit the harvest of calves and the harvest of cows with calves before weaning (mid-Oct.), 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) because of action taken on WP16-37.

In 2015, the Northwest Arctic Subsistence Regional Advisory Council (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 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 (FSB 2016).

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 23 and 26A. (A similar proposal was passed for Unit 22 in 2016). The Alaska Department of Fish and Game (ADF&G) submitted the proposal to better monitor harvest and improve management flexibility. 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 Noatak/Kivalina & Kotzebue Fish and Game Advisory Committee (AC) submitted the proposal to allow caribou to migrate through those areas with less disruption and barriers. 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 approved 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 uses. The Board rejected WSA17-04 stating that recent changes to State regulations aimed at reducing caribou harvest should be given time to determine if they are effective before additional restrictions are enacted.

Four proposals (WP18-32, WP18-45, WP18-46/47, and WP18-48/49) pertaining to caribou regulations in Unit 23 were submitted to the Board for the 2018-2020 wildlife regulatory cycle. In April 2018, the Board rejected Proposal WP18-32, submitted by the Western Interior Alaska Subsistence Regional Advisory Council, which requested changes to the caribou season dates on Federal public lands in in multiple Units, including Unit 23. The Board also rejected WP18-45, submitted by Northwest Arctic Council, which requested that the caribou harvest limit in Unit 23 be reduced from 5 caribou per day to 3 caribou per day.

During the same regulatory meeting, the Board adopted Proposal WP18-46 with modification and took no action on WP18-47. Proposal WP18-46, submitted by the Western Arctic Caribou Herd Working Group, 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 to geographical scope 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 took no action on WP18-49 and 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.

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.

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. The Board took no action on Proposals WP20-43, -44, and -45 due to action taken on Proposal WP20-46.

In June 2021, the Board deferred Wildlife Special Action WSA21-01. WSA21-01 requested closing Federal public lands in Units 23 and 26A to caribou and moose hunting by non-Federally qualified users from Aug. 1 to Sept. 30, 2021. The Northwest Arctic Council submitted the request due to concern over the late migration of caribou into and through Unit 23, which has hindered the ability of subsistence users in the area to harvest caribou and meet their subsistence needs. The Board deferred action on the request, directing OSM to seek additional input on concerns related to caribou from various stakeholders and to fine tune their analysis of moose harvests and populations. The Board will reconsider this request prior to the 2022 hunting season.

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). 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 (FWS 2014, Halas 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 date was changed from Sept. 15 to Sept. 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.).

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) to restrict the use of aircraft in any manner for big game hunting from Aug. 15-Sept. 20 due to user conflicts (Fall 1990). The proposed CUA 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 Aug. 20-Sept. 20.

In 1990, the Noatak CUA was adopted under Federal regulations. In 1995, the Board adopted Proposal P95-50 to expand the time period and area of the CUA to Aug. 25-Sept. 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 CUA 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 period during which aircraft are restricted in the Noatak CUA to Aug. 15-Sept. 30, which aligned with State regulations.

Closure last reviewed: N/A. This closure was adopted in 2018 and has not been reviewed since.

Justification for Original Closure (ANILCA Section 815 (3) criteria):

> *Nothing in this title shall be construed as – (3) authorizing a restriction on the taking of fish and wildlife for nonsubsistence uses on public lands (other than national parks and monuments) unless necessary for the conservation of healthy populations of fish and wildlife, for the reasons set forth in section 816, to continue subsistence uses of such populations, or pursuant to other applicable law…*

The Board adopted Proposal WP18-46 with modification consistent with the recommendations of the Northwest Arctic and Seward Peninsula Councils, as well as the WACH Working Group. The Board viewed the targeted closure as a reasonable compromise to a complex problem. While the OSM conclusion proposed closing lands north of the Noatak River between and including the Kelly and Nimiuktuk Rivers, the Board stated that the western part of the proposed area is part of the NPS delayed entry zone, which already limits dates of access into the area by commercial big game transporters operating under NPS commercial use authorization permits (FSB 2018).

Council Recommendation for Original Closure:

Western Interior Alaska Subsistence Regional Advisory Council

Support WP18-46 **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 2018/2019 and 2019/2020 regulatory years. The closure would extend through September 21st of each calendar year only. The Council indicated that a closure through September 21st would allow ample time for lead cow caribou to establish migration routes through Unit 23 while providing some hunting opportunity for non-Federally qualified users.

Seward Peninsula Subsistence Regional Advisory Council

Support WP18-46 **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. The Council noted support for the Northwest Arctic Council and their recommendation.

Northwest Arctic Subsistence Regional Advisory Council

Support WP18-46 **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. The Council indicated that recent closures seem to have alleviated many of the user conflicts in the region and that as a result of the closures, caribou appear to be establishing migration routes unimpeded by non-Federally qualified users. They recognized that hunting opportunities and experiences have improved for residents of Noatak as a result of the closures and that targeted closures, rather than a full closure of Unit 23, help to avoid the concentration and displacement of hunters to state managed lands, particularly along the Kobuk River and into Unit 26 and Unit 22. The Council noted that the targeted closure coupled with the National Park Service's Special Commercial Use Area in Noatak National Preserve would help to further alleviate threats to the continuation of subsistence uses in the region. Additionally, the Council recognized recent positive biological indices for the herd but noted concern regarding population trajectories given a recent change in herd census technology.

North Slope Subsistence Regional Advisory Council

Support WP18-46. As with comments on Proposal WP18-57, it was noted that the impact from aircraft used to bring in non-local hunters affects the migration and ability of locals to hunt. The Council feels aircraft operators desire to place paying clients in the path of caribou are diverting caribou and preventing local communities from being able to get caribou. The Council stressed that even though closure may deflect non-federally qualified subsistence users to state lands, it is important to take steps to provide for opportunity for subsistence users on Federal lands. The Council noted that this conflict has been ongoing in this area for many years but it seems up until this point, transporters and guides have not shown any inclination to self-regulate, to work with local users to resolve the conflict. It was noted that the Western Arctic Caribou Herd Working Group represents a broad variety of communities and user groups, and that this proposal is the voice of the people from the region. As such, the Council supports this request.

The Council recognized the work that went into evaluating the most areas of most importance to local communities for harvest of caribou and are the site of the most intense user conflicts in this area but did not support the OSM modification because the full closure is the more dramatic effort needed in order to maximize subsistence opportunity. The Council feels that that the local harvest is already consuming the harvestable surplus, communities are growing, and that it perhaps is time to go into preservation mode. It was noted however, that it appeared that the OSM modification reflected that those areas were the real "problem area" for user conflicts. Chair Gordon Brower commended the work that went into identifying the area that is most critical for subsistence hunters in the area and that has been at the heart of the user conflicts in the region for so many years. He recognized the effort to find a solution that could be supported by all.

State Recommendation for Original Closure:

ADF&G **OPPOSES** these proposals (WP18-46 and WP18-47) at this time because they will not improve the caribou herd's population status. Harvest by non-federally qualified users is minimal. Recent actions by the BOG were intended to reduce user conflicts in Unit 23 by modifying the Noatak Controlled Use area and by collecting additional harvest information by establishing a new registration permit requirement in Unit 22, 23 and 26A. Both of these changes were adopted following an extensive public process that included the input of Regional Advisory Councils, the Western Arctic Herd working group, Fish and Game Advisory Committees, and the BOG. Additional restrictions are not needed until the effects of these changes are better understood.

If changes are deemed to be necessary, then targeted closures would be preferred so non-federally qualified users are not concentrated on state and private lands. The Western Arctic Caribou Herd Working Group supported a 2-year partial closure that mirrors the WSA 17-03 and would be preferable to the alternate options proposed.

ADF&G has documented the reports of migration deflection due to harvest of animals leading migrations, changes in migration patterns, and other user conflict issues. Although caribou may be temporarily affected by hunters, deflections of herd migration have not been detected to date (Fullman et.al., 2017). Further research on these issues would be needed to quantify their effects on caribou populations and subsistence opportunity.

Biological Background

Caribou abundance naturally fluctuates over decades (Gunn 2003, WACH Working Group 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, all of which 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). Weaning generally occurs in late October and early November before the breeding season (Taillon et al. 2011). Calves 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 (Holand et al. 2012, Joly 2000, Russell et al. 1991, Rughetti and Festa-Bianchet 2014).

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 (**Map 2**). 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 (Dau 2011, WACH Working Group 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. In the fall, the majority of the herd generally moves south toward wintering grounds south of the Brooks Range (Joly 2021, pers. comm.). Rut occurs during fall migration (Dau 2011, WACH Working Group 2011).

In recent years, the timing of fall migration has been less predictable. From 2010-2019, the average dates that GPS collared caribou crossed the Noatak River ranged from Sept. 6 – Oct. 13; the Kobuk River ranged from Sept. 24 – Nov. 3; and the Selawik River ranged from Oct. 2 – Nov. 10 (Joly and Cameron 2020). From 2010-2016, caribou migration was trending to occur earlier in the year. However, from 2017-2019, caribou crossed the Noatak River, followed by a substantial delay before caribou crossed the Kobuk and Selawik rivers. This appears to have been the case for 2020 as well. During the fall 2020 Northwest Arctic Council meeting in early November, Council members stated that only Noatak had harvested caribou in the fall and that caribou had not yet passed through the Southern portions of Unit 23. While data has yet to be analyzed, the first GPS collared caribou did not cross the Kobuk River until November, which is the latest first crossing since data collection began in 2010 (Joly 2021, pers. comm.). Reasons for changes in migration phenology are unknown.

The proportion of caribou using certain migration paths also varies each year (Joly and Cameron 2020). Changes in migration paths are likely influenced by multiple factors including food availability, snow depth, rugged terrain, and dense vegetation (Fullman et al. 2017, Nicholson et al. 2016). If caribou travelled the same migration routes every year, their food resources would likely be depleted (NWARAC 2016). Caribou migrations are also closely related to the population size and density of the herd. Major changes in distributions can be influenced by low caribou population over a broad area. High caribou populations can have large scale lateral movements however, all or most parts of the range tend to be visited seasonally by at least scattered bands of animals (Burch 1972).

