EASTERN INTERIOR ALASKA
Federal Subsistence
Regional Advisory Council

USFWS

Meeting Materials

October 11–13, 2011

Fairbanks, Alaska

What's Inside

Page	
1	Agenda
5	Roster
6	March 2011 Meeting Minutes
19	Unit Maps
24	WP12-01
34	WP10-02
48	WP12-02
62	WP12-03
69	WP10-91
79	WP10-92
85	WP10-104 and WP12-65/66
103	WP12-32
115	WP12-33
123	WP12-52
126	WP12-62
132	WP12-63
139	WP12-67/74
150	WP12-68
161	WP12-69
183	WP12-70/73
198	WP12-71/72
208	WP12-75
216	WP12-76
233	WP12-77/78/79/81
243	WP12-80
249	WP12-56
261	Draft 2012 Fisheries Resource Monitoring Plan
296	Update Bering Sea/Aleutian Islands Chum Salmon Bycatch
299	Tri-RAC Customary Trade Subcommittee Status Report
302	Status Report on the Secretarial Review Recommendations
306	Briefing on Tribal Consultation
310	Meeting Calendars

EASTERN INTERIOR ALASKA SUBSISTENCE REGIONAL ADVISORY COUNCIL
Pike's Waterfront Lodge, Fairbanks
Starting at 10:00 a.m. on October 11
Starting at 8:30 a.m. October 12 and 13
Sessions will run until late afternoon or early evening
Evening sessions are at the call of the chair

Teleconference Number: 877-679-1583
Passcode: 4272348

DRAFT AGENDA

PUBLIC COMMENTS: Public comments are welcome for each agenda item and for regional concerns not included on the agenda. The Council appreciates hearing your concerns and knowledge. Please fill out a comment form to be recognized by the Council chair. Time limits may be set to provide opportunity for all to testify and keep the meeting on schedule.

PLEASE NOTE: These are estimated times and the agenda is subject to change.

AREA CONCERNS: The Regional Council arranges its meetings to hear and understand subsistence concerns within the region. Please share your subsistence concerns and knowledge. The agenda is an outline and is open to subsistence concerns, listed or not.

*Asterisk identifies action item.

1. **Call to Order** *(Chair)*
2. **Roll Call and Establish Quorum** *(Secretary)* 5
3. **Invocation**
4. **Welcome and Opening Remarks** *(Chair)*
5. **Introduction of Agency Staff and Honored Guests** *(Chair)*
6. **Regional Council Member Concerns**
   A. Chair's Report
      1. Board Response to 2010 Annual Report
      2. Identify Issues for 2011 Annual Report
7. **Review and Adopt Agenda*** *(Chair)* 1
8. **Review and Approve Minutes of March 2011 Meeting*** *(Chair)* 6
   A. Discuss degree of detail desired for future minutes
9. **Public Testimony**
10. **Reports on Tribal and ANCSA Corporation Consultations**
11. **Proposed Changes to Subsistence Wildlife Regulations**

Presentation Procedure for Proposals

1) Introduction of proposal and analysis
2) Alaska Department of Fish and Game comments
3) Other Federal and State agency comments
4) Tribal/ANCSA Corporation comments
5) Interagency Staff Committee comments
6) Subsistence Resource Commission comments
7) Fish and Game Advisory Committee comments
8) Summary of written public comments
9) Public testimony
10) Regional Council deliberation, recommendation, and justification

A. Statewide Proposals

1) WP12-01: Requirements when selling handicrafts incorporating claws* 24

2) WP10-02 (Deferred WP08-05): Requirements when selling handicrafts incorporating claws* 34

3) WP12-02: Redefine "designated hunter" so that a designated hunter can only hunt for elders or a person who is disabled* 48

4) WP12-03: Trapping; incidental take* 62

B. Regional Proposals

1) WP10-91: Revise Unit 25 brown bear harvest limit* 69

2) WP10-92: Revise Unit 25 black bear harvest limit* 79

3) WP10-104/WP12-65/66: Revise Unit 12 caribou harvest limit and season dates* 85

4) WP12-32: Revise season dates for elder sheep hunts in Units 11 and 12* 103

5) WP12-33: Revise hunting season for wolf in Units 11 and 12* 115

6) WP12-52: Close sport hunting along Yukon River* 123

7) WP12-62: Revise Unit 25D harvest limit of brown bear from 1 bear to 1 bear every regulatory year or by community harvest permit* 126

8) WP12-63: Requirement in Unit 25 to leave meat on bones of harvested moose and caribou to prevent wanton waste* 132

9) WP12-67/74: Revise season date for Unit 20E caribou and align quota with Units 20F and 25C* 139

10) WP12-68: Revise customary and traditional use determination for Unit 12 caribou* 150

11) WP12-69: Customary and traditional use determination for caribou in Unit 25-remainder for residents of Unit 25* 161

12) WP12-70/73: Align Federal moose hunting seasons, eliminate split season, extend season dates and change harvest limit for Unit 12 moose* 183

13) WP12-71/72: Revise required permit and season dates for Unit 12 moose* 198

14) WP12-75: Combine two existing portions of Unit 20E and extend moose season dates* 208

15) WP12-76: Close Red Sheep and Cane Creek drainages in Unit 25A to taking of sheep by non-federally qualified users* 216

16) WP12-77/78/79/81: Revise seasons and limits for wolves in Units 12, 20A and 25A* 233

17) WP12-80: Align Unit 25 wolf trapping season with State wolf trapping season* 243

C. Crossover Proposals

1) WP12-56: Revise Unit 21B moose season* 249

12. Board of Game Proposals

13. Review and Make Recommendations on Draft 2012 Fisheries Resource Monitoring Plan *(OSM)** 261

A. Yukon

B. Multi-Regional

14. Other Fisheries Issues

A. Yukon River Post Season-Reports *(USFWS, ADF&G, YRDFA)*

B. Update on Bering Sea/Aleutian Islands Chum Salmon Bycatch *(OSM Staff)*....296

C. Tri-RAC Customary Trade Subcommittee Status Report *(OSM Staff and Council members)**....299

D. Board of Fisheries Proposals

15. Agency and Organization Reports

A. Office of Subsistence Management

1. Status Report on the Secretarial Review Recommendations....302

2. Briefing on Tribal Consultation Protocol 306

B. Native Corporations (Regional and Village) and Tribal Councils

C. Alaska Department of Fish and Game

D. Bureau of Land Management

E. U.S. Fish and Wildlife Service

1. Arctic NWR

a. Arctic Refuge Draft Revised Comprehensive Conservation Plan

2. Yukon Flats NWR

a. Activities Report

3. Tetlin NWR

F. National Park Service

1. Yukon-Charley Rivers National Park and Preserve

a. Superintendent's Compendium

2. Denali National Park and Preserve

3. Wrangell-St. Elias National Park and Preserve
    a. Nabesna Road Final EIS

G. Other

16. Other Business

A. Confirm Date and Location of Winter 2012 Meeting* 310

B. Select Date and Location of Fall 2012 Meeting* 311

17. Closing Comments

18. Adjourn

If you have a question regarding this agenda or need additional information about this meeting, please contact KJ Mushovic, Regional Coordinator, toll free at 1-800-478-1456 or 907-786-3953, email kathleen_mushovic@fws.gov or fax 907-786-3898.

The U.S. Fish and Wildlife Service is committed to providing access to this meeting for all participants. Please direct all requests for sign language interpreting, Computer Aided Real-time Translation (CART) or other accommodation needs to KJ Mushovic no later than Wednesday, October 5. Call 1-800-478-1456 or 907-786-3953, fax 907-786-3898, or email kathleen_mushovic@fws.gov.

If you need alternative formats or services because of a disability, please contact the Diversity and Civil Rights Manager at 907-786-3328 (voice), via email: douglas_mills@fws.gov, or via Alaska Relay (dial 7-1-1 from anywhere in Alaska or 1-800-770-8255 from out of state) for hearing impaired individuals with your request by close of business Wednesday, October 5.

REGION 9
Eastern Interior Alaska Subsistence Regional Advisory Council

Seat	Year Appointed Term Expires	Member Name	Community
1	2001 ***2013***	Susan Entsminger, Chair	Mentasta Pass
2	2007 ***2013***	Andrew Firmin, Secretary	Fort Yukon
3	2010 ***2013***	Larry Williams Sr.	Venetie
4	2007 ***2013***	Lester Erhart	Tanana
5	2002 ***2011***	Andy Bassich	Eagle
6	2005 ***2011***	William Glanz	Central
7	2008 ***2011***	Frank Gurtler	Manley Hot Springs
8	2010 ***2012***	Joseph A. Matesi	Porcupine River
9	2009 ***2012***	Donald Woodruff	Eagle
10	2001 ***2012***	Virgil Umphenour, Vice Chair	North Pole

EASTERN INTERIOR SUBSISTENCE REGIONAL ADVISORY COUNCIL
Draft Meeting Minutes
Thursday and Friday, March 3 and 4, 2011
Pike's, Fairbanks, Alaska

Call to Order
The meeting was called to order by Chair Sue Entsminger at approximately 8:40 AM.
Invocation was led by Council member Larry Williams.

Roll Call
The following Council members were present and a quorum established: Sue Entsminger (Chair), Andy Bassich, Lester Erhart, Andrew Firmin, William Glanz, Joseph Matesi, Virgil Umphenour, Larry Williams, Sr. and Donald Woodruff. Frank Gurtler missed the roll call but arrived later.

Welcome and Introductions
The following persons were present at the start of the meeting and/or on subsequent days:

Aaron Kozenikoff, Sr. – Tanana Tribal Council
Andrea Medeiros – Fish and Wildlife Service, Office of Subsistence Management, Anchorage
Barbara Cellarius – National Park Service, Wrangell-St. Elias
Becca Robbins Gisclair - Yukon River Drainage Fisheries Association
Bill Tweit - North Pacific Fishery Management Council Alternate, State of Washington Department of Fish and Wildlife
Cal Casipit – Forest Service, Juneau
Dan Hull - North Pacific Fishery Management Council member, Anchorage
Dave Krupa – National Park Service, Yukon Charley and Gates of the Arctic, Fairbanks
Dave Bryant - Nenana
David Jenkins – Fish and Wildlife Service, Office of Subsistence Management, Anchorage
Dayna Green – Alaska Department of Fish and Game, Fairbanks
Darcie Warden – Alaska Wilderness League/Black River Working Group, Fairbanks
Deb Cooper – National Park Service, Anchorage
Diana Stram – North Pacific Fishery Management Council, Anchorage
Fred Bue – Yukon Area Manager, Fish and Wildlife Service, Fairbanks
Gene Sandone – GJ Sandone Consulting
George Pappas – Subsistence Liason Team, Alaska Department of Fish and Game, Anchorage
Gerald Maschmann - Fish and Wildlife Service, Fairbanks
Glenn Chen – Interagency Staff Committee, Bureau of Indian Affairs, Homer/Anchorage
Greg Dudgeon – Superintendent, Yukon Charley and Gates of the Arctic, National Park Service
Greg Roczicka – member, Yukon-Kuskokwim Subsistence Regional Advisory Council (via teleconference)
Jack Reakoff –Western Interior Alaska Subsistence Regional Advisory Council Chair
Jason Hale - Yukon River Drainage Fisheries Association
Jason Post - Bureau of Land Management, Eastern Interior Field Office, Fairbanks
Jeff Estensen – Yukon Fall Manager, Alaska Department of Fish and Game, Fairbanks
Jeff Gross – Alaska Department of Fish and Game, Tok
Jeremy Mears - Fish and Wildlife Service, Fairbanks
Jerry Berg – Interagency Staff Committee, Fish and Wildlife Service, Anchorage
Jim Neely – Law Enforcement, Fish and Wildlife Service, Fairbanks
Joanne Bryant – Fish and Wildlife Service, Arctic National Wildlife Refuge
John Burr - Alaska Department of Fish and Game, Fairbanks
John O'Brien – Oasis Environmental, Fairbanks

Josephine Peter – Arctic Village
Joy Huntington - Fairbanks
Judy Putera - Wrangell St. Elias National Park and Preserve (via teleconference)
Julie Roberts-Hyslop – President, Native Village of Tanana
KJ Mushovic - Fish and Wildlife Service, Office of Subsistence Management, Anchorage
Mark Bertram – Yukon Flats National Wildlife Refuge, Fish and Wildlife Service, Fairbanks
Mike Tinker – Fairbanks State Fish and Game Advisory Committee, Fairbanks
Mimi Thomas – Fish and Wildlife Service, Fairbanks
Nancy Swanton – Interagency Staff Committee, National Park Service, Anchorage
Nicole Kimball - North Pacific Fishery Management Council, Anchorage
Pat Pourchot – Special Assistant of Alaska, Office of the Secretary of the Interior
Peter Keller - Fish and Wildlife Service, Tetlin National Wildlife Refuge
Polly Wheeler –Fish and Wildlife Service, Office of Subsistence Management, Anchorage
Rita St. Louis - Alaska Department of Fish and Game, Fairbanks
Robert Jess - Fish and Wildlife Service, Yukon Flats National Wildlife Refuge
Rondell Jimmy - Nenana
Ruth Gronquist - Bureau of Land Management, Eastern Interior Field Office, Fairbanks
Ryan Lane - Bureau of Land Management, Eastern Interior Field Office, Fairbanks
Spencer Rearden – Fish and Wildlife Service, Office of Subsistence Management, Anchorage
Stacey Buckelew – Commercial Fisheries, Alaska Department of Fish and Game, Anchorage
Steve Hayes - Alaska Department of Fish and Game, Anchorage
Sue Masica – Alaska Regional Director, National Park Service, Anchorage
Tim McManus – Nenana Native Council
Tom Liebscher – Chief of Natural, Cultural, and Fire Resources, National Park Service, Fairbanks
Vince Mathews – subsistence specialist, Fish and Wildlife Service, Arctic, Kanuti and Yukon Flats Refuges, Fairbanks
Wennona Brown – Fish and Wildlife Service, Yukon Flats National Wildlife Refuge
Will Koehler – Delta Fish and Game Advisory Committee, Delta
Willie Lord – First Chief, Nenana
and
Computer Matrix Court Reporter (Salena Hile)

Review and Adoption of Agenda
Requests for additions to the agenda were made by Mr. Umphenour (two fish proposals), Mr. Bassich (special action request) and Mr. Matesi (Black River).

> ***Motion:*** *Mr. Umphenour* ***moved*** *to adopt the agenda. The motion was* ***seconded*** *by Mr. Glanz. Motion carried.*

Review and Approval of Minutes of October, 2010 Meeting

> ***Motion:*** *Mr. Bassich* ***moved*** *to adopt the minutes of the Eastern Interior Alaska Subsistence Regional Advisory Council's October, 2010 meeting in Fairbanks with an additional paragraph detailing the discussion the Council had with Yukon-Charley Rivers National Preserve staff at that meeting. The motion was* ***seconded*** *by Mr. Umphenour. Motion carried.*

Council Members' Reports and Concerns
Council members provided introductory remarks and noted the following issues and concerns:

State of Chinook salmon runs on the Yukon and Black Rivers;
Impacts of ocean bycatch on region fisheries;
Impacts from customary trade practices to Yukon River Chinook;
Impacts of overgrazing of the marine environment by hatchery smolt to wild smolt stocks;
Impacts of increased predation caused by the influx of hatchery smolt to wild smolt stocks;
Lack of monitoring of Chinook populations and escapement on the Chandalar;
Effects to drinking water downriver from mining adjacent to the East Fork of the Chandalar River;
Improving tribal participation in the subsistence management process;
The need to encourage Council meeting attendance by tribal leaders from organizations such as the Tanana Chiefs Council and Doyon Regional Native Corporation;
Bureau of Land Management planning and wild land policy;
Impacts of severe fire to caribou growth and herd movement;
Positive aspects of state and federal cooperation and coordination in respect to the growth of the Fortymile caribou herd;
Wildlife closure reviews and wildlife regulatory proposals for the Council to consider;
Impacts of urban hunters to rural areas.

Chair's Report
Chair attended a portion of the meeting of the Subsistence Resource Commission (SRC) for Wrangell-St. Elias National Park and Preserve immediately prior to this Council meeting.

Chair requested a report from Andrew Firmin, who represented the Council at the January, 2011 meeting of the Federal Subsistence Board. Mr. Firmin gave a summary of the proposals that were considered at the meeting. The information was also provided in the 805(c) report included in the meeting book.

Council Charter Review
The Council reviewed its charter. No changes were recommended.

Public Testimony
Josephine Peter (Arctic Village) testified about her desire for hikers, hunters, and fishers to respect her private, conveyed property on Red Sheep Creek. She indicated a willingness to provide permission if asked and provided a contact number of 452-7003.

<u>Fisheries Issues</u>

Information Session with North Pacific Fisheries Management Council Staff
Nicole Kimball, fisheries analyst for the North Pacific Fisheries Management Council (NPFMC) introduced Diana Stram, also of the NPFMC Anchorage office and two NPFMC members, State of Alaska appointee Dan Hull of Anchorage, and State of Washington appointee Bill Tweit, then gave a briefing on the composition of the NPFMC and its meeting and public input processes. Dr. Stram provided a briefing on how the NPFMC attempts to mitigate salmon bycatch in Pollock fisheries, and what the NPFMC will be considering at its meeting in Nome in June.

Bycatch Information from the Yukon River Drainage Fisheries Association
Becca Robbins-Gisclair (Yukon River Drainage Fisheries Association) provided the Council with a bycatch update and a draft resolution to solicit Federal Subsistence Board support of measures to reduce chum salmon bycatch in the Bering Sea Pollock fishery. It was noted that the resolution had already been adopted by the Yukon-Kuskokwim and Western Interior Alaska Subsistence Regional Advisory Councils.

> ***Motion:*** *Mr. Bassich* ***moved*** *to adopt the resolution to recommend that the Federal Subsistence Board (FSB) work with affected regional advisory councils, tribes and communities to develop a position from among the alternatives before the North Pacific Fisheries Management Council (NPFMC) to regulate chum bycatch. The FSB position should seek to minimize chum bycatch to the greatest extent practicable and thereby ensure healthy fish populations and subsistence and small scale commercial fisheries, and the FSB should convey this position to the NPFMC before or during the NPFMC meeting in June of 2011. The motion was* ***seconded*** *by Mr. Glanz. Motion carried.*

Justification
Council members have a longstanding concern about the impacts of bycatch on returning salmon populations.

Council member Donald Woodruff volunteered to represent the Council at the NPFMC meeting in Nome in June.

Yukon River Salmon Pre-Season Outlook
Jeff Estensen (Alaska Department of Fish and Game) provided handouts and a briefing on the 2011 outlook for Yukon River fall chum and coho runs.

Jeremy Mears (Fish and Wildlife Service) referred to the Yukon River Chinook Salmon Rebuilding Initiative document on page 32 of the meeting book and provided an overview of the material. Steve Hayes (Alaska Department of Fish and Game) and Fred Bue (Fish and Wildlife Service) assisted in answering questions after the briefing.

Several Council members made suggestions regarding how communication and enforcement of in-season closures could be improved.

Special Action Request

Mr. Bassich, concerned about conserving Chinook salmon stock on the Yukon River in years of low abundance, read language for a special action request for the spring of 2011: If restrictions are placed on subsistence fishing on the Yukon River, by either fishing times reduction or fishing gear restrictions to normal schedules and times, Chinook salmon shall not be allowed for use of customary trade during that fishing season, but all other species of fish shall be permitted for use in customary trade. Mr. Bassich emphasized that the special action would apply to one-year and would only target Chinook salmon in customary trade – people would still be able to utilize summer chum, fall chum, coho and/or other species. Mr. Bassich's justification was that, if restrictions are in place for subsistence users, it is a clear sign that the numbers of Chinook salmon are not sufficient to allow for full subsistence harvest and meet escapement goals and Treaty obligations, and that it is wrong for some fishers to continue to take more than they need to sell for cash in times of low abundance.

> ***Motion:*** *Mr. Bassich* ***moved*** *to make a special action request of the Federal Subsistence Board that, if restrictions are placed on subsistence fishing on the Yukon River, by either fishing times reduction or fishing gear restrictions to normal schedules and times, Chinook salmon shall not be allowed for use of customary trade during that fishing season, but all other species of fish shall be permitted for use in customary trade. The motion was* ***seconded*** *by Mr. Umphenour. Chair requested a roll call vote.*

Yes: Chair Entsminger, Mr. Firmin, Mr. Williams, Mr. Bassich, Mr. Glanz, Mr. Matesi, Mr. Woodruff, Mr. Umphenour. **No:** Mr. Erhart. **Absent:** Mr. Gurtler.

Motion carried.

Justification
As a temporary special action, the effect would be limited to the remainder of the regulatory year. The action would provide for sharing the burden of conservation river-wide and would provide law enforcement with a tool not currently available. The action sends a clear message of how seriously the Council considers the issue and should not affect the types of actions that in-season managers take to reduce harvest. There were concerns about the quality of escapement that could result from implementation of such a measure, but the prevailing opinion was that higher escapement generally enhances quality of escapement. Although the Council has previously submitted a similar special action request that was not adopted by the Federal Subsistence Board, Alaska's failure to meet treaty obligations to Canada for three of four years may convince the Board to support the action now.

Bering Sea/Aleutian Islands and Gulf of Alaska
Council members were directed to Office of Subsistence Management Bering Sea/Aleutian Islands and Gulf of Alaska briefings in the meeting book. Polly Wheeler (Office of Subsistence Management) and Becca Robbins-Gisclair responded to questions.

Yukon River Panel December Meeting Report
Fred Bue provided a recap of the meeting.

Yukon River Drainage Fisheries Association Report
Jason Hale (Yukon River Drainage Fisheries Association) provided an update on the organization's recent annual meeting in Mountain Village and announced plans for upcoming pre-season meetings. The Council asked member Lester Erhart to represent the Council at the April 13 river-wide pre-season planning meeting in Anchorage. Member Andy Bassich will also attend for the Yukon River Panel.

Sheefish, Whitefish, and Bering Cisco Briefing
Randy Brown (Fish and Wildlife Service) provided a briefing and took questions. Tom Liebscher (National Park Service) volunteered to bring whitefish research to the Council.

Yukon Area Chinook Salmon Subsistence and Personal Use Harvest Patterns
Gene Sandone (GJ Sandone, Consulting) presented a powerpoint of his analysis of Yukon River salmon harvest patterns.

Proposals to the Board of Fisheries

> ***Motion:*** *Mr. Umphenour* ***moved*** *that the Eastern Interior Alaska Subsistence Regional Advisory Council submit a proposal to the Alaska Board of Fisheries to reduce chum salmon production in Prince William Sound and Southeast Alaska to 24% less than the 2000 authorized amount. The motion was* ***seconded*** *by Mr. Bassich. Motion carried.*

Justification
Council members are concerned about the relationship between declining wild salmon stocks and activities impacting the marine environment.

> ***Motion:*** *Mr. Umphenour* ***moved*** *that the Eastern Interior Alaska Subsistence Regional Advisory Council submit a proposal to the Alaska Board of Fisheries to reclassify the Chitina subdistrict*

*from a personal use fishery to a subsistence fishery. The motion was **seconded** by Mr. Glanz. Motion carried.*

Justification
Residents of the Eastern Interior region currently have to utilize the personal use dipnet fishery at Chitina for their subsistence fishing needs. Subsistence fishery allocation determinations would be more favorable for them than those for a personal use fishery.

***Motion:** Mr. Matesi **moved** that the Eastern Interior Alaska Subsistence Regional Advisory Council submit an agenda change request proposal to the Alaska Board of Fisheries to close the Black River and its tributaries to sportfishing for Chinook salmon. The motion was **seconded** by Mr. Firmin. Mr. Bassich requested a roll call vote.*

Yes: Chair Entsminger, Mr. Firmin, Mr. Williams, Mr. Erhart, Mr. Gurtler, Mr. Matesi. **No:** Mr. Bassich, Mr. Glanz, Mr. Umphenour. **Abstain:** Mr. Woodruff.

Motion carried.

Justification
Following a population crash in the late 1930s, early 1940s, the Chinook salmon population of the Black River is struggling to recover, but is subjected to fly-in, guided sportfishing on the spawning grounds.

Wildlife Issues

Wildlife Closure Reviews and Council Recommendations

Spencer Rearden (Office of Subsistence Management) presented a briefing on wildlife closure review policy, then provided an overview of Wildlife Closure Review 10-21 for the Arctic Village Sheep Management Area from materials in the meeting book. Vince Mathews of the Fish and Wildlife Service provided additional information about how the Yukon Flats Advisory Committee addressed the issue.

***Motion:** Mr. Firmin **moved** that the Council support the current closure of the Arctic Village Sheep Management Area. The motion was **seconded** by Mr. Glanz. Motion carried.*

Justification
The Council considered and agreed with the positions of the Arctic National Wildlife Refuge and the Arctic Village Council and noted Josephine Peter's testimony about continued trespass on her allotment at Red Sheep Creek.

Spencer Rearden presented an overview of Wildlife Closure Review 10-34 for Unit 11 Caribou. A handout of the OSM analysis was provided.

***Motion:** Mr. Firmin **moved** that the Council support the current closure of Unit 11 to harvest of caribou. The motion was **seconded** by Mr. Glanz. Motion carried.*

Justification
The Council considered and agreed with the OSM analysis.

Chisana Caribou Update
Barbara Cellarius (Wrangell-St. Elias National Park and Preserve) and Jeff Gross (Alaska Department of Fish and Game, Tok) provided a briefing on the Chisana caribou herd. Judy Putera (Wrangell-St. Elias National Park and Preserve) joined the meeting via teleconference.

Public Testimony
Julie Roberts-Hyslop (Tanana) spoke to the importance of continuing to teach youth their cultural traditions, in support of the addition of two seats to the Federal Subsistence Board, the need to pay attention to climate change and the importance of fish and wildlife population monitoring and management to maintain healthy balances and harvestable populations. Ms. Roberts-Hyslop also encouraged the Council to maintain good communication with people in rural areas.

Aaron Kozevnikoff (Tanana) expressed concern about the requirement for children to be licensed as crew members when they accompany family in order to learn how to fish. He also testified about the importance of ensuring that regulations allow for the continuation of the traditional subsistence lifestyle and customary trade practices. Additionally, Mr. Kozevnikoff noted the change to moose behavior in his area as a result of climate change, and the need to adjust the dates of moose hunting season in response.

Fortymile Caribou
Rita St. Louis (Department of Fish and Game) and Jeff Gross provided a briefing on the Fortymile caribou herd, and the joint proposal developed by the Fortymile working group and pertinent state and federal agencies.

> ***Motion:*** *Mr. Glanz* ***moved*** *that the Council adopt the joint proposal as developed. The motion was* ***seconded*** *by Mr. Woodruff. Motion carried.*

Justification
The Council considered and supported goals the Fortymile working group and agencies that worked together to jointly craft the proposal.

Yukon Flats National Wildlife Refuge
Mark Bertram (Yukon Flats National Wildlife Refuge) provided a newsletter and recap of the Yukon Flats Cooperative Moose Management Planning and monitoring activities on the refuge. The Council decided that, in addition to addressing its concerns regarding predation in its annual report, it will send a letter to the Fish and Wildlife Service to request funding for completion of studies that will allow for an environmental review.

Cultural Sensitivity Concerns
Andrea Medeiros (Office of Subsistence Management) described her role as the public affairs specialist for OSM and her efforts to improve outreach in general, and then how her strategies might be applied to outreach related to cultural sensitivity concerns.

Update on Travel Procedures
KJ Mushovic (Office of Subsistence Management) provided an update on Council travel matters.

Secretarial Program Review
Pat Purchot (Office of the Secretary of the Interior) provided an update on the status of the Secretarial Program Review. Polly Wheeler directed the Council's attention to a handout regarding composition of the Federal Subsistence Board.

> ***Motion:*** *Mr. Bassich* ***moved*** *that the Council support the proposed changes to the voting membership of the Federal Subsistence Board as presented. The motion was* ***seconded*** *by Mr. Glanz. Motion carried.*

Justification
The Council supported increasing rural Alaskan representation on the Federal Subsistence Board as a way to add new perspectives and personal knowledge of using Federal Subsistence regulations.

The Council expressed a preference that candidates for the two new seats be rural Alaska subsistence users and requested that all of the comments made during the discussion of the proposed changes be submitted in response to the Federal Register Notice soliciting input.

Dr. Wheeler continued to brief the Council on review items related to Federal Subsistence Board deference to regional advisory councils, use of executive sessions, and process for making rural determinations. Dr. Wheeler also led a review of the Memorandum of Understanding for Coordinated Interagency Fish and Wildlife Management for Subsistence Uses on Federal Public Lands in Alaska between the Federal Subsistence Board and the State of Alaska.

> ***Motion:*** *Mr. Woodruff* ***moved*** *that the Council send a letter to the Federal Subsistence Board generally supporting the Memorandum of Understanding while recommending that state/federal data sharing protocol be improved. The motion was* ***seconded*** *by Mr. Glanz. Motion carried.*

Justification
While the Council acknowledged that the Memorandum of Understanding generally worked well, there is room for improvement from both Federal and State agencies in sharing raw data in a timely manner.

Dr. Wheeler provided a briefing on the process used to make customary and traditional use determinations and solicited Council feedback. Council members were generally satisfied with the process. Dr. Wheeler completed her coverage of Secretarial Program Review items with an update on the status of tribal consultation efforts.

Public Testimony
Darcie Warden (Alaska Wilderness League and Black River Working Group) presented the Council with a resolution supporting the designation of the Upper Black River Subunit, as described in the Bureau of Land Management's Eastern Interior Resource Management Plan, as "wild lands" under recent Interior policy establishing such a designation.

> ***Motion:*** *Mr. Glanz* ***moved*** *that the Council adopt the resolution supporting the designation of the Upper Black River Subunit, as described in the Bureau of Land Management's Eastern Interior Resource Management Plan, as "wild lands." The motion was* ***seconded*** *by Mr. Umphenour. Chair requested a roll call vote.*

Yes: Mr. Firmin, Mr. Williams, Mr. Erhart, Mr. Matesi. **No:** Chair Entsminger, Mr. Bassich, Mr. Glanz, Mr. Gurtler, Mr. Woodruff, Mr. Umphenour.

Motion failed.

Justification
The Council did not feel that it had enough information regarding the effects of wild land designations to support the resolution.

Teleconference on Predator Control Statement for Annual Report
Yukon-Kuskokwim Subsistence Regional Advisory Council member Greg Roczicka phoned in to the meeting to brief the Council on his suggested addition to the Eastern Interior Alaska Subsistence Regional Advisory Council's annual report.

National Park Service
Sue Masica, Alaska Regional Director for the National Park Service/representative to the Federal Subsistence Board and Greg Dudgeon, Superintendent of Gates of the Arctic and Yukon-Charley Rivers units of the National Park system, provided remarks to the Council and solicited input on any matters of importance to the Council, particularly related to cultural sensitivity during staff interactions with the public on the units. Mr. Dudgeon asked if a Council member or two might be willing to serve on a panel to provide subsistence and cultural training to seasonal hires, then asked Tom Liebscher to give an overview of his handout on Yukon-Charley projects.

Amy Craver (Denali National Park and Preserve) provided a wildlife and subsistence update for Denali National Park and Preserve and asked the Council to consider a recommendation for its appointment to the Denali Subsistence Resource Commission.

> ***Motion:*** *Mr. Bassich* ***moved*** *that the Council support the appointment of Mr. Kevin Mayo to the Denali National Park Subsistence Resource Commission. The motion was* ***seconded*** *by Mr. Gurtler. Motion carried.*

Justification
The Council noted that Mr. Mayo lives within the Eastern Interior region in Management Unit 20A, is a member of the Middle Nenana Advisory Committee and has customary and traditional use determinations for moose and caribou in Management Unit 13E, allowing him to hunt those animals within Denali Park.