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. Beginning in 2003, the herd declined at an average annual rate of 7.1% from approximately 490,000 caribou to 200,928 caribou in 2016 (Caribou Trails 2014; Dau 2011, 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 ADF&G completed a census in 2021 (WACHWG 2020). The 2021 population estimate was 188,000 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).

Between 1982 and 2011, the WACH population was within the liberal management level prescribed by the WACH Working Group. 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 (WACH Working Group 2021).

Between 1970 and 2021, the bull:cow ratio exceeded Critical Management levels identified in the 2019 WACH Management Plan. 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 (WACH Working Group 2021).

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 2003-2016 decline are not known with certainty, increased adult cow mortality, and decreased calf recruitment and survival played a role (Dau 2011). Since the mid-1980s, adult mortality has slowly increased while recruitment has slowly decreased (Dau 2013). Prichard (2009) developed a population model specifically for the WACH using various demographic parameters and found adult 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 2016, the June calf:cow ratio averaged 71 calves:100 cows/year (Dau 2016a). The average June calf:cow ratio increased to 79 calves:100 cows between 2017 and 2020. 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). Since 2018 the parturition rates have continued to fall. In 2021, the calf:cow ratio was 68 calves:100 cows. The long-term average (1992-2021) has also decreased to 70 calves:100 cows/year (WACH Working Group 2021).

Decreased calf survival through summer and fall and recruitment into the herd likely 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. Since 2008, ADF&G has recorded calf weights at Onion Portage as an index of herd nutritional status. In September 2015, calf weights averaged 100 lbs., the highest average ever recorded (Parrett 2015a).

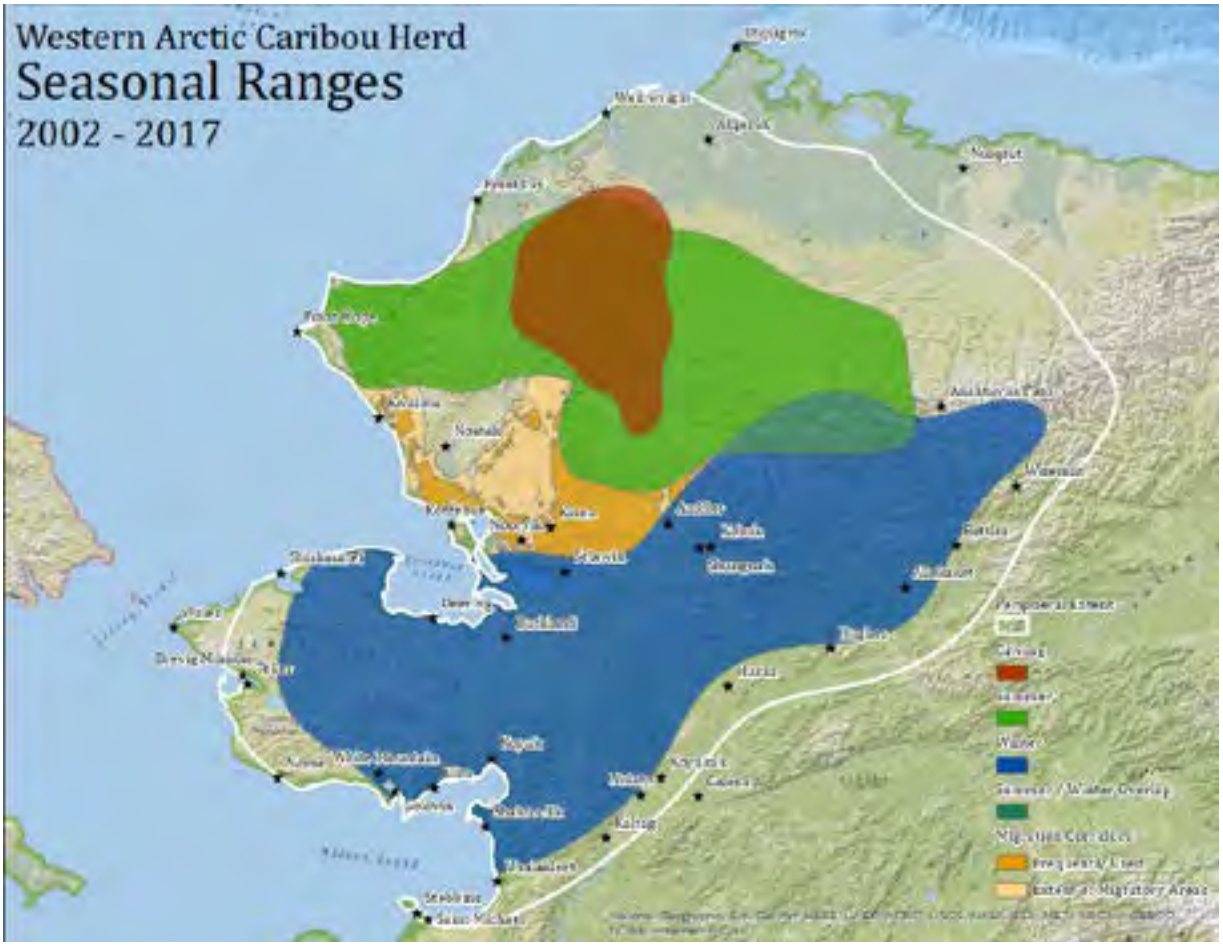
Similarly, the ratio of short yearlings (SY, 10-11 months old caribou) to adults provides a measure of overwintering calf survival and recruitment. Between 1990 and 2021, SY:adult ratios ranged from 9-26 and averaged 17 SY:100 adults/year. SY:100 adult ratios were high from 2016-2018, ranging from 22-23 SY:100 adults (Dau 2016b, NWARAC 2019a). The 2021 SY:100 adult ratio was 17 SY:100 adults (WACH Working Group 2021).

Cow mortality affects the trajectory of the herd (Dau 2011, 2013, Prichard 2009, NWARAC 2019a). The annual mortality rate of radio-collared adult cows increased from an average of 15% between 1987 and 2003 to 23% from 2004–2014 (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 be due to a low and aging sample size as few caribou have been collared in the past two years (Prichard et al. 2012, NWARAC 2019a) and/or difficult weather conditions (Gurarie et al. 2020). Estimated mortality includes all causes of death including hunting (Dau 2011). Dau (2015) states that cow mortality estimates are conservative due to exclusion of unhealthy (i.e. diseased) and yearling cows. These estimates are also susceptible to collar sample size and how long the collars have been on individuals (Prichard et al. 2012).

Far more caribou died from natural causes than from hunting between 1992 and 2012 (Dau 2013). Cow mortality remained constant throughout the year, but natural and harvest mortality for bulls spiked during the fall. However, as the WACH has declined and estimated harvest has remained relatively stable, the percentage of mortality due to hunting has increased relative to natural mortality. For example, during the

period October 1, 2013 to September 30, 2014, estimated hunting mortality was approximately 42% and estimated natural mortality about 56% (Dau 2014). In previous years (1983–2013), the estimated hunting mortality exceeded 30% only once in 1997-1998 (Dau 2013). Additionally, Prichard (2009) and Dau (2015) suggest that harvest levels and rates of cows can greatly impact population trajectory. If bull:cow ratios continue to decline, harvest of cows may increase, exacerbating the current population decline.

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 (Dau 2015, 2014, Joly et al. 2011). 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). Dau (2011, 2014) speculated that degradation in range condition is not thought to be a primary factor in the decline of the herd because animals have generally maintained good body condition in fall since the decline began. Body condition is estimated using a subjective scale from 1-5. The fall body condition of adult females in 2015 was characterized as "fat" (mean= 3.9/5) with no caribou being rated as skinny or very skinny (Parrett 2015a). However, the body condition of the WACH in the spring may be a better indicator of the effects of range condition versus the fall when the body condition of the herd is routinely assessed and when caribou are in prime condition (Joly 2015, pers. comm.).



Map 2. Western Arctic Caribou Herd seasonal range map, 2002-2017 (WACH Working Group 2019).

Cultural Knowledge and Traditional Practices

Caribou have been a primary resource for the Iñupiat of the Northwest Arctic region for thousands of years; caribou bones dating from 8,000 to 10,000 years ago have been excavated from archeological sites on the Kobuk River (Anderson 1968, 1988). Caribou were traditionally harvested any month of the year they were available in the Northwest Arctic region. Hunt timing changed—and continues to change—from year to year according to the availability of caribou and their migration paths (Burch 2012; ADF&G 1991). Iñupiaq hunting values are based on the belief that hunter behavior can prevent a successful harvest or alter the caribou migration (Anderson 1998).

Caribou continue to dominate the subsistence harvest in most communities in the region (Braem et al. 2015, Braem 2017). In household harvest surveys conducted between 1964 and 2017, caribou were often the most harvested species, more than any other wild resource, in pounds of edible weight. Based on these surveys, the per person harvest of caribou has been as high as 430 pounds per year in communities in Unit 23 (ADF&G 2021).

The objective of the fall hunt has historically been to acquire large quantities of high quality meat to freeze for winter (Burch 1984). Ideally, caribou harvesting occurs when the weather is cool enough to prevent spoilage of meat, but before freeze-up. Hunters search for caribou and attempt to intercept them at known river crossings, making the Kobuk and Noatak Rivers central to traditional hunt areas. But because of the variable range of the herd, the critical hunting sites changed each year. Noatak National Preserve was not only the hunting grounds of the people of the Noatak, it was also an alternative hunting site for people living on the Kobuk River, Selawik, and Kotzebue Sound" (Deur et al. 2019). At river crossings, caribou can be selectively harvested with small caliber rifles.

Communities in Unit 23 harvest caribou in the spring, fall, and winter, but fall is the preferred season for harvest. Prior to freeze-up, bulls have traditionally been preferred because they are fatter than cows (Georgette and Loon 1993). Caribou can be harvested in large numbers, when available, and transported back to villages by boat before freeze-up. 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).

User Conflicts

While residents of Unit 23 rely on caribou for the majority of their subsistence harvest, non-locals are attracted to the region because of its extensive public lands and abundant wildlife. User conflict is defined as "persons competing for consumptive or non-consumptive uses of a finite resource" (Braem et al. 2015). User conflicts are likely to intensify when resources are scarce and when food security is threatened (Cohen and Pinstrup-Andersen 1999).

Conflicts between local and nonlocal hunters have been well documented in Unit 23, specifically in the Noatak NP, the Squirrel River area, and along the upper Kobuk River (Georgette and Loon 1988, Jacobson 2008, Harrington and Fix 2009, Halas 2015, NWARAC 2015, Braem et al. 2015), even during times of high caribou abundance. Braem at el. (2015:177) note that "The roots of [this] conflict are varied, but they involve displacement of local hunters from traditional hunting sites, hunt disruption (largely by aircraft traffic), and differences in hunting practices and culture."

A long-held cultural practice in the region requires that lead adult female caribou be allowed to establish migratory paths unhindered by human activity. Local hunters have expressed concerns over aircraft and

nonlocal hunters disrupting caribou migration by scaring caribou away from river crossings, landing and camping along migration routes, and shooting lead caribou (Halas 2015, Fix and Ackerman 2015, NWARAC 2015). According to a review of grey literature on aircraft-subsistence user conflict, "Specific reports or observations about aircraft activity harassing wildlife, changing caribou…migration routes, and frustrating harvesters have been increasing [in the Alaskan Arctic] since the early 2000s" (Stinchcomb et al. 2019:132).

Incomplete geographical information regarding air traffic and hunting camp information has prevented a full quantitative assessment of caribou deflection or displacement associated with commercial operators and their hunting clients (Dau 2015). Some studies and local observations of WACH caribou response to aircraft have suggested that animal response is limited in temporal and spatial scale (Fullman et al. 2017) and that many factors contribute to larger scale shifts in migration.

The timing of hunting has caused conflicts between user groups because 85–95% of all caribou taken by nonlocal hunters are harvested between Aug. 25 and Oct. 7, the same period as intense subsistence hunting (Dau 2015:31). While hunt timing often aligns among these user groups, methods of access do not. Most local hunters harvest caribou with snowmachines, boats, and 4-wheelers, and few use aircraft. In contrast, 76% of nonlocal hunters accessed hunt areas by plane in regulatory years 2012 and 2013 (Dau 2015:31). This mode of access can provide nonlocal users with a greater range of access and speed in reaching ideal hunting locations, and also place them in front of a migrating herd.

Local WACH harvest has been relatively stable in Unit 23 since the 1990s, but residents of some communities have had to "greatly increase their expenditure of money and effort to maintain these 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). Halas (2015) and Stinchcomb et al. (2019) note that even when the question of whether or not migration patterns are affected by aircraft in the long term is put aside, aircraft activity can lead to changes in harvesting behavior. Subsistence hunters avoid areas with air traffic; this displacement in turn prevents continued use of traditional areas and can even accelerate loss of place-based traditional knowledge. The authors also found that avoidance of high air-traffic areas results in longer trips and higher fuel costs for harvesters (Stinchcomb et al. 2019).

In a 2014 survey of 19 Noatak hunters, 78% and 92% of respondents perceived "nonlocals" and planes to impact caribou migration, respectively. Similarly, 63% and 81% of respondents reported that "nonlocal" hunters and planes reduced hunting success, respectively (Halas 2015). Noatak respondents did differentiate between commercial transporter operators and "nonlocal" hunters, attributing a decrease in harvest success primarily to aircraft associated with commercial transporters (Halas 2015). Negative encounters between local and nonlocal hunters identified by respondents primarily focused on river crossings of migrating caribou (Halas 2015).

Effects of the closure to date

The most recent subsistence survey of caribou harvest in Noatak dates to 2016-2017 (Gonzalez at al. 2018); there is no new data available that would allow for a comparison of household caribou harvest before and after implementation of the closure. However, following implementation of the closure, first as a temporary special action (WSA17-03) and then in permanent regulation (WP18-46), members of the Northwest Arctic Council have given feedback on its effects at their meetings. For example, in 2018, the Council member from Noatak stated: "This proposal helped Noatak get our caribou and decreased a lot

of conflict on the Noatak River. We've been able to get our quota of caribou that we didn't get for a while and it really did make a difference for our subsistence for the people of Noatak." He continued:

> *Some [residents] say…they got—just like a long time ago, peace and quiet, we can take our kids now, we don't have to worry about someone shooting over our heads. That's been happening when there's too [many] sport hunters on the river, they were shooting from behind us and from over our heads and while we're in the water and that was getting dangerous. So this closure pretty much helped Noatak big time (NWARAC 2018a).*

Additional testimony reflecting the success of the closure for Noatak has been given by Council members every year since the closure was implemented (NWARAC 2019a, NWARAC 2020, NWARAC 2021). Simultaneously, Council members representing other communities in Unit 23—where no closure is in place—have expressed ongoing and growing concern about the role of nonlocal hunters, transporters, and guides in preventing the continuation of subsistence hunting for caribou in the region (e.g. NWARAC 2018a, 2018b, 2019a, 2019b, 2020, 2021).

Harvest History

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. Previous versions of the WACH management plan recommended a harvest rate of 6% of the estimated population when the herd was declining (WACH Working Group 2011, Parrett 2017b, pers. comm.). As the 2021 population estimate was 188,000 caribou, the harvestable surplus is currently 11,280 caribou (WACH Working Group 2021). The State manages the WACH on a sustained yield basis (i.e. managing current harvests to ensure future harvests). Of particular concern is the overharvest of cows, which has probably occurred since 2010/11 (Dau 2015). Dau (2015a: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."

Caribou harvest by local hunters is estimated from community harvest surveys, 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 person harvests for each community, which are based on mean values from multiple community harvest surveys (Dau 2015). In 2015, Craig's models replaced models developed by Sutherland (2005), resulting in changes to local caribou harvest estimates from past years. While Craig's models accurately reflect harvest trends, they do not accurately reflect actual harvest numbers (Dau 2015). (Note: no model accurately reflects harvest numbers). This analysis only considers the updated harvest estimates using Craig's new model as cited in Dau (2015). Caribou harvest by nonlocal residents and nonresidents are based on harvest ticket reports (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 average estimated total harvest from the WACH was 14,103 caribou/year, ranging from 11,729-16,219 caribou/year (Hansen 2020 and 2021, pers. comm.), but has generally been estimated at 12,000 +/- 1,750 caribou per year since 1996 (WACH Working Group 2021). However, all of these harvest estimates are above the preservative harvest level specified in the WACH Management Plan. 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 2021, pers. comm, WACH Working Group 2021).

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 2017). 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.

Between 1998 and 2020, annual reported caribou harvest in Unit 23 ranged from 168-814 caribou (Hansen 2021, 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 living locally. Regardless, local compliance with reporting mandates is considered low but increasing. In 2017, the BOG began requiring registration permits, which is reflected in the greater number of reported caribou harvest by Federally qualified subsistence users. On average, 76% of WACH caribou harvested by nonlocals are harvested in Unit 23 (Dau 2015). Between 2016, when Federal lands closure began, and 2020, reported caribou harvest by non-local hunters in Unit 23 averaged 254 caribou (WinfoNet 2018, 2019, Hansen 2021 pers. comm.).

From 1999-2013, 72% of nonlocal hunters on average accessed the WACH by plane. Most nonlocal harvest (85-90%) occurs between Aug. 25 and Oct. 7. In contrast, 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.

Effects

The Board enacted the current closure because it was necessary to continue subsistence uses of the WACH per §815(3) of ANILCA. Continued complaints about conflicts surrounding the Noatak and Squirrel River drainage and the apparent benefit of the 2016/17 Federal closure to Noatak residents evidenced by letters and public testimony supported the closure of Federal public lands along the Noatak, Eli, Agashashok and Squirrel Rivers. Additionally, the short-term effects of aircraft on caribou behavior can negatively affect hunting success and harvest.

If the closure is lifted, non-Federally qualified users would be able to hunt caribou on Federal public lands along the Noatak River and within the Squirrel, Eli, and Agashashok River drainages. This could result in more user conflicts and interfere with caribou harvest by Federally qualified subsistence users. Feedback from Noatak residents indicate that the current closure has reduced user conflicts, resulting in more successful caribou hunts and allowing for the continuation of subsistence uses (NWARAC 2018a, 2019, 2020, 2021).

OSM CONCLUSION:

x maintain status quo

_ modify or eliminate the closure

Justification

The current closure is still necessary to continue subsistence uses of the WACH for Federally qualified subsistence users, specifically Noatak residents. The underlying factor leading to the closure in 2018—user conflict—has persisted overall in Unit 23 but has been mitigated in the closure area. In 2021, WACH management level changed from conservative declining to preservative declining. Since the closure has been enacted, user conflicts within the closure area have been reduced, and the hunt experiences and harvest success of Federally qualified subsistence users have improved.

LITERATURE CITED

ADF&G. 1988. Regulatory proposals submitted to the Alaska Board of Game, March 1988. Division of Boards, Juneau, Alaska.

ADF&G. 1991. Customary and traditional worksheets. Arctic Region: North Slope Area: GMU's 23, 24, 26. Division of Subsistence, Juneau, Alaska.

ADF&G. 2016. GMU 23 Working Group. http://www.adfg.alaska.gov/index.cfm?adfg=plans.unit23. Retrieved August 3rd, 2016.

ADF&G. 2017. Region V Caribou Overview. Alaska Board of Game. Arctic and Western Region. Jan. 6-9, 2017. Bethel, AK. http://www.adfg.alaska.gov/static/regulations/regprocess/gameboard/pdfs/2016-2017/aw/Tab_1.3_RegionV_Caribou_Overview.pdf. Accessed January 20, 2017.

ADF&G. 2021. CSIS: Community subsistence information system. http://www.adfg.alaska.gov/sb/CSIS/. Retrieved: April 8, 2021.

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

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

Anderson, D.D. 1998. Kuuvanmiut subsistence: traditional Eskimo life in the latter twentieth century. National Park Service, Department of the Interior.

Atkinson, H. 2021. Anthropologist: Personal communication: email. Western Artic National Parklands. National Park Service. Kotzebue, AK.