Barbara Cellarius' presentation included handouts on subsistence, wildlife and the Nabesna Road ORV Environmental Impact Statement. Copies of letters between the Wrangell-St. Elias Subsistence Resource Commission and Jon Jarvis, Director of the National Park Service, were provided.

Call for Proposals to Change Federal Subsistence Wildlife Regulations
Andrew Firmin presented four proposals.

> ***Motion:*** *Mr. Bassich* ***moved*** *that the Council adopt the regulatory change proposals presented for wolf trapping, brown bear, and meat on the bone. The motion was* ***seconded*** *by Mr. Woodruff. Motion carried.*

Justification
The Council supported the proposals, which were developed to foster goals set at the Yukon Flats Moose Management meeting to curb moose predation.

> ***Motion:*** *Mr. Bassich* ***moved*** *that the Council adopt the regulatory change presented for Arctic Village Management Area, with the modification to remove the words "…except the drainages of Red Sheep Creek and Cane Creek…" The motion was* ***seconded*** *by Mr. Glanz. Motion carried.*

Justification
The Council recognized the impact that outside hunters have on the traditional cultural and subsistence uses and practices of rural Alaska residents of Arctic Village, Venetie, Fort Yukon, Kaktovik and Chalkyitsik.

Mr. Firmin requested and received the concurrence of the Council that the proposals he brought forward should also be submitted to the Alaska Board of Game.

> ***Motion:*** *Mr. Woodruff* ***moved*** *that the Council adopt the regulatory change proposal presented to limit the customary and traditional use determination for caribou in Unit 25. The motion was* ***seconded*** *by Mr. Glanz. Motion carried.*

Justification
The Council considered the proposal a housekeeping measure that will prevent increased harvest of the herd from non-traditional users, supporting herd management goals.

> ***Motion:*** *Mr. Umphenour* ***moved*** *that the Council start the process to manage wolves in the Yukon Flats National Wildlife Refuge. The motion was* ***seconded*** *by Mr. Woodruff. Motion carried.*

Justification
The information that the Council has been told would be needed to consider predator management in the Yukon Flats National Wildlife Refuge appears to be nearly complete.

OSM staff was asked to develop a letter to revisit this issue and urge the Fish and Wildlife Service to support completion of all the necessary studies.

Alaska Department of Fish and Game
George Pappas announced that Jennifer Yuhas is the new chair of the Department's subsistence liaison team.

Rita St. Louis sought a candidate to attend a wood bison meeting in Anchorage on May 11 and 12, 2011. Mr. Firmin volunteered to attend the meeting and report back to the Council.

Bureau of Land Management
Ruth Gronquist (Eastern Interior Field Office) provided a handout the Eastern Interior Resource Management Plan and wild lands (planning coordinator is Jeannie Cole, 474-2340), and gave an overview of Field Office fish and wildlife projects.

Fish and Wildlife Service
Vince Mathews polled the Council to see if the presence of law enforcement staff at Council meetings was considered valuable and received confirmation that it was useful to have law enforcement perspective as the Council considered issues. Mr. Mathews provided a newsletter and handout for the Arctic National Wildlife Refuge Comprehensive Conservation Plan and announced that the Yukon Flats National Wildlife Refuge will be embarking on government to government meetings in the refuge. Mr. Mathews described a hunter map created for the Kanuti National Wildlife Refuge and his intentions to develop one for the Yukon Flats.

Peter Keller provided a handout and update on the Tetlin National Wildlife Refuge. Ryan Mollnow, formerly Deputy Manager of the Koyukuk Nowitna National Wildlife Refuge, is the new Tetlin Refuge Manager.

The Council was directed to the meeting book for a written briefing on migratory birds.

Alaska Native Science and Engineering Program
The Council was directed to information packets provided on the Alaska Native Science and Engineering Program.

Correspondence from the Southcentral Alaska Subsistence Regional Advisory Council
The Council considered an invitation from the Southcentral Alaska Subsistence Regional Advisory Council to send a representative to its winter meeting in Anchorage in order to discuss Chisana caribou issues of mutual concern. Scheduling conflicts prevented acceptance of the invitation. The Council asked OSM staff to continue to pursue efforts to allow the Councils to interact on the issue prior to the fall round of meetings.

Joint Pacific Alaska Range Complex

> ***Motion:*** *Mr. Glanz* ***moved*** *that the Council submit a comment letter related to its concerns about the Joint Pacific Alaska Range Complex proposals. The motion was* ***seconded*** *by Mr. Umphenour. Motion carried.*

Justification
Council members have experienced and/or heard about the impacts of current military training activities to the reproductive success of game and on hunting success and was concerned about proposals to expand the areas and the times of year used.

Review and Finalize Draft 2010 Annual Report
Council members were provided a preliminary version of an annual report drafted from items identified at the fall meeting, and added the following additional topics:

> Overproduction of hatchery fish;
> Updating the State of Alaska anadromous waters catalog to include salmon bearing water bodies within the Yukon Flats, funded for local Yukon Flats implementation;
> Recommending to the Governor that rural subsistence users be nominated to the North Pacific Fisheries Management Council.
>
> ***Motion:*** *Mr. Bassich* ***moved*** *that the Council adopt the draft annual report presented, with the inclusion of the additional topics identified. The motion was* ***seconded*** *by Mr. Firmin. Motion carried.*

Addition to Minutes of October, 2010 Meeting

The Council was provided with the following text to consider for addition to the draft Fall 2010 meeting minutes as published in the Winter 2011 meeting book.

Greg Dudgeon and Gary Youngblood, Superintendent and Chief Ranger, respectively, of Yukon Charley National Preserve noted that the US Attorney's Office had requested that an incident that took place on the Preserve recently not be discussed in the media or with the public and noted that the court is the proper place to have the facts of the incidence told, While they were limited in what they could say about the specifics of that incident, they were willing to discuss their overall process and procedure and what their activities in the unit entail.

Mr. Dudgeon explained the Preserve's position that the National Park Service has authority to enforce regulations on all water within the boundaries of the unit, regardless of upland land owner, and cited 36 CFR Sec. 1.2. Mr. Youngblood added that 36 CFR Sec. 3.4 provides authority to conduct safety inspections without probable cause and that 36 CFR Sec. 3.2(b) allows the National Park Service to adopt state regulations as its own to enforce. Mr. Youngblood reported that the unit has conducted about 300 such inspections over the last 3 years, none of which involved boardings. Out of all those contacts, only two resulted in citations, and the offer to "tear up" one of the citations (for no registration) if compliance could be demonstrated.

In response to Council questions, Mr. Youngblood clarified that, once initiated, contacts are not optional; even if it has been established that the reason for the contact is not an emergency, the contactee is not free to disengage until law enforcement considers the issue resolved. If a contactee elects to discontinue the interaction, said contactee can be detained.

Council members encouraged the Preserve to better brief new and seasonal rangers on the unique situations that they're going to encounter in this particular area, cultural sensitivity, and provide more direct control and oversight of law enforcement staff at the by a station manager to avoid repeated recurrences of the similar negative encounters. The Council discussed the merits of Subsistence Resource Commissions in other National Park Units and the potential for creating a similar forum that might improve interactions between Preserve personnel and the community.

> ***Motion:*** *Mr. Glanz* ***moved*** *that the Council adopt the language presented. The motion was* ***seconded*** *by Mr. Bassich. Motion carried.*

Election of Officers

> *Mr. Glanz* ***nominated*** *Ms. Entsminger for Chair.* *Mr. Umphenour* ***moved*** *to close nominations. The motion was* ***seconded*** *by Mr. Woodruff. Ms. Entsminger was elected to serve as Chair.*
>
> *Mr. Glanz* ***nominated*** *Mr. Umphenour for Vice-Chair.* *Mr. Erhart* ***moved*** *to close nominations. The motion was* ***seconded*** *by Mr. Woodruff. Mr. Umphenour was elected to serve as Vice-Chair.*
>
> *Mr. Glanz* ***nominated*** *Mr. Firmin for Secretary.* *Mr. Umphenour* ***moved*** *to close nominations. The motion was* ***seconded*** *by Mr. Woodruff. Mr. Firmin was elected to serve as Secretary.*

Other Business

The Council considered arrangements for upcoming meetings and confirmed its fall meeting in Tanana, adding a half day to allow for travel logistics and public testimony. The Council selected March 2 and 3 in Central for the Winter 2012 meeting.

The Council confirmed appointments to the customary trade subcommittee (Mr. Firmin, Mr. Bassich, and Mr. Glanz) and added Mr. Williams as an alternate.

Mr. Glanz was recognized for five years of volunteer service on the Council.

The Council reviewed a draft letter on the Joint Pacific Alaska Range Complex

> ***Motion:*** *Mr. Bassich* ***moved*** *to adopt the draft comment letter on the Joint Pacific Alaska Range Complex proposals with modifications as requested. The motion was* ***seconded*** *by Mr. Glanz. Motion carried.*

Council members provided closing remarks.

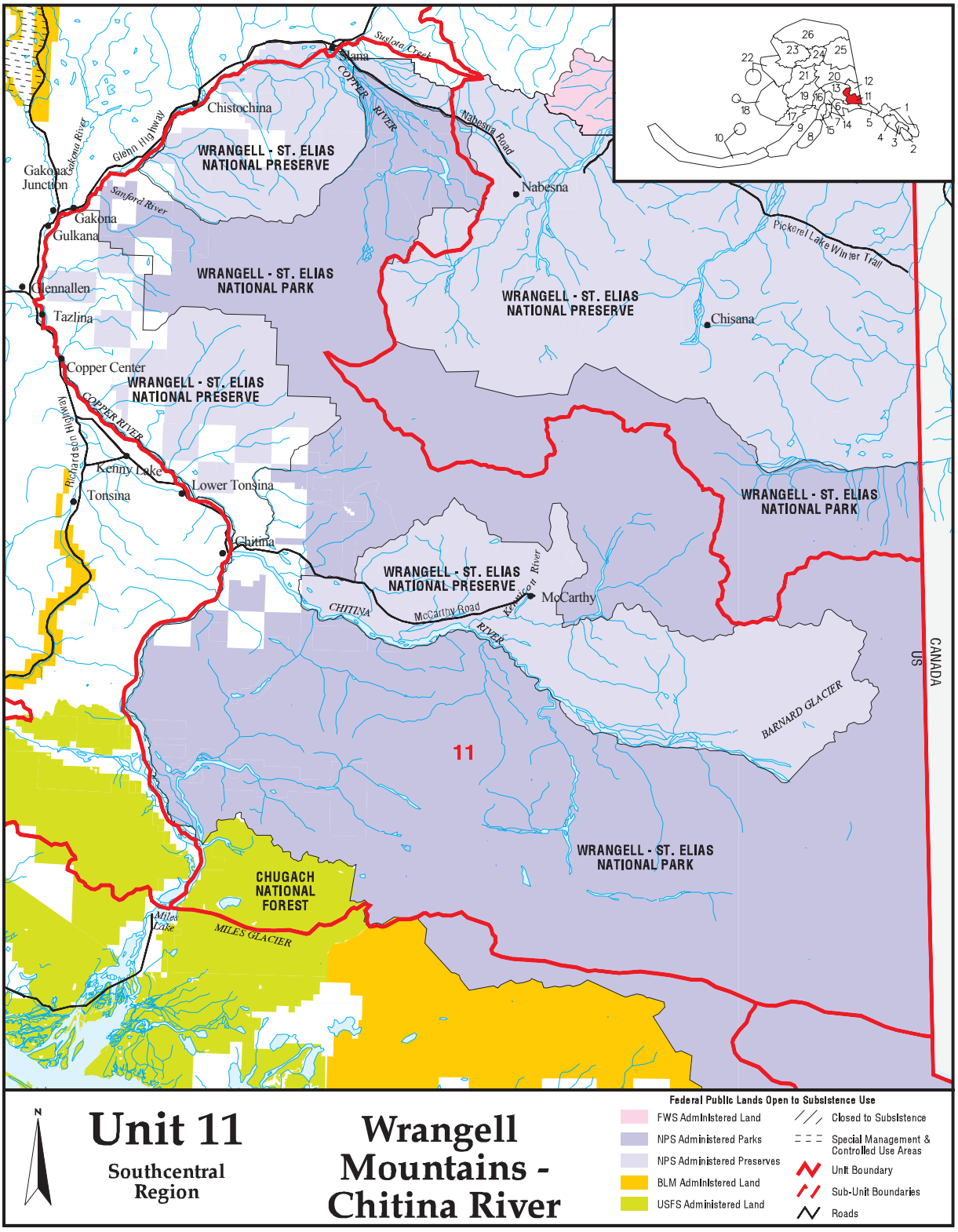
> ***Motion:*** *Mr. Glanz* ***moved*** *to adjourn. The motion was* ***seconded*** *by Mr. Woodruff. Motion carried and the meeting adjourned.*

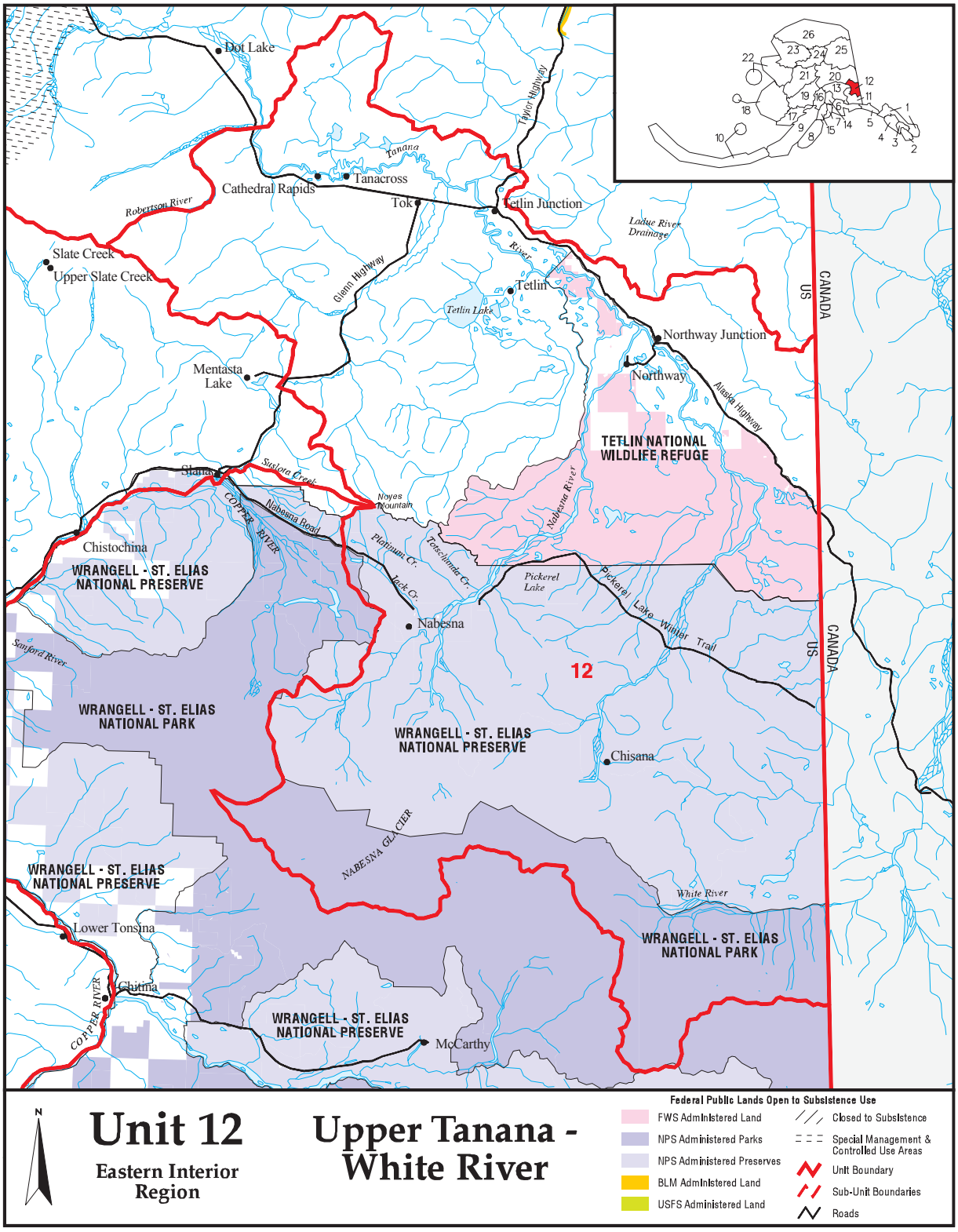
I certify that, to the best of my knowledge, the foregoing minutes are accurate and complete.

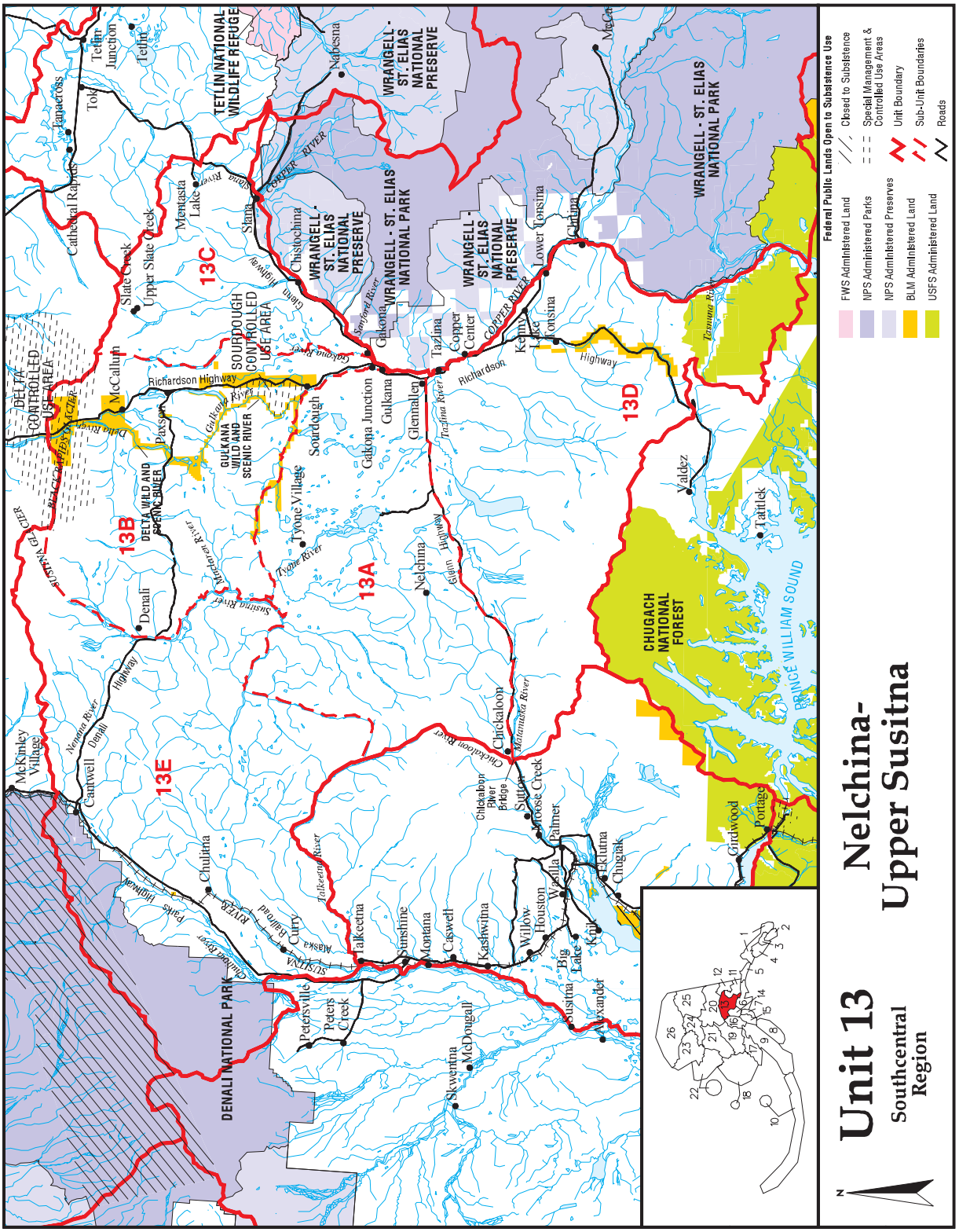
_____ _____
KJ Mushovic, Designated Federal Officer Date

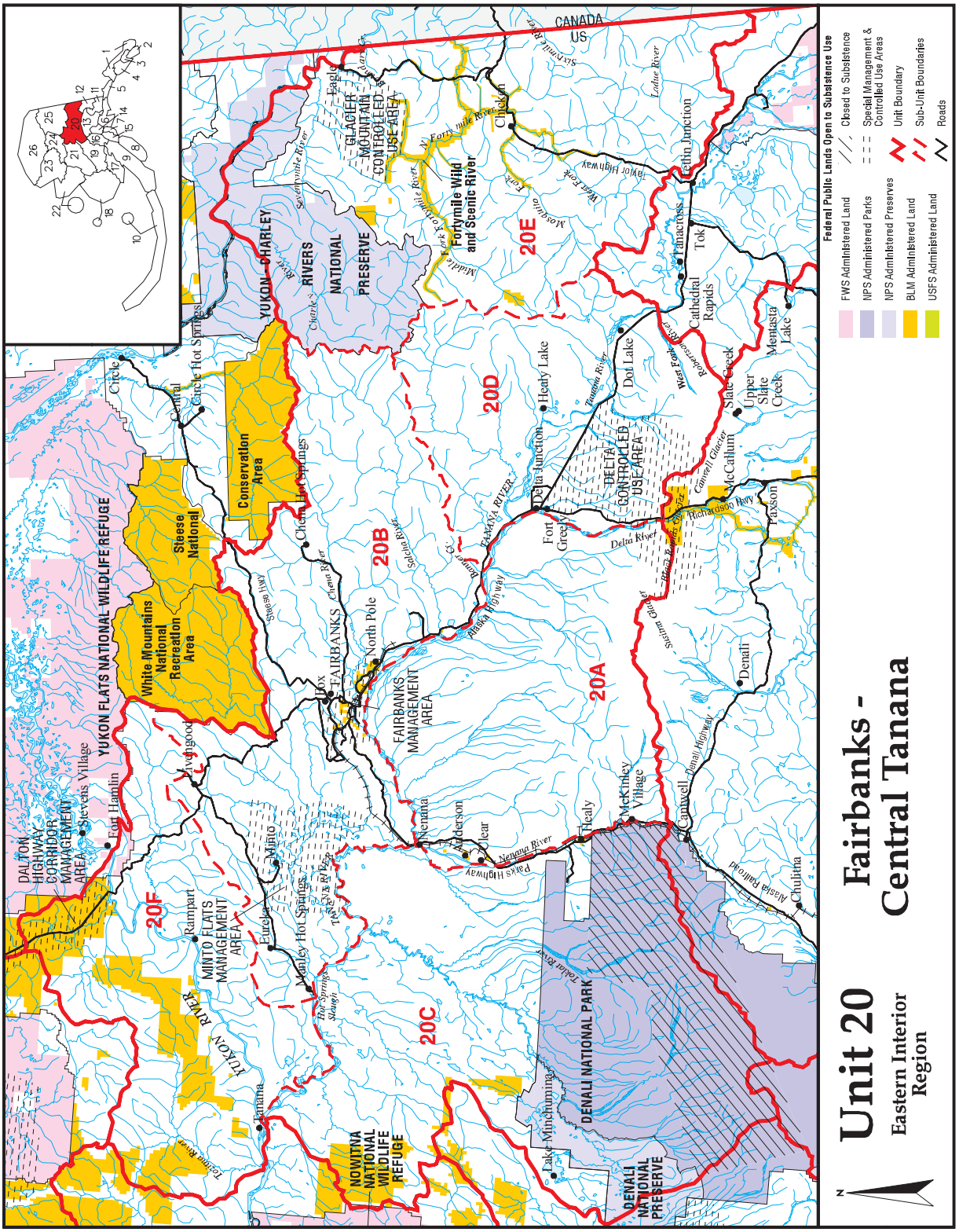
_____ _____
Sue Entsminger, Chair Date

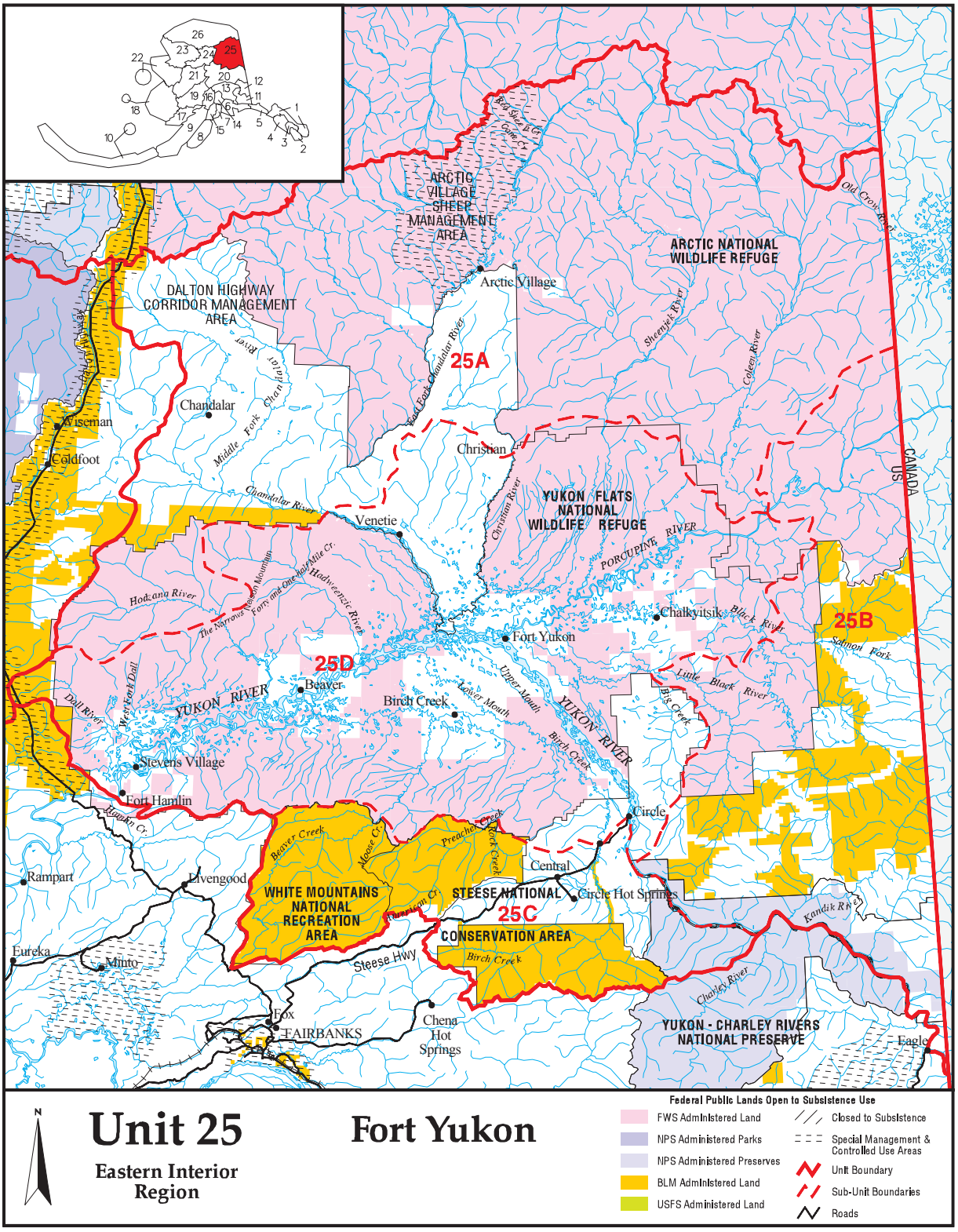
These minutes will be formally considered by the Regional Advisory Council at its Fall 2011 public meeting. Any corrections or notations will be incorporated in the minutes of that meeting.