Braem, N.M., E.H. Mikow, S.J. Wilson, M.L. Kostick. 2015. Wild food harvests in three upper Kobuk River communities: Ambler, Shungnak, and Kobuk, 2012-2013. ADF&G Division of Subsistence, Technical Paper No. 402. Fairbanks, AK.

Braem, N. 2017. Cultural anthropologist. Personal communication: e-mail. Bering Land Bridge National Preserve. National Park Service. Nome, AK.

Burch, Jr., E.S. 1972. The caribou/wild reindeer as a human resource. American Antiquity 37(3): 339–68.

Burch, Jr., E. S. 1984. The Kotzebue Sound Eskimo. In handbook of North American Indians--Arctic. Volume 5. Edited by David Damas. Smithsonian Institution, Washington, D.C.

Burch, E.S. 2012. Caribou herds of Northwest Alaska. University of Alaska Press. Fairbanks, AK.

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

Cohen, M.J. and P. Pinstrup-Andersen. 1999. Food security and conflict. *Social Research*, pp.375-416.

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

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

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

Dau, J. 2015. Units 21D, 22A, 22B, 22C, 22D, 22E, 23, 24 and 26A. Chapter 14, pages 14-1 through 14-89. *In* P. Harper, and Laura A. McCarthy, editors. Caribou management report of survey and inventory activities 1 July 2012–30 June 2014. Alaska Department of Fish and Game, Species Management Report ADF&G/DWC/SMR-2015-4, Juneau.

Dau, J. 2016a. Memorandum to S. Machida dated June 21, 2016. 2016 Western Arctic Caribou Herd calving survey: 4-12 June. ADF&G Division of Wildlife Conservation, Fairbanks, AK. 1 page.

Dau, J. 2016b. Memorandum to S. Machida dated April 26, 2016. 2016 Western Arctic Caribou Herd recruitment survey: 31 March and 5, 19, and 21 April. ADF&G Division of Wildlife Conservation, Fairbanks, AK. 1 page.

Deur, D.D., J. Hebert and H. Atkinson. 2019. Noatak National Preserve: traditional use study. Draft phase I report (unpublished). Portland State University Department of Anthropology and the National Park Service.

Fall, J.A. 1990. The Division of Subsistence of the Alaska Department of Fish and Game: an overview of its research program and findings: 1980-1990. Arctic Anthropology 27(2): 68-92.

Fix, P.J. and A. Ackerman. 2015. Noatak National Preserve sport hunter survey. Caribou hunters from 2010-2013. Natural resources report. National Park Service.

FSB. 2016. Transcripts of Federal Subsistence Board proceedings. April 13, 2016. Office of Subsistence Management, USFWS. Anchorage, AK.

FSB. 2018. Transcripts of Federal Subsistence Board proceedings. April 13, 2018. Office of Subsistence Management, USFWS. Anchorage, AK.

Fullman, T.J., K. Joly, A. Ackerman. 2017. Effects of environmental features and sport hunting on caribou migration in northwestern Alaska. Movement Ecology 5:4

FWS. 2014. FY2014 annual report reply to the Norwest Arctic Subsistence Regional Advisory Council. Office of Subsistence Management, USFWS. Anchorage, AK.

Georgette, S. and H. Loon. 1988. The Noatak River: Fall caribou hunting and airplane use. Technical Paper No. 162. ADF&G, Division of Subsistence. Kotzebue, AK.

Georgette, S. and H. Loon. 1993. Subsistence use of fish and wildlife in Kotzebue, a Northwest Alaska regional center. ADF&G, Division of Subsistence, Technical Paper No. 167. Fairbanks, AK.

Gonzalez, D., E.H. Mikow, and M. L Kostick. 2018. Subsistence wildlife harvests in Buckland, Koyuk, and Noatak, Alaska 2016-2017. ADF&G, Division of Subsistence, Special Publication No. 2018-05. Fairbanks, AK.

Gunn, A. 2003. Voles, lemmings and caribou – population cycles revisited? Rangifer, Special Issue. 14: 105-111.

Gurarie, E., P.R. Thompson, A.P. Kelly, N.C. Larter, W.F. Fagan, and K. Joly. 2020. For everything there is a season: estimating periodic hazard functions with the cyclomort R package. Methods in Ecology and Evolution 11 (1): 129-138.

Halas, G. 2015. Caribou migration, subsistence hunting, and user group conflicts in Northwest Alaska: a traditional knowledge perspective. University of Fairbanks-Alaska. Fairbanks, AK.

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

Hansen, D.A. 2019b. Wildlife Biologist. Personal communication: e-mail. Alaska Department of Fish and Game. Kotzebue, AK.

Hansen, D.A. 2020. Wildlife Biologist. Personal communication: e-mail. Alaska Department of Fish and Game. Kotzebue, AK.

Hansen, D.A. 2021. Wildlife Biologist. Personal communication: e-mail. Alaska Department of Fish and Game. Kotzebue, AK.

Harrington, A.M. and P.J. Fix. 2009. Benefits based management study for the Squirrel River area. Project report for USDI Bureau of Land Management. Department of Resources management. University of Alaska-Fairbanks. Fairbanks, AK.

Holand, O., R.B. Weladji, A. Mysterud, K. Roed, E. Reimers, M. Nieminen. 2012. Induced orphaning reveals post-weaning maternal care in reindeer. European Journal of Wildlife Research. 58: 589-596.

Jacobson, C. 2008. Fall hunting in game management unit 23: assessment of issues and proposals for a planning process. ADF&G. Unpublished report. Juneau, AK.

Joly, K. 2000. Orphan caribou, *Rangifer tarandus*, calves: a re-evaluation of overwinter survival data. The Canadian Field Naturalist. 114: 322-323.

Joly, K. 2015. Wildlife Biologist, Gates of the Arctic National Park and Preserve. Personal communication: e-mail. NPS. Fairbanks, AK.

Joly, K. 2021. Wildlife Biologist, Gates of the Arctic National Park and Preserve. Personal communication: e-mail NPS. Fairbanks, A.K.Joly, K., R.R. Jandt, C.R. Meyers, and J.M. Cole. 2007. Changes in vegetative cover on the Western Arctic herd winter range from 1981–2005: potential effects of grazing and climate change. Rangifer Special Issue 17:199-207.

Joly, K., and M.D. Cameron. 2020. Caribou vital sign annual report for the Arctic Network Inventory and Monitoring Program, September 2019-August 2020. Natural resource report. National Park Service.

Joly, K., R.R. Jandt, C.R. Meyers, and J.M. Cole. 2007. Changes in vegetative cover on the Western Arctic herd winter range from 1991-2005: potential effects of grazing and climate change. Rangifer Special Issue 17:199-207.

Joly, K., D.R. Klein, D.L. Verbyla, T.S. Rupp, and F.S. Chapin, III. 2011. Linkages between large-scale climate patterns and the dynamics of Arctic caribou populations. Ecography 34:345-352.

Nicholson, K.L., S.M. Arthur, J.S. Horne, E.O. Garton, P.A. Del Vecchio. 2016. Modeling caribou movements: seasonal ranges and migration routes of the Central Arctic Herd. Plos One. April 5, 2016.

NWARAC. 2015. Transcripts of the Northwest Arctic Subsistence Regional Advisory Council proceedings, October 7, 2015 in Buckland, AK. Office of Subsistence Management, FWS. Anchorage, AK.

NWARAC. 2016. Transcripts of the Northwest Arctic Subsistence Regional Advisory Council proceedings, October 5, 2016 in Selawik, AK. Office of Subsistence Management, FWS. Anchorage, AK.

NWARAC and NSRAC. 2016. Transcripts of the joint meeting of Northwest Arctic and North Slope Subsistence Regional Advisory Council proceedings. March 11, 2016 in Anchorage, AK. Office of Subsistence Management, USFWS. Anchorage, AK.

NWARAC. 2018a. Transcripts of the Northwest Arctic Subsistence Regional Advisory Council proceedings, February 28-March 1, 2018 in Kotzebue, AK. Office of Subsistence Management, FWS. Anchorage, AK.

NWARAC. 2018a. Transcripts of the Northwest Arctic Subsistence Regional Advisory Council proceedings, February 28-March 1, 2018 in Kotzebue, AK. Office of Subsistence Management, USFWS. Anchorage, AK.

NWARAC. 2019a. Transcripts of the Northwest Arctic Subsistence Regional Advisory Council proceedings, April 9-10, 2019 in Kotzebue, AK. Office of Subsistence Management, USFWS. Anchorage, AK.

NWARAC. 2019b. Transcripts of the Northwest Arctic Subsistence Regional Advisory Council proceedings, October 28-29, 2019 in Kotzebue, AK. Office of Subsistence Management, USFWS. Anchorage, AK.

NWARAC. 2020. Transcripts of the Northwest Arctic Subsistence Regional Advisory Council proceedings, November 3, 2020. Teleconference. Office of Subsistence Management, USFWS. Anchorage, AK.

NWARAC. 2021. Transcripts of the Northwest Arctic Subsistence Regional Advisory Council proceedings, February 18, 2021. Teleconference. Office of Subsistence Management, USFWS. Anchorage, AK.

Parrett, L.S. 2015a. Memorandum to P. Bente, Management Coordinator, dated October 29, 2015. 2015 Western Arctic Herd (WAH) captured conducted September 15-17, 2015. ADF&G Division of Wildlife Conservation, Fairbanks, AK.

Parrett, L.S. 2015b. Western Arctic Caribou Herd Overview presentation. Presented at the Western Arctic Caribou Herd Working Group meeting. Dec. 16-17. Anchorage, AK.

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

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

Parrett, L.S. 2017b. Wildlife Biologist IV. Personal communication: phone and e-mail. Alaska Department of Fish and Game. Fairbanks, AK.

Prichard, A.K. 2009. Development of a preliminary model for the Western Arctic Caribou Herd. ABR, Inc. – Environmental Research and Services. Fairbanks, AK.

Prichard, A.K., K. Joly and J. Dau. 2012. Quantifying telemetry collar bias when age is unknown: a simulation study with a long-lived ungulate. Journal of Wildlife Management 76 (7): 1441-1449. DOI: 10.1002/jwmg.394.

Rughetti, M., M. Festa-Bianchet. 2014. Effects of selective harvest of non-lactating females on chamois population dynamics. Journal of Applied Ecology. 51: 1075-1084.

Russell, D.E., S.G. Fancy, K.R. Whitten, R.G. White. 1991. Overwinter survival of orphan caribou, *Rangifer tarandus*, calves. Canadian Field Naturalist. 105: 103-105.

Stinchcomb, T. R., T. J. Brinkman, and S.A. Fritz. 2019. A review of aircraft-subsistence harvester conflict in arctic Alaska." Arctic 72(2): 131–50.

Sutherland, R. 2005. Harvest estimates of the Western Arctic Caribou Herd, Alaska. Proceedings of the 10th North American Caribou Workshop. Girdwood, AK. 4-6 May 2004. Rangifer Special Issue No. 16: 177-184.

Taillon, J., V. Brodeur, M. Festa-Bianchet, S.D. Cote. 2011. Variation in body condition of migratory caribou at calving and weaning: which measures should we use? Ecoscience. 18(3): 295-303.

Vistnes, I. and C. Nellemann. 2008. The matter of spatial and temporal scales: a review of reindeer and caribou response to human activity. Polar Biology 31(4):399-407.

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

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

WACH (Western Arctic Caribou Herd) Working Group. 2020. Western Arctic Caribou Herd Working Group meeting December 9, 2020. Teleconference.

WACH (Western Arctic Caribou Herd) Working Group. 2021. Western Arctic Caribou Herd Working Group Meeting December 16, 2021. Teleconference.

WINFONET. 2018. Wildlife information network. ADF&G. Anchorage, AK. https://winfonet.alaska.gov/. Retrieved: November 2018.

WINFONET. 2019. Wildlife information network. ADF&G. Anchorage, AK. https://winfonet.alaska.gov/. Retrieved: July 2019.

SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

Western Interior Alaska Subsistence Regional Advisory Council

Defer to affected region. The Council deferred this closure review to the affected region because the area under consideration is distant from the Council's region.

Seward Peninsula Subsistence Regional Advisory Council

Maintain status quo. The Council recommended maintaining the status quo because the closure is still necessary to continue subsistence uses of the Western Arctic Caribou Herd, and due to proximity of the Unit 23 closure area to Unit 22.

Northwest Arctic Subsistence Regional Advisory Council

Maintain status quo. The Council recommended maintaining the targeted caribou closure in Unit 23 as the success of this closure has been time-tested now and protects the opportunity of subsistence hunters along the Noatak River and the other river drainages.

North Slope Subsistence Regional Advisory Council

Maintain status quo. The Council recommended maintaining the status quo, in support of Noatak, to continue to reduce previously significant user conflict in the area, and because the targeted closure provides a needed priority for subsistence users "to put food on the table."

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and Federal Subsistence Board action on the proposal.

ALASKA DEPARTMENT OF FISH AND GAME COMMENTS

WILDLIFE PROPOSAL WCR22-45

If this closure is eliminated, then non-federally qualified users (NFQU) would be allowed to hunt caribou on federal public lands within the closure area in Game Management Unit (GMU) 23.

Background

The closure area is defined as follows: the 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 all federal lands within the Squirrel River drainage.

User conflict between Game Management Unit (GMU) 23 hunters and NFQUs have been a topic of discussion since at least the 1980s. In 1988 a Controlled Use Area (CUA) was created in GMU 23 through the State Board of Game (BOG); subsequent modifications to the CUA aimed at reducing conflict have

occurred over the years. The current closure represents the most recent attempt at reducing user conflict in GMU 23. WP18-46 was adopted with modification by the Federal Subsistence Board (FSB) at their 2018 meeting: this permanent closure was preceded by a one-year temporary closure under WSA17-03 in 2017. In 2016, WSA16-01 effectively closed all federal public lands to NFQUs for the purpose of caribou hunting for that year.

Impact on Subsistence Users

ADF&G anticipates minimal impact to FQUs if the closure is lifted as it is not anticipated that a large influx of NFQUs would come into the area to caribou hunt.

Impact on Other Users

Removing the closure would provide NFQUs with additional areas in which to caribou hunt in GMU 23.

Opportunity Provided by State

State customary and traditional use findings: The Alaska Board of Game (BOG) has made a positive customary and traditional use finding for the Western Arctic and Teshekpuk caribou herds combined in GMU 23.

Amounts Reasonably Necessary for Subsistence: Alaska state law requires the BOG 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 combined Western Arctic and Teshekpuk Herd ANS for caribou in GMUs 21, 22, 23, 24, and 26 is 8,000-12,000 animals.

Conservation Issues

This closure does not limit the number of caribou hunters or harvest in GMU 23: as such, rescinding the closure will have no significant effect on total harvest.

Enforcement Issues

There are no foreseeable enforcement issues if the closure were lifted.

Position

ADFG **SUPPORTS eliminating this closure**. Harvest by NFQUs is miniscule when compared to the overall harvest on the WAH by FQUs and does not represent a biological concern. If migration of the WAH is the impetus behind this closure caused by NFQU hunting practices and airplane activity, then, as ADF&G has stated in previous comments on this issue, there are more appropriate mechanisms through the state's public regulatory process available to address those issues. Although we know that caribou may be temporarily affected by hunters, deflections of herd migration have not been detected to date by ADF&G, the Alaska Wildlife Troopers, or can be found in the literature (e.g., Fullman et.al., 2017).

WRITTEN PUBLIC COMMENTS

RHAK
unapologetically FOR ALASKAN RESIDENTS
PO Box 80095, Fairbanks, Alaska 99708 (907) 371-7436
email info@residenthunterofalaska.org web www.residenthunterofalaska.org

July 19, 2021

To: Federal Subsistence Board
Office of Subsistence Management
(Attn: Theo Matuskowitz)
1011 E. Tudor Road, MS-121
Anchorage, Alaska 99503-6199

Re: Federal Subsistence Board 2022-2024 Wildlife Proposals and Existing Closures

Dear Federal Subsistence Board Members,

Resident Hunters of Alaska (RHAK) represents several thousand members from across the state, rural and urban, who advocate for sustainable wildlife management policies and a resident hunting priority according to Article 8 of our state constitution.

RHAK participates in Regional Advisory Council (RAC) meetings and Federal Subsistence Board (FSB) meetings, and we have become alarmed at the continuing wildlife proposals and special action requests that are not based on actual biological emergencies or conditions that would prevent federally qualified subsistence users (FQU) from meeting their subsistence needs.

What makes any FSB closures and restrictions especially problematic is that there is no differentiation in the federal system between Alaska residents and nonresidents from another state or country; both Alaska residents and nonresidents are deemed the same under federal regulations by definition of a who is a FQU. A prime example of why this is so problematic is that often complaints about competition from non-local non-federally qualified subsistence users (NFQU) center on the nonresident component, which can often comprise the majority of NFQ hunters participating in these hunts. So, when any restrictions or closures on federal lands happen, Alaskans who used to live in a designated rural area but for whatever reason have moved to more urban areas of the state, can't return home to hunt and carry on their traditional hunting activities on federal lands, nor can other Alaskans participate in these hunts.

It has always been RHAK's position that when and where we have wildlife conservation concerns or subsistence opportunities are not being met, that the ***nonresident component should always be the first group of hunters***

restricted. If other restrictions are still necessary, only then can we support restrictions on resident hunters.

We have always advised RACs to first use the Board of Game (BOG) process when and where there are concerns with too much competition from non-local NFQ hunters, as the BOG can differentiate between Alaska residents and nonresidents.

Comments on Individual Proposals and Existing Closures

WP22-07 Federal public lands of Admiralty Island draining into Chatham Strait between Point Marsden and Point Gardner are closed to deer hunting Sept. 15 – Nov. 30, except by Federally qualified subsistence users hunting under these regulations.

OPPOSE

The rationale of WP22-07 is not based on any biological data or harvest statistics that show a conservation concern for the deer population on Admiralty Island or that subsistence needs are not being met.

According to Alaska Department of Fish & Game (ADF&G) data, over the last decade we have had mild winters in Game Management Unit 4 and the deer population is "*high and stable.*" The deer population on western Admiralty Island is ***not*** depleted, as the proposal states. Nor are there any conservation concerns for the deer population under the current hunting regulations.

The proposal also states that there has been increased "*hunting pressure*" from NFQ hunters and it has "*become more challenging for subsistence hunters in Angoon to harvest sufficient deer for their needs.*" But according to ADF&G data, over the last two decades there has been a ***decrease*** in both the number of FQU and NFQU.

The FSB operates under ANILCA guidelines and the federal code of regulations that govern when and why any closures to NFQU can happen: "*With respect to subsistence uses of a particular fish or wildlife population, the Board may only approve a proposed closure if necessary for reasons of public safety, administration, or to assure the continued viability of such population (ANILCA §816(b), 36 CFR 242.10(d)(4)(vii) and 50 CFR 100.10(d)(4)(vii)).* ***Meanwhile, the Board may approve a proposed closure of nonsubsistence uses of a particular fish or wildlife population for any of these same reasons, or if necessary for the conservation of healthy populations of fish and wildlife,***

or to continue subsistence uses of such population (ANILCA §815(3), 36 CFR 242.10(d)(4)(vi) and 50 CFR 100.10(d)(4)(vi)).[1]

The Board should vote down this proposal based on the above guidelines of when any restrictions or closures on federal lands for NFQU are allowed to happen.

WP22-09 Federal public lands draining into Lisianski Inlet, Lisianski Strait, and Stag Bay south of the latitude of Mite Cove (58° 4' N) and north of the latitude of Lost Cove (57° 52' N) are closed to deer hunting Oct. 15 – Dec. 31, except by Federally qualified subsistence users hunting under these regulations.

OPPOSE

Refer to our comments on WP22-07

WCR22-01 Deer Prince of Wales closed Aug. 1-15, except by Federally qualified subsistence users; non- Federally qualified users may only harvest 2 bucks

Rescind closure to NFQU on Price of Wales Island

WCR22-45 Caribou Unit 23 - Portions of Unit 23 - closed to non- Federally qualified users

Rescind closure to NFQU in those portions of Unit 23

Thank you for the opportunity to comment.