Unit 11
Southcentral Region
Wrangell Mountains - Chitina River
Federal Public Lands Open to Subsistence Use
FWS Administered Land
NPS Administered Parks
NPS Administered Preserves
BLM Administered Land
USFS Administered Land
Closed to Subsistence
Special Management & Controlled Use Areas
Unit Boundary
Sub-Unit Boundaries
Roads
WRANGELL - ST. ELIAS NATIONAL PRESERVE
WRANGELL - ST. ELIAS NATIONAL PARK
CHUGACH NATIONAL FOREST
Glenn Highway
Sanford River
Gakona River
Richardson Highway
COPPER RIVER
Suslota Creek
Nabesna Road
Pickerel Lake Winter Trail
Kennicott River
McCarthy Road
CHITINA RIVER
BARNARD GLACIER
MILES GLACIER
Miles Lake
Chistochina
Gakona Junction
Gakona
Gulkana
Glennallen
Tazlina
Copper Center
Kenny Lake
Tonsina
Lower Tonsina
Chitina
McCarthy
Nabesna
Chisana
11
US
CANADA


Dot Lake
Cathedral Rapids
Tanacross
Tok
Tetlin Junction
Robertson River
Slate Creek
Upper Slate Creek
Glenn Highway
Tetlin
Tetlin Lake
Ladue River Drainage
Northway Junction
Northway
Mentasta Lake
Alaska Highway
TETLIN NATIONAL WILDLIFE REFUGE
Slana
Suslota Creek
Noyes Mountain
Nabesna Road
COPPER RIVER
Chistochina
WRANGELL - ST. ELIAS NATIONAL PRESERVE
Platinum Cr.
Totschunda Cr.
Jack Cr.
Nabesna River
Pickerel Lake
Pickerel Lake Winter Trail
Nabesna
Sanford River
12
WRANGELL - ST. ELIAS NATIONAL PARK
WRANGELL - ST. ELIAS NATIONAL PRESERVE
Chisana
NABESNA GLACIER
White River
WRANGELL - ST. ELIAS NATIONAL PRESERVE
Lower Tonsina
WRANGELL - ST. ELIAS NATIONAL PARK
Chitina
COPPER RIVER
WRANGELL - ST. ELIAS NATIONAL PRESERVE
McCarthy
US
CANADA
Unit 12
Eastern Interior Region
Upper Tanana - White River
Federal Public Lands Open to Subsistence Use
FWS Administered Land
NPS Administered Parks
NPS Administered Preserves
BLM Administered Land
USFS Administered Land
Closed to Subsistence
Special Management & Controlled Use Areas
Unit Boundary
Sub-Unit Boundaries
Roads


Unit 13
Southcentral Region
Nelchina-Upper Susitna
Federal Public Lands Open to Subsistence Use
FWS Administered Land
NPS Administered Parks
NPS Administered Preserves
BLM Administered Land
USFS Administered Land
Closed to Subsistence
Special Management & Controlled Use Areas
Unit Boundary
Sub-Unit Boundaries
Roads
13A
13B
13C
13D
13E
DENALI NATIONAL PARK
DELTA CONTROLLED USE AREA
DELTA WILD AND SCENIC RIVER
GULKANA WILD AND SCENIC RIVER
SOURDOUGH CONTROLLED USE AREA
TETLIN NATIONAL WILDLIFE REFUGE
WRANGELL - ST. ELIAS NATIONAL PRESERVE
WRANGELL - ST. ELIAS NATIONAL PARK
CHUGACH NATIONAL FOREST
PRINCE WILLIAM SOUND
McKinley Village
Cantwell
Denali
McCallum
Paxson
Cathedral Rapids
Tanacross
Tok
Tetlin Junction
Tetlin
Slate Creek
Upper Slate Creek
Mentasta Lake
Slana
Chistochina
Gakona
Gakona Junction
Glennallen
Sourdough
Tyone Village
Nelchina
Tazlina
Copper Center
Kenny Lake
Lower Tonsina
Tonsina
Chitina
McCarthy
Nabesna
Valdez
Tatitlek
Girdwood
Portage
Chulitna
Talkeetna
Sunshine
Montana
Caswell
Kashwitna
Willow
Houston
Wasilla
Palmer
Sutton
Moose Creek
Chickaloon
Chickaloon River Bridge
Ekluta
Chugiak
Eagle River
Big Lake
Knik
Susitna
Alexander
Petersville
Peters Creek
McDougall
Skwentna
Curry
Richardson Highway
Glenn Highway
Denali Highway
Parks Highway
Edgerton Highway
Copper River Highway
Tok Cutoff
Alaska Railroad
Susitna River
Talkeetna River
Chickaloon River
Matanuska River
Tazlina River
Tyone River
Gulkana River
Copper River
Tiekel River
Nenana River
Delta River
Gulkana Lake
Tonsina River
Lake Louise
Tiekel River


Unit 20
Eastern Interior Region
Fairbanks - Central Tanana
Federal Public Lands Open to Subsistence Use
FWS Administered Land
NPS Administered Parks
NPS Administered Preserves
BLM Administered Land
USFS Administered Land
Closed to Subsistence
Special Management & Controlled Use Areas
Unit Boundary
Sub-Unit Boundaries
Roads
20A
20B
20C
20D
20E
20F
YUKON FLATS NATIONAL WILDLIFE REFUGE
YUKON - CHARLEY RIVERS NATIONAL PRESERVE
DENALI NATIONAL PARK
DENALI NATIONAL PRESERVE
NOWITNA NATIONAL WILDLIFE REFUGE
White Mountains National Recreation Area
Steese National Conservation Area
FAIRBANKS MANAGEMENT AREA
MINTO FLATS MANAGEMENT AREA
DALTON HIGHWAY CORRIDOR MANAGEMENT AREA
GLACIER MOUNTAIN CONTROLLED USE AREA
DELTA CONTROLLED USE AREA
Fortymile Wild and Scenic River
CANADA
US
Circle
Central
Circle Hot Springs
Eagle
Chicken
Tetlin Junction
Tanacross
Tok
Cathedral Rapids
Mentasta Lake
Dot Lake
Healy Lake
Delta Junction
Fort Greely
Slate Creek
Upper Slate Creek
McCallum
Paxson
Denali
Cantwell
McKinley Village
Healy
Nenana
Anderson
Clear
Chulitna
Minto
Eureka
Manley Hot Springs
Rampart
Tanana
Lake Minchumina
Fort Hamlin
Stevens Village
Livengood
Hox
FAIRBANKS
North Pole
Chena Hot Springs
Alaska Highway
Parks Highway
Nenana River
Delta River
Richardson Hwy
Alaska Railroad
Denali Highway
Tanana River
Yukon River
Tozitna River
Tokat River
Hot Springs Slough
Chena River
Salcha River
Tanana River
Sixtymile River
Ladue River
Taylor Highway
West Fork
Mosquito Fork
Middle Fork
Fortymile River
Seventymile River
Charley River
Susitna Glacier
Canwell Glacier
Black Rapids Glacier
Robertson River
Tanana River
Steese Hwy
Tanana River
Tozitna River


ARCTIC VILLAGE SHEEP MANAGEMENT AREA
ARCTIC NATIONAL WILDLIFE REFUGE
Arctic Village
DALTON HIGHWAY CORRIDOR MANAGEMENT AREA
25A
Chandalar
Wiseman
Coldfoot
Christian
YUKON FLATS NATIONAL WILDLIFE REFUGE
Venetie
Fort Yukon
Chalkyitsik
25B
25D
Beaver
Birch Creek
YUKON RIVER
Stevens Village
Fort Hamlin
Circle
Central
Rampart
Livengood
WHITE MOUNTAINS NATIONAL RECREATION AREA
STEESE NATIONAL CONSERVATION AREA
25C
Circle Hot Springs
Eureka
Minto
Steese Hwy
Fox
FAIRBANKS
Cheng Hot Springs
YUKON - CHARLEY RIVERS NATIONAL PRESERVE
Eagle
CANADA
US
N
Unit 25
Eastern Interior Region
Fort Yukon
Federal Public Lands Open to Subsistence Use
FWS Administered Land
NPS Administered Parks
NPS Administered Preserves
BLM Administered Land
USFS Administered Land
Closed to Subsistence
Special Management & Controlled Use Areas
Unit Boundary
Sub-Unit Boundaries
Roads

WP12-01 Executive Summary	
General Description	Proposal WP12-01, submitted by the Brown Bear Claw Handicraft Working Group, requests that prior to selling a handicraft incorporating a brown bear claw(s), the hide or claw(s) not attached to a hide, must be sealed by an authorized Alaska Department of Fish and Game (ADF&G) representative and that a copy of the ADF&G sealing certificate would then accompany the handicraft when sold.
Proposed Regulation	**Definitions and Utilization of Wildlife** *§___.25(j)(7) If you are a Federally qualified subsistence user, you may sell handicraft articles made from the skin, hide, pelt, or fur, including claws, of a brown bear taken from Units 1–5, 9A–C, 9E, 12, 17, 20, 22, 23, 24B (only that portion within Gates of the Arctic National Park), 25, or 26.* *(i) In Units 1, 2, 3, 4, and 5, you may sell handicraft articles made from the skin, hide, pelt, fur, claws, bones, teeth, sinew, or skulls of a brown bear taken from Units 1, 4, or 5.* *(ii) ~~[Reserved]~~* ***Prior to selling a handicraft incorporating a brown bear claw(s), the hide or claw(s) not attached to a hide, must be sealed by an authorized ADF&G representative.*** *(A)* ***A copy of the ADF&G sealing certificate must accompany the handicraft when sold.***
OSM Preliminary Conclusion	**Support**
Southeast Regional Council Recommendation	
Southcentral Regional Council Recommendation	
Kodiak/Aleutians Regional Council Recommendation	
Bristol Bay Regional Council Recommendation	
Yukon/Kuskokwim Delta Regional Council Recommendation	
Western Interior Regional Council Recommendation	
Seward Peninsula Regional Council Recommendation	

continued on next page

WP12-01 Executive Summary *(continued)*	
Northwest Arctic Regional Council Recommendation	
Eastern Interior Regional Council Recommendation	
North Slope Regional Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	**1 Support**

DRAFT STAFF ANALYSIS
WP12-01

ISSUES

Proposal WP12-01, submitted by the Brown Bear Claw Handicraft Working Group, requests that prior to selling a handicraft incorporating a brown bear claw(s), the hide or claw(s) not attached to a hide, must be sealed by an authorized Alaska Department of Fish and Game (ADF&G) representative and that a copy of the ADF&G sealing certificate would then accompany the handicraft when sold.

DISCUSSION

This proposal is a compromise reached by the members of the Brown Bear Claw Handicraft Working Group (Working Group). The proposal addresses concerns originally raised by the State of Alaska with Federal regulations that allow the sale of handicrafts that include brown bear claws from bears that are taken under Federal subsistence regulations. The Working Group suggested that deferred Proposals WP08-05 and WP10-02 be opposed (see deferred Proposal WP10-02), and that Proposal WP12-01 be submitted. The intent of the proposal is to protect subsistence users who incorporate brown bear claws into handicrafts for sale by providing proof that the claws are from brown bears that were harvested by Federally qualified subsistence users. Having proof that the claws are from subsistence-harvested brown bears could provide added value to a handicraft, as it would clearly identify that the claws are from a legally harvested brown bear. Requiring that a copy of the sealing certificate accompany the handicraft would provide a method of tracking legally harvested brown bears, but also would require modification to the sealing certificate, which is managed by the State of Alaska, to include a place on the certificate indicating that the bear was harvested by a Federally qualified subsistence user.

Existing Federal Regulation

Definitions and Utilization of Wildlife

§___.25(j)(7) If you are a Federally qualified subsistence user, you may sell handicraft articles made from the skin, hide, pelt, or fur, including claws, of a brown bear taken from Units 1–5, 9A–C, 9E, 12, 17, 20, 22, 23, 24B (only that portion within Gates of the Arctic National Park) , 25, or 26.

(i) In Units 1, 2, 3, 4, and 5, you may sell handicraft articles made from the skin, hide, pelt, fur, claws, bones, teeth, sinew, or skulls of a brown bear taken from Units 1, 4, or 5.

(ii) [Reserved].

Proposed Federal Regulation

Definitions and Utilization of Wildlife

§___.25(j)(7) If you are a Federally qualified subsistence user, you may sell handicraft articles made from the skin, hide, pelt, or fur, including claws, of a brown bear taken from Units 1–5, 9A–C, 9E, 12, 17, 20, 22, 23, 24B (only that portion within Gates of the Arctic National Park), 25, or 26.

(i) In Units 1, 2, 3, 4, and 5, you may sell handicraft articles made from the skin, hide, pelt, fur, claws, bones, teeth, sinew, or skulls of a brown bear taken from Units 1, 4, or 5.

(ii) ~~[Reserved]~~ ***Prior to selling a handicraft incorporating a brown bear claw(s), the hide or claw(s) not attached to a hide, must be sealed by an authorized ADF&G representative.***

(A) ***A copy of the ADF&G sealing certificate must accompany the handicraft when sold.***

Existing State Regulations

5AAC 92.200. Purchase and sale of game

In accordance with AS 16.05.920(a) and 16.05.930(e), the purchase, sale, or barter of game or any part of game is permitted except as provided in this section.

Except as provided in 5AAC 92.031, a person may not purchase, sell, barter, advertise or otherwise offer for sale or barter:

(1) any part of a bear, except an article of handicraft made from the fur of a bear;

In 2005, the State of Alaska, Board of Game began to allow the sale of raw bear hides, with claws attached, harvested in specific predator control management areas under a State permit.

5 AAC 92.031. Permit for selling skins, skulls, and trophies

(c) After the skin and skull is sealed as required under 5 AAC 92.165(a) , a person may sell the untanned skin, with claws attached, and skull of a black bear taken in an active predator control area listed in 5 AAC 92.125 only under a permit issued by the department.

(d) After the skin and skull is sealed as required under 5 AAC 92.165(a) , a person may sell the untanned skin, with claws attached, and skull of a brown bear taken in an active brown bear predator control area listed in 5 AAC 92.125 only under a permit issued by the department.

(e) In this section, "active" means that predator control permits have been issued for the referenced predator control area during the current year.

Extent of Federal Public Lands

Proposed regulations would apply to all Federal public lands in Units 1-5, 9A-C, 12, 17, 20, 23, 24B (only that portion within Gates of the Arctic National Park), 25, or 26, as defined by Federal subsistence hunting regulations.

Customary and Traditional Use Determinations

The customary and traditional use determinations for brown bear for all units in the State are included in the **Appendix** of WP10-02 (Deferred) analysis.

Regulatory History

The Board has consistently rejected attempts to remove brown bear claws as a legal item with which Federally qualified users can make handicrafts for sale. Retaining the use of claws in handicrafts for sale is consistent with previous Board action, and is not expected to significantly increase harvests, as described in previous analyses.

The Board has provided for the sale of handicrafts made from the skin, hide, pelt, fur, claws, bones, teeth, sinew, or skulls of brown bears by Federally qualified subsistence users where required. The intent of the Board has been to allow Federally qualified subsistence users to fully utilize the above-listed parts of bears legally harvested under Federal subsistence regulations. It has not been the intent of the Board to create a commercial incentive to harvest bears based on the sale of bear handicrafts.

The following is a brief summary of regulatory actions taken by the Board regarding the sale of handicrafts made from bear parts.

May 2002 — The Board adopted regulations allowing the sale of handicrafts made from the "fur" of black bear (statewide regulation).

May 2004 — The Board adopted regulations allowing the sale of handicrafts made from the "fur" of brown bear taken in Eastern Interior, Bristol Bay, and Southeast regions. The Board also clarified its intent to maintain the Federal definition of "fur," which includes claws.

May 2005 — The Board adopted regulations that:

- Modified the definition of the term *handicraft*.
- Modified the definition of the terms *skin, hide, pelt, and fur*.
- Modified regulatory language to clarify that bear claws can be used in handicrafts for sale. (The previous language allowing the sale of handicrafts made with bear claws specifically referred to bear fur, with the reference to claws contained in the definition of fur. With the old language it was not obvious to most readers that the use of claws was permitted. This action by the Board did not authorize any new uses.)
- Allowed the sale of handicrafts in Units 1–5 made from bones, teeth, sinew, or skulls of bears taken in those units.

May 2006 — The Board rejected proposed regulations to prohibit the sales of handicrafts made from bear claws to businesses. However, the Board did adopt regulatory language that prohibits handicraft sales that constitute a "significant commercial enterprise."

May 2007 — The Board rejected proposed regulations that claws be removed from the Federal definition of fur and that sales of handicraft articles made from claws, bones, teeth, sinew, or skulls of black and brown bears be allowed for sale only between Federally qualified subsistence users statewide.

May 2008 — The Board deferred a proposed regulation governing the use of brown bear claws in handicrafts for sale. The proposal asked for the removal of all unit-specific regulations related to the statewide sale of brown bear handicrafts made of skin, hide, pelt or fur. The proposal also stated that sales of brown bear handicrafts made of claws, bones, teeth, sinew, or skulls should occur only between Federally qualified subsistence users. The deferment pended on the formation of a working group to address the issue of developing a method of tracking brown bear claws made into handicrafts for sale. The working group would include representatives from all interested Subsistence Regional Advisory Councils (Councils) and State and Federal staff (FSB 2008:102-119).

May 2010 — The Board was presented with an update of the working group.

Brown Bear Claw Handicraft Working Group

The Brown Bear Claw Handicraft Working Group was composed of representatives from nine of the ten Councils, staff from ADF&G, and staff of Federal agencies. The working group met over several occasions between 2009 and 2011 to discuss a range of issues relating to brown bear claws including their uses in handicrafts, the feasibility of tracking, and potential changes to regulations. An initial scoping meeting between Federal and State staff was held in January 2009; at that meeting a draft charge was developed[1]. A briefing was provided to the Councils during the Winter 2009 meeting cycle on the status of the working group, and Councils selected representatives to participate in the working group. The first working group meeting occurred in June 2009. Federal and State staff conducted further research and met twice in the summer of 2009 to discuss research questions and issues. Staff provided another briefing to the Councils on the status of the working group at the Fall 2009 Council meetings.

The working group met again in July 2010 and discussed changing the Federal subsistence regulations over the sale of handicrafts incorporating brown bear claws. The group posed that if these regulations were to change, that the new regulations not be burdensome to subsistence users. The working group also discussed the Convention on International Trade in Endangered Species agreement and sealing requirements, which affect subsistence users who wish to sell handicrafts that incorporate brown bear claws.

The working group came to consensus in July 2010 to recommend that the Board reject deferred Proposal WP10-02 that had been submitted in 2008 (numbered in 2008 as WP08-05) and submit a new proposal. The working group suggested the new proposal require sealing a brown bear only if the subsistence user intends to sell a handicraft incorporating brown bear claw(s). The results of the July 2010 meeting, including the working group's suggested proposal language, were taken to nine of the ten Councils during the Fall 2010 meeting cycle to seek input from the Councils. The Councils also were notified that a new proposal would come before them in the fall of 2011 and before the Board in January of 2012. The working group had requested that the Councils' comments and suggestions be brought back to the working group for their consideration prior to finalizing a proposal. The working group held a teleconference March 2011 to hear the comments and suggestions from the Councils. At its March 2011 meeting, the working group developed a new proposal, WP12-01, requesting that prior to selling a handicraft incorporating a brown bear claw, the hide or claws not attached to a hide, must be sealed by an authorized ADF&G representative. To assure that the handicraft came from a brown bear hide that had been harvested by a Federally qualified subsistence user, a copy of the ADF&G sealing certificate would be required to accompany the handicraft when sold.

Biological Background

Brown bears range throughout most of Alaska, except the islands of the Aleutian Chain west of Unimak and the southeast Alaska islands south of Frederick Sound. Brown bear populations throughout most of Alaska are generally stable and occupy all of their historic range (Miller 1993). Throughout the State, brown bear population densities are diverse and vary according to food availability. On the North Slope where food is scarce, bear densities can be as low as one bear every 300 miles. Brown bear densities as high as one brown bear per mile have been recorded in coastal areas with healthy salmon runs. Brown

1 Draft charge for working group: Develop a method(s) to recommend to the Federal Subsistence Board and Board of Game for tracking brown bear claws made into handicrafts that is enforceable and culturally sensitive, commensurate with the need to provide conservation of this wildlife resource.

bear density is moderate in interior Alaska where the average is one bear per 15–23 miles (Eide et al. 2008).

The following quote from *Ursus* (2002) may provide a clearer picture of the status of brown and other bears:

> Despite our rapidly increasing knowledge of bears, there are few places in the world where we really know how bear populations are faring…Assessments of bear populations often are based on records of dead animals and trends in habitat availability. These data produce dubious indications of population trends. Case studies relating to the trade in bear parts, sport harvests, and nuisance kills indicate that records of human-killed bears may not be accurate and may not necessarily reflect changes in population size. Increasing bear populations may continue to rise with increased levels of human exploitation (as long as it is below the maximum sustainable take), whereas declining populations may continue to plummet despite reduced exploitation. Ironically, bear populations that have been managed for sustained harvests have generally fared better than populations in which hunting has been prohibited, mainly because the former better controls illicit hunting than the latter (Garshelis 2002: 321–334).

There is no evidence to indicate that Federal subsistence regulations have led to an increased legal or illegal harvest of brown bears or that current Federal subsistence regulations adversely affect brown bear populations.

Effects of the Proposal

Adopting the proposal would provide some protection to subsistence users who incorporate brown bear claws into handicrafts for sale by providing proof that the claws are from brown bears that were harvested by Federally qualified subsistence users. By requiring that a copy of the sealing certificate accompany the handicraft, it would clearly identify that the claws are from a legally harvested brown bear. It is possible that having proof that the claws are from a subsistence-harvested brown bear could provide added value to a handicraft, as it would identify that the claws are from a legally-harvested brown bear. Adopting the proposal would only add an additional requirement of sealing the brown bear hide for those who are selling a handicraft incorporating a brown bear claw. In those units where sealing is already required (see **Table 1**), this proposal would have no substantial effect on subsistence users. If adopted, the proposal would require additional paperwork requirements to some subsistence users, which could be a burden to those users.

The sealing certificate would require modification so that there would be a space for indicating that the bear was harvested by a Federally qualified subsistence user. Sealing certificates are managed by the State of Alaska.

There is no known evidence to indicate that current Federal subsistence regulations adversely affect brown bear populations, nor that Federal subsistence regulations have led to an increased legal or illegal harvest of brown bears.

OSM PRELIMINARY CONCLUSION

Support Proposal WP12-01.

Table 1. Handicraft, salvage, and sealing requirements for brown bears harvested under Federal Subsistence Management Regulations*

	Unit																			
Regulation	1	2	3	4	5	6–8	9	10–11	12	13–16	17	18	19	20	21	22	23	24	25	26
__.25(j)(7) Authorized to sell handicrafts made from skin, hide, pelt, or fur, including claws, of a brown bear taken from the below units:	X	X	X	X	X		A, B, C, E		X		X			X		X	X	B[1]	X	X
__.25(j)(7)(i) In Units 1-5, authorized to sell handicrafts made from skin, hide, pelt, fur, claws, bones, teeth, sinew, or skulls of a brown bear taken from the below units:	X			X	X															
__.25(j)(2)(ii) The hide of brown bears need not be salvaged in units:					X		B				X	X	A[2], B		D	X	X	X		A
__.26(j)(2) You may not possess or transport from Alaska the untanned skin or skull of a bear unless both have been sealed; sealing is not required for bears taken in the below units unless removed from the area.					X		B, E				X	X	A, B[3]		D	X	X	X		A
__.26(j)(3) You must keep a bear skin and skull together until both are sealed; this provision and sealing is not required for bears taken in the below units unless removed from the area. If sealed, ADF&G will remove a rudimentary premolar tooth.					X		B, E				X	X	A, B[3]		D	X	X	X		A
__.26(j)(3)(ii) If the skin or skull of a bear taken in the below units are removed from the area, you must have it sealed in Bethel, Dillingham, or McGrath; ADF&G will retain the skin of the skull and front claws.							B				X	X	A, B[3]							
__.26(j)(3)(iii) If the skin or skull of a bear taken in the below units are removed from the area or taken for commercial tanning within the area, you must first have it sealed in Barrow, Galena, Nome, or Kotzebue; ADF&G will retain the skin of the skull and front claws.															D	X	X	X		A
__.26(j)(3)(iv) If the skin or skull of a bear taken in the below units are removed from the area, you must first have it sealed in Yakutat.					X															
__.26(j)(3)(v) If the skin or skull of a bear taken in the below units are removed from the unit, you must first have it sealed; ADF&G will retain the skin of the skull and front claws.							E													

* See 50 CFR 100 for exact regulatory text.

[1] only in that portion within Gates of the Arctic National Park; [2] portions of; [3] downstream of and including the Aniak River drainage.

Justification

Previous action of the Board has been consistent with Section 803 of ANILCA, which includes the "making and selling of handicraft articles out of nonedible byproducts of fish and wildlife resources taken for personal or family consumption." This proposal would provide some protection to subsistence users who incorporate brown bear claws into handicrafts for sale by providing proof that the claws are from brown bears that were harvested by Federally qualified subsistence users. Requiring a copy of the sealing certificate to accompany the handicraft would clearly identify that the claws are from a legally-harvested brown bear. Value could be added to the handicraft, because the sealing certificate would identify that the claws are from a legally-harvested brown bear. Those subsistence users who harvest brown bears from units where sealing is already required would not be affected by this proposal. It is not anticipated that this proposal would adversely affect brown bear populations.

There is no known evidence to indicate that current Federal subsistence regulations adversely affect brown bear populations and there is no evidence to indicate that Federal subsistence regulations have led to an increased legal or illegal harvest of brown bears.

Requiring that a copy of the sealing certificate accompany the handicraft would provide a method of tracking legally-harvested brown bears, but also would require modification to the sealing certificate, which is managed by the State of Alaska, to include a place on the certificate indicating that the bear was harvested by a Federally qualified subsistence user.

LITERATURE CITED

Eide, S., S. Miller, H. Reynolds. Retrieved January 17, 2008. Alaska Wildlife Notebook Series. Internet: http://www.adfg.state.ak.us/pubs/notebook/

FWS. 1982. Brown bear (Ursus arctos). Pages 247–248 in FWS. Initial report baseline study of fish, wildlife and their habitats. Anchorage, AK.

Garshelis, D. 2002. Misconceptions, Ironies, and Uncertainties Regarding Trends in Bear Populations. Ursus 13:321–334.

Miller, S. D. 1993. Brown bears in Alaska: a statewide management overview. Wildlife Tech. Bull. #11. ADF&G, Division of Wildlife Conservation. 40 pages.

WRITTEN PUBLIC COMMENTS

Support. No justification was provided. *Gates of the Arctic Subsistence Resource Commission*

WP10-02 (Deferred) Executive Summary	
General Description	Proposal WP10-02 (deferred proposal WP08-05) requested clarification of the existing Federal Subsistence management regulation governing the use of brown bear claws in handicrafts for sale. The proposal asked for the removal of all unit-specific regulations related to the statewide sale of brown bear handicrafts made of skin, hide, pelt or fur and that sales of brown bear handicrafts made of claws, bones, teeth, sinew, or skulls should occur only between Federally qualified subsistence users. *Submitted by the Alaska Department of Fish and Game*
Proposed Regulation	*§___.25(j)(7) If you are a Federally qualified subsistence user, you may sell handicraft articles made from the skin, hide, pelt, or fur,* ***not*** *including claws, of a brown bear ~~taken from Units 1–5, 9A–C, 9E, 12, 17, 20, or 25~~.* *(i) ~~In Units 1, 2, 3, 4, and 5~~,* ***If you are a Federally qualified subsistence user,*** *you may sell handicraft articles made from the ~~skin, hide, pelt, fur~~, claws, bones, teeth, sinew, or skulls of a brown bear* ***to another Federally qualified subsistence user*** *~~taken from Units 1, 4, or 5~~.* *(ii) [Reserved].*
OSM Preliminary Conclusion	**Take no action**
Southeast Regional Council Recommendation	
Southcentral Regional Council Recommendation	
Kodiak/Aleutians Regional Council Recommendation	
Bristol Bay Regional Council Recommendation	
Yukon/Kuskokwim Delta Regional Council Recommendation	
Western Interior Regional Council Recommendation	
Seward Peninsula Regional Council Recommendation	
Northwest Arctic Regional Council Recommendation	
Eastern Interior Regional Council Recommendation	

continued on next page

WP10-02 (Deferred) Executive Summary *(continued)*	
North Slope Regional Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	**None**

DRAFT STAFF ANALYSIS
WP10-02 *(DEFERRED WP08-05)*

Proposal WP10-02 (deferred proposal WP08-05), submitted by the Alaska Department of Fish and Game (ADF&G), requested clarification of the existing Federal Subsistence management regulation governing the use of brown bear claws in handicrafts for sale. The proposal asked for the removal of all unit-specific regulations related to the statewide sale of brown bear handicrafts made of skin, hide, pelt or fur and that sales of brown bear handicrafts made of claws, bones, teeth, sinew, or skulls should occur only between Federally qualified subsistence users.

Proposal WP10-02 was deferred by the Federal Subsistence Board (Board) at its May 2008 meeting at the suggestion of the ADF&G. The original deferment pended on the formation of a working group to address the issue of developing a method of tracking brown bear claws made into handicrafts for sale. In 2008, the Board voted unanimously to defer the proposal. The Board directed that the working group include representatives from all interested Subsistence Regional Advisory Councils (Councils) and State and Federal staff (FSB 2008:102-119). In 2010, the Board was presented with an update of the working group. The Board agreed to continue to defer WP10-02 until the working group could meet again and come to a consensus on a future plan or proposal.

The Brown Bear Claw Handicraft Working Group (Working Group) was composed of representatives from nine of the ten Councils, staff from ADF&G, and staff of Federal agencies. The Working Group met several times between 2009 and 2011 to discuss a range of issues relating to brown bear claws including their uses in handicrafts, the feasibility of tracking, and potential changes to regulations. An initial scoping meeting between Federal and State staff was held in January 2009; at that meeting a draft charge was developed[1]. A briefing was provided to the Councils (except Western) during the Winter 2009 meeting cycle on the status of the Working Group, and the Councils selected representatives to participate in the Working Group. The first Working Group meeting occurred in June 2009. Federal and State staff conducted further research and met twice in the summer of 2009 to discuss research questions and issues. Staff provided another briefing to the Councils (except Western) on the status of the Working Group at the Fall 2009 Council meetings.

The Working Group met again in July 2010 and discussed changing the Federal subsistence regulations concerning the sale of handicrafts incorporating brown bear claws. The group posed that if these regulations were to change, that the new regulations not be burdensome to subsistence users. The Working Group also discussed the Convention on International Trade in Endangered Species agreement and sealing requirements, which affect subsistence users who wish to sell handicrafts that incorporate brown bear claws.

The Working Group came to consensus in July 2010 to recommend that the Board reject deferred Proposal WP10-02 that had been submitted in 2008 (numbered in 2008 as WP08-05) and that a new proposal should be submitted. The Working Group suggested the new proposal (WP12-01) require sealing a brown bear only if the subsistence user intends to sell a handicraft incorporating brown bear claw(s). The results of the July 2010 meeting, including the Working Group's suggested proposal, were taken to nine of the ten Councils during the Fall 2010 meeting cycle to seek input from the Councils. The Councils also were notified that a new proposal would come before them in the fall of 2011 and before the Board

1 Draft charge for working group: Develop a method(s) to recommend to the Federal Subsistence Board and Board of Game for tracking brown bear claws made into handicrafts that is enforceable and culturally sensitive, commensurate with the need to provide conservation of this wildlife resource.

in January of 2012. The Working Group had requested that the Councils' comments and suggestions be brought back to the Working Group for their consideration prior to finalizing a proposal. The Working Group held a teleconference March 2011 to hear the comments and suggestions from the Councils. At its March 2011 meeting, the Working Group developed a new proposal, WP12-01, requesting that prior to selling a handicraft incorporating a brown bear claw, the hide or claws not attached to a hide, must be sealed by an authorized ADF&G representative. To assure that the handicraft came from a brown bear hide that had been harvested by a Federally qualified subsistence user, a copy of the ADF&G sealing certificate would be required to accompany the handicraft when sold.

No analysis was written regarding deferred Proposal WP08-05 (WP10-02). Nothing has changed since the analysis of Proposal WP08-05 was presented to the Board in May of 2008 (see **Appendix**).

Analysis of Proposal WP12-01 is presented separately.

OSM PRELIMINARY CONCLUSION

Take no action on Proposal WP10-02 (deferred proposal WP08-05).

Justification

Proposal WP08-05 (and subsequently WP10-02) was deferred by the Board pending the recommendations of the Brown Bear Claw Handicraft Working Group. The Working Group compromised on a proposed regulation that would address concerns originally raised by the State of Alaska with Federal regulations that allow the sale of handicrafts that include brown bear claws from bears that are taken under Federal Subsistence regulations. The recommendation of the Working Group is to oppose Proposals WP08-05/WP10-02 and for the Board to consider Proposal WP12-01 in place of Proposals WP08-05/WP10-02. Proposal WP12-01, submitted by the Working Group, would continue to allow selling a handicraft incorporating brown bear claws in specific units, while requiring sealing the brown bear hide only when the handicraft incorporating the claw(s) is sold. Analysis of Proposal WP12-01 is presented separately. The State of Alaska intends to request that the Board withdraw deferred proposals WP10-02 (WP08-05) at the January 2012 Board meeting (Yuhas 2011, pers. comm.).

LITERATURE CITED

FSB. 2008. Transcripts of the Federal Subsistence Board proceedings, April 29, 2008. Office of Subsistence Management, FWS. Anchorage, AK.

Yuhas. 2011. State-Federal Subsistence Liaison Team Leader. Alaska Department of Fish and Game, State of Alaska. Anchorage, AK.

WP10-02 APPENDIX

STAFF ANALYSIS
WP08-05

ISSUES

Proposal WP08-05, submitted by the Alaska Department of Fish and Game (ADF&G), requests the removal of all unit-specific regulations related to the statewide sale of brown bear handicrafts made of skin, hide, pelt or fur and that sales of brown bear handicrafts made of claws, bones, teeth, sinew, or skulls should occur only between Federally qualified subsistence users.

It should be noted that within the Proposed Federal Regulation, the regulatory language, as presented, would preclude all sales of brown bear claws unless amended. This language is found in §___.25(j)(7) and includes "not including claws" which would supersede the language in the next passage which, as written, is intended to allow the sale of handicrafts that include brown bear claws only between Federally qualified subsistence users.

DISCUSSION

The proponent submitted this proposal in order to refine Federal regulations, which, in its view, allow for "unconstrained commercial sale of handicrafts made from brown bear parts" and create "market incentives for poaching." Between 2002 and 2007, the Federal Subsistence Board (Board) considered seven proposals regarding the sale of handicrafts made from some of the nonedible parts of bears. Throughout this period, the Board has consistently provided for the sale of handicrafts made from the skin, hide, pelt, fur, claws, bones, teeth, sinew, and skulls of brown bear taken by Federally qualified subsistence users from units where these practices are considered appropriate.