Sincerely,

Mark Richards
Executive Director Resident Hunters of Alaska

[1] https://www.doi.gov/sites/doi.gov/files/uploads/closure-policy-revised-2000-08-04.pdf

WP22–54 Executive Summary	
General Description	Wildlife Proposal WP22-54 requests modification of a hunt area boundary for moose in Unit 26A. *Submitted by: North Slope Subsistence Regional Advisory Council*
Proposed Regulation	**Unit 26A—Moose** *Unit 26A—that portion of the Colville River drainage upstream from and including the Anaktuvuk River drainage—1 bull* — *Aug. 1-Sept. 14* *Unit 26A—that portion of the Colville River drainage upstream from and including the Anaktuvuk River drainage—1 moose; however, you may not take a calf or a cow accompanied by a calf* — *Feb. 15-Apr. 15.* Unit 26A—that portion west of ~~*156°00' W longitude*~~ ***the Alaktak River to 155°00' W longitude*** excluding the Colville River drainage—1 moose, however, you may not take a calf or a cow accompanied by a calf — *July 1-Sept. 14.* *Unit 26A, remainder—1 bull* — *Aug. 1-Sept. 14.*
OSM Conclusion	**Support** Proposal WP22-54 **with modification** to revise the hunt area descriptor. **The modified regulation should read:** **Unit 26A—Moose** Unit 26A—that portion west of ~~*156°00' W longitude*~~ ***the eastern shore of Admiralty Bay where the Alaktak River enters, following the Alaktak River to 155°00' W longitude*** excluding the Colville River drainage—1 moose, however, you may not take a calf or a cow accompanied by a calf — *July 1-Sept. 14.*
North Slope Subsistence Regional Advisory Council Recommendation	**Support with OSM modification**
Interagency Staff Committee Comments	The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and Federal Subsistence Board action on the proposal.
ADF&G Comments	**Oppose**
Written Public Comments	**None**

STAFF ANALYSIS
WP22-54

ISSUES

Wildlife Proposal WP22-54, submitted by the North Slope Subsistence Regional Advisory Council (Council), requests modification of a hunt area boundary for moose in Unit 26A.

DISCUSSION

The proponent states that the moose hunt opportunity is particularly beneficial to the communities of Atqasuk and Utqiagvik that have the closest access to the hunt area. The current boundary of 156 W longitude is a 70-mile trip by boat up the Ikpikpuk River for residence of Utqiagvik, which requires a lot of time, gas and resources. An expanded hunt area would allow moose harvest west of the Alaktak River and would be beneficial to the local community hunters that have to travel so far. The Council recommends establishing this new boundary to follow the natural landscape feature of the Alaktak River, which is a tributary of the Ikpikpuk River and runs south-north to Admiralty Bay (Map 1). The Alaktak River is well known by local communities and will provide a natural hunt area boundary that is easy to identify rather than the current abstract 156 W longitude, which is very difficult to locate on the ground. Establishing the hunt area west of the Alaktak River will help local communities and families that hunt and have cabins on the Chipp River have access to this moose hunt area. Council members relayed their experiences that encountering a moose in the area is opportunistic, and therefore harvest is anticipated to still be low. However, it will provide expanded subsistence opportunity to harvest a moose if one is encountered on the Chipp or Alaktak Rivers, which are more frequently used by local subsistence residents than the current 156 W longitude boundary.

Existing Federal Regulation

Unit 26A−Moose

Unit 26A—that portion of the Colville River drainage upstream from and including the Anaktuvuk River drainage—1 bull	*Aug. 1-Sept. 14*
Unit 26A—that portion of the Colville River drainage upstream from and including the Anaktuvuk River drainage—1 moose; however, you may not take a calf or a cow accompanied by a calf	*Feb. 15-Apr. 15.*
Unit 26A—that portion west of 156°00′ W longitude excluding the Colville River drainage—1 moose, however, you may not take a calf or a cow accompanied by a calf	*July 1-Sept. 14.*
Unit 26A, remainder—1 bull	*Aug. 1-Sept. 14.*

Proposed Federal Regulation

Unit 26A—Moose

Unit 26A—that portion of the Colville River drainage upstream from and including the Anaktuvuk River drainage—1 bull	*Aug. 1-Sept. 14*
Unit 26A—that portion of the Colville River drainage upstream from and including the Anaktuvuk River drainage—1 moose; however, you may not take a calf or a cow accompanied by a calf	*Feb. 15-Apr. 15.*
Unit 26A—that portion west of ~~156°00′ W longitude~~ *the Alaktak River to 155°00′ W longitude* excluding the Colville River drainage—1 moose, however, you may not take a calf or a cow accompanied by a calf	*July 1-Sept. 14.*
Unit 26A, remainder—1 bull	*Aug. 1-Sept. 14.*

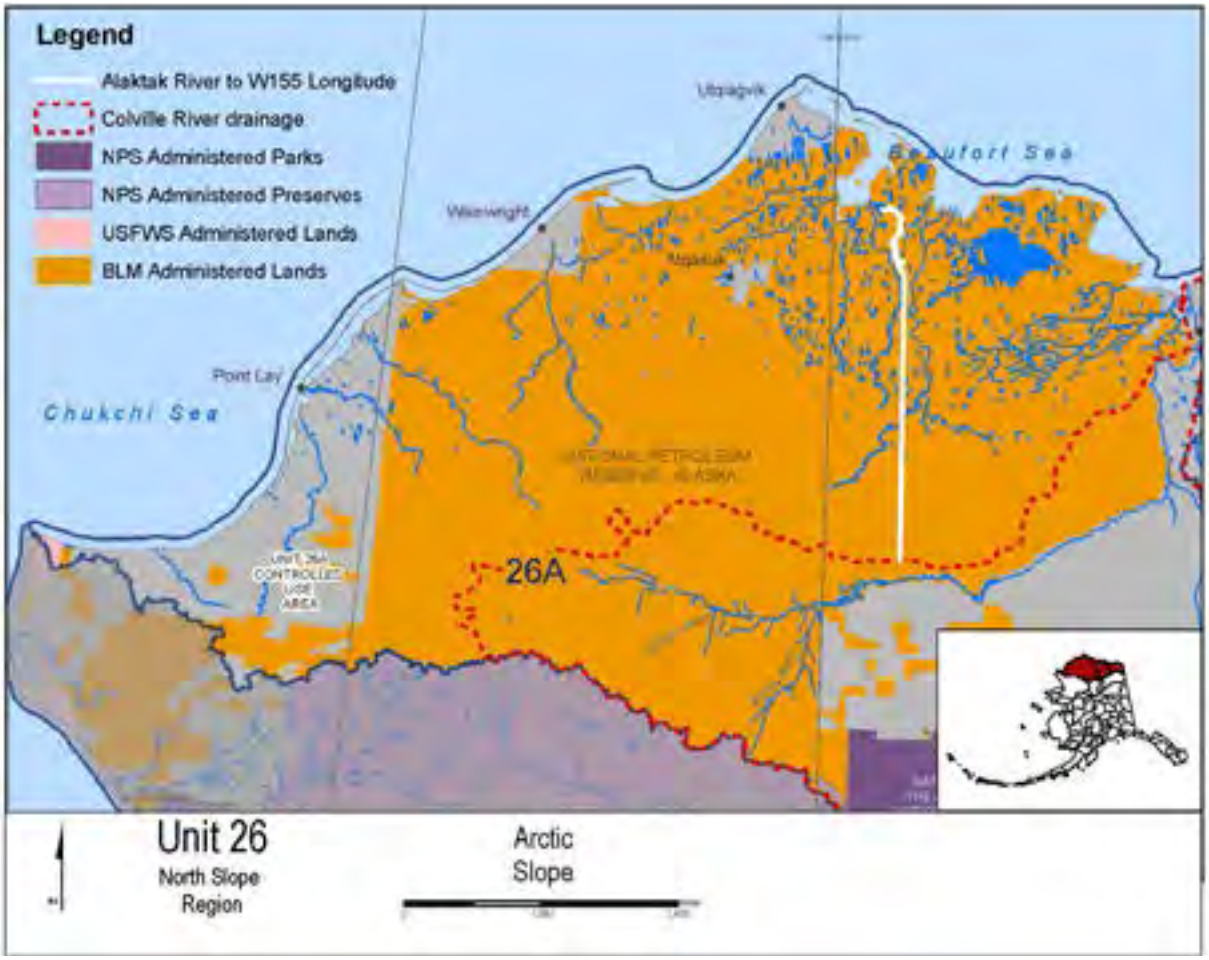
Existing State Regulation

Unit 26A—Moose

26A, west of 156° 00' W. long. excluding the Colville River drainage	*Residents— One moose. However, a person may not take a calf or a cow accompanied by a calf*	*HT*	*July 1-Sept. 14*
	Nonresidents		*No open season*
26A, the Colville River drainage above and including the Anaktuvuk River drainage	*Residents— One bull*	*HT*	*Aug. 1-Sept. 30*
	Nonresidents		*No open season*

Unit 26A—Moose

26A remainder	*Residents— One bull*	*HT*	*Aug. 1-Sept. 30*
	Nonresidents		*No open season*



Map 1. Map of proposed hunt area. The shore of Admiralty Bay east of where the Alaktak River enters, following the Alaktak River from Admiralty Bay to 155 W Longitude, then south along 155 W Longitude to the Colville River drainage, this represents the eastern border of the proposed hunt area. This is represented by the white line. The Colville River drainage boundary from 155 W Longitude to the southern Unit 26A boundary, represented by the red dotted line, completes the eastern portion of the southern boundary.

Extent of Federal Public Lands

Federal public lands comprise approximately 72% of Unit 26A and consist of 65% Bureau of Land Management (BLM) managed lands, 6% National Park Service (NPS) managed lands and 0.1% U.S. Fish and Wildlife Service (USFWS) managed lands.

Customary and Traditional Use Determinations

Residents of Unit 26 (excluding the Prudhoe Bay-Deadhorse Industrial Complex), Point Hope, and Anaktuvuk Pass have a customary and traditional use determination for moose in Unit 26A.

Regulatory History

A 75% moose population decline from 1991 to 1996 prompted season restrictions in State regulations in 1995 and in both the Federal and State moose harvest regulations in 1996. Prior and leading up to the May 1996 Federal Subsistence Board (Board) action, the moose population in Unit 26A—the Colville River drainage in particular—was in serious decline. To address this issue, the Board adopted the State's aircraft use restrictions for Unit 26A in 1994.

In 1996, the Board adopted regulatory proposal P96-66, which closed moose hunting on all Federal public lands in Unit 26A except in that portion of the Colville River drainage downstream from the mouth of the Anaktuvuk River due to population declines. At that time, the only segment of the population that was considered stable was the small population of moose downstream from the mouth of Anaktuvuk River. That area remained open only to Federally qualified subsistence users from Aug. 1–31, and the harvest was limited to 1 moose per hunter, as long as it was not a cow accompanied by a calf. The Board's justification for adopting the closure to non-Federally qualified users to harvest moose was to address conservation concerns.

In 2002, the Board adopted Proposal WP02-45 that expanded the Federal subsistence moose harvest area in Unit 26A from that portion of the Colville River drainage downstream from the mouth of the Anaktuvuk River to that portion of the Colville River drainage downstream from and including the Chandler River and also extended the season by two weeks, from Aug. 1–31 to Aug. 1–Sept. 14. The Board's rationale for adopting Proposal WP02-45 included: population increases since 1998, especially in the core areas of the Colville River drainage; spreading out the harvest pressure to other areas with higher moose density; aligning State and Federal regulations; and providing additional subsistence hunting opportunity later in the fall when the temperatures are colder, which could reduce the chance of meat spoilage.

In 2004, the Board adopted Proposal WP04-85 which established the eastern boundary of the proposed harvest area in Unit 26A to 156' 00'W longitude to match the new State regulation and also aligned the season and harvest limits with those made by the Alaska Board of Game (BOG).

In 2005, the Office of Subsistence Management conducted closure review WCR05-23 and recommended that the closure of that portion of the Colville River drainage downstream from and including the Chandler River to non-Federally qualified moose hunters should continue to remain in effect. However, when WCR05-23 was discussed during the North Slope Council's fall 2005 meeting, new winter moose census information provided by the ADF&G suggested the closure was no longer necessary since the moose population had reached at least 1,000 animals. Although the Council recommended maintaining the closure to non-subsistence uses, the new information indicated such a closure may no longer be needed to conserve a healthy moose population.

In May 2006, the Board adopted Proposal WP06-66, which resulted in reopening remaining Federal public lands on that portion of the Colville River drainage downstream from and including the Chandler River to hunting by all Alaska residents.

In 2007, the BOG opened a non-resident drawing hunt for moose in Unit 26A. In 2014, the BOG extended the resident bull moose season in Unit 26A from Aug. 1-Sept. 14 to Aug. 1 to Sept. 30 in order to accommodate a shifting moose season in two hunt areas: the Colville River drainage above and including the Anaktuvuk River drainage, and in Unit 26A Remainder. The BOG also aligned the Unit 26A Controlled Use Area dates with this season at this time. However, later in 2014, the season was reduced to its original length and the non-resident drawing hunt closed through Emergency Order due to moose population decline. There has not been a non-resident moose hunt in Unit 26A since 2013.

In June 2021, the Board deferred 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 August 1 to September 30, 2021. The Board requested that Office of Subsistence Management (OSM) staff analyze additional information comparing moose harvest by survey area within Unit 23 in their analysis. The Board will further discuss and take action on this request in 2022.

Under State regulations, the Unit 26A Controlled Use Area is closed to the use of aircraft for hunting moose, including the transportation of moose hunters, their hunting gear, or parts of moose from Jul. 1-Sept. 30 and from Jan.-Mar. 31. This provision does not apply to the transportation of moose hunters, their hunting gear, or parts of moose by aircraft between publicly owned airports.

Biological Background

Moose populations have been relatively small in Unit 26A, and harvesting has been limited. Prior to the 1940s, moose were scarce along the North Slope. Subsequently, populations expanded along the limited riparian habitat of the major drainages (LeResche et al. 1974) and have become well established in the southeast portion of Unit 26A. The northern extent of the moose populations on the North Slope is thought to be limited by habitat availability. The moose in these areas tend to concentrate along riparian corridors where browse is most abundant. Nearly all the moose are confined to the riparian habitat along the large river corridors during the winter but during summer many of the moose disperse north across the coastal plain and south into the foothills of the Brooks Range (Klimstra and Daggett 2020).

Recommended State management objectives for moose in Units 26A are (Klimstra and Daggett 2020):

- Manage for a population of 600-800 moose
- Manage for a fall bull:cow ratio of ≥ 30:100
- Manage for a fall calf:cow ratio of ≥ 30:100
- Manage for ≥ to 20% short yearlings in spring

Since the late 1970s, ADF&G has conducted spring aerial surveys in all the major drainages of Unit 26A to assess population status and recruitment of short yearlings (10 to 11 months old) (Carroll 2000, 2010). These surveys produce a direct population count because the treeless landscape results in a sightability factor of one, and the deep spring snows concentrate moose in riparian corridors, which are all systematically surveyed. Of note, all the population counts included the Itkillik River, which is part of the Colville River drainage, but is in Unit 26B (Carroll 2010). Between 1970 and 2021, the Unit 26A

moose population fluctuated, ranging from 294-1,535 moose (Table 1). Currently, the Unit 26A moose population is relatively low, but may be rebounding. Over the same time period, the percentage of short-yearlings ranged from 1-25% of the Unit 26A moose population (Klimstra and Daggett 2020, Daggett 2021, pers. comm.) (**Table 1**).

The periods of population declines resulted from poor calf survival and high adult mortality. Moose mortality was likely due to malnourishment, bacterial diseases, mineral deficiencies, predation from wolves and bears, weather factors, and competition with snowshoe hares for browse. In 2008, weights of short yearlings averaged 322 pounds, which was the lightest recorded in Alaska and an indicator of malnourishment. Human harvest of moose is very low and likely does not significantly influence abundance of the Unit 26A moose population (Klimstra and Daggett 2020).

ADF&G also periodically conducts fall composition surveys. Between 2010 and 2014, bull:cow ratios ranged from 42-97 bulls:100 cows, exceeding the State population goals. Over the same time period, the percentage of calves in the population ranged from 7-18% with the lowest calf:cow ratio occurring in 2014 (Klimstra and Daggett 2020). No composition surveys have been conducted since 2014 (Daggett 2021, pers. comm.).

Habitat

Moose in Unit 26, which are on the extreme edge of their distribution, are limited by marginal habitat and thus are more vulnerable to environmental variations than populations in more optimal locations and habitat. During the winter the moose in this area are confined to the riparian areas on the coastal plain. During the summer a majority of them will disperse from the river bottoms but usually remain near riparian habitat and during the fall, when the snow begins to accumulate, they move back to the riparian corridors of the large river systems (Carroll 2010).

A habitat study was initiated in April 2008 on the Colville River in areas where moose browsed between the mouth of the Killik River and Umiat to determine the quantity of browse available to moose in the riparian area in the winter. Results indicated a 12% browse removal rate, which was similar to other areas in the State which have moderate browsing and twinning rates. Thus it appears that the poor survival rate of collared animals, low weights of the short-yearlings, and apparent starvation of several moose during the 2008 capture season was not related to the quantity of browse in Unit 26A (Carroll 2010). Quantity and availability (willows covered up by snow drifts), accessibility (effects of deep snow on access), and increased tannins in the willows (in response to snowshoe hares eating the bark) are factors which could contribute to malnourishment seen in some of the moose. In 2009, samples were taken to assess the quality of the browse but the results are not currently available (Carroll 2010).

Table 1. Moose observed during spring aerial censuses conducted in Unit 26A (Carroll 2010, OSM 2013, Klimstra and Daggett 2020, Daggett 2021, pers. comm.).

	Moose observed			
Year	**Adults**	**Short yearlings**	**Total[a]**	**% Short yearlings**
1970	911	308	1,219	25
1977	991	267	1,258	21
1984	1,145	302	1,447	21
1991	1,231	304	1,535	20
1995	746	11	757	1
1999	274	52	326	16
2002	502	74	576	13
2005	863	185	1,048	18
2008	1,023	157	1,180	13
2011[b]	545	64	609	11
2014	290	4	294	1
2017	285	63	348	17
2021	349	88	437	20

[a] Includes moose counted on the Itkillik River which is part of the Colville River drainage, but is in Unit 26B. In 2008, there were 64 moose, including 4 calves on the Itkillik River (Carroll 2010).

[b] Information provided by Geoff Carroll (Carroll 2013, pers. comm.)

Cultural Knowledge and Traditional Practices

Although moose are a relatively recent addition to the North Slope region, they have been incorporated into subsistence diets. Archaeological sites in tundra and northern tree-line areas of Alaska demonstrate few moose remains until the mid-20th century, and this is consistent with historical accounts and minor representation in Iñupiat culture (Hall 1973, Coady 1980, Tape et al. 2016). Because moose harvest increases and decreases in response to the availability of other resources such as marine mammals and caribou (Georgette and Loon 1993), data from subsistence surveys needs to be understood in the context of flexible subsistence strategies over time. A single year of data may over- or under-represent a community's dependence on moose during times when caribou or marine mammal availability varies.

Table 2. Subsistence survey data showing the estimated number of moose harvested in communities with C&T for moose in Unit 26A and the percent of surveyed households using moose, 2000 to 2017 (ADF&G 2021a). During this time period, surveys were only conducted in years shown. Dashes indicate that no data is available.