The proponent's description of persons eligible to sell handicrafts made with these parts would increase the types of bear parts eligible for sale in much of the State, but would narrow sales only to those between Federally qualified rural residents.

Many of the proponent's requests are based on conservation concerns (ADF&G 2008). There are many well documented conservation concerns connected to the illegal trade of bear parts such as gall bladders, bile, and paws. These concerns exist because of the lucrative markets for what is referred to as the "traditional Chinese medicine" trade and Asian "wildlife cuisine" which includes the meat of bear paws (not including claws) (HSUS 2008, Garshelis and McLellan 2008, Garshelis 2002, Williamson and Phipps 1999). These types of illegal trade are a threat to bears in North America and around the world. On the other hand, there appears to be an absence of documentation regarding conservation concerns related to bear claws and bear claw handicrafts. This absence seems to indicate that the effects of the trade or sale of bear claws is not comparable to the trade and sale of bear gall bladders and paws.

Existing Federal Regulation

Definitions & Utilization of Wildlife

§___.25(j)(7) If you are a Federally qualified subsistence user, you may sell handicraft articles made from the skin, hide, pelt, or fur, including claws, of a brown bear taken from Units 1–5, 9A–C, 9E, 12, 17, 20, or 25.

(i) In Units 1, 2, 3, 4, and 5, you may sell handicraft articles made from the skin, hide, pelt, fur, claws, bones, teeth, sinew, or skulls of a brown bear taken from Units 1, 4, or 5.

(ii) [Reserved].

Proposed Federal Regulation

Definitions & Utilization of Wildlife

§___.25(j)(7) If you are a Federally qualified subsistence user, you may sell handicraft articles made from the skin, hide, pelt, or fur, ***not*** *including claws, of a brown bear ~~taken from Units 1–5, 9A–C, 9E, 12, 17, 20, or 25~~.*

(i) ~~In Units 1, 2, 3, 4, and 5~~, ***If you are a Federally qualified subsistence user,*** *you may sell handicraft articles made from the ~~skin, hide, pelt, fur~~, claws, bones, teeth, sinew, or skulls of a brown bear* ***to another Federally qualified subsistence user*** *~~taken from Units 1, 4, or 5~~.*

(ii) [Reserved].

Existing State Regulations

5AAC 92.200. Purchase and sale of game

In accordance with AS 16.05.920(a) and 16.05.930(e), the purchase, sale, or barter of game or any part of game is permitted except as provided in this section.

Except as provided in 5AAC 92.031, a person may not purchase, sell, barter, advertise or otherwise offer for sale or barter:

(1) any part of a bear, except an article of handicraft made from the fur of a bear;

In 2005, the State of Alaska, Board of Game began to allow the sale of raw bear hides, with claws attached, harvested in specific predator control management areas under a State permit.

5 AAC 92.031. Permit for selling skins, skulls, and trophies

(c) After the skin and skull is sealed as required under 5 AAC 92.165(a) , a person may sell the untanned skin, with claws attached, and skull of a black bear taken in an active predator control area listed in 5 AAC 92.125 only under a permit issued by the department.

(d) After the skin and skull is sealed as required under 5 AAC 92.165(a) , a person may sell the untanned skin, with claws attached, and skull of a brown bear taken in an active brown bear predator control area listed in 5 AAC 92.125 only under a permit issued by the department.

(e) In this section, "active" means that predator control permits have been issued for the referenced predator control area during the current year.

Extent of Federal Public Lands

Proposed regulations would apply to all Federal public lands in Alaska, as defined by Federal Subsistence hunting regulations. Federal public lands represent approximately 60% of Alaska or 380,000 square miles.

Customary and Traditional Use Determinations

The customary and traditional use determinations for brown bear for all units in the State are included in **Appendix A**.

Regulatory History

The following is a brief summary of regulatory actions taken by the Board regarding the sale of handicrafts made from bear parts.

May 2002 — The Board adopted regulations allowing the sale of handicrafts made from the "fur" of black bear (statewide regulation).

May 2004 — The Board adopted regulations allowing the sale of handicrafts made from the "fur" of brown bear taken in Eastern Interior, Bristol Bay, and Southeast regions. The Board also clarified its intent to maintain the Federal definition of "fur," which includes claws.

May 2005 — The Board adopted regulations that:

- Modified the definition of the term *handicraft*.
- Modified the definition of the terms *skin, hide, pelt, and fur*.
- Modified regulatory language to clarify that bear claws can be used in handicrafts for sale. (The previous language allowing the sale of handicrafts made with bear claws specifically referred to bear fur, with the reference to claws contained in the definition of fur. With the old language it was not obvious to most readers that the use of claws was permitted. This action by the Board did not authorize any new uses.)
- Allowed the sale of handicrafts in Units 1–5 made from bones, teeth, sinew, or skulls of bears taken in those units.

May 2006 — The Board rejected proposed regulations to prohibit the sales of handicrafts made from bear claws to businesses. However, the Board did adopt regulatory language that prohibits handicraft sales that constitute a "significant commercial enterprise."

May 2007 — The Board rejected proposed regulations that claws be removed from the Federal definition of fur and that sales of handicraft articles made from claws, bones, teeth, sinew, or skulls of black and brown bears be allowed for sale only between Federally qualified subsistence users statewide.

Biological Background

Brown bears range throughout most of Alaska, except the islands of the Aleutian Chain west of Unimak and the southeast Alaska islands south of Frederick Sound. Brown bear populations throughout most of Alaska are generally stable and occupy all of their historic range (Miller 1993). Throughout the State, brown bear population densities are diverse and vary according to food availability. On the North Slope

where food is scarce, bear densities can be as low as one bear every 300 miles. Brown bear densities as high as one brown bear per mile have been recorded in coastal areas with healthy salmon runs. Brown bear density is moderate in interior Alaska where the average is one bear per 15–23 miles (Eide and Miller 1994 and 2003).

The following quote from *Ursus* (2002) may provide a clearer picture of the biological status of brown and other bears:

> Despite our rapidly increasing knowledge of bears, there are few places in the world where we really know how bear populations are faring…Assessments of bear populations often are based on records of dead animals and trends in habitat availability. These data produce dubious indications of population trends. Case studies relating to the trade in bear parts, sport harvests, and nuisance kills indicate that records of human-killed bears may not be accurate and may not necessarily reflect changes in population size. Increasing bear populations may continue to rise with increased levels of human exploitation (as long as it is below the maximum sustainable take), whereas declining populations may continue to plummet despite reduced exploitation. Ironically, bear populations that have been managed for sustained harvests have generally fared better than populations in which hunting has been prohibited, mainly because the former better controls illicit hunting than the latter (Garshelis 2002: 321–334).

Effects of the Proposal

Under current Federal subsistence regulations, brown bear fur with claws can only be used to make handicrafts for sale if the bears were harvested from units in Eastern Interior, Bristol Bay and Southeast Alaska. Other parts, such as bones teeth, sinew, or skulls can only be used in handicrafts for sale from brown bear taken in Southeast Alaska. The proponent's description of persons eligible to sell handicrafts made with these parts would increase the types of bear parts eligible for sale in much of the State, but would narrow all sales only to those between Federally qualified rural residents. The removal of unit-specific restrictions would negate the intent of the Board and the Regional Advisory Councils in recognizing the diverse customary and traditional uses of bears and bear parts throughout the State. These diverse customary and traditional uses are reflected in Regional Advisory Council recommendations. Three proposals (WP08-12, WP08-52 and WP08-53) which request the inclusion of Units 11, 23, 24B and 26 for eligibility to sell brown bear handicrafts with claws have been submitted for the 2008–2010 wildlife regulatory cycle and are analyzed separately.

Previous Board action provided for the sale of handicrafts made from bear claws by Federally qualified subsistence users to consumers including and other than Federally qualified subsistence users. Restricting sales solely to other Federally qualified rural residents, as proposed, will satisfy the need to use these products for regalia and cultural events in rural areas; however, the proposed regulatory language will not allow for handicraft sales to a variety of consumers, which is desired by subsistence users to support themselves and their families in a contemporary cash-subsistence economy.

The Board has also consistently rejected attempts to remove brown bear claws as a legal item with which Federally qualified users can make handicrafts for sale. Retaining the use of claws in handicrafts for sale is consistent with previous Board action, and is not expected to significantly increase harvests, as described in previous analyses.

The Board has provided for the sale of handicrafts made from the skin, hide, pelt, fur, claws, bones, teeth, sinew, or skulls of brown bears by Federally qualified subsistence users where appropriate. The intent of

the Board has been to allow Federally qualified subsistence users to fully utilize the above-listed parts of bears legally harvested under Federal subsistence regulations. It has not been the intent of the Board to create a commercial incentive to harvest bears based on the sale of bear handicrafts.

There is no known evidence to indicate that current Federal subsistence regulations adversely affect brown bear populations, nor that Federal subsistence regulations have led to an increased legal or illegal harvest of brown bears.

OSM CONCLUSION

Oppose proposal WP08-05.

Justification

Previous action of the Board has been consistent with Section 803 of ANILCA, which includes the "making and selling of handicraft articles out of nonedible byproducts of fish and wildlife resources taken for personal or family consumption." This proposal would unnecessarily restrict the subsistence uses of Federally qualified subsistence users as specified in ANILCA Section 803. There is no evidence to indicate that current Federal regulations adversely affect bear populations, nor has any been provided. Further, there has been no evidence provided to indicate that current Federal regulations have led to an increased legal or illegal harvest of bears. If adopted, this proposal would broaden the use of some of the nonedible parts of brown bear into regions where use is not allowed under current Federal regulations. The residents of a number of these regions have stated, through their Regional Subsistence Advisory Councils, they are opposed to inclusion in these regulations.

LITERATURE CITED

Alaska Department of Fish and Game (ADF&G). 2008. ADF&G, Preliminary Comments to the Interagency Staff Committee, WP08-05. January 14, 2008.

Eide, S., S. Miller, H. Reynolds. Retrieved January 17, 2008. Alaska Wildlife Notebook Series. Internet: http://www.adfg.state.ak.us/pubs/notebook/

FWS. 1982. Brown bear (Ursus arctos). Pages 247–248 in FWS. Initial report baseline study of fish, wildlife and their habitats. Anchorage, AK.

Garshelis, D. 2002. Misconceptions, Ironies, and Uncertainties Regarding Trends in Bear Populations. Ursus 13:321–334.

Garshelis, D. and B. McLellan. January 17, 2008. The World Conservation Union and the Species Survival Commission 2004 Quadrennium, IUCN/SSC Bear Specialist Group. Internet: www.carnivorconservation.org/files/iucn_bear_report.pdf

HSUS, Humane Society of the United States. January 17, 2008. The Bear Trade—Questions and Answers. Internet:

www.hsus.org/wildlife issues_facing_wildlife/wildlife_trade/the_unbearable_trade_in_bear_parts_and_bile

HSUS, Humane Society of the United States. January 17, 2008. The Unbearable Trade in Bear Parts and Bile. Internet: www.hsus.org/wildlife issues_facing_wildlife/wildlife_trade/the_unbearable_trade_in_bear_parts_and_bile

Miller, S. D. 1993. Brown bears in Alaska: a statewide management overview. Wildlife Tech. Bull. #11. ADF&G, Division of Wildlife Conservation. 40 pages.

Reynolds, H.V. 1980. North Slope grizzly bear studies. ADF&G, Fed. Aid Wildl. Research Prog. Rep. Proj. W-17–11, Jobs 4.14R –4.15R.

Williamson, D. and M. Phipps, Eds. 2001. Proceedings of the Third International Symposium on the trade in bear parts (1999). TRAFFIC, East Asia.

WP08-05
APPENDIX A

The customary and traditional use determinations for brown bear for all units in the State are included below.

Unit	C & T determination for Brown Bear	Harvest Limits for Brown Bear
1	*Unit 1A—Rural residents of Unit 1A, except no Federal subsistence priority for residents of Hyder* *Unit 1B—Rural residents of Unit 1A, Petersburg and Wrangell, except no Federal subsistence priority for residents of Hyder* *Unit 1C—Rural residents of Unit 1C, Haines, Hoonah, Kake, Klukwan, Skagway, and Wrangell, except no Federal subsistence priority for residents of Gustavus* *Unit 1D—Rural residents of Unit 1D*	1 bear every four regulatory years by State registration permit only
2		
3		
4	*Rural residents of Unit 4 and Kake*	Unit 4, Chichagof Island south and west of a line that follows the crest of the island from Rock Point to Rodgers Point, including Yakobi and other adjacent islands; Baranof Island south and west of a line which follows the crest of the island from Nisnemi Point to the entrance of Gut Bay and including Kruzof and other adjacent islands—One bear every four regulatory years by State permit only
5	*Rural residents of Yakutat*	1 bear by Federal registration permit only
6	*No Federal subsistence priority*	No Federal open season
7	*No Federal subsistence priority*	No Federal open season

Unit	C & T determination for Brown Bear	Harvest Limits for Brown Bear
8	*Rural residents of Old Harbor, Akhiok, Larsen Bay, Karluk, Ouzinkie, and Port Lions*	1 bear by Federal registration permit only. Up to 1 permit may be issued in Akhiok; up to 1 permit may be issued in Karluk; up to 3 permits may be issued in Larsen Bay; up to 2 permits may be issued in Old Harbor; up to 2 permits may be issued in Ouzinkie; and up to 2 permits may be issued in Port Lions.
9	*Unit 9A—Residents of Pedro Bay* *Unit 9B—Rural residents of Unit 9B* *Unit 9C—Rural residents of Unit 9C* *Unit 9D—Rural residents of Units 9D and 10 (Unimak Island)* *Unit 9E—Residents of Chignik, Chignik Lagoon, Chignik Lake, Egegik, Ivanof Bay, Perryville, Pilot Point, Ugashik, and Port Heiden/Meshik*	Units 9A, 9C, and 9D: *see Special Provisions* for the communities of False Pass, King Cove, Cold Bay, Sand Point, and Nelson Lagoon. Unit 9B, Lake Clark National Park and Preserve—Residents of Nondalton, Illiamna, Newhalen, Pedro Bay, and Port Alsworth only—1 bear by Federal registration permit only. The season will be closed when 4 females or 4 bears have been taken, whichever occurs first. Unit 9B remainder—1 bear by State registration permit only Unit 9E—1 bear by Federal registration permit only
10	*Unit 10—Rural residents of Units 9D and 10 (Unimak Island)*	No Federal open season. *See Special Provisions for the communities of False Pass, King Cove, Cold Bay, Sand Point, and Nelson Lagoon for Unit 10.*
11	*Unit 11, north of the Sanford River—Residents of Chistochina, Chitina, Copper Center, Gakona, Glennallen, Gulkana, Kenny Lake, Mentasta Lake, Slana, Tazlina, Tonsina, and Units 11 and 12* *Unit 11 remainder—Residents of Chistochina, Chitina, Copper Center, Gakona, Glennallen, Gulkana, Kenny Lake, Mentasta Lake, Slana, Tazlina, Tonsina, and Unit 11*	1 bear
12	*Rural residents of Unit 12, Dot Lake, Chistochina, Gakona, Mentasta Lake, and Slana*	1 bear
13	*Rural residents of Unit 13 and Slana*	1 bear—Bears taken within Denali National Park must be sealed within 5 days of harvest. That portion within Denali National Park will be closed by announcement of the superintendent after 4 bears have been harvested

Unit	C & T determination for Brown Bear	Harvest Limits for Brown Bear
14	*Unit 14A—All rural residents* *Units 14B and 14C—No Federal subsistence priority*	No Federal open season
15	*No Federal Subsistence priority*	
16	*No Federal subsistence priority*	
17	*Unit 17A—Rural residents of Unit 17, and rural residents of Akiak, Akiachak, Goodnews Bay and Platinum* *Units 17A and 17B, those portions north and west of a line beginning from the Unit 18 boundary at the northwest end of Nenevok Lake, to the southern point of Upper Togiak Lake, and northeast to the northern point of Nukakuk Lake, northeast to the point where the Unit 17 boundary intersects the Shotgun Hills—Rural residents of Kwethluk* *Unit 17B, that portion draining into Nuyakuk Lake and Tikchik Lake—Rural residents of Akiak and Akiachak* *Units 17B and 17C—Rural residents of Unit 17*	1 bear by State registration permit only *Contact ADF&G for permit details*
18	*Residents of Akiachak, Akiak, Eek, Goodnews Bay, Kwethluk, Mountain Village, Napaskiak, Platinum, Quinhagak, St. Marys and Tuluksak*	1 bear by State registration permit only
19	*Units 19A and 19B—Rural residents of Units 19 and 18 within the Kuskokwim River drainage upstream from and including) the Johnson River* *Unit 19C—No Federal subsistence priority* *Unit 19D—Rural residents of Units 19A and 19D, Tuluksak, and Lower Kalskag*	Units 19A and 19B, those portions which are downstream of and including the Aniak River drainage—1 bear by State Registration permit only Unit 19A remainder; Unit 19B remainder; and Unit 19D—1 bear Unit 19C—No Federal open season
20	*Unit 20E—Rural residents of Unit 12 and Dot Lake* *Unit 20F—Rural residents of Unit 20F, Stevens Village and Manley* *Unit 20 remainder—All rural residents*	Unit 20A—1 bear Unit 20E—1 bear Unit 20 remainder—1 bear
21	*Rural residents of Units 21 and 23*	Unit 21D—1 bear by State registration permit only Unit 21 remainder—1 bear
22	*Unit 22—Rural residents of Unit 22*	Units 22A, 22B, 22D, and 22E—1 bear by State registration permit only Unit 22C—1 bear by State registration permit only

Unit	C & T determination for Brown Bear	Harvest Limits for Brown Bear
23	*Rural residents of Units 21 and 23*	Unit 23, except the Baldwin Peninsula north of the Arctic Circle—1 bear by State registration permit only Unit 23 remainder—1 bear every four years
24	*Unit 24, that portion south of caribou mountain and on public lands within and adjacent to the Dalton Highway Corridor Management Area—Rural Residents of Unit 24 and Stevens Village* *Unit 24 remainder—Rural residents of Unit 24*	1 bear by State registration permit
25	*Unit 25D—Rural residents of Unit 25D* *Unit 25 remainder—Residents of Unit 25 and Eagle*	Units 25A and 25B—1 bear Unit 25C—1 bear Unit 25D—1 bear
26	*Rural residents of Unit 26, except the Prudhoe Bay-Deadhorse Industrial Complex), Anaktuvuk Pass, and Point Hope*	Unit 26A—1 bear by State registration permit only Unit 26B—1 bear Unit 26C—1 bear

WP12-02 Executive Summary	
General Description	Proposal WP12-02 requests that only people 60 years of age or older, or disabled, be allowed to designate their harvest limit to another person. *Submitted by Michael Cronk of Tok*
Proposed Regulation	**§___.25 Subsistence taking of fish, wildlife, and shellfish: general regulations.** *(e) Hunting by designated harvest permit.* *If you are a Federally qualified subsistence user (recipient)* ***who is 60 years of age or older, or disabled****, you may designate another Federally qualified subsistence user to take deer, moose and caribou on your behalf unless you are a member of a community operating under a community harvest system or unless unit-specific regulations in §___.26 preclude or modify the use of the designated hunter system or allow the harvest of additional species by a designated hunter. The designated hunter must obtain a designated hunter permit and must return a completed harvest report. The designated hunter may hunt for any number of recipients but may have no more than two harvest limits in his/her possession at any one time, unless otherwise specified in unit-specific regulations in §___.26.*
OSM Preliminary Conclusion	**Oppose**
Southeast Regional Council Recommendation	
Southcentral Regional Council Recommendation	
Kodiak/Aleutians Regional Council Recommendation	
Bristol Bay Regional Council Recommendation	
Yukon/Kuskokwim Delta Regional Council Recommendation	
Western Interior Regional Council Recommendation	
Seward Peninsula Regional Council Recommendation	
Northwest Arctic Regional Council Recommendation	
Eastern Interior Regional Council Recommendation	

continued on next page

WP12-02 Executive Summary *(continued)*	
North Slope Regional Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	**1 support with modification** to include windows.

DRAFT STAFF ANALYSIS
WP12-02

ISSUES

Proposal WP12-02, submitted by Michael Cronk of Tok, Alaska, requests that only people 60 years of age or older, or disabled, be allowed to designate their harvest limit to another person.

DISCUSSION

The proponent claims that statewide regulations allow a person to harvest an unlimited number of animals per hunting season as long as he or she first obtains a designated hunter permit. The proponent explains that he supported the adoption of a designated hunter regulation to allow hunters to harvest animals for elders and others unable to hunt for themselves. The proponent further describes the problems that now exist with the designated hunter system: increasing numbers of people that formerly did not hunt are now getting designated hunter permits and hunting; hunters gathering designated hunter permits in order to continue hunting after harvesting their individual harvest limit; and hunters receiving designated hunter permits for their children but not hunting with their children and thereby not passing on knowledge of how to hunt. The proponent declares that these uses were not the intent of the Federal Subsistence Board when adopting the regulation, the abuses will continue, and wildlife populations could suffer unless limits are added to the designated hunter system.

Existing Federal Regulation

§___.25 Subsistence taking of fish, wildlife, and shellfish: general regulations.

(e) Hunting by designated harvest permit.

If you are a Federally qualified subsistence user (recipient), you may designate another Federally qualified subsistence user to take deer, moose and caribou on your behalf unless you are a member of a community operating under a community harvest system or unless unit-specific regulations in §___.26 preclude or modify the use of the designated hunter system or allow the harvest of additional species by a designated hunter. The designated hunter must obtain a designated hunter permit and must return a completed harvest report. The designated hunter may hunt for any number of recipients but may have no more than two harvest limits in his/her possession at any one time, unless otherwise specified in unit specific regulations in §___.26.

Proposed Federal Regulation

§___.25 Subsistence taking of fish, wildlife, and shellfish: general regulations.

(e) Hunting by designated harvest permit.

If you are a Federally qualified subsistence user (recipient) ***who is 60 years of age or older, or disabled****, you may designate another Federally qualified subsistence user to take deer, moose and caribou on your behalf unless you are a member of a community operating under a community harvest system or unless unit-specific regulations in §___.26 preclude or modify the use of the designated hunter system or allow the harvest of additional species by a designated hunter. The designated hunter must obtain a designated hunter permit and must return a completed harvest*

report. The designated hunter may hunt for any number of recipients but may have no more than two harvest limits in his/her possession at any one time, unless otherwise specified in unit-specific regulations in §___.26.

Relevant Federal Regulation

Unit-specific regulations that preclude or modify the designated hunter system exist for five management units. They are Units 6, 9, 22, 23, and 26 (see **Appendix A**).

Existing State Regulation

The State of Alaska provides for the transfer of harvest limits from one person to another through its proxy hunting program (5 AAC 92.011; see Appendix B). **Table 1** is a side-by-side comparison of the State's proxy system to the Federal designated hunter system.

Table 1. State Proxy System compared to Federal Designated Hunter System.

State of Alaska Proxy System	Federal Subsistence Management Program Designated Hunter System
Applies where there is an open State harvest season.	Applies to Federal public lands when there is an open Federal harvest season.
Applies to caribou, deer, and moose.	Applies to caribou, deer, and moose.
Available to a hunter who is blind, physically disabled, or 65 years of age or older.	Available to Federally qualified subsistence users.
Either the recipient or the hunter may apply for the authorization.	Recipient may designate another Federally qualified subsistence user on his/her behalf.
No person may be a proxy for more than one recipient at a time.	A person may hunt for any number of recipients, but may have no more than two harvest limits in his/her possession at any one time.
Antler destruction is required for all species.	No antler destruction.

Extent of Federal Public Land

This proposal would apply to the entire state. Federal public lands comprise approximately 65% of Alaska and consist of 23% Bureau of Land Management, 15% National Park Service, 21% Fish and Wildlife Service, and 6% Forest Service lands.

Regulatory History

Prior to 2003, the Board adopted designated hunter regulations for 21 unit-specific hunts, and there were differences in how the regulations addressed the designated hunter system (see FSB 2003). In 2003, the Board established the statewide designated hunter system for deer, caribou, and moose, leaving the option for unit-specific regulations to include other species and special provisions (68 FR 38466. June 27, 2003). The Board was supported by the majority of Regional Advisory Councils and the Interagency Staff Committee (FSB 2003).

As mentioned earlier, instances exist in unit-specific regulations that preclude or modify the use of the designated hunter system or allow the harvest of additional species by a designated hunter. For example, in Unit 6 special provisions exist for moose, deer, black bear, beaver, and goat; in Unit 9 for caribou; in Unit 10 for caribou; in Unit 22 for muskoxen; in Unit 23 for sheep and muskoxen; and in Unit 26 for sheep and muskoxen (**Appendix A)**.

Customary and Traditional Uses

Designated hunter provisions provide recognition of the customary and traditional practices of sharing and redistribution of harvests. A plethora of research supports a need for a designated hunter system in Federal subsistence regulations to harmonize fundamental harvesting characteristics of rural Alaska communities with the Federal Subsistence Management Program. Sahlins (1972) observed that 20% to 30% of households in "family-based production" could be expected to fail to produce enough food to feed themselves. Family-based production is the foundation of the mixed subsistence-cash economy found in most rural Alaskan communities (cf. Wolfe 1981, 1987; Wolfe and Walker 1987; Wolfe et al. 1984). Family-based production is when households linked by kinship distribute the responsibility to harvest, process, and store wild resources based on factors such as skills and abilities, availability of able workers, sufficient income to purchase harvesting and processing technology, and other factors. Sahlins' (1972) observation has been repeated in subsistence studies conducted in rural Alaska communities (cf. Andrews 1988; Magdanz, Utermohle, and Wolfe 2002; Sumida 1989; Sumida and Andersen 1990). While predominantly-Native communities differ somewhat concerning family-based food production patterns, Wolfe et al. (2007) showed that some of the characteristics apply to culturally-mixed rural communities in Southeast Alaska as well. The common variables that affected household food production in rural Alaska in the late 20th century were: commercial fishing involvement, males over 15 years, age of elders, and single person households. Commercial fishing involvement and three or more males over 15 years correlated with households with relatively high wild food production. Older elders and single person households correlated with households with relatively low wild food production. Wolfe et al. (2007) observed that on a statewide basis it was not uncommon for about 30% of the households in a community to produce about 70% or more of the community's wild food harvest. Households in the higher harvesting third of households were called "super-households" based on Wolfe's (1987) research in rural Alaska communities.

The analysis of Proposal WP95-04, concerning a transferable moose harvest limit in Unit 5, described the rationale for the adoption of the proposal. The passage is repeated here because it continues to be relevant, describes the "super-household" phenomenon described above, and provides the primary rationale for the structure of the statewide designated hunter system in regulation today.

> [The designated hunter system] legalizes a traditional practice that is already going on. Within the individual harvest limits, some hunters cannot fulfill both the requirements of their own household and those of the people with whom they share. The proposal would permit hunters to harvest moose expressly for sharing.
>
> In every society, the ratio of producers to dependents is strongly influenced by the ecological setting and dominant mode of production. In societies with hunting and gathering economies (termed "subsistence" in Alaska), the proportion of producers ranges from approximately 50 to 70 percent. However, not all producers are hunters; some are engaged in processing foods. Consequently, it is common for a single hunter, in the northern context, to harvest resources for four or more individuals.

> Domestic units may pass through several developmental stages with widely varying ratios of producers to dependents. For example, a household in its early stages of development, with infants and small children, is different from a domestic unit headed by a middle-aged couple with several unmarried adult children. During later stages a household may be composed exclusively of elderly post-productive people. In any stage of development, households may contain members who are unable to or do not choose to harvest for themselves. Single-parent families are another category of households, which may rely on others to supply them with resources.
>
> Like households, individual producers also pass through developmental stages with distinctive productive capacities. A considerable amount of an apprentice harvester or processor's effort is consumed in learning. Conversely, individuals in their final productive years are primarily engaged with education and supervisory tasks rather than the direct procurement and processing of resources. Hence, the majority of production is accomplished by that segment of a population that, while having mastered requisite skills, is free of the responsibilities and physical impairments acquired with advancing adulthood. Finally, regardless of stage of development, all producers do not possess equal skills, abilities, and aptitudes. Each community has a minority of good hunters, trappers, and fishers.
>
> Inequalities in individual and household productive capacities are equalized via processes of distribution (sharing and feasting) and exchange (trade and barter). The nature, magnitude, and geographic extent of distributive processes are highly variable across households, communities, societies, and time periods (FSB 1995:31–32).

It is due to the variable nature of the distribution process, mentioned in the final paragraph of the passage above, that the Federal Subsistence Board, based on the recommendations of the majority of Regional Advisory Councils and the Interagency Staff Committee (FSB 2003), adopted the statewide designated hunter provisions that are in current Federal regulations (§___.25(e)). The Board considered, but did not adopt, a statewide provision that would restrict designators to only elderly or disabled subsistence users. However, based on a review of past analyses from 1993 to 2003, it is clear that the Board anticipated receiving requests to adopt unit-specific regulations that would preclude or modify the designated hunter system.

Harvest History

The designated hunter permit database is maintained at the Office of Subsistence Management (FWS 2011). Table 2 describes the use of the designated hunter system since 2003 when the statewide system was instituted by the Federal Subsistence Board. The data show the cumulative use for the 2003–2009 regulatory years. Designated hunters hunted for caribou, deer, moose, and sheep only. Based on Table 2, it is clear that a large majority of the harvest by designated hunter was deer, and the majority of permits were used in Southeast Alaska (Units 1–5). The portion of the total harvest taken by designated hunters for any one species was highest in Unit 3 for deer (8.9% of the harvest was taken by designated hunters), Unit 12 for caribou (7.0%), and Unit 5 for deer (5.7%); however, designated hunters generally harvested less than 2% of the total harvest for any one species in any single unit (**Table 2**).

People requesting to designate another hunter are not asked to indicate a disability, and therefore, data concerning the number of people with disabilities that designate a hunter could not be presented in the analysis.

Table 2. Use of designated hunter system based on completed harvest reports, 2003-2009 cumulative (ADF&G 2011, FWS 2011).

Management Unit	Designated Hunters Only: Number of Permits Used (Hunted)	Designated Hunters Only: Number of Animals Harvested	All Hunters[a]: Number of Animals Harvested	Percentage Harvested by Designated Hunters
Caribou				
9	6	4	2,376	0.2%
12	23	14	199	7.0%
13	100	43	11,600	0.4%
17	11	10	4,819	0.2%
18	2	1	2,894	0.0%
20	14	6	5,007	0.1%
Total (2003-2009)	156	78	26,895	0.3%
Moose				
1	1	1	1,122	0.1%
3	1	1	315	0.3%
5	4	4	314	1.3%
6	33	18	848	2.1%
11	4	4	356	1.1%
13	12	12	4,757	0.3%
15	1	1	3,193	0.0%
19	7	7	1,938	0.4%
24	8	1	1,164	0.1%
25	2	2	1,215	0.2%
26	1	1	96	1.0%
Total (2003-2009)	74	52	15,318	0.3%
Deer				
1	11	18	4,166	0.4%
2	92	105	13,697	0.8%
3	211	314	3,537	8.9%
4	224	407	30,366	1.3%
5	2	7	122	5.7%
6	1	3	14,653	<0.1%
8	134	225	31,894	0.7%
Total (2003-2007)[b]	675	1,079	98,435	1.1%
Sheep				
23	3	2	123	1.6%
Total (2003-2009)	3	2	123	1.6%

[a] All hunters including Federally qualified, non-Federally qualified, and nonresidents of the state.

[b] Harvest by all hunters available to 2007 only.

Some age data is available for the 2009 and 2010 regulatory years. For the 2009 and 2010 regulatory years combined, of the 1,108 people who designated another hunter, age data is available for only 80 people. Of the 80 people, 3 (4%) were 18-years of age or younger, 59 (74%) were age 19 to 59, and 18 (23%) were 60 or older (**Table 3**).

Table 3. The age of designators, based on the age of 80 out of a total of 1,108 people who designated another hunter during the 2009 and 2010 regulatory years (FWS 2011).

	Permits issued		Permits used		Animals taken	
Age of designators	Number	Percentage	Number	Percentage	Number	Percentage
18 years and younger	3	4%	3	4%	1	3%
19-59 years	59	74%	50	75%	28	70%
60 years and older	18	23%	14	21%	11	28%
Total	80	100%	67	100%	40	100%

Note: percentages may not equal 100 due to rounding.

The designated hunter database at the Office of Subsistence Management compiles limited data on the age of designated hunters because age is not a requirement for designating another hunter (except in Unit 6, see Appendix A). Applications for Federal registration permits request each hunter's age. When a person designates his or her harvest limit to another, the age of the designator is available on the Federal registration permit application; however, some hunts do not require a Federal registration permit. For hunts that do not require a Federal permit, the age of a designator is available on the State hunting license and not readily retrievable. Additionally, Federal registration permit applications ask each hunter to check a box if he or she is designating another hunter; however, this box is usually not checked by those using a designated hunter. Currently, age data is available for people who obtained a Federal registration permit and checked the box indicating they were using a designated hunter for the 2009 and 2010 regulatory years (FWS 2011).

Other Relevant Proposals

Action on this proposal may affect decisions on other wildlife proposals currently under consideration, WP12-10, WP12-11, and WP12-13. All three concern designated hunter provisions in Federal regulations, but none propose restrictions on the designator as does the proposal under consideration in this analysis, WP12-02.

Effects of the Proposal

If this proposal is adopted, only Federally qualified subsistence users who are 60 years of age or older, or disabled, would be allowed to designate another person to take their harvest limit of deer, caribou, and moose—except in Unit 6 where unit-specific regulations allow only those who are either blind, 65 years of age or older, at least 70% disabled, or temporarily disabled to designate a hunter (see **Appendix A**). The extent of impacts on the subsistence users cannot be measured exactly because statistics were only partially gathered to describe the age of those designating a hunter and not whether the user was disabled, noted above. From the information in Table 3, about 77% of the users designating a hunter were under 60 years old and would be prohibited from designating a hunter if this proposal is adopted.

The effect on wildlife populations would depend on the region. In regions where designated hunter use is more common, hunting effort may be eased, but no information has been systematically collected concerning this issue. No effects on other users are anticipated.

If this proposal is not adopted, Federally qualified subsistence users would continue to be allowed to designate another hunter to take their harvest limit of deer, caribou, and moose (except in Unit 6 where additional restrictions are in place, see above). No effects on wildlife populations are anticipated, and no effects on other users are anticipated.

OSM PRELIMINARY CONCLUSION

Oppose Proposal WP12-02.

Justification

Federal subsistence wildlife regulations allow any Federally qualified subsistence user to designate another subsistence user to take his or her harvest limit of deer, caribou, and moose. The designated hunter system supports a valid practice of communal sharing of resources and skills in rural Alaska. While in some regions the designated hunter system is lightly used, nonetheless it provides important regulatory flexibility to accommodate customary and traditional practices.

The proponent raises issues regarding the designated hunter system for the entire state. It is clear that in some regions people are not aware of the permit and their use of the system has not developed but is anticipated to develop as more participate in the formal harvest reporting systems available to them. Additionally, the harvest by designated hunters generally has been a small portion (less than 2%) of the total harvest by all hunters (including Federally qualified users, non-Federally qualified users, and nonresidents of the state, combined). Therefore, a statewide provision restricting the use of the designated hunter system is not supported. In circumstances where evidence is available to clearly warrant, region or unit-specific restrictions could be proposed.

Literature Cited

ADF&G. 2011. Sitka black-tailed deer hunting in Alaska: Harvest statistics. http://www.adfg.alaska.gov/index.cfm?adfg=deerhunting.deerharvest, accessed July 18. Juneau, AK.

Andrews, E.F. 1988. The harvest of fish and wildlife for subsistence by residents of Minto, Alaska. ADF&G, Div. of Subsistence, Tech. Paper No. 137. Juneau. AK.

FSB. 1995. Staff Analysis WP95-04. Pages 28–34 in Federal Subsistence Board Meeting Materials April 10–14, 1995. Office of Subsistence Management. Anchorage AK.

FSB. 2003. Staff Analysis WP03-02 and related materials. Pages 53–79 in Federal Subsistence Board Meeting Materials May 20–22, 2003. Office of Subsistence Management. Anchorage AK.

FWS. 2011. Hunter database. On file, Office of Subsistence Management. Anchorage, AK.

Magdanz, J. S., E. Trigg, A. Ahmasuk, P. Nanouk, D. S. Koster, and K. R. Kamletz. 2005. Patterns and trends in subsistence salmon harvests, Norton Sound and Port Clarence, 1994–2003. Kawerak, Inc., Dept. of Natural Resources and the ADF&G Div. of Subsistence Tech. Paper No. 294, Juneau and Nome, AK.

Magdanz, J.S., C.J. Utermohle, and R. J. Wolfe. 2002. The organization of subsistence food production in two Inupiaq communities, Wales and Deering, Alaska. ADF&G, Div. of Subsistence Tech. Paper No. 259, Juneau, AK.

Sahlins, M D. 1972. Stone age economics. Aldine Publishing Company, New York.

Sumida, V.A. 1989. Patterns of fish and wildlife harvest and use in Beaver, Alaska. ADF&G, Div. of Subsistence, Tech. Paper No. 140, Juneau, AK.

Sumida, V.A, and D.B. Andersen. 1990. Patterns of fish and wildlife use for subsistence in Fort Yukon, Alaska. ADF&G Div. of Subsistence Tech. Paper No. 179. Juneau, AK.

Wolfe, R.J. 1981. Norton Sound/Yukon Delta Sociocultural Systems Baseline Analysis, Technical Report No. 59, Alaska Department of Fish and Game, Division of Subsistence, Juneau, AK

Wolfe, R.J. 1987. The Super-Household: Specialization in Subsistence Economies, Paper presented at the 14th Annual Meeting of the Alaska Anthropological Association, March 12–13, 1987, Anchorage, AK.

Wolfe, R.J., C.L. Scott, W.E. Simeone, C.J. Utermohle, and M.C. Pete. 2007. The "Super-Household" in Alaska Native subsistence economics. National Science Foundation, ARC 0352677. Washington DC. 31 pages.

Wolfe, R.J., and R.J. Walker. 1987. Subsistence economies in Alaska: Productivity, geography, and development impacts, Arctic Anthropology 24(2): 56–81.

Wolfe, R.J., J.J. Gross, S.J. Langdon, J.M. Wright, G.K. Sherrod, L.J. Ellanna, V.Sumida, and P.J. Usher. 1984. Subsistence-based economies in coastal communities of Southwest Alaska. ADF&G, Div. of Subsistence, Tech. Paper No. 59. Juneau, AK. 270 pages.

APPENDIX A
FEDERAL DESIGNATED HUNTER—UNIT SPECIFIC REGULATIONS

§___.26(n) Unit regulations

Unit 6
(ii)(D) A Federally qualified subsistence user (recipient) who is either blind, 65 years of age or older, at least 70 percent disabled, or temporarily disabled may designate another Federally qualified subsistence user to take any moose, deer, black bear, and beaver on his or her behalf in Unit 6, and goat in Unit 6D, unless the recipient is a member of a community operating under a community harvest system. The designated hunter must obtain a designated hunter permit and must return a completed harvest report. The designated hunter may hunt for any number of recipients, but may have no more than one harvest limit in his or her possession at any one time;

(E) A hunter younger than 10 years old at the start of the hunt may not be issued a Federal subsistence permit to harvest black bear, deer, goat, moose, wolf, and wolverine;

(F) A hunter younger than 10 years old may harvest black bear, deer, goat, moose, wolf, and wolverine under the direct, immediate supervision of a licensed adult, at least 18 years old. The animal taken is counted against the adult's harvest limit. The adult is responsible for ensuring that all legal requirements are met.

Unit 9
(iii)(E) For Units 9C and 9E only, a Federally qualified subsistence user (recipient) of Units 9C and 9E may designate another Federally qualified subsistence user of Units 9C and 9E to take bull caribou on his or her behalf unless the recipient is a member of a community operating under a community harvest system. The designated hunter must obtain a designated hunter permit and must return a completed harvest report and turn over all meat to the recipient. There is no restriction on the number of possession limits the designated hunter may have in his/her possession at any one time;

(iii)(F) For Unit 9D, a Federally qualified subsistence user (recipient) may designate another Federally qualified subsistence user to take caribou on his or her behalf unless the recipient is a member of a community operating under a community harvest system. The designated hunter must obtain a designated hunter permit and must return a completed harvest report. The designated hunter may hunt for any number of recipients but may have no more than four harvest limits in his/her possession at any one time;

Unit 22
(iii)(E) A Federally qualified subsistence user (recipient) may designate another Federally qualified subsistence user to take musk oxen on his or her behalf unless the recipient is a member of a community operating under a community harvest system. The designated hunter must get a designated hunter permit and must return a completed harvest report. The designated hunter may hunt for any number of recipients in the course of a season, but have no more than two harvest limits in his/her possession at any one time, except in Unit 22E where a resident of Wales or Shishmaref acting as a designated hunter may hunt for any number of recipients, but have no more than four harvest limits in his/her possession at any one time.

Unit 23

(iv)(D) For the Baird and DeLong Mountain sheep hunts—A Federally qualified subsistence user (recipient) may designate another Federally qualified subsistence user to take sheep on his or her behalf unless the recipient is a member of a community operating under a community harvest system. The designated hunter must obtain a designated hunter permit and must return a completed harvest report. The designated hunter may hunt for only one recipient in the course of a season and may have both his and the recipients' harvest limits in his/her possession at the same time;

(iv)(F) A Federally qualified subsistence user (recipient) may designate another Federally qualified subsistence user to take musk oxen on his or her behalf unless the recipient is a member of a community operating under a community harvest system. The designated hunter must get a designated hunter permit and must return a completed harvest report. The designated hunter may hunt for any number of recipients, but have no more than two harvest limits in his/her possession at any one time.

Unit 26

(iv)(C) In Kaktovik, a Federally qualified subsistence user (recipient) may designate another Federally qualified subsistence user to take sheep or musk ox on his or her behalf unless the recipient is a member of a community operating under a community harvest system. The designated hunter must obtain a designated hunter permit and must return a completed harvest report. The designated hunter may hunt for any number of recipients but may have no more than two harvest limits in his/her possession at any one time;

(iv)(D) For the DeLong Mountain sheep hunts—A Federally qualified subsistence user (recipient) may designate another Federally qualified subsistence user to take sheep on his or her behalf unless the recipient is a member of a community operating under a community harvest system. The designated hunter must obtain a designated hunter permit and must return a completed harvest report. The designated hunter may hunt for only one recipient in the course of a season and may have both his and the recipient's harvest limits in his/her possession at the same time.

APPENDIX B
STATE PROXY HUNTER REGULATIONS

5 AAC 92.011. Taking of game by proxy

(a) A resident hunter (the proxy) holding a valid resident hunting license may take specified game for another resident (the beneficiary) who is blind, physically disabled, or 65 years of age or older, as authorized by AS 16.05.405 and this section.

(d) A person may not be a proxy
(1) for more than one beneficiary at a time;
(2) more than once per season per species in Unit 13;
(3) for Tier II Caribou in Unit 13, unless the proxy is a Tier II permittee.

(j) A proxy participating in a proxy hunt must remove at least one antler from the skull plate or cut the skull plate in half, on an antlered animal, for both the proxy's animal and the beneficiary's animal before leaving the kill site, unless the department has established a requirement that complete antlers and skull plates must be submitted to the department.

(k) Proxy hunting under this section is only allowed for
(1) caribou;
(2) deer; and
(3) moose in Tier II hunts, any-bull hunts, and antlerless moose hunts.

(l) Notwithstanding (k) of this section, proxy hunting is prohibited in the following hunts where the board has determined that the use of the proxy would allow circumvention of harvest restrictions specified by the board:
(1) Unit 20(E) moose and caribou registration hunts;
(2) Units 21(B), 21(C), 21(D), and 24 moose hunts if either the proxy or the beneficiary holds a drawing permit for Units 21(B), 21(C), 21(D), or 24 moose hunts;
(3) Units 9(A) and 9(B), unit 9(C), that portion within the Alagnak River drainage, and units 17(B), 17(C), 18, 19(A), and 19(B) caribou hunts from August 1 through October 31.

WRITTEN PUBLIC COMMENTS

Support with modification to include windows. The designated hunter option is important to traditional subsistence practices and ensuring that animals are harvested correctly.

Gates of the Arctic National Park Subsistence Resource Commission

WP12-03 Executive Summary	
General Description	Proposal WP12-03 would require trappers to move a trap that incidentally harvests a moose, caribou, or deer at least 300 feet for the remainder of the regulatory year. The animal would become the property of the regional management agency. The proposed regulation asks trappers to salvage the edible meat and turn it over to the appropriate agency, but this would not be required. *Submitted by the Orutsararmiut Native Council*
Proposed Regulation	**§____.25 Subsistence taking of fish, wildlife, and shellfish: general regulations.** *(a) Definitions.* *Salvage means to transport the edible meat, skull, or hide, as required by regulation, of a regulated fish, wildlife, or shellfish to the location where the edible meat will be consumed by humans or processed for human consumption in a manner which saves or prevents the edible meat from waste, and preserves the skull or hide for human use.* *(j) Utilization of fish, wildlife, or shellfish.* *(1) You may not use wildlife as food for a dog or furbearer, or as bait . . . except for the following:* *(i) The hide, skin, viscera, head, or bones of wildlife.* *(3) You must salvage the edible meat of ungulates, bear, grouse, and ptarmigan.* **§___.26 Subsistence taking of wildlife.** *(b) Except for special provisions found at paragraphs (n)(1) through (26) of this section, the following methods and means of taking wildlife for subsistence uses are prohibited:* *(10) Using a trap to take ungulates or bear.* ***Continuing to take, or attempting to take, furbearers at a site where a moose, caribou, or deer has been taken incidentally is a violation. Any moose, caribou or deer that dies as a result of being caught in a trap or snare, whether found dead or euthanized, becomes the property of the regional management agency. The trapper should salvage edible meat and surrender it to the appropriate agency. A person who salvages and surrenders the edible meat in accordance with this regulation will not be subject to citation. If such an incidental take occurs, the trapper must move all active traps and snares at least 300 feet from the site for the remainder of the regulatory year (July 1 through June 30), and after the ending of the July 1 – June 30 regulatory year, may reset again in the same place or area during subsequent trapping seasons.***

continued on next page

WP12-03 Executive Summary *(continued)*	
OSM Preliminary Conclusion	**Oppose**
Southeast Regional Council Recommendation	
Southcentral Regional Council Recommendation	
Kodiak/Aleutians Regional Council Recommendation	
Bristol Bay Regional Council Recommendation	
Yukon/Kuskokwim Delta Regional Council Recommendation	
Western Interior Regional Council Recommendation	
Seward Peninsula Regional Council Recommendation	
Northwest Arctic Regional Council Recommendation	
Eastern Interior Regional Council Recommendation	
North Slope Regional Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	**None**

DRAFT STAFF ANALYSIS
WP12-03

ISSUES

Proposal WP12-03, submitted by the Orutsararmiut Native Council, would require trappers to move a trap that incidentally harvests a moose, caribou, or deer at least 300 feet for the remainder of the regulatory year. The animal would become the property of the regional management agency. The proposed regulation asks trappers to salvage the edible meat and turn it over to the appropriate agency, but this would not be required.

DISCUSSION

The proponent intends to protect trappers from enforcement action by more clearly writing a provision into Federal wildlife regulations that is currently only in State wildlife regulations. The proponent indicates that State enforcement officers do not always understand the State regulations concerning the actions trappers must undertake when they take a moose, caribou, or deer incidental to trapping furbearers. The proponent states that trappers have been bothered by State enforcement officers with citations that were later dismissed. Specifically, a trapper was cited for locating a trap at the same location where the trap had incidentally harvested a moose the previous regulatory year. As described below, the activity is allowed in State trapping regulations (5 AAC 92.095(a)(12)). The trapper was freed from having to pay the fine, but had to pay the legal costs of defending himself. It appears the State officer interpreted one year to mean one calendar year (January 1–December 31), while the State regulation indicates one regulatory year (July 1–June 30).

By making this proposal, the Fish and Wildlife Committee of the Orutsararmiut Native Council is responding to concerns brought by tribal members (Roczicka 2011, pers. comm.). The Orutsararmiut Native Council is the Federally recognized Indian Reorganization Act (IRA) Council representing the community of Bethel.

Existing Federal Regulation

§____.25 Subsistence taking of fish, wildlife, and shellfish: general regulations.

(a) Definitions.

Salvage means to transport the edible meat, skull, or hide, as required by regulation, of a regulated fish, wildlife, or shellfish to the location where the edible meat will be consumed by humans or processed for human consumption in a manner which saves or prevents the edible meat from waste, and preserves the skull or hide for human use.

(j) Utilization of fish, wildlife, or shellfish.

(1) You may not use wildlife as food for a dog or furbearer, or as bait . . . except for the following:

(i) The hide, skin, viscera, head, or bones of wildlife.

(3) You must salvage the edible meat of ungulates, bear, grouse, and ptarmigan.

§___.26 Subsistence taking of wildlife.

(b) Except for special provisions found at paragraphs (n)(1) through (26) of this section, the following methods and means of taking wildlife for subsistence uses are prohibited:

(10) Using a trap to take ungulates or bear.

Proposed Federal Regulation

§____.25 Subsistence taking of fish, wildlife, and shellfish: general regulations.

(a) Definitions.

Salvage means to transport the edible meat, skull, or hide, as required by regulation, of a regulated fish, wildlife, or shellfish to the location where the edible meat will be consumed by humans or processed for human consumption in a manner which saves or prevents the edible meat from waste, and preserves the skull or hide for human use.

(j) Utilization of fish, wildlife, or shellfish.

(1) You may not use wildlife as food for a dog or furbearer, or as bait . . . except for the following:

(i) The hide, skin, viscera, head, or bones of wildlife.

(3) You must salvage the edible meat of ungulates, bear, grouse, and ptarmigan.

§___.26 Subsistence taking of wildlife.

(b) Except for special provisions found at paragraphs (n)(1) through (26) of this section, the following methods and means of taking wildlife for subsistence uses are prohibited:

(10) Using a trap to take ungulates or bear. ***Continuing to take, or attempting to take, furbearers at a site where a moose, caribou, or deer has been taken incidentally is a violation. Any moose, caribou or deer that dies as a result of being caught in a trap or snare, whether found dead or euthanized, becomes the property of the regional management agency. The trapper should salvage edible meat and surrender it to the appropriate agency. A person who salvages and surrenders the edible meat in accordance with this regulation will not be subject to citation. If such an incidental take occurs, the trapper must move all active traps and snares at least 300 feet from the site for the remainder of the regulatory year (July 1 through June 30), and after the ending of the July 1 – June 30 regulatory year, may reset again in the same place or area during subsequent trapping seasons.***

Existing State Regulation

5 AAC 92.085. Unlawful methods of taking big game; exceptions

The following methods and means of taking big game are prohibited . . . :

(6) with the use of a trap or snare . . . .

5 AAC 92.095. Unlawful methods of taking furbearers; exceptions

a) The following methods and means of taking furbearers under a trapping license are prohibited . . . :

(12) by placing or leaving an active trap or snare set on land that is within 300 feet of the site at which a moose, caribou, or deer was taken using a trap or snare; this prohibition applies for the duration of the regulatory year in which the moose, caribou, or deer was taken using the trap or snare.

5 AAC 92.210. Game as animal food or bait

A person may not use game as food for a dog or furbearer, or as bait . . . .

5 AAC 92.220. Salvage of game meat, furs, and hides

(d) A person taking game not listed in (a) of this section shall salvage for human consumption all edible meat, as defined in 5 AAC 92.990.

(h) A game animal taken in violation of AS 16 or a regulation adopted under AS 16 is the property of the state.

5 AAC 92.990. Definitions

(49) "salvage" means to transport the edible meat, skull, or hide, as required by statute or regulation, of a game animal or wild fowl to the location where the edible meat will be consumed by humans or processed for human consumption in order to save or prevent the edible meat from waste, and the skull or hide will be put to human use.

16.30.010. Wanton waste of big game animals and wild fowl

(a) It is a class A misdemeanor for a person who kills a big game animal or a species of wild fowl to fail intentionally, knowingly, recklessly, or with criminal negligence to salvage for human consumption the edible meat of the animal or fowl.

Extent of Federal Public Land

This proposal would apply to the entire state. Federal public lands comprise approximately 65% of Alaska and consist of 23% Bureau of Land Management, 15% National Park Service, 21% Fish and Wildlife Service, and 6% Forest Service lands.

Regulatory History

The use of traps to harvest caribou, moose, and deer is prohibited in State and Federal wildlife regulations primarily because traps set for moose, caribou, and deer do not discriminate between animals, such as, cows, bulls, and fawns.

A good estimate of how often moose, caribou, or deer are caught in traps set for furbearers statewide, or by region, is not known at this time (Ardizzone 2011, pers. comm.; Seavoy 2011, pers. comm). State and Federal staff generally assume that low levels of incidental harvests occur and are ongoing. Snare

height above ground, trap location, bait type, location of trail snares, et cetera, are effective techniques to select for targeted furbearers and against non-targeted animals. Occasionally, non-targeted animals are caught, but trappers use techniques to avoid them, and that is one reason there are low levels of incidental harvests (Seavoy 2011, pers. comm.).

Federal regulations require that wildlife caught incidental to trapping furbearers be salvaged (§__.25(j)(3)), and only the hide, skin, viscera, head, or bones may be used for bait (§__.25 (j)(1)(i)).

In 1998, the Alaska Board of Game adopted a proposal (Proposal 103) submitted by ADF&G describing the actions trappers must take when they incidentally harvest a moose, caribou, or deer in a trap; for the remainder of the regulatory year (until June 30), a trapper must move the trap at least 300 feet from the site the animal was taken (5 AAC 92.095(a)(12)). Additionally, the animal must be salvaged (5 AAC 92.220(d)) and its parts cannot be used for bait (5 AAC 92.210). Moving the trap from the site of the incidental harvest denies trappers the benefit of continuing to set a trap at a kill site, which may attract furbearers (ADF&G 1998; Rearden 2011, pers. comm.).

Effects of the Proposal

If this proposal is adopted, Federal subsistence users would be required to move a trap for the remainder of the regulatory year when it has taken a moose, caribou, or deer incidental to trapping furbearers. This would be required if the incidental harvest occurred on Federal public lands using Federal trapping regulations. The use of traps to harvest caribou, moose, and deer is prohibited in Federal and State regulations primarily because traps do not discriminate between animals, such as, cows, bulls, and fawns. However, these animals are occasionally caught in traps set for furbearers. The regulations prohibiting the use of traps and snares are not directed at trappers and are enforced because of the nondiscriminatory nature of the method, just described. Requiring a trapper to move a trap would be a hardship that would not conserve caribou, moose or deer.

OSM PRELIMINARY CONCLUSION

Oppose Proposal WP12-03.

Justification

The clear intent of the proponent is to import State wildlife regulations into Federal wildlife regulations and to clarify their intent to law enforcement officers so that other trappers who comply with State regulations are not cited. However, benefits to Federal subsistence users or resource conservation cannot be demonstrated. The State's concern is ungulate's being used as bait, and it is not in the interest of Federal subsistence users for the Federal Subsistence Management Program to impose this regulation on them.

LITERATURE CITED

ADF&G. 2011. 2010/2011 Alaska trapping regulations. http://www.adfg.alaska.gov/index.cfm?adfg=wildliferegulations.main, accessed June 1. Juneau, AK.

ADF&G. 1998. Alaska Board of Game Proposal 103. On file, Boards Support Section. Juneau. AK.

Ardizzone, C. 2011. Chief, Wildlife Division. Personal communication: in person. FWS, Office of Subsistence Management, Anchorage, AK.

Rearden, S. 2011. Wildlife biologist. Personal communications: by telephone. FWS, Yukon Delta National Wildlife Refuge, Bethel, AK.

Roczicka, G. 2011. Director, Natural Resources Department. Personal communication: by telephone. Orutsararmiut Native Council, Bethel, AK.

Seavoy, R. 2011. Wildlife biologist. Personal communication: by telephone. ADF&G, Division of Wildlife Conservation, McGrath, AK.

WP10-91 Executive Summary	
General Description	Proposal WP10-91 requests that the Unit 25 brown bear (*Ursus arctos*) harvest limit be increased from one to three bears. This proposal was deferred by the Federal Subsistence Board at its May 2010 meeting. *Submitted by Phillip Solomon of Fort Yukon*
Proposed Regulation	**Unit 25—Brown Bear** *Unit 25A and 25B—~~1~~ **3** bears* — *Aug. 10–Jun. 30* *Unit 25C—~~1~~ **3** bears* — *Sept. 1–May 31* *Unit 25D—~~1~~ **3** bears* — *July 1–Jun. 30* *Note: The hide and edible meat of a brown bear must be salvaged.* *__.25(j)(2) If you take wildlife for subsistence, you must salvage the following parts for human use:* * * * *(ii) The hide and edible meat of a brown bear…* *__.26(f) Harvest limits.* * * * *(2) A brown/grizzly bear taken in a Unit or portion of a Unit having a harvest limit of "one brown/grizzly bear per year" counts against a "one brown/grizzly bear every four regulatory years" harvest limit in other Units. You may not take more than one brown/grizzly bear in a regulatory year.*
OSM Preliminary Conclusion	**Oppose**
Southeast Regional Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	**None**

DRAFT STAFF ANALYSIS
WP10-91(DEFERRED)

ISSUES

Proposal WP10-91, submitted by Phillip Solomon of Fort Yukon, requests that the Unit 25 brown bear (*Ursus arctos*) harvest limit be increased from one to three bears. This proposal was deferred by the Federal Subsistence Board at its May 2010 meeting, until the Yukon Flats Moose Management Planning Committee (Yukon Flats National Wildlife Refuge , Alaska Department of Fish and Game (ADF&G), Council of Athabascan Tribal Governments (CATG), and Yukon Flats villages) was able to address this issue for Unit 25. The focus of the planning committee is to protect, maintain, and enhance the moose population and habitat, maintain traditional lifestyles and provide opportunities for the use of the moose resources. Aligning hunting season dates and harvest limits for both State and Federal managed lands in Unit 25D is desired by the committee whenever possible.

DISCUSSION

The proponent claims that the current harvest limit of one bear is too low to meet needs for traditional subsistence uses and that there are a high number of brown bears in the unit. The proponent advocates that an increase in the harvest limit to three bears will also help compensate for low moose and salmon numbers while trying to meet subsistence needs.

Note: Clarification was provided by the proponent as to exactly how many brown bears should be proposed for the harvest limit after the proposal was distributed for public comment. The proponent would like the harvest limit to be set at three bears for Unit 25.

Existing Federal Regulations

Unit 25—Brown Bear

Unit 25A and 25B—1 bear	*Aug. 10–Jun. 30*
Unit 25C—1 bear	*Sept. 1–May 31*
Unit 25D—1 bear	*Jul. 1–Jun. 30*

__.25(j)(2) If you take wildlife for subsistence, you must salvage the following parts for human use:
** * **

(ii) The hide and edible meat of a brown bear…

__.26(f) Harvest limits.
** * **
(2) A brown/grizzly bear taken in a Unit or portion of a Unit having a harvest limit of "one brown/grizzly bear per year" counts against a "one brown/grizzly bear every four regulatory years" harvest limit in other Units. You may not take more than one brown/grizzly bear in a regulatory year.

__.26(j) Sealing of bear skins and skulls.
(1) Sealing requirements for bear apply to brown bears taken in all Units, except as specified in this paragraph…
(2) You may not possess or transport from Alaska the untanned skin or skull of a bear unless the skin and skull have been sealed by an authorized representative of ADF&G in accordance with State or Federal regulations…

Proposed Federal Regulations

Unit 25—Brown Bear

*Unit 25A and 25B—~~1~~ **3** bears*	*Aug. 10–Jun. 30*
*Unit 25C—~~1~~ **3** bears*	*Sept. 1–May 31*
*Unit 25D—~~1~~ **3** bears*	*July 1–Jun. 30*

Note: The hide and edible meat of a brown bear must be salvaged.

__.25(j)(2) If you take wildlife for subsistence, you must salvage the following parts for human use:
** * **

(ii) The hide and edible meat of a brown bear…

__.26(f) Harvest limits.
** * **
(2) A brown/grizzly bear taken in a Unit or portion of a Unit having a harvest limit of "one brown/grizzly bear per year" counts against a "one brown/grizzly bear every four regulatory years" harvest limit in other Units. You may not take more than one brown/grizzly bear in a regulatory year.

Existing State Regulations

Units 25A and 25B—Brown/Grizzly Bear

Residents and Nonresidents—1 bear every regulatory year	*Aug. 10–June 30*

Unit 25C—Brown/Grizzly Bear

Residents and Nonresidents—1 bear every regulatory year	*Sept. 1–May 31*

Unit 25D—Brown/Grizzly Bear

Resident—1 bear every regulatory year	*July 1–Nov. 30*
Or	
Resident—1 bear every regulatory year	*Mar. 1–June 30*
Nonresident—1 bear every regulatory year	*Sept. 1–Nov. 30*
Or	

Nonresident—1 bear every regulatory year *Mar. 1–June 15*

Extent of Federal Public Lands

Federal public lands comprise approximately 55% of Unit 25 and consists of U.S. Fish and Wildlife Service (37%), Bureau of Land Management (16%), and National Park Service (2%) managed lands (**Map 1**).

Customary and Traditional Use Determinations

Residents of Unit 25D have a positive customary and traditional use determination for hunting brown bear in Unit 25D.

Residents of Unit 25 and Eagle have a positive customary and traditional use determination for hunting brown bear in Unit 25 Remainder.

Regulatory History

State regulations have allowed for a brown bear harvest for Unit 25 before the inception of the Federal Subsistence program in 1990. Until the 1998/99 regulatory year under State regulations, harvest limits were set at one brown bear every four years for Unit 25D. In 2004/05, the State harvest limit was increased to one brown bear every regulatory year for all of Unit 25.

There was no Federal open season for brown bears in Unit 25 during the Regulatory Year 1990/91 through 1998/99 regulatory years. In 1999, the Federal Subsistence Board (Board) adopted Proposal WP99-57 and Proposal WP99-58 to open a year-round brown bear season with a one bear harvest limit in Unit 25D due to adequate abundance and expected low harvest levels. In 2001, the Board adopted WP01-36 to open a September 1–May 31 brown bear season with a one bear harvest limit in Unit 25 Remainder. Brown bear abundance was determined to be adequate, anticipated harvest was expected to be minimal, and harvest limits were not being met under the State regulations.

Biological Background

Brown bears are widely distributed in northeastern Alaska. The brown bear population in Unit 25 declined in the 1960s primarily from aircraft-supported hunting associated with guiding. As a result, regulations were implemented to limit harvest starting in 1971. As the population recovered, regulations were gradually liberalized. Population trend data for Unit 25 are currently sparse; however, there is a possibility that the population has increased or expanded into new habitat based on an increase in sightings of brown bears by local residents on the Yukon River compared to years prior to 2000 (Lenart 2007).

The current population estimate of brown bears in Units 25A, 25B, and 25D is based on the 1993 estimate of approximately 1,200 brown bears (2.4 bears/100 mi^2) (Lenart 2007) and estimated densities and population size slightly varies between the units (**Table 1**). In the mountainous portion of Unit 25C, Eagan (1995) (*cited* in Young 2007) determined that there was a medium density (1.3–2.6 bears/100 mi^2).

In northern Alaska, female brown bears do not successfully reproduce until they are older than 5 years (Reynolds 1987). The delay in reproduction, as well as small litter sizes (1.6 cubs/litter), long intervals between successful reproductive events and short potential reproductive periods cause the low rates of successful production in brown bears in northern Alaska (USFWS 1982). In addition, female brown bears

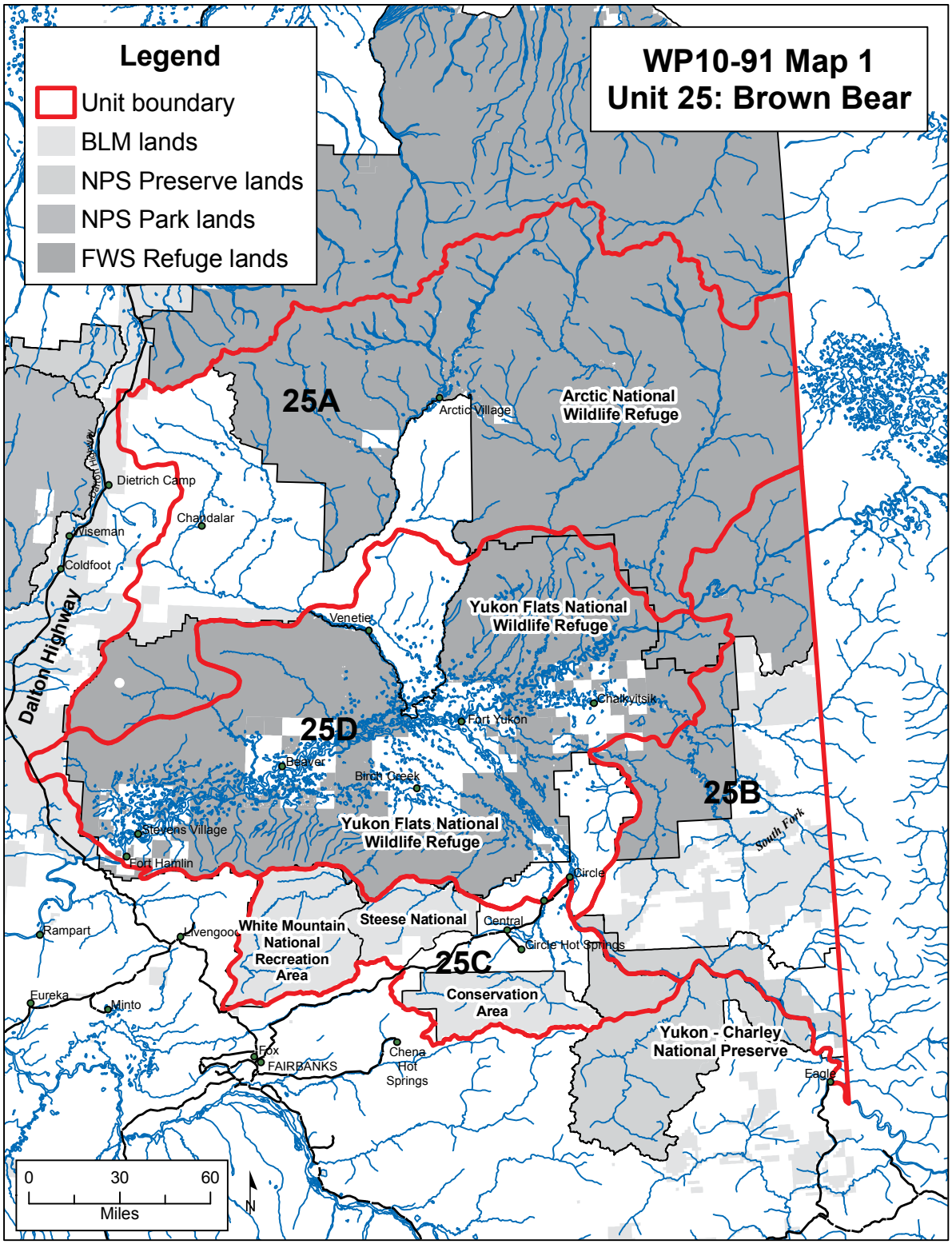

Legend
Unit boundary
BLM lands
NPS Preserve lands
NPS Park lands
FWS Refuge lands
WP10-91 Map 1
Unit 25: Brown Bear
25A
25B
25C
25D
Arctic National Wildlife Refuge
Arctic Village
Dietrich Camp
Chandalar
Wiseman
Coldfoot
Dalton Highway
Venetie
Yukon Flats National Wildlife Refuge
Chalkyitsik
Fort Yukon
Beaver
Birch Creek
Stevens Village
Fort Hamlin
Circle
South Fork
Rampart
Livengood
White Mountain National Recreation Area
Steese National Conservation Area
Central
Circle Hot Springs
Eureka
Minto
Fox
FAIRBANKS
Chena Hot Springs
Yukon - Charley National Preserve
Eagle
0
30
60
Miles
N

Table 1. Units 25A, 25B, 25C, and 25D estimated brown bear population and allowable sustainable harvest (Lenart 2007, Young 2007).

Unit	Area (mi^2)	Estimated Density/100 mi^2	Estimated Population Size	Allowable Harvest
25A	21,280	2.8	596	30
25B and 25D	26,660	2.2	587	29
25C	-	medium (1.3-2.6)	-	6

exhibit high fidelity to home ranges and little emigration or immigration (Reynolds 1993 *cited* in Lenart 2007). Therefore, brown bears are often managed conservatively.

Brown bears in Unit 25D have been identified as a significant predator on moose calves that contributes to maintaining a low density of moose. In their moose mortality study, Bertram and Vivion (2002) found that predation was responsible for 97% of known calf mortality, with brown bears causing 39% of it, second only to black bear at 45%. As a result, the *Yukon Flats Cooperative Moose Management Plan* (ADF&G 2002) prescribes increasing brown bear harvest.

Harvest History

Brown bear harvest is tracked in Unit 25 using the harvest reporting system administered by ADF&G. A supplemental household survey is also conducted by CATG in Units 25 B and 25D to track brown bear harvest.

The ADF&G management objectives for Unit 25 brown bear includes: Managing a population capable of sustaining mean annual harvest of 30 bears in Unit 25A and a total of 29 bears in all of Units 25B and 25D combined, with a minimum of 60% males in the harvest (Lenart 2007), and manage for a 3-year mean annual human-caused bear (≥2 years of age) mortality of 6 from Unit 25C (Young 2007). The harvestable surpluses for Unit 25A, 25B and 25D are based on the conservative assumption that 5% of the total population can be harvested on a sustainable basis. The ADF&G also wants to manage for a temporary reduction in brown bear numbers and predation on moose in Unit 25D until moose populations recover (Lenart 2007).

Unlike Units 25A and 25C (which have road access and a majority of harvest by nonlocal hunters), Units 25B and 25D have a majority of harvest by local residents, poor road access, a household bear harvest survey, and a moose harvest management plan. With the exception of 2006 (n=37) the annual harvestable surplus of brown bears in Units 25B and 25D as reported through household surveys has not been exceeded (range 0–22). Because the use of Units 25B and 25D by nonlocal hunters is low (primarily due to lack of road access and limited guided brown bear hunt opportunities) an increase of the brown bear harvest limit from one to two bears is unlikely to cause harvest to exceed the harvestable surplus of 29 bears (Bertram 2011, pers. comm.). However, increasing the harvest limit to three bears may cause the harvestable surplus to be exceeded (Bertram 2011, pers. comm.).

Based on ADF&G harvest reports, brown bear management objectives were generally met in Unit 25 (Lenart 2007, Young 2007). Each year, the total reported harvest was below the harvest objective for each unit and most often the ratio of harvest was 60+% male for each year (**Tables 1 and 2**). Non-Federally qualified subsistence users and nonresidents account for the majority of the reported harvest, while Federally qualified subsistence users often account for less than 8% of the reported harvest each year for Unit 25A (**Table 3**). In addition, more than 60% of brown bears harvested by non-Federally qualified

Table 2. Unit 25A, 25B, 25C, and 25D brown bear mortality (Lenart 2007, Thomas 2006, Young 2007).

Regulatory Year	Unit 25A		Unit 25B and 25D			Unit 25C	
	Mortality	% Male	Mortality	% Male	[a]Household Survey Data Mortality	Mortality	% Male
1995-1996	15	67	2	100	1	2	100
1996-1997	21	55	4	75	0	3	33
1997-1998	15	47	0	0	1	1	100
1998-1999	13	67	2	100	0	1	0
1999-2000	13	85	6	67	-	1	100
2000-2001	7	57	1	100	-	3	67
2001-2002	14	79	1	100	-	5	60
2002-2003	23	65	11	64	5	3	0
2003-2004	26	48	2	100	-	1	0
2004-2005	24	50	3	100	22	5	100
2005-2006	24	50	1	100	-	6	80
2006-2007	-	-	-	-	37	-	-
2007-2008	-	-	-	-	17	-	-
2008-2009	-	-	-	-	22	-	-

[a]Househhold survey data does not include nonlocal harvest of brown bears.

Table 3. Unit 25A residency of successful brown bear hunters, regulatory years 1995-2006 (Lenart 2007).

Regulatory Year	Local resident (%)	Nonlocal resident (%)	Nonresident (%)	Total Successful Hunters
1995-1996	0 (0)	4 (29)	10 (71)	14
1996-1997	0 (0)	2 (10)	18 (90)	20
1997-1998	0 (0)	3 (23)	10 (77)	13
1998-1999	1 (8)	3 (23)	9 (69)	13
1999-2000	0 (0)	4 (29)	10 (71)	14
2000-2001	0 (0)	1 (14)	6 (86)	7
2001-2002	0 (0)	6 (50)	6 (50)	12
2002-2003	1 (4)	11 (48)	11 (48)	23
2003-2004	1 (4)	5 (20)	19 (76)	25
2004-2005	0 (0)	12 (50)	12 (50)	24
2005-2006	0 (0)	7 (29)	17 (71)	24

hunters in 25A since 1996 have been female (Voss 2011, pers. comm.). In Units 25B and 25D, reported harvest is usually less than 7 bears each year for all hunter groups (**Table 4**). However, household surveys indicate a disparity with reported harvest and show that local harvest of brown bears has increased since 2004/05, indicating that the actual harvest may be much higher for Unit 25 (**Table 2**).

There is no requirement for a resident brown bear tag for Units 25B and 25D, thus household surveys provide the best means to monitor harvest. Household surveys conducted in 2005, 2007, 2008, and 2009 indicate brown bear harvests by Federally qualified subsistence users as 22, 37, 17 and 22 brown bears, respectively (**Table 2**). CATG conducted bear harvest interviews with local hunters in villages within Unit 25D and found that 37 brown bears were taken in 2006 (Thomas 2008). It is suspected that many bears were not reported because of the difficulty of sealing a bear in remote areas (Lenart 2007). Household

Table 4. Units 25B and 25D residency of successful brown bear hunters, regulatory years 1995-2006 (Lenart 2007).

Regulatory Year	Local resident (%)	Nonlocal resident (%)	Nonresident (%)	Total Successful Hunters
1995-1996	0 (0)	1 (50)	1 (50)	2
1996-1997	1 (33)	0 (0)	2 (67)	3
1997-1998	0 (0)	0 (0)	0 (0)	0
1998-1999	1 (50)	0 (0)	1 (50)	2
1999-2000	4 (80)	0 (0)	1 (20)	5
2000-2001	1 (100)	0 (0)	0 (0)	1
2001-2002	0 (0)	1 (100)	0 (0)	1
2002-2003	7 (70)	1 (30)	0 (0)	10
2003-2004	1 (100)	0 (0)	0 (0)	1
2004-2005	2 (100)	0 (0)	0 (0)	2
2005-2006	0 (0)	1 (100)	0 (0)	1

survey harvest data for all other years has been below the ADF&G harvest objective of 29 bears, but only considered Federally qualified subsistence users and did not take into account other hunter groups (**Table 2**).

Effects of the Proposal

If the brown bear harvest limit were increased from one to three per regulatory year in Unit 25, overall harvest is likely to increase. Such an increase may exceed the ADF&G allowable harvest objective of 30 bears in Unit 25A and 29 bears in Units 25B and 25D.

The wildlife regulations on the Yukon Flats (Units 25B and 25D) are complicated by the diverse land ownership patterns (**Map 1**) and divergent Federal and State regulations. Adoption of this proposal will further complicate regulations, and enforcement of them, by misaligning the Federal and State brown bear harvest limit.

Adoption of this proposal will also complicate current planning actions that are underway by the Yukon Flats Moose Management Planning Committee (Yukon Flats Refuge, ADF&G, CATG and Yukon Flats villages). One objective of the committee is to align seasons for wildlife between State and Federal managed lands in Unit 25D. However, the committee did not address this issue at its October 2010 meeting.

Of concern to the refuges is the resulting misalignment of Federal and State regulations and the potential to overharvest if the brown bear harvest limit is increased to three bears. It is unlikely that the State will, in the future, increase the harvest limit to three brown bears on State managed lands in Unit 25. Without a companion State regulation authorizing a three brown bear harvest on State lands, local hunters will be at risk of violation when hunting on State managed lands and enforcement will become more complicated. Currently the State has increased brown bear harvest limits to two bears per year in regions of the State that are intensively managed (Units 16, 19, 20E and 22A). Unit 25 is not intensively managed at this time (Bertram 2011, pers. comm.).

OSM PRELIMINARY CONCLUSION

Oppose Proposal WP10-91.

Justification

Federally qualified subsistence users account for a small amount of the reported annual brown bear harvest in Unit 25. Harvest data indicates that non-Federally qualified subsistence users and nonresidents account for the majority of the reported harvest, while Federally qualified subsistence users often account for less than 8% of brown bears reported harvested annually in Unit 25A. In addition, more than 60% of brown bears harvested by non-Federally qualified hunters have been female since 1996 in 25A. In Units 25B and 25D, reported harvest is usually less than 7 bears annually for all user groups. However, household surveys indicate a disparity with reported harvest and show that local harvest of brown bears has increased since 2004/05, indicating that the actual harvest may be higher for Unit 25 (**Table 2**). If the brown bear harvest limit were increased from one to three bears per regulatory year in Unit 25, overall harvest is likely to increase. Such an increase may lead to exceeding the ADF&G allowable harvest limits. The low reproductive rate for the species, coupled with a high proportion of females harvested in some areas in recent years, makes increasing the harvest limit for the species unwarranted at this time.

An increase in the allowable harvest would misalign Federal and State regulations and adoption of this proposal will also complicate current planning actions that are underway by the Yukon Flats Moose Management Planning Committee (Yukon Flats National Wildlife Refuge, ADF&G, CATG and Yukon Flats villages). One objective of the committee is to align seasons for wildlife between State and Federal managed lands in Unit 25D. However, the committee did not address this issue at its October 2010 meeting.

It is unlikely that the State will increase the harvest limit from one to three brown bears in Unit 25 because the State has only authorized an increase to two bears in areas that are intensively managed (Units 16, 19, 20E and 22A). Unit 25 is not intensively managed at this time. Without a companion State regulation authorizing a three brown bear harvest on State lands, local hunters will be at risk of violation when hunting on State managed lands and enforcement will become more complicated.

LITERATURE CITED

Alaska Department of Fish and Game. 2002. Yukon Flats cooperative moose management plan. Fairbanks, AK. <http://www.wildlife.alaska.gov/management/planning/planning_pdfs/yukonflats_plan.pdf > Accessed December 29, 2009.

Bertram, M. 2011. Wildlife Biologist. Personal communication: email. Yukon Flats National Wildlife Refuge. Fairbanks, AK.

Bertram, M., and M. Vivion. 2002. Moose mortality in eastern Interior Alaska. Journal of Wildlife Management 66:747–756.

Lenart, E. A. 2007. Units 25A, 25B, 25D, 26B, and 26C brown bear. Pages 300–323 *in* P. Harper, editor. Brown bear management report of survey and inventory activities 1 July 2004–30 June 2006. ADF&G. Project 4.0. Juneau, AK.

Reynolds, H. V. 1987. The brown/grizzly bear *Ursus arctos horribilis*, pages 41–42 in J. Rennicke, C. Schwartz, H.V. Reynolds and S.C. Amstrup. Bears of Alaska in life and legend. AK Nat. Hist. Assn. 63 pages.

Reynolds, H. V. 1993. Evaluation of the effects of harvest on grizzly bear population dynamics in the northcentral Alaska Range. ADF&G. Federal Aid in Wildlife Restoration. Research Final Report. Grant W-23-5

Thomas, B. 2008. Yukon Flats moose, bear, waterfowl, and furbearing harvest data collection. Final Summary Report. Council of Atahabascan Tribal Governments. Technical Document 08-02.

USFWS. 1982. Brown Bear (*Ursus arctos*). Pages 247–248 in USFWS. Initial report baseline study of fish, wildlife and their habitats. Anchorage, AK.

Voss, R. 2011. Refuge Manager. Personal communication: email. Arctic National Wildlife Refuge. Fairbanks, AK.

Young, D. D., Jr. 2007. Units 20A, 20B, 20C, 20F, and 25C brown bear. Pages 212–228 *in* P. Harper, editor. Brown bear management report of survey and inventory activities 1 July 2004–30 June 2006. ADF&G. Project 4.0. Juneau, AK.

WP10-92 Executive Summary	
General Description	Proposal WP10-92 requests that the annual harvest limit for black bear (*Ursus americanus*) in Unit 25 be increased from three to three to five bears per year. This proposal was deferred by the Federal Subsistence Board at its May 2010 meeting, until the Yukon Flats Moose Management Planning Committee (Yukon Flats Refuge, Alaska Department of Fish and Game (ADF&G), Council of Athabascan Tribal Governments (CATG), and Yukon Flats villages) was able to address this issue for Unit 25. The focus of the planning committee was to align hunting season dates and harvest limits for both State and Federal managed lands in Unit 25D. *Submitted by Phillip Solomon of Fort Yukon*
Proposed Regulation	**Unit 25—Black Bear** *Unit 25—~~3~~ **5** bears* *Jul. 1 – Jun. 30* *Or 3 bears by State community harvest permit* *Jul. 1 – Jun. 30*
OSM Preliminary Conclusion	**Oppose**
Eastern Interior Regional Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	**None**

DRAFT STAFF ANALYSIS
WP10-92 (DEFERRED)

ISSUE

Proposal WP10-92, submitted by Phillip Solomon of Fort Yukon, requests that the annual harvest limit for black bear (*Ursus americanus*) in Unit 25 be increased from three to three to five bears per year. This proposal was deferred by the Federal Subsistence Board at its May 2010 meeting, until the Yukon Flats Moose Management Planning Committee (Yukon Flats Refuge, Alaska Department of Fish and Game (ADF&G), Council of Athabascan Tribal Governments (CATG), and Yukon Flats villages) was able to address this issue for Unit 25. The focus of the planning committee was to align hunting season dates and harvest limits for both State and Federal managed lands in Unit 25D.

DISCUSSION

The proponent states that residents of the Yukon Flats area eat a lot of black bears and that there are enough black bears to support increasing the harvest limit, which would not hurt the population. The proponent states that an increase in the harvest limit will also help compensate for low moose and salmon numbers along with a changing climate when trying to meet subsistence needs.

Note: Clarification was provided by the proponent as to exactly how many black bears should be proposed for the harvest limit after the proposal was distributed for public comment. The proponent would like the harvest limit to be set at 5 bears for Unit 25.

Existing Federal Regulation

Unit 25—Black Bear

*Unit 25—3 bears**	*Jul. 1 – Jun. 30*
Or 3 bears by State community harvest permit	*Jul. 1 – Jun. 30*

*Note that existing federal regulations as stated in this analysis are correct under current CFR's, but they are stated incorrectly in the public booklet of Federal subsistence management regulations.

Proposed Federal Regulation

Unit 25—Black Bear

*Unit 25—~~3~~ **5** bears*	*Jul. 1 – Jun. 30*
Or 3 bears by State community harvest permit	*Jul. 1 – Jun. 30*

Existing State Regulations

Units 25A, 25B, 25C—Black Bear

Residents and Nonresidents—3 bears	*No closed season*

Unit 25D—Black Bear

Resident—3 bears	*No closed season*
Or	
*Resident—3 bears by Community permit**	*No closed season*
Nonresident—3 bears	*No closed season*

* See Regulatory History

Extent of Federal Public Lands

Federal public lands comprise approximately 55% of Unit 25 and consist of U.S. Fish and Wildlife Service (37%), Bureau of Land Management (16%), and National Park Service (2%) managed lands (**See Unit 25 Map**).

Customary and Traditional Use Determinations

Residents of Unit 25D have a positive customary and traditional use determination for hunting black bears in Unit 25D.

All rural residents have a positive customary and traditional use determination for hunting black bears in Unit 25 remainder.

Regulatory History

The harvest limit for black bear in Unit 25 has been three bears since the inception of the Federal Subsistence Program in 1990. State regulations have also allowed the harvest of three black bears since 1990.

In 2003, the Federal Subsistence Board (Board) adopted WP03-42 to allow fall baiting of black bear and to establish a community harvest limit of 3 bears. These changes also aligned Federal regulations and State regulations.

In March 2002, the Alaska Board of Game established a community harvest permit program for black bear in Unit 25. The program allows people in a community or other group to pool their individual harvest limits (3 bears) so that one hunter may harvest more than 3 bears each year for use by the community or group. The program requires a hunt administrator who signs up participants, distributes harvest permits to participating hunters and monitors and reports harvest to the ADF&G. The program is not likely to increase harvest, and is intended to better accommodate traditional hunting and sharing practices and improve harvest reporting. Participants are required to have a valid community harvest permit for each bear taken (ADF&G 2002). To date, local users have not utilized this program for black bear (Lenart 2010, pers. comm.).

This proposal (WP10-92) was deferred by the Federal Subsistence Board at its May 2010 meeting, until the Yukon Flats Moose Management Committee (Yukon Flats Refuge, ADF&G, CATG and Yukon Flats villages) was able to address this issue for Unit 25. The focus of the committee was to address the low moose population with one of the objectives to align hunting season dates and harvest limits for both State and Federal managed lands in Unit 25D while recognizing the subsistence priority in Federal and State law. During the Board meeting, the Eastern Interior Subsistence Regional Advisory Council Chair

noted that the Council recommended this proposal be deferred, stating that local residents were not well aware of the option to participate in a community harvest program for black bears in Unit 25.

Biological Background

Black bears are abundant in Unit 25 (ADF&G 2002, Bertram and Vivion 2002), but there is uncertainty over accurate population numbers for much of the unit. Based on high capture rates and low hunting pressure, black bear densities are thought to be within the range of 0.2–0.7/mi^2 (86–265/1,000 km^2), which has been previously reported in Alaska (Hechtel 1991, Schwartz and Franzmann 1991, Miller 1994 *cited in* Bertram and Vivion 2002). The total population of black bear in Unit 25D, based on an assumed density of 1 black bear per 5–10 square miles, is 1,750–3,500 black bears (ADF&G 2002).

Black bears have low productive rates. The age of first reproduction for black bears has been documented at 5–7 years of age (Miller 1994), recruitment interval (time taken for separation of cubs from female) 2.0–2.7 years, and a reproductive interval of 1–4 years (Bertram and Vivion 2002, Miller 1994). Although, black bears often have 2 cubs (Miller 1994), cub survival has been documented to be 0.45–0.50 (Bertram and Vivion 2002, Miller 1994). Annual recruitment for Unit 25D is estimated at 175–350 black bears (ADF&G 2002).

Black bears were monitored on the western Yukon Flats between 1995 and 2001. Five female bears produced 10 litters between 1996 and 2001 and the survival rate estimate for cubs weaned to one year was 0.45 (Bertram and Vivion 2002). One adult female was documented giving birth to cubs during three consecutive years and losing her first 2 litters, but successfully raising the third litter to one year of age. Although mortality sources were largely unknown, Bertram and Vivion (2002) documented brown bear predation on two denned female black bears with cubs. An adult male black bear was also found to be killed by a brown bear (Bertram and Vivion 2002).

Harvest History

The black bear has traditionally been an important part of Athabascan culture. The black bear's meat is an important food, and its fat is considered a delicacy. The fat, rendered into lard, is eaten with dried fish. The meat is also mixed with berries and fish to make *akutaq*.

Household survey data indicates that annual black bear harvest for the Yukon Flats area (Unit 25D) has been between 32 and 68 animals for years 2003–2008, representing 1–2% of the harvestable population. (Thomas 2008). Current harvests are lower than the estimated annual recruitment of 175–350 bears (ADF&G 2002). Unit 25D could sustain a higher annual harvest approaching 5% which would range from 175 to 437 black bears (Bertram 2011, pers. comm.).

Other Alternatives Considered

Another alternative considered was to increase in the black bear harvest for Unit 25D rather than all of Unit 25. A 5% harvest of the black bear population is considered sustainable. Harvest levels between 2003–2008 were approximately 1–2% in Unit 25D. Black bear populations in this area could sustain additional harvest. However, since historical harvest levels remain low and because local users have yet to fully utilize additional harvest opportunities available under the community harvest permit system, an increase in the annual harvest limit for black bears in Unit 25D is unwarranted at this time.

Current Events

Preliminary data collected by the State in 2010 indicates that black bear density in the region of Beaver Village (Unit 25D) is approximately one bear every two square miles. There are currently no black bear density estimates for Units 25A, 25B or 25C. Assuming a more moderate density range of 1 black bear/2–5 mi^2 across the whole of Unit 25D, the estimated black bear population for Unit 25D would range from 3,500 to 8,750 black bears (Bertram 2011, pers. comm.).

Effects of the Proposal

If this proposal were adopted, it would increase the Federal black bear harvest limit from three to five in Unit 25, which may lead to an increased harvest of bears in the unit. Currently there is ample opportunity for Federally qualified subsistence users to harvest black bears as current regulations allow an annual harvest limit of three bears per individual. In addition, managers lack density and population trend data on black bears for Units 25A, 25B, and 25C and therefore an increase in harvest limits for all of Unit 25 is unwarranted without additional biological data. If this proposal were adopted, it would cause State and Federal regulations to fall out of alignment, which will add to the regulatory complexity in the unit.

OSM PRELIMINARY CONCLUSION

Oppose Proposal WP10-92.

Justification

There is ample opportunity for local residents to harvest black bears, as current regulations allow an annual harvest limit of three bears for individuals. Community harvest permits under State regulations provide additional harvest opportunities in Unit 25. Local users have yet to fully utilize community harvest permits for this species and therefore, a further increase in the harvest limit is not warranted at this time. Furthermore, there are currently no density and population trend estimates for black bears in Unit 25A, Unit 25B and Unit 25C. As a result, managers should be cautious about increasing the annual harvest limit in these areas. Additionally, if this proposal were adopted it would cause State and Federal regulations to become misaligned. Adoption of this proposal will also complicate current planning actions that are underway by the Yukon Flats Moose Management Planning Committee (Yukon Flats Refuge, ADF&G, CATG and Yukon Flats villages). One objective of the committee is to align seasons for wildlife between State and Federal managed lands in Unit 25D. However, the committee did not address this issue at its October 2010 meeting.

LITERATURE CITED

Alaska Department of Fish and Game. 2002. Yukon Flats cooperative moose management plan. Fairbanks, AK. <http://www.wildlife.alaska.gov/management/planning/planning_pdfs/yukonflats_plan.pdf > Accessed December 29, 2009.

Bertram, M. 2011. Wildlife Biologist. Personal communication: email. Yukon Flats National Wildlife Refuge. Fairbanks, AK.

Bertram, M., and M. Vivion. 2002. Moose mortality in eastern Interior Alaska. Journal of Wildlife Management 66:747–756.

Hechtel, J. L. 1991. Population dynamics of black bear population, Fort Wainwright, Alaska. ADF&G Natural Resources Report #91-2.

Lenart, E. A. 2010. Wildlife Biologist. Personal communication: email. ADF&G. Fairbanks, AK.

Miller, S. D. 1994. Black bear reproduction and cub survivorship in south-central Alaska. International Conference on Bear Research and Management 9(1):263–273

Schwartz, C. C. and A. W. Franzmann. 1991. Interrelationships of black bears to moose and forest succession in the northern coniferous forest. Wildlife Monographs 113.

Thomas, B. 2008. Yukon Flats moose, bear, waterfowl, and furbearing harvest data collection. Final Summary Report. Council of Athabascan Tribal Governments. Technical Document 08-02.

WP10-104 and WP12-65/66 Executive Summary	
General Description	Deferred Proposal WP10-104 requests that a joint Federal-State draw permit hunt for the Chisana Caribou Herd (CCH) be established in Unit 12 beginning in the fall of 2011. The harvest quota would be in accordance with the recommendations of the Draft Chisana Caribou Herd Management Plan (Draft Management Plan), the harvest limit would be one bull, and the hunting season would be September 1 through September 30. A portion of the permits would be issued to Federally qualified subsistence hunters for a Federal hunt and the remainder of the permits would be issued to Alaska residents and nonresidents for a State hunt. *Submitted by Leif L. Wilson on behalf of the Upper Tanana/40 Mile Advisory Committee* Proposal WP12-65 requests that a Federal registration hunt for the CCH be established beginning in the fall of 2012. The harvest quota would be in accordance with the recommendations of the Draft Management Plan the harvest limit would be one bull and the hunting season would be August 10 through September 30. *Submitted by Terry Brigner on behalf of the Upper Tanana/40 Mile Advisory Committee* Proposal WP12-66 requests that a Federal registration hunt for the CCH be established beginning in the fall of 2012. The harvest quota would be in accordance with the recommendations of the Draft Management Plan. The hunt would be restricted to Federal public lands in Unit 12 that lie east of the Nabesna River and the Nabesna Glacier. The harvest limit would be one bull and the hunting season would be Sept. 1 through Sept. 30. Additionally, the proponent asks that an Alaska National Interest Land Claims Act (ANILCA) Section 804 analysis be completed. *Submitted by the Cheesh 'na Tribal Council*
Proposed Regulation	Proposal WP10-104 **Unit 12—Caribou** *Unit 12, that portion of the Nabesna River drainage within the Wrangell-St. Elias National Park and Preserve and all Federal Public lands south of the Winter Trail running southeast from Pickerel Lake to the Canadian border—* ~~*The taking of caribou is prohibited on Federal public lands*~~. ***1 bull by joint State-Federal drawing permit only***. — ~~*No Federal open season*~~ ***Sept. 1–Sept. 30***

continued on next page

WP10-104 and WP12-65/66 Executive Summary *(continued)*		
Proposed Regulation (Continued)	Proposal WP12-65 **Unit 12–Caribou**	
	*Unit 12, that portion of the Nabesna River drainage within the Wrangell-St. Elias National Park and Preserve and all Federal Public lands south of the Winter Trail running southeast from Pickerel Lake to the Canadian border— ~~The taking of caribou is pro(hibited on Federal public lands~~. **1 bull by Federal registration permit only**.*	*~~No Federal open season~~* ***Aug. 10–Sept. 30***
	Proposal WP12-66 **Unit 12–Caribou**	
	*Unit 12, that portion ~~of the Nabesna River drainage~~ within the Wrangell-St. Elias National Park **that lies west of the Nabesna River and the Nabesna Glacier**~~, and Preserve and all Federal Public lands south of the Winter Trail running southeast from Pickerel Lake to the Canadian border~~*	*No Federal open season*
	*Unit 12, that portion **east** of the Nabesna River and **the Nabesna Glacier,** ~~drainage within the Wrangell-St. Elias National Park and Preserve~~ and all Federal Public lands south of the Winter Trail running southeast from Pickerel Lake to the Canadian border— **1 bull by Federal registration permit only**.*	***Sept. 1 –Sept. 30***
OSM Preliminary Conclusion	**Take No Action** Proposals WP 10-104 and WP12-65. **Support** Proposal WP12-66 **with modification** to list the communities allowed to harvest caribou in Unit 12, that portion east of the Nabesna River and the Nabesna Glacier, and lands south of the Winter Trail running southeast from Pickerel Lake to the Canadian border: Northway, Mentasta, Tetlin, Tok, and Chisana, and, if Proposal WP12-68 is adopted by the Federal Subsistence Board, Chistochina.	

continued on next page

WP10-104 and WP12-65/66 Executive Summary *(continued)*		
OSM Preliminary Conclusion (Continued)	The modified regulation would read: **Unit 12—Caribou**	
	Unit 12, that portion ~~of the Nabesna River drainage~~ within the Wrangell-St. Elias National Park ***that lies west of the Nabesna River and the Nabesna Glacier****~~, and Preserve and all Federal Public lands south of the Winter Trail running southeast from Pickerel Lake to the Canadian border~~*	*No Federal open season*
	Unit 12, that portion ***east*** *of the Nabesna River and* ***the Nabesna Glacier,*** *~~drainage within the Wrangell-St. Elias National Park and Preserve~~ and ~~all Federal Public lands~~ south of the Winter Trail running southeast from Pickerel Lake to the Canadian border—* ***1 bull by Federal registration permit only****.* ***Federal public lands are closed to the harvest of caribou except by residents of Chisana, Chistochina, Mentasta, Northway, Tetlin, and Tok.***	***Sept. 1 –Sept. 30***
Southeast Regional Council Recommendation		
Interagency Staff Committee Comments		
ADF&G Comments	See comments following the analysis.	
Written Public Comments	**None**	

DRAFT STAFF ANALYSIS
WP10-104, WP12-65, WP12-66

ISSUES

Deferred Proposal WP10-104, submitted by Leif L. Wilson on behalf of the Upper Tanana/40 Mile Advisory Committee, requests that a joint Federal-State draw permit hunt for the Chisana Caribou Herd (CCH) be established in Unit 12 beginning in the fall of 2011. The harvest quota would be in accordance with the recommendations of the Draft Chisana Caribou Herd Management Plan (Draft Management Plan), the harvest limit would be one bull, and the hunting season would be September 1 through September 30. A portion of the permits would be issued to Federally qualified subsistence hunters for a Federal hunt and the remainder of the permits would be issued to Alaska residents and nonresidents for a State hunt.

Proposal WP12-65, submitted by Terry Brigner on behalf of the Upper Tanana/40 Mile Advisory Committee, requests that a Federal registration hunt for the CCH be established beginning in the fall of 2012. The harvest quota would be in accordance with the recommendations of the Draft Management Plan the harvest limit would be one bull and the hunting season would be August 10 through September 30.

Proposal WP12-66, submitted by the Cheesh ‘na Tribal Council, requests that a Federal registration hunt for the CCH be established beginning in the fall of 2012. The harvest quota would be in accordance with the recommendations of the Draft Management Plan. The hunt would be restricted to Federal public lands in Unit 12 that lie east of the Nabesna River and the Nabesna Glacier. The harvest limit would be one bull and the hunting season would be Sept. 1 through Sept. 30. Additionally, the proponent asks that an Alaska National Interest Land Claims Act (ANILCA) Section 804 analysis be completed.

DISCUSSION

All three proposals request the establishment of a hunt in an area and on a population that is currently closed to all users (hunting opportunity of the CCH was closed in 1994). The Alaska range of the CCH is primarily within the Wrangell-St. Elias National Park and Preserve, in a remote, mountainous location that is difficult to access. The Draft Management Plan recommends a harvestable surplus of 2% of the herd split between Alaska and Yukon Canada. Based on the fall 2010 census, the Alaska portion of the quota (1%) is approximately seven animals, considerably less than the number of Federally qualified users, which includes the residents of Unit 12, Dot Lake, Healy Lake and Mentasta Lake. Because of the small harvestable surplus, and the large number of Federally qualified users, it may be that if a harvest opportunity is provided, Federal public lands would remain closed to all but Federally qualified users.

Proposal WP10-104: This proposal was deferred until the 2012 regulatory cycle by the Federal Subsistence Board (Board) during its spring 2010 meeting. The Board decided that it was premature to adopt hunting regulations for the CCH until the Draft Management Plan was finalized and supported by the management agencies involved with the CCH. An approved management plan would establish the biological thresholds (e.g., herd size, sex ratio, cow:calf ratio) needed for evaluating herd stability before a harvest quota could be identified. In addition, a CCH census was scheduled to be completed in October 2010. The Board noted that the census information would allow management biologists to determine if the CCH could sustain a harvest.

Proposal WP12-65: The proponent recommends allowing Federal subsistence users to hunt the CCH for two years. After a two-year test period, they suggest establishing an upper limit on Federal subsistence harvest which they refer to as "Federal subsistence need." This harvest limit would be equivalent to the greater annual harvest of Chisana caribou in the two seasons, the fall of 2012 and the fall of 2013. If the "Federal subsistence need" falls below the recommended harvest allocation as defined in the Draft Management Plan, the remaining animals would be made available for harvest in a State hunt administered by the ADF&G. While the proposal noted a "Federal subsistence need," the Federal Subsistence Board provides for a subsistence priority on Federal public lands (36 CFR 242.10 (d)(6) and 50 CFR 100.10(d)(6)); they do not establish any quantitative measurement of the subsistence resources needed for subsistence harvest. The level of participation in a Federal subsistence hunt is unknown, but the proponent believes that the number of caribou available is likely greater than what is harvested by Federal subsistence users.

Proposal WP12-66: The proponent suggests that the number of permits issued should be equal to 1.5 times the number of animals available for harvest and successful harvests be reported within 3 days of the harvest. The proponent requests that a Section 804 analysis be developed to identify those most dependent on the resource and suggests that a working group could be formed to address allocation of harvest permits. Furthermore, the proponent requests that the land west of the Nabesna River remain closed to harvest in order to avoid incidental harvest of the Mentasta Caribou Herd (MCH). The area proposed in Proposal WP12-66 to be opened—Unit 12, that portion east of the Nabesna River and the Nabesna Glacier—covers the core range. The MCH has experienced a dramatic decline from 2,304 caribou in 1990 to 600 in 1997 (Jenkins 2005). The 2010 census of the MCH herd resulted in a population estimate of 336 animals (Putera 2011). Currently, all harvest of the MCH is closed under both Federal and State regulations.

Existing Federal Regulation

Unit 12—Caribou

Unit 12, that portion of the Nabesna River drainage within the Wrangell-St. Elias National Park and Preserve and all Federal Public lands south of the Winter Trail running southeast from Pickerel Lake to the Canadian border—The taking of caribou is prohibited on Federal public lands.	*No Federal open season*

Proposed Federal Regulation

Proposal WP10-104

Unit 12—Caribou

Unit 12, that portion of the Nabesna River drainage within the Wrangell-St. Elias National Park and Preserve and all Federal Public lands south of the Winter Trail running southeast from Pickerel Lake to the Canadian border— ~~The taking of caribou is prohibited on Federal public lands~~. ***1 bull by joint State-Federal drawing permit only****.*	~~*No Federal open season*~~ ***Sept. 1–Sept. 30***

Proposal WP12-65

Unit 12–Caribou	
*Unit 12, that portion of the Nabesna River drainage within the Wrangell-St. Elias National Park and Preserve and all Federal Public lands south of the Winter Trail running southeast from Pickerel Lake to the Canadian border— ~~The taking of caribou is pro(hibited on Federal public lands~~. **1 bull by Federal registration permit only**.*	*~~No Federal open season~~* ***Aug. 10–Sept. 30***

Proposal WP12-66

Unit 12–Caribou	
*Unit 12, that portion ~~of the Nabesna River drainage~~ within the Wrangell-St. Elias National Park **that lies west of the Nabesna River and the Nabesna Glacier**~~, and Preserve and all Federal Public lands south of the Winter Trail running southeast from Pickerel Lake to the Canadian border~~*	*No Federal open season*
*Unit 12, that portion **east** of the Nabesna River and **the Nabesna Glacier,** ~~drainage within the Wrangell-St. Elias National Park and Preserve~~ and all Federal Public lands south of the Winter Trail running southeast from Pickerel Lake to the Canadian border— **1 bull by Federal registration permit only**.*	***Sept. 1 –Sept. 30***

Existing State Regulation

Unit 12 remainder—Caribou	
Residents Only: One caribou may be taken by registration permit only during a winter season to be announced by emergency order	*Winter season to be announced*
Nonresidents	*No open season*

Extent of Federal Public Lands

Federal public lands comprise approximately 59% of Unit 12 and consist of Tetlin National Wildlife Refuge lands (approximately 11% of the lands in the Unit) and Wrangell-St. Elias National Park and Preserve lands (approximately 48% of the lands in the Unit) (**Unit 12 Map**).

Customary and Traditional Use Determinations

Rural residents of Unit 12, Dot Lake, Healy Lake and Mentasta Lake have a positive customary and traditional use determination for caribou in Unit 12. If Proposal WP12-68 is adopted by the Board, then Chistochina residents would be added to the customary and traditional use determination for caribou in Unit 12.

Regulatory History

Because of its small population size, the CCH has never supported a large harvest. Between 1989 and 1994 under State regulations, the harvest limit was 1 bull caribou and the annual harvest ranged between

16–34 animals (Gross 2007). Furthermore, between 1991 and 1994 under Federal regulations, the harvest limit was 1 bull caribou [_.23(n)(12)(ii)]. By 1991, due to declining population numbers the harvest was reduced through voluntary compliance by guides and local hunters. In 1994 the bull portion of the population declined below the ADF&G's management objective and hunting of Chisana caribou was closed by both the Alaska Board of Game and the Federal Subsistence Board. There has been no legal harvest of Chisana caribou in Alaska since 1994.

In 1989 and 1990 the reported harvest of Chisana caribou in the Yukon was 18 and 11 animals, respectively (Gross 2007). Gross also reported that the estimated unreported harvest of Chisana caribou between 1989 through 2002 ranged from 1 – 20 animals each year. After 2001, Yukon First Nation members voluntarily stopped harvesting Chisana caribou and there continues to be no legal harvest of Chisana caribou in the Yukon.

In 2010, the State of Alaska Board of Game approved a hunt for residents and nonresidents from September 1 through 30 on the CCH for one bull by drawing permit. The hunt is authorized in the portion of Unit 12 within the White River drainage and that portion within the Chisana River drainage upstream from the winter trail that runs southeast from Pickerel Lake to the Canadian Border (5 AAC 85.025(a)(7). However, on Federal Public Land the Federal closure supersedes the existing State regulation and thus Federal public lands are closed to hunting of the CCH at this time.

Current Events Involving Species

A draft five-year management plan for the CCH has been developed through a cooperative effort between Government of Yukon, Alaska Department of Fish and Game, White River First Nation, Kluane First Nation, National Park Service and U.S. Fish and Wildlife Service. The plan is expected to be finalized in the fall of 2011. Currently, the Draft Management Plan is providing the framework for monitoring the CCH population and criteria for implementing a hunt. As required by the Draft Management Plan, a census was completed in October of 2010 by the National Park Service and Alaska Department of Fish and Game. In addition to a stable or increasing population trend, the Draft Management Plan requires the observed bull:cow ratio be no be less than 35 bulls per 100 cows any one year and1 the three-year calf:cow ratio be above 15 calves per 100 cows (**Figure 1**). If for any reason an observed Chisana caribou population falls below these guidelines, no harvest will be allowed. The Draft Management Plan calls for a maximum allocation of 2% of the herd if the herd population size indicates a harvest is sustainable. The allocation is to be evenly distributed among Yukon and Alaska. The Draft Management plan further recommends a bull-only harvest to have a minimal impact on the potential herd growth.

In Tok on July 7, 2011, and in Chisana on July 8, 2011, residents of Tok and Chisana noted to OSM staff that an unanticipated effect of excluding residents of communities with customary and traditional use of caribou in Unit 12 from the opportunity to harvest Chisana caribou may be an unnecessary divisiveness between communities. These residents cautioned against excluding any qualified residents from the opportunity to harvest Chisana caribou.

At the meeting in Tok, several points were raised about the applicability of a Section 804 analysis. At the meeting in Chisana, comments were made about recent environmental changes and CCH migratory patterns:

- Given the difficulties accessing the CCH, it is unlikely that there will be any overhunting, even with a limit of seven animals. If a hunter walked to the herd from the community of Chisana, it would take a minimum of a week to hunt a caribou and then pack out harvested meat.

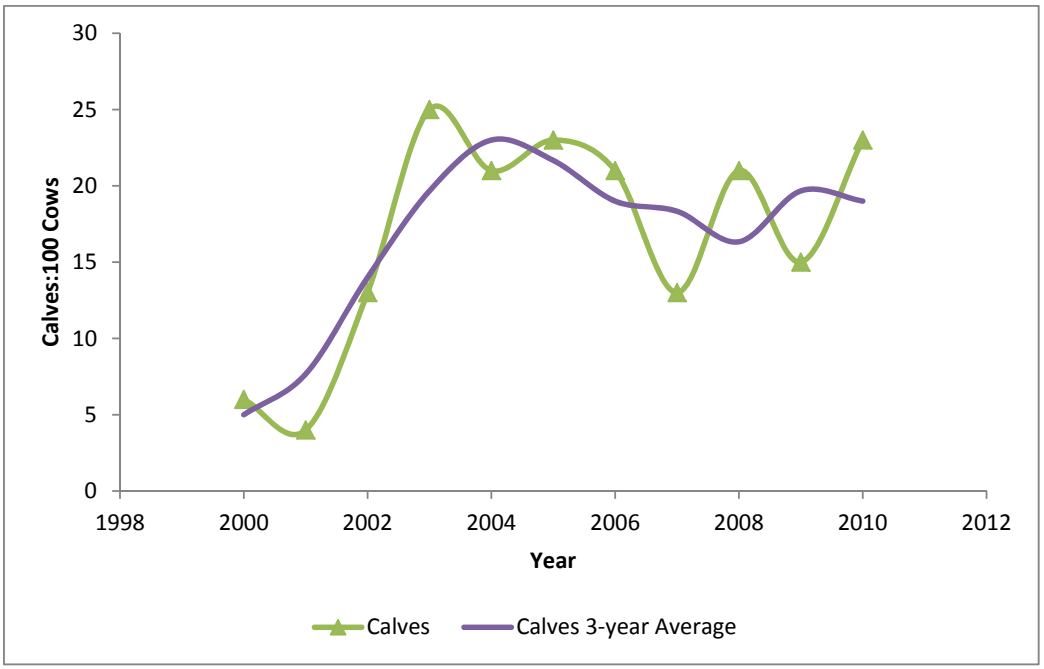


Figure 1. Chisana Caribou calves per 100 cows compared to the 3-year rollling average of calves per 100 cows, 1998 through 2010.

- The least expensive flight to Chisana is on the mail plane from Tok, which costs about $350. Given the costs associate with accessing Chisana caribou, it is unlikely that Federally qualified subsistence users identified under a Section 804 analysis will make the effort to subsistence hunt the CCH; other more readily accessible caribou are available.

- A Section 804 analysis may be premature, without first knowing the level of interest in a CCH hunt.

- Open a general registration hunt first and then, if the quota is reached, an emergency closure would be appropriate. At that point, conduct a Section 804 analysis.

- Most of the CCH hunt has been by nonresidents. On what basis can a Federal subsistence harvest, and an associated Section 804 analysis, be justified?

- The last three winters have been particularly harsh, and the summers have not been productive of good caribou forage. If this pattern continues, a shift in the CCH summer range to areas of better forage may occur.

- The CCH is fairly predictable in its movements. According to one Chisana resident, it would be relatively easy to harvest seven Chisana caribou in one day, once a hunter or group of hunters accessed the herd.

Biological Background

The CCH is a small herd inhabiting east central Alaska and southwest Yukon, Canada. Genetic analysis conducted by Zittlau et al. (2000) indicated that the herd is genetically similar to the woodland caribou

Table 1. Fall sex and age composition of the Chisana Caribou Herd, 1994 - 2010.(Modified from Adams 2007, Bentzen 2008, 2009, Gross 2007 and Putera 2011).

Date	Total Bulls:100 Cows	Calves:100 Cows	Calves (%)	Cows (%)	Bulls (%)	Composition Sample Size	Estimated Herd Size[a]
2000	20	6	5	80	15	412	425
2001	23	4	3	79	18	356	375
2002	25	13	10	72	18	258	315
2003[b]	37	25	15	62	23	603	720
2004[b]	38	21				538	
2005[b]	46	23	14	59	27	599	706
2006[b]	48	21				628	
2007[b]	50	13	8	61	31	719	766
2008	44	21	13	60	27	532	
2009	49	15	9	61	30	505	
2010	42	23	14	61	25	622	696

[a] Bases on population mode designed by P. Valkenburg and D. Reed (ADF&G).
[b] Captive rearing efforts. Calf:cow ratios observed during survey are adjusted by extrapolating the calf:cow ratio for the wild population to a total estimate of wild cows and then adding the cows and calves from the captive rearing program.

herds.[1] The CCH was first surveyed in 1977 and has been continually tracked by USGS since 1988. Since continual tracking began, the majority of Chisana caribou have been located east of the Nabesna River (Bentzen 2011).

The CCH increased through the 1980s and reached a peak of 1,900 caribou in 1988. Beginning in 1990, the CCH experienced a decline in population size. Concern over the decline led to implementation of an intensive captive rearing program in Canada, conducted between 2003 to 2006 by USGS and the Canadian Wildlife Service. The recovery effort was designed to increase recruitment and calf survival resulting in overall population growth. The radio-collaring program intensified in 2003, as a result of the captivie rearing program, and survey methods became more effective, therefore sex and age composition and herd size estimates before and after 2003 are not comparable (**Table 1**). Past declines were attributed to poor calf recruitment and high adult mortality associated with adverse weather conditions, poor habitat and predation (Gross 2007). Results from the 2010 census show the CCH population to be stable, with the herd size ranging from 696 to 766 caribou (**Table 1**). The 3-year average bull:cow ratio of 45:100 is above the minimum 35:100 ratio stated in the Draft Management Plan. The number of calves in the herd has increased since 2009. The 3-year average calf:cow ratio of 20:100 is above the minimum 15:100 ratio set in the Draft Management Plan.

Harvest History

The CCH has historically been an important food source for the Athabascans of Alaska and the First Nations of the Yukon in Canada (Gross 2007). During the early to mid-1900s, the CCH was used as a subsistence food source by the Ahtna and Upper Tanana Athabascans (see Proposal WP12-68 for an extended discussion of customary and traditional patterns of caribou use, which includes the CCH, in Unit

[1]The CCH is a genetically distinct population. The CCH acts and looks like Yukon woodland caribou, but the herd's classification is ambiguous. In Canada the CCH falls under the classification of woodland caribou while in Alaska the CCH is classified as barren-ground caribou (Richard 2002).

12). Although subsistence hunting has declined in recent years, the CCH continues to be an important aspect of Upper Tanana and Ahtna Athabascan culture. Simeone (2006) documented the cultural significance of the CCH by interviewing several key informants. In one such interview, Wilson Justin describes the Chisana caribou as highly prized,

> "*…But it's really, those caribou was really prized by the Indians of Canada all the way over here, it's kind of like a royalty, the royalty of caribou, not any Indian can hunt them, you have to be someone special…The 'alts'e'tnaey have a relationship with those caribou. No one should kill those caribou without our permission and in addition to that you have to be somebody to go out and kill those animals. Cannot just be anybody… ."*

Although hunting of CCH was closed in Alaska in 1994, First Nation members continued to harvest from the CCH in Yukon through the 1990's. After 2001, Yukon First Nation members voluntarily stopped harvesting Chisana caribou.

In addition to providing an important subsistence resource, in the late 1920s, Chisana caribou became economically important to local hunters as guided hunting became common in the Chisana area. The caribou from the Chisana herd were harvested by nonresident hunters guided by local guides through 1994 when hunting was closed. Primarily five guide/outfitters hunted the herd (4 operated in Alaska and 1 in the Yukon). Bulls were desired by sport hunters because of their large stature. From 1990-1994, 43% of the hunters participating in hunting CCH were nonresidents, who took 58% of the harvest. Local subsistence users accounted for 9% of the harvest during that time period (Gross 2007). It is unknown if the harvests by local subsistence users were guided or non-guided hunts.

Section 804 Analysis

An analysis based on Section 804 of ANILCA shall be conducted whenever a proposal to change Federal regulations requests a prioritization for use of a subsistence resource among rural residents having customary and traditional use of that resource. In this case, such an analysis is required because of the small harvestable surplus of animals in the Chisana Caribou Herd in Unit 12. Recommended harvest allocations are to be determined based on several biological parameters addressed in the Draft Management Plan. Based on the fall 2010 census, the current harvest allocation would be 14 caribou; 7 for Alaska and 7 for the Yukon. The customary and traditional use determination for caribou in Unit 12 includes the communities of Chisana, Nabesna, Northway, Tanacross, Tetlin, and Tok in Unit 12, Dot Lake and Healy Lake in Unit 20, and Mentasta Lake in Unit 13. If Proposal WP12-68 is adopted by the Board, then Chistochina residents would be added to the customary and traditional use determination for caribou in Unit 12. In that case, this 804 analysis would determine which residents of ten communities, as well as which rural residents not living in a community but residing in Unit 12, would be eligible to harvest caribou from the Chisana Herd, in the event a harvest opportunity is provided by the Board.

Section 804 of ANILCA provides a subsistence priority for the taking of fish and wildlife on Federally administered lands and waters. A subsistence priority will be implemented through appropriate limitations whenever it is necessary to restrict the taking of populations of fish and wildlife on these lands for subsistence uses in order to protect the continued viability of fish and wildlife populations, or to continue such uses. These limitations are based on the application of three criteria: 1) customary and direct dependence upon the populations as the mainstay of livelihood, 2) local residency, and 3) the availability of alternative resources. The following section addresses these criteria as they relate to rural residents with a positive customary and traditional use determination for caribou in Unit 12. Chistochina residents are included in the discussion for the reason described above. If the Board does not adopt WP12-68, then Chistochina residents would be excluded from eligibility.

1. Customary and Direct Dependence upon the Populations as a Mainstay of Livelihood

If "customary and direct dependence" is narrowly interpreted to mean that Chisana caribou provide necessary *nutritional* elements for "a mainstay of livelihood," then none of the residents of Unit 12 or of the communities outside of Unit 12 with a customary and traditional use determination for caribou in Unit 12 meet this criterion: the hunt for Chisana caribou has been closed since 1994; presumably, all rural residents with customary and traditional use determinations for caribou in Unit 12 have managed without using Chisana caribou for food between 1994 and 2011.

If "customary and direct dependence" on Chisana caribou for "a mainstay of livelihood" is more broadly interpreted to mean that Chisana caribou provide necessary *cultural* and *social* elements to local peoples' existence, then there are rural residents for whom this criterion applies. Based on evidence presented in WP12-68, which relied on Haynes and Simeone's (2007) conclusion that the ancestors of residents of Northway, Mentasta, and Chistochina were part of the Upper Chisana-Upper Nabesna band, and on Guédon's (1974) ethnographic description of Tetlin, it appears that Northway, Mentasta, Chistochina and Tetlin are the communities in Unit 12 and adjacent units whose residents exhibit customary and direct dependence on Chisana caribou.

Based on available ADF&G harvest data, between 1977 and 1993 residents of Northway, Tok and Chisana hunted Chisana caribou and thereby exhibit a "customary and direct dependence" on Chisana caribou.

There is little evidence to suggest that residents of Nabesna, Tanacross, Dot Lake and Healy Lake have a customary and direct dependence on Chisana caribou. Research has uncovered neither documentary evidence relating to any cultural or social ties between residents of these communities and the Chisana Caribou Herd nor any harvest data to indicate that residents of these communities hunted the Chisana Caribou Herd (Bentzen 2011, pers. comm.).

Based on the available evidence, it appears that residents of six of ten communities exhibit a customary and direct dependence on Chisana caribou, including Tok, Northway, Chistochina, Chisana, Mentasta, and Tetlin. The available evidence does not indicate which, if any, rural residents of Unit 12 not affiliated with a community are eligible for consideration under the "customary and direct dependence" criterion. Additional information from the Eastern Interior Regional Advisory Council and the public is sought regarding whether or not residents of Nabesna, Tanacross, Dot Lake and Healy Lake have a customary and direct dependence on the Chisana Caribou Herd.

2. Local Residency

Chisana, Nabesna, Tanacross, Tetlin, and Tok are within Unit 12, Chistochina is on the border between Unit 11 and Unit 13, but falls in Unit 13, Dot Lake and Healy Lake are in Unit 20, and Mentasta Lake is within Unit 13 (**Unit 12, 13 and 20 Maps**). From the point of view of customary and traditional use determinations for caribou, all of these communities may be considered to have local residency; Chistochina is the exception, pending Board determination.[2]

From the point of view of geographic proximity, Chisana is closest to the CCH area. If geographic proximity is the only measure of local residency, then only Chisana residents clearly qualify as local

[2]A customary and traditional use determination is based on a holistic assessment of eight factors; see Proposal WP12-68 for an application. Factor 4 refers to "the consistent harvest and use of fish or wildlife as related to past methods and means of taking: near, or reasonably accessible from the community or area." "Near or reasonably accessible" may be interpreted to indicate local residency.

residents. Residents of Dot Lake and Healy Lake, by contrast, are at the greatest distance from the CCH area and could be excluded from local residency.

Based on the available evidence, it appears that residents of eight communities exhibit "local residency" if the criteria is geographic proximity. These communities include Chisana, Nabesna, Northway, Tanacross, Tetlin, Tok, Mentasta Lake and Chistochina (pending Board adoption of WP12-68). The available evidence does not indicate which, if any, rural residents of Unit 12 not affiliated with a community are eligible for consideration under the "local residency" criterion.

3. Availability of Alternative Resources

If availability of alternative resources refers to the availability of harvestable caribou in other areas, then all of the residents of the communities under consideration have alternative resources. Residents of Chistochina and Mentasta, who reside in Unit 13, have a customary and traditional use determination for caribou in Unit 13, which includes the opportunity to subsistence hunt caribou from the Nelchina Caribou Herd. Residents of Dot Lake and Healy Lake, who reside in Unit 20D, have a customary and traditional use determination for caribou, which includes the opportunity to subsistence hunt caribou from the Fortymile Caribou Herd; along with other residents of Unit 20D, they also have a customary and traditional use determination for caribou in Unit 13B. Rural residents in Unit 12 north of Wrangell-St. Elias National Preserve (Northway, Tetlin, Tanacros), in addition to having a customary and traditional use determination for that unit, have a customary and traditional use determination for caribou in Unit 20D and Unit 20E. Rural residents in Unit 12 along the Nabesna Road, in addition to a customary and traditional use determination for that unit, have a customary and traditional use determination for caribou in Units 13A, 13C, 13D, and 13E; rural residents in Unit 12 along the Nabesna Road and Tok Cutoff Road have a customary and traditional use determination for caribou in Unit 13B.

Because harvest opportunities exist for caribou other than Chisana caribou, it appears that residents of these communities have alternatives if the availability of alternative resources is based solely on food considerations. These communities also have other subsistence resources available to them, such as moose, sheep, and bear.

The Section 804(3) question could also be interpreted to ask whether local peoples perceive any alternative to Chisana caribou, or whether there are no alternatives. The existing literature, including oral histories of people who traditionally hunted Chisana caribou, is suggestive (see WP12-68 for references). As noted in WP12-68, Chisana caribou appear to be unique and occupy a particularly special status for descendants of the Upper Chisana-Upper Nabesna band. The descendants of the Upper Chisana-Upper Nabesna band live today in Chistochina, Northway, Mentasta and Tetlin. For residents of these communities, other caribou may not provide an alternative to the Chisana caribou when viewed from the perspective of its cultural importance to these residents.

The caribou may also be unique from the perspective of other local subsistence users. Local guides who used to hunt the CCH indicate that Chisana caribou are particularly large with unusually large antlers and are therefore especially valued (D. Overly 2011, pers. comm.; T. Overly 2011, pers. comm.; Joe 2011, pers. comm.). Former guides of the CHH currently reside in Chisana, Chistochina, Mentasta and Tok. For these guides, the CCH has a particular importance other than providing food.
If the availability of alternative resources is solely based on considerations of calories, then all of the communities subject to this 804 analysis have alternatives, even within the same species. If, however, the measure of an alternative resource includes cultural and social considerations, then it appears that for descendants of the Upper Chisana-Upper Nabesna band, there are no alternatives. For this reason, the Board may consider residents of Chistochina, Northway, Mentasta and Tetlin to have no alternatives to

Chisana caribou, and under Section 804(3) should be given a subsistence priority for Chisana caribou over residents of Tok, Dot Lake, Healy Lake, Chisana, Nabesna and Tanacross. However, other cultural and social values are also prevalent and are associated with the history of guiding in the area. For former guides who currently live in Mentasta, Tok and Chisana, there may be no alternatives to Chisana caribou. For this reason, residents of Tok and Chisana should be included with residents of Chistochina, Northway, Mentasta, and Tetlin under this criterion. The available evidence does not indicate which, if any, rural residents of Unit 12 not affiliated with a community are eligible for consideration under the "alternative resources" category.

Summary of 804 Analysis

The Section 804(1) analysis determines that residents of Chisana, Chistochina, Northway, Mentasta, Tetlin, and Tok exhibit the greatest customary and direct dependency on the CCH. The Section 804(2) analysis makes the determination that Chisana, Chistochina, Nabesna, Northway, Tanacross, Tetlin, Tok, and Mentasta Lake and should be included based on local residency. The Section 804(3) analysis determines that there are no alternatives to Chisana caribou for residents of Chisana, Chistochina, Northway, Mentasta, Tetlin, and Tok, and that these communities should be granted a subsistence priority over Dot Lake, Healy Lake, Nabesna, and Tanacross.

On balance, the Section 804 Analysis determines that Chisana, Chistochina, Mentasta, Northway, Tetlin, and Tok and should be provided a subsistence priority over Dot Lake, Healy Lake, Nabesna and Tanacross.

The Eastern Interior Regional Advisory Council, the Southcentral Regional Advisory Council, and public review may bring more information forward for consideration.

The decision of how to apportion the opportunity for a subsistence harvest of seven caribou over residents of six communities will be further discussed by the appropriate Councils. Such discussion may also provide information for including residents who are not affiliated with any community but have customary and traditional use of caribou in Unit 12.

Effects of the Proposal

If adopted, these proposals would establish a hunt in an area and on a population that is currently closed to all harvest (hunting opportunity of the Chisana Caribou Herd was closed in 1994). The Draft Management Plan establishes the harvestable quota; this quota allows for a conservative harvest as long as the population remains stable and the bull:cow and calf:cow ratios are above the minimum requirements. The 2010 Census confirmed that the CCH is above the Draft Management Plan thresholds. If a hunt opportunity is adopted, the Federal Subsistence Board will need to consider whether or not the closure should be lifted to all users, or lifted only for Federally qualified users. If the closure is lifted for all users, both Federally qualified subsistence users and non-Federally qualified users could harvest Chisana caribou. The hunt managers would be tasked with developing an allocation system to limit the number of hunt permits.

If the closure is lifted for Federally qualified users only, the harvestable surplus of the CCH in Unit 12 is small and the number of Federally qualified users, as identified by the customary and traditional use determination, far exceeds that small number. Whenever a proposal to change Federal regulations seeks a prioritization for use of a subsistence resource among rural residents having customary and traditional use of that resource, an analysis must be done in accordance with Section 804 of ANILCA.

If a Federal subsistence hunt of the CCH is established, the Wrangell-St. Elias National Park and Preserve superintendent would be the CCH hunt manager. The authority to manage the hunt could be granted with a letter of delegation from the Federal Subsistence Board. Under 36 CFR 242.10 (d)(6) and 50 CFR 100.10 (d)(6), the Federal Subsistence Board has the authority to delegate authority to modify or restrict harvest limits, season dates, and methods and means.

The Section 804 analysis offers a rationale to provide residents of six of ten communities the opportunity to subsistence harvest Chisana caribou. These communities include Northway, Mentasta, Tetlin, Chistochina, Tok, and Chisana. If this proposal is adopted, precisely how these six communities would allocate seven caribou would have to be determined.

Excluding residents of communities with customary and traditional use for caribou in Unit 12 from hunting Chisana caribou may result in divisiveness between communities. In discussions with OSM staff about a Section 804 analysis, residents of Tok and Chisana expressed concern about this possible effect.

While Proposals WP12-65 and WP12-66 would provide for a Federal subsistence hunt and have equal merit, Proposal WP12-66 limits the hunt area to east of the Nabesna River and Nabesna Glacier in Unit 12. Historically this area has been the core range of the CCH. Restricting the hunt area should protect the Mentasta Caribou herd while having minimal impact to subsistence hunters wanting to harvest a caribou from the CCH.

OSM PRELIMINARY CONCLUSION

Take No Action Proposals WP 10-104 and WP12-65.

Support Proposal WP12-66 **with modification** to list the communities allowed to harvest caribou in Unit 12, that portion east of the Nabesna River and the Nabesna Glacier, and lands south of the Winter Trail running southeast from Pickerel Lake to the Canadian border: Northway, Mentasta, Tetlin, Tok, and Chisana, and, if Proposal WP12-68 is adopted by the Federal Subsistence Board, Chistochina.

The modified regulation would read:

Unit 12—Caribou

Unit 12, that portion ~~of the Nabesna River drainage~~ within the Wrangell-St. Elias National Park ***that lies west of the Nabesna River and the Nabesna Glacier****~~, and Preserve and all Federal Public lands south of the Winter Trail running southeast from Pickerel Lake to the Canadian border~~*	*No Federal open season*
Unit 12, that portion ***east*** *of the Nabesna River and* ***the Nabesna Glacier,*** *~~drainage within the Wrangell-St. Elias National Park and Preserve~~ and ~~all Federal Public lands~~ south of the Winter Trail running southeast from Pickerel Lake to the Canadian border—* ***1 bull by Federal registration permit only****.* ***Federal public lands are closed to the harvest of caribou except by residents of Chisana, Chistochina, Mentasta, Northway, Tetlin, and Tok.***	***Sept. 1 –Sept. 30***

Justification

The Alaska range of the Chisana Caribou Herd is primarily within the Wrangell-St. Elias National Park and Preserve. Federal subsistence regulations (36 CFR 100.10 (4)(v) and 50 CFR 100.10 (4)(v)) mandate the taking of fish and wildlife on Federal public lands for subsistence uses shall be given priority over the taking of fish and wildlife for other purposes. The Draft Management Plan is scheduled to be completed before the fall Regional Advisory Council meetings and the most recent census indicates that CCH could sustain a small harvest. While Proposals WP12-65 and WP12-66 would provide for a Federal subsistence hunt and have merit, Proposal WP12-66 supports a more conservative approach. Historically, very few Chisana caribou have migrated west of the Nabesna River and Nabesna Glacier in Unit 12. Restricting the hunt to east of the Nabesna River and Nabesna Glacier will protect the Mentasta Caribou herd with minimal impact to subsistence hunters wanting to harvest a caribou from the CCH. In addition, Proposal WP12-66 suggests a shorter hunting season. Since no harvest from the CCH has occurred since 1994, a cautious approach is warranted. If this time period proves to be too conservative, a proposal lengthening the hunting season could be submitted to the Office of Subsistence Management in the future. The Section 804 analysis offers a rationale to provide residents of Chisana, Chistochina, Mentasta, Northway, Tetlin, and Tok a subsistence priority over residents of Dot Lake, Healy Lake, Nabesna and Tanacross (Chistochina would be included only if Proposal WP12-68 is adopted by the Board). The Eastern Interior Regional Advisory Council, the Southcentral Regional Advisory Council, and public review may bring more information forward for consideration.

LITERATURE CITED

Bentzen T. 2009. Wildlife Biologist. Personal communication, ADF&G, Tok, AK.

Farnell, R. and C.L. Gardner. 2002. Status of the Chisana Caribou Herd, 2002.Yukon Department of the Environment, Whitehorse, Yukon, Canada.

Chisana Caribou Herd Working Group. 2010. Draft Management plan for the Chisana caribou herd: 2010–2015. Government of Yukon, Department of Environment, Whitehorse, YT. 30pp.

Gross, J.A. 2007. Unit 12 caribou. Pages 56–64 *in* P. Harper, editor. Caribou management report of survey and inventory activities 1 July 2004–30 June 2006. Alaska Department of Fish and Game. Project 3.0 Juneau, AK.

Guédon, M. 1974. People of Tetlin, Why are you Singing? National Museum of Man, Mercury Series, Paper No. 9.

Hayes, T. L. and W. E. Simeone, 2007. Upper Tanana ethnographic overview and assessment, Wrangell St. Elias National Park and Preserve. Alaska Depart of Fish and Game, Div. of Subsistence Technical Paper No. 325. Juneau, AK.

Jenkins, K.J., Barten, N.L., 2005, Demography and decline of the Mentasta Caribou Herd, Alaska: Canadian Journal of Zoology, v. 83, p. 1174–1188.

Joe, G. 2011. Resident of Chistochina. Personal Communication, phone and in-person. Chisana, AK.

Overly, D. 2011. Resident of Tok. Personal Communication, in-persons. Tok, AK

Overly, T. 2011. Resident of Chisana. Personal Communication, in-person. Chisana, AK.

Putera J. 2011. Wildlife Biologist. Personal communication, Wrangell-St. Elias National Park and Preserve, Copper Center, AK.

SCRAC. 2010. Transcripts of the Southcentral Alaska Subsistence Regional Advisory Council meeting, May 11–12, 2010, in Anchorage, Alaska. Office of Subsistence Management, FWS. Anchorage, AK.

SCRAC. 2011. Transcripts of the Southcentral Alaska Subsistence Regional Advisory Council meeting, March 10–11, 2011, in Anchorage, Alaska. Office of Subsistence Management, FWS. Anchorage, AK.

Simeone, W. E. 2006. Some Ethnographic and Historical Information on the Use of Large Land Mammals in the Copper River Basin. National Park Service, Wrangell-St. Elias National Park and Preserve, Copper Center, AK. pages 8 – 12.

Zittlau, K., J. Coffin, R. Farnell, G. Kuzyk, and C. Strobeck. 2000. Genetic relationships of the Yukon woodland caribou herds determined by DNA typing. Rangifer Special Issue 12:59–62

Alaska Department of Fish and Game
Comments to Regional Advisory Council

Wildlife Proposals WP12-24, 65, 66, and Deferred WP10-104: Chisana Caribou

This group of proposals request different variations of allowing limited harvest of caribou from the Chisana herd.

WP12-24: Requests approval of a federal subsistence bull caribou hunt in an identified portion of Unit 11 and Unit 12 remainder targeting the Chisana herd. The proposal also recommends permitting, quotas, and closures be established by the Federal inseason manager following consultation with ADF&G.

WP12-65: Requests in Unit 12 – that portion of the Nabesna River drainage within the Wrangell-St. Elias National Park and Preserve and all Federal public lands south of the Winter Trail running southeast from Pickerel Lake to the Canadian border–1 bull by Federal registration permit only. The proposal recommends the hunt be managed in accordance with the recommendations in the Chisana Herd Management Plan (Plan). The proposal requests closure of the hunt to non-federally qualified hunters.

Open Season – Aug. 10 – Sept 30

The Chisana caribou herd management plans sets guidelines for opening a limited hunt on the herd while protecting the herd from overharvest.

WP12-66: Requests approval of a federal subsistence caribou hunt targeting the Chisana caribou herd in that portion of Unit 12 east of the Nabesna River and the Nabesna Glacier, and south of the Winter Train running southeast from Pickerel Lake to the Canadian border – one bull by federal Registration permit. This proposal also request no federal open season in that portion of Unit 12 within the Wrangell-St. Elias national park that lies west of the Nabesna River and Nabesna Glacier. The proposal requests total closure to non-federally qualified hunters until federal subsistence user needs are identified and a quantifiably harvest amount is produced to determine if the federal subsistence priory is being met (at least three year process).

Deferred Wildlife Proposal WP10-104: Establishes a joint federal/state draw permit hunt for the Chisana caribou herd starting fall 2011, following recommendations in the draft Management Plan for the Chisana Caribou, 2010-2015, released April 22, 2010, for public review. The management plans sets guidelines for opening a limited hunt on the herd while protecting the herd from overharvest.

Introduction: In the 1980s and early 1990s, an average of 29 Chisana caribou were harvested annually with about 60% of the harvest taken by Alaska residents. Following a decline in the herd in the early 1990s, hunting in Alaska and Canada was stopped. Between 2003 and 2006 a captive rearing program was conducted by the Yukon Department of Environment which successfully increased the number of calves recruited

into the population during the recovery effort. From 2004 through 2008, the population has been stable and is estimated at 700-800 caribou.

The Chisana Caribou herd management plan, drafted by Yukon Department of Environment, White River First Nation, Canadian Wildlife Service, National Park Service (Wrangell St. Elias), US Fish and Wildlife Service and Alaska Department of Fish and Game was recently finalized.

Impact on Subsistence Users: Access to the Chisana caribou herd is difficult and is mostly limited to aircraft. Harvest by federally-qualified subsistence users in Unit 12 averaged less than 2 caribou between 1981-1983 and 1990-1993. Adoption of WP12-24, 65, or 66 may provide a few federal subsistence hunters the opportunity to harvest a bull caribou from the Chisana herd.

Opportunity Provided by State: State regulations limit caribou hunting in Unit 12 to one bull caribou west of the Glenn Hwy (Tok Cutoff) and have not provided any opportunity for harvesting Chisana caribou since 1993.

Conservation Issues: The Chisana caribou management plan recommends a 2% bulls only harvest if the herd remains increasing or stable, the bull/cow ratio does not fall below 35/100, and calf recruitment remains above 15 calves/100 cows over a three year average. It is unlikely a limited harvest would have any negative impact on the herd.

Enforcement Issues: A drawing hunt for both federally qualified and non-federally qualified users would have few enforcement issues. If the Federal Subsistence Board chooses to limit this hunt to federally qualified users, all enforcement efforts would be the responsibility of the respective land managers.

Other Comments: The guidelines set forth for a harvest in the management plan are based on the 2010 census in which the herd met the required population level, bull/cow and calf cow ratios.

Recommendation: Support portions of all four proposals with modification. We recommend following the guidelines for a limited harvest of Chisana caribou shared between Alaska and Canada as is laid out in the management plan and further recommend using a joint state/federal permit to monitor harvest in Alaska. A joint federal/state drawing permit would ensure continued cooperation between state and federal managers that work together to develop the herd management plan.

If the harvest is limited to federal subsistence users only, a registration hunt should be used and the season closed if the quota is met. Based on harvest records since the 1970s, the remote nature (aircraft access only), the likelihood of harvesting the quota is unlikely. A short reporting period should be adequate to ensure over harvest does not occur.

WP12-32 Executive Summary	
General Description	Proposal WP12-32 requests the season dates for the elder hunt and the joint minor/elder sheep hunts in Units 11 and 12 be changed from Sept. 21 – Oct. 20 to Aug. 1 – Aug. 9. *Submitted by the Cheesh-na Tribal Council*
Proposed Regulation	**Units 11 and 12 — Sheep** *Unit 11 — 1 sheep.* — *Aug. 10 – Sept. 20* *Unit 11 Elder Hunt — 1 sheep by Federal registration permit only by persons 60 years of age or older.* — *~~Sept. 21 – Oct. 20.~~* ***Aug. 1 – Aug. 9*** *__.26(n)(11)(ii) A joint permit may be issued to a pair of a minor and an elder to hunt sheep during the ~~Sept. 21–Oct. 20~~* ***Aug. 1 – Aug. 9*** *hunt. The following conditions apply:* *(A) The permittees must be a minor aged 8 to 15 years old and an accompanying adult 60 years of age or older;* *(B) Both the elder and the minor must be Federally qualified subsistence users with a positive customary and traditional use determination for the area they want to hunt;* *(C) The minor must hunt under the direct immediate supervision of the accompanying adult, who is responsible for ensuring that all legal requirements are met;* *(D) Only one animal may be harvested with this permit. The sheep harvested will count against the harvest limits of both the minor and accompanying adult.* *Unit 12 — 1 ram with full curl or larger horn.* — *Aug. 10 – Sept. 20* *Unit 12 Elder Hunt — that portion within Wrangell-St. Elias National Park and Preserve — 1 ram with full curl horn or larger by Federal registration permit only by persons 60 years of age or older.* — *~~Sept. 21 – Oct. 20~~* ***Aug. 1 – Aug. 9*** *__.26(n)(12)(ii) A joint permit may be issued to a pair of a minor and an elder to hunt sheep during the ~~Sept. 21–Oct. 20~~* ***Aug. 1 – Aug. 9*** *hunt. The following conditions apply:*

continued on next page

WP12-32 Executive Summary *(continued)*	
Proposed Regulation (Continued)	*(A) The permittees must be a minor aged 8 to 15 years old and an accompanying adult 60 years of age or older;* *(B) Both the elder and the minor must be Federally qualified subsistence users with a positive customary and traditional use determination for the area they want to hunt;* *(C) The minor must hunt under the direct immediate supervision of the accompanying adult, who is responsible for ensuring that all legal requirements are met;* *(D) Only one animal may be harvested with this permit. The sheep harvested will count against the harvest limits of both the minor and accompanying adult.*
OSM Preliminary Conclusion	**Support**
Southcentral Regional Council Recommendation	
Eastern Interior Regional Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	**Support** Proposal WP12-32 **with modification**. The department supports liberalizing the Elder Hunt by advancing the season start date from to September 21 to August 10 and retaining the established season closure date of October 20 for the described Federal public lands in Units 11 and 12. Adoption of this modification will provide Federal subsistence users who qualify and choose to participate in the Elders Hunt an additional 41 days of opportunity to harvest a sheep during an unprecedented 70 day August 10 through October 20 summer/fall sheep hunting season. The department also recommends further defining the Unit 11 Elder Hunt harvest limit be to one sheep, lambs and ewes accompanied by lambs may not be taken.
Written Public Comments	**None**

DRAFT STAFF ANALYSIS
WP12-32

ISSUES

Proposal WP12-32, submitted by the Cheesh-na Tribal Council, Chistochina, Alaska, requests the season dates for the elder hunt and the joint minor/elder sheep hunts in Units 11 and 12 be changed from Sept. 21 – Oct. 20 to Aug. 1 – Aug. 9.

DISCUSSION

The proponent states that the elder hunt provisions were intended to provide a hunting opportunity that is accessible to elders so they can pass their knowledge of traditional sheep hunting customs and practices on to local youth. The current season has snow conditions that make it difficult for elders to travel, and the proposed time changes would be during a time of year when travel conditions are less difficult. The proponent also felt that the shorter recommended season would offset any increase in participation in the hunt. The season would be shortened from 27 days to 9 days.

Existing Federal Regulations

Units 11 and 12 — Sheep

Unit 11 — 1 sheep.	*Aug. 10 – Sept. 20*
Unit 11 Elder Hunt — 1 sheep by Federal registration permit only by persons 60 years of age or older.	*Sept. 21 – Oct. 20*
__.26(n)(11)(ii) A joint permit may be issued to a pair of a minor and an elder to hunt sheep during the Sept. 21–Oct. 20 hunt. The following conditions apply:	
(A) The permittees must be a minor aged 8 to 15 years old and an accompanying adult 60 years of age or older;	
(B) Both the elder and the minor must be Federally qualified subsistence users with a positive customary and traditional use determination for the area they want to hunt;	
(C) The minor must hunt under the direct immediate supervision of the accompanying adult, who is responsible for ensuring that all legal requirements are met;	
(D) Only one animal may be harvested with this permit. The sheep harvested will count against the harvest limits of both the minor and accompanying adult.	
Unit 12 — 1 ram with full curl or larger horn.	*Aug. 10 – Sept. 20*

Unit 12 Elder Hunt — that portion within Wrangell-St. Elias National Park and Preserve — 1 ram with full curl horn or larger by Federal registration permit only by persons 60 years of age or older.	*Sept. 21 – Oct. 20*

__.26(n)(12)(ii) A joint permit may be issued to a pair of a minor and an elder to hunt sheep during the Sept. 21–Oct. 20 hunt. The following conditions apply:

(A) The permittees must be a minor aged 8 to 15 years old and an accompanying adult 60 years of age or older;

(B) Both the elder and the minor must be Federally qualified subsistence users with a positive customary and traditional use determination for the area they want to hunt;

(C) The minor must hunt under the direct immediate supervision of the accompanying adult, who is responsible for ensuring that all legal requirements are met;

(D) Only one animal may be harvested with this permit. The sheep harvested will count against the harvest limits of both the minor and accompanying adult.

Proposed Federal Regulations

Unit 11 — 1 sheep.	*Aug. 10 – Sept. 20*
Unit 11 Elder Hunt — 1 sheep by Federal registration permit only by persons 60 years of age or older.	*~~Sept. 21 – Oct. 20.~~* ***Aug. 1 – Aug. 9***

__.26(n)(11)(ii) A joint permit may be issued to a pair of a minor and an elder to hunt sheep during the ~~Sept. 21–Oct. 20~~ ***Aug. 1 – Aug. 9*** *hunt. The following conditions apply:*

(A) The permittees must be a minor aged 8 to 15 years old and an accompanying adult 60 years of age or older;

(B) Both the elder and the minor must be Federally qualified subsistence users with a positive customary and traditional use determination for the area they want to hunt;

(C) The minor must hunt under the direct immediate supervision of the accompanying adult, who is responsible for ensuring that all legal requirements are met;

(D) Only one animal may be harvested with this permit. The sheep harvested will count against the harvest limits of both the minor and accompanying adult.

Unit 12 — 1 ram with full curl or larger horn.	*Aug. 10 – Sept. 20*

Unit 12 Elder Hunt — that portion within Wrangell-St. Elias National Park and Preserve — 1 ram with full curl horn or larger by Federal registration permit only by persons 60 years of age or older.	*~~Sept. 21 – Oct. 20~~* ***Aug. 1 – Aug. 9***

__.26(n)(12)(ii) A joint permit may be issued to a pair of a minor and an elder to hunt sheep during the ~~Sept. 21–Oct. 20~~ ***Aug. 1 – Aug. 9*** *hunt. The following conditions apply:*

(A) The permittees must be a minor aged 8 to 15 years old and an accompanying adult 60 years of age or older;

(B) Both the elder and the minor must be Federally qualified subsistence users with a positive customary and traditional use determination for the area they want to hunt;

(C) The minor must hunt under the direct immediate supervision of the accompanying adult, who is responsible for ensuring that all legal requirements are met;

(D) Only one animal may be harvested with this permit. The sheep harvested will count against the harvest limits of both the minor and accompanying adult.

Existing State Regulations

Residents and non-residents

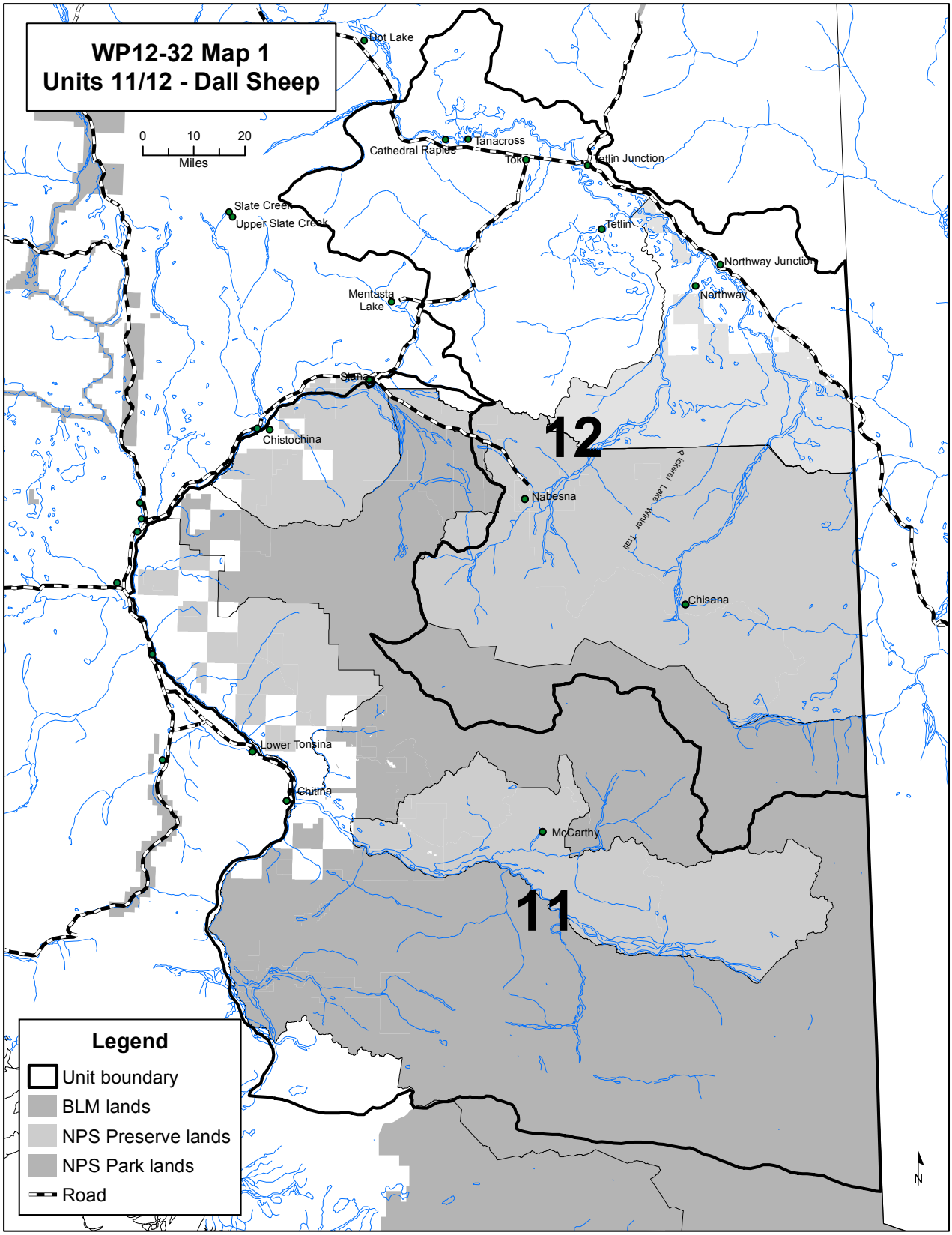
Unit 11 — One ram with full curl or larger horn.	*Aug. 10 – Sept. 20*
Unit 12 — within Tok Management area	*Aug. 10 – Aug. 25*
One ram with full-curl horn or larger every four regulatory years by permit (Drawing)	*Aug. 26 – Sept. 20*
Unit 12 — remainder	
One ram with full-curl horn or larger	*Aug. 10 – Sept. 20*

Extent of Federal Public Lands

Federal public lands in Unit 11 are comprised of Wrangell-St. Elias National Park/Preserve (78.9%) and a small portion of the Chugach National Forest (2.1%). Approximately 70% of the sheep are found on lands of the Wrangell-St. Elias National Preserve. Federal public lands in Unit 12 are comprised of Wrangell-St. Elias National Park/Preserve (47.7%) and the Tetlin National Wildlife Refuge (10.7%). In Unit 12, this proposal would only apply to Federal public lands within the Wrangell-St. Elias National Park and Preserve (**Map 1**).

Special Requirements for Park Service Lands

Under the guidelines of ANILCA, National Park Service regulations identify qualified local rural subsistence users in National Parks and Monuments by: 1) identifying resident zone communities which include a significant concentration of people who have customarily and traditionally used subsistence


WP12-32 Map 1
Units 11/12 - Dall Sheep
0
10
20
Miles
Dot Lake
Tanacross
Cathedral Rapids
Tok
Tetlin Junction
Slate Creek
Upper Slate Creek
Tetlin
Northway Junction
Northway
Mentasta Lake
Slana
Chistochina
12
Nabesna
Chisana
Lower Tonsina
Chitina
McCarthy
11
Legend
Unit boundary
BLM lands
NPS Preserve lands
NPS Park lands
Road
N

resources on park lands; and 2) identifying and issuing subsistence use permits to individuals residing outside of the resident zone communities who have a personal or family history of subsistence use.

Customary and Traditional Use Determinations

In Unit 11, north of the Sanford River, residents of Unit 12 and the communities and areas of Chistochina, Chitina, Copper Center, Dot Lake, Gakona, Glennallen, Gulkana, Healy Lake, Kenny Lake, Mentasta Lake, Slana, McCarthy/South Wrangell/South Park, Tazlina, and Tonsina; also residents along the Nabesna Road — milepost 0–46; and residents along the McCarthy Road — milepost 0–62 have a positive customary and traditional use determination for sheep. Communities and areas having customary and traditional use of sheep in the remainder of Unit 11 are Chistochina, Chitina, Copper Center, Gakona, Glennallen, Gulkana, Kenny Lake, Mentasta Lake, Slana, McCarthy/South Wrangell/South Park, Tazlina, and Tonsina; also residents along Tok Cutoff Road (mileposts 79–110 Mentasta Pass); the Nabesna Road (milepost 0–46); and residents along the McCarthy Road (milepost 0–62).

In Unit 12, residents of Unit 12 and the communities of Chistochina, Mentasta Lake, Dot Lake, and Healy Lake have a positive customary and traditional use determination for sheep.

Regulatory History

In 1998, the Federal Subsistence Board created a late sheep season in Unit 11 for persons 60 years of age or older. This season was extended one month beyond the regular sheep season, when sheep are at lower elevations to allow the opportunity for those "elders who are still capable of hunting, but cannot climb high enough into the mountain to find sheep during the early season, to continue to hunt and pass on traditional knowledge about sheep hunting to younger family members (FWS 1998)."

During 2004 two proposals were considered which addressed sheep hunts in Unit 11 and Unit 12. WP04-24 requested that designated hunting be allowed for the late season elder hunt in Unit 11. This proposal was opposed by the Southcentral Alaska and Eastern Interior Regional Advisory Councils and rejected by the Federal Subsistence Board (FSB 2004). It was felt that the season was established to allow elders the opportunity to hunt and pass on their knowledge. During consideration of Proposal WP04-24, there was discussion during both Council meetings regarding the opportunity for youth to accompany the elders, but it was realized that the proposal under consideration dealt only with designated hunting provisions and there was a lack of detail about the provisions for allowing youth to accompany elders during the late sheep season. WP04-80 requested a new season that paralleled the Unit 11, late season hunt for elders. During Council deliberations on the proposal it was suggested by some that the youth provisions also be included for Unit 12. The eventual recommendation from both Councils was to support the late season hunt in Unit 12 for elders only, as originally proposed, and consider the youth provisions when more details were available (EIRAC 2004, SCRAC 2004). In May 2004, the Federal Subsistence Board adopted proposal WP04-80 for the late sheep season for elders only in Unit 12, consistent with the Councils' recommendation (FSB 2004).

The Cheesh'na Tribal Council submitted WP05-06 with the goal of allowing elders "to resume their traditional practices of teaching their grandchildren how to hunt sheep." The proponent acknowledged that WP04-80 established the late season to allow only elders to hunt when the sheep would be more accessible to the elders, but they also want to allow grandchildren and similar younger relatives to accompany the elders for educational purposes. They stated that current regulation "neglects one aspect of the traditional instructional process, that the young people should have the opportunity to take the animal, rather than simply observing their elders doing so." WP05-06 was adopted by the Board at its May 2006 meeting and established the current elder hunt with the season of Sept. 21 – Oct. 20.

Customary and Traditional Practices

The transmission of hunting knowledge and skills from one generation to another is listed as one of the factors used to make customary and traditional use determinations. Written documentation of the special relationships between elders and youth and the teaching of hunting and fishing skills is provided in the summaries prepared by the National Park Service (NPS 1994, 1995). Current examples of these practices are provided in the curriculum guide materials prepared by the Mt. Sanford Tribal Consortium. This curriculum guide provides guidance to teachers about the role of elders in traditional learning and identifies areas where elders can be consulted for traditional knowledge on the local resources and customs (MSTC 2004).

Biological Background

In July 2001, an aerial population composition count was conducted between the Nabesna and Chisana Rivers north of Cooper and Notch Creek (count area 6) and east of Snag and Carl Creeks to the Canadian border north of Beaver Creek (count area 7), the Wrangell-St. Elias Preserve portions of Unit 12. The total number of sheep for these two count areas was estimated at 1,166. This count represents a decline from the 1997 and 1998 composition counts, which may be due to adverse weather conditions during the 1999 and 2000 winters. The Alaska Department of Fish and Game management report for this period concluded that the State's goals and objectives for Dall sheep in Unit 12 were met (Gardner 2002).

In 2003 and 2007, ADF&G flew aerial surveys within Wrangell-St Elias Park and Preserve and survey data was separated into different count areas (CA) within the Preserve and Park based on the different hunting regulations for these areas. The CA3 West lies in the north Wrangell Mountains within the Upper Copper River drainage and is within Park boundaries and is utilized by local subsistence hunters using 4 – wheelers for access making it a popular area to hunt. During the last survey within this area (CA3) in 2007, there were 32 rams:100 ewes (Schwanke 2011, pers. comm.).

In areas within the Wrangell-St Elias Park and Preserve that are more difficult to access for subsistence users, Becky Schwanke reported in the 2004–2007 Dall Sheep Management Report that "In the Preserve (CA 23 West), the ram to ewe ratios are consistently low to moderate, averaging 25 rams:100 ewes since 2001. The Park (CA 23 East) receives less hunting pressure due to aircraft and residency restrictions, and is reflected in the average 64 rams:100 ewes since 2001. The percentage of rams classified as full-curl or greater follow a similar pattern with 23% in the Preserve and 41% in the Park for the same time period" (Schwanke 2008). Hunting in the National Preserve (CA 23 West) occurs under both Federal subsistence and State of Alaska general hunting regulations. The Park area (CA 23 East) is managed under Federal Subsistence hunting regulations. Fixed wing aircraft may be used to access the preserve for the purpose of harvesting wildlife, but not the park. ORVs may be used for access in both the park and preserve, however, non-Federally qualified subsistence users are restricted to established ORV trails and must obtain a permit.

Harvest History

The harvest of sheep on National Park lands