Community	Year	Number of moose harvested	Percent using moose
Anaktuvuk Pass	2014	5.6	28%
	2011	5	29%
	2002	2	--
	2001	7	--
	2000	3	--
Nuiqsut	2014	6	43%
	2000	6	--
Point Hope	2014	0	--
Point Lay	2012	0	5%
	2002	1	--
Utqiagvik	2014	12.	14%
Wainwright	2009	3	--
	2002	5	3%

Harvest History

Moose harvest levels have responded to population levels and regulations. 1991 was the peak estimated abundance of the moose population and, until 1995, harvest levels in all of Unit 26A averaged 57 per year in 1991. The trend area counts did begin to decline in 1992, but the harvest continued to remain relatively high for several years (Carroll 2010). When more restrictive regulations were implemented in 1995, the harvest dropped to 14 moose. One of the most important changes affecting harvest levels in this area was the ban on the use of aircraft beginning in 1996. Harvest levels, then remained low, averaging 4 moose per year, until 2004. In 2006, as a response to the increasing moose population, the BOG started relaxing restrictions. This included allowing the use of aircraft to hunt moose in Unit 26A under a State draw permit hunt (DM980/981), but not under the general season by harvest ticket. In 2015, the BOG discontinued the draw permit hunt, and therefore any use of aircraft.

Despite relaxed restriction, particularly for local hunters, harvesting levels have remained relatively low. Between 2009 and 2019, the average reported moose harvest was 3.73 moose per year (Table 3). The non-resident moose hunt in Unit 26A has been closed since 2014. While the ADF&G harvest report website showed one moose harvested by non-residents in 2018 and 2019, this may have been reported illegal harvest (Daggett 2021, pers. Comm.). In recent years (2015-2019), non-local resident moose harvest has averaged 0.8 moose per year, while local resident harvest has averaged 1.4 moose per year (ADF&Gc).

Table 3. Reported moose harvest in Unit 26A for 2009-2019 from ADF&G harvest ticket and permit reports (ADF&G 2021c).

Regulatory Year	Local Resident Harvest	Nonlocal Resident Harvest	Nonresident Harvest	Unknown Residency Harvest	Total Harvest	Male	Female	Unknown
2009	2	0	1	0	3	2	1	0
2010	1	0	0	3	4	4	0	0
2011	2	0	0	0	2	2	0	0
2012	4	5	0	0	9	8	1	0
2013	2	2	0	0	5	5	0	0
2014	1	0	0	1	2	1	1	0
2015	0	0	0	3	3	2	1	0
2016	2	2	0	0	4	4	0	0
2017	3	0	0	0	3	3	0	0
2018	1	1	1	0	3	3	0	0
2019	1	1	1	0	3	3	0	0
Average	**1.73**	**1**	**0.27**	**0.64**	**3.73**	**3.36**	**0.36**	**0**

Effects

The proposed change will have little effect on the moose population in Unit 26A. The proposed change shifts the boundary of Unit 26A from 156 W longitude to the 155 W longitude/Alaktak River (affected area). Regulations in the affected area would change from one bull during a season of Augus 1 – Septerber 14 (Unit 26A remainder) to one moose during a season of July 1 – Septerber 14. This proposal would provide for more opportunity with a longer season and the availability to harvest a cow within the affected area.

Hunters can already harvest one bull moose within the affected area, which is currently part of Unit 26A remainder. The changes is not expected to impact the moose population or harvesting levels. The prohibition on harvesting a calf or cow accompanied by a calf would be applicable and would help mitigate any conservation concerns. Adoption of this proposal will provide Federally qualified subsistence users, particularly residents of Atqasuk and Utqiagvik, with easier access to the affected area.

The adoption of this proposal could cause some user confusion and increase regulatory complexity as Federal and State hunt areas would become misaligned. However, as all the lands within the affected area are Federal public lands, users will not need to differentiate between the two different land statuses.

OSM CONCLUSION

Support Proposal WP22-54 **with modification** to revise the hunt area descriptor.

The modified regulation should read:

Unit 26A—Moose	
Unit 26A—that portion west of ~~156°00' W longitude~~ ***the eastern shore of Admiralty Bay where the Alaktak River enters, following the Alaktak River to 155°00' W longitude*** *excluding the Colville River drainage—1 moose, however, you may not take a calf or a cow accompanied by a calf*	*July 1-Sept. 14.*

Justification

While the moose population in Unit 26A is below State management objectives, adoption of this proposal is not expected to affect the population due to very low harvests. Adoption of the proposal also increases hunting opportunity for Federally qualified subsistence users by providing for a longer season and more liberal harvest limit within the affected area and makes it more feasible for Federally qualified subsistence users to reach this hunt area. Currently the number of animals reported harvested within Unit 26A is <1% of the population. The modified hunt area descriptor completes the hunt area without leaving any gaps or ambiguous areas.

LITERATURE CITED

ADF&G. 2021a. CSIS: Community subsistence information system. http://www.adfg.alaska.gov/sb/CSIS/. Retrieved: April 8, 2021.

ADF&G 2021b. Alaska Community Subsistence Information System. Juneau, AK http://www.adfg.alaska.gov/sb/CSIS/index.cfm?ADFG= Retrieved: June 24, 2021.

ADF&G. 2021c. General Harvest Reports. https://secure.wildlife.alaska.gov/index.cfm?fuseaction=harvestreports.main. Retrieved: April 7, 2021.Carroll, G. 2000. Moose survey-inventory management report. Pages 523-637 *in M.V. Hicks, editor. Report of survey–inventory activities, 1997-1999. ADF&G. Federal Aid in Wildlife Restoration. Progress Report. Grants W-27-1, W-27-2. Juneau, AK.*

Carroll, G. 2010. Unit 26A moose management report. Pages 643-665 in P. Harper, editor. Moose management report of survey and inventory activities 1 July 2007 –30 June 2009. ADF&G. Juneau, AK.

Carroll, G. 2013. Wildlife Biologist. Personal communication: email. ADF&G. Anchorage, AK

Coady J. 1980. History of moose in northern Alaska and adjacent regions. Canadian Field Naturalist 94: 61–68.

Daggett, C. 2021. North Slope Area Wildlife Biologist. Personal Communication: e-mail. Alaska Department of Fish and Game. Utqiagvik, AK.

Georgette, S., and H. Loon. 1993. Subsistence use of fish and wildlife in Kotzebue, a Northwest Alaska regional center. ADF&G, Div. of Subsistence Tech. Paper No. 167. Fairbanks, AK.

Hall E.S. 1973. Archaeological and recent evidence for expansion of moose range in northern Alaska. Journal of Mammalogy 54: 294–295.

Klimstra, R. and Daggett, C. 2020. Moose management report and plan, Game Management Unit 26A: report period 1 July 2010–30 June 2015, and plan period 1 July 2015–30 June 2020. Species Management Report and Plan AD-F&G/DWC/SMR&P–2020–9. ADF&G. Juneau, AK.

LeResche, R. E., R. H. Bishop, and J. W. Coady. 1974. Distribution and habitats of moose in Alaska. Le Naturaliste Canadian, Vol. 101: 143-178.

Tape, K.D., Gustine, D.D., Ruess, R.W., Adams, L.G. and Clark, J.A., 2016. Range expansion of moose in arctic Alaska linked to warming and increased shrub habitat. PLoS ONE 11(4): 1-12.

SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATIONS

North Slope Subsistence Regional Advisory Council

Support WP22-54 **with the OSM modification**. The Council submitted this proposal to provide easier access to traditional hunting areas along the Alaktak River for Federally qualified subsistence users. Right now, subsistence hunters from Utqiagvik and Atqasuk have to travel extremely long distances to reach the current hunt area, which is difficult to access and prohibitive due to the high cost of fuel. Changing the hunt area boundary so that it follows the natural river corridor rather than 156W longitude will also help hunters know for certain they are within bounds.

The Council also noted that this proposal should not pose a conservation concern because hunters can only travel to the hunt area on occasion due to the high costs and time involved, and the moose are not always available for harvest along the river corridors. Council members reported that moose are often in excess of 130 miles from Utqiagvik, so harvest is still very opportunistic.

The Council supports the OSM recommendation to include the eastern coastline of the Admiralty Bay as it clarifies the description of the hunt area boundaries where the Alaktak River enters the bay.

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the staff analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and Federal Subsistence Board action on the proposal.

ALASKA DEPARTMENT OF FISH AND GAME

Wildlife Proposal WP22-54

This proposal requests to modify the federal hunt boundary for moose in Game Management Unit (GMU) 26A.

Background

The moose in GMU 26A are found primarily along the Colville and some of its tributaries. The hunt area that the proponent is asking to change is west of most of the moose habitat in GMU 26A. Overall harvest of moose in GMU 26A is low, from 3 to 9 moose a year in the past 10 years. Of these moose, less than one per year have been harvested in the remainder part of the GMU that this proposal is seeking to expand. The current boundary was adopted by the Alaska Board of Game (BOG) for the fall of 2004 with the intention of allowing the harvest of moose found outside their normal range of the riparian corridor of the Colville and its tributaries.

Impact on Subsistence Users

While this will increase the area in which federally qualified users (FQU) can hunt moose in GMU 26A, it will also misalign state and federal regulations creating hunter confusion and enforcement issues.

Impact on Other Users

Any impact on other users would be minimal as this change will not result in a measurable increase in harvest.

OPPORTUNITY PROVIDED BY STATE:

State customary and traditional use findings: The BOG has made positive customary and traditional use findings for moose in GMU 26 with a harvestable population.

Amounts Reasonably Necessary for Subsistence: Alaska state law requires the BOG 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 the Alaska Department of Fish & Game (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 moose in all GMU 26 is 21-48, including 15-30 in GMU 26A.

Existing State Regulation

GMU 26A—Moose

26A, west of 156° 00' W. long. excluding the Colville River drainage	*Residents— One moose. However, a person may not take a calf or a cow accompanied by a calf*	*HT*	*July 1-Sept. 14*
	Nonresidents	*HT*	*No open season*
26A, the Colville River drainage above and including the Anaktuvuk River drainage	*Residents— One bull*	*HT*	*Aug. 1-Sept. 30*
	Nonresidents	*HT*	*No open season*
26A remainder	*Residents— One bull*	*HT*	*Aug. 1-Sept. 30*
	Nonresidents	*HT*	*No open season*

Conservation Issues

Moose that are harvested in the affected area are outside of the normal range of moose. The additional

hunting opportunity created by this change will probably not result in a measurable increase in harvest.

Enforcement Issues

If this proposal is passed it could create confusion amongst enforcement officers given the differing boundaries.

Position

ADF&G **OPPOSES** changing the border for the any moose hunt in GMU 26A because it will result in a misalignment of federal and state regulations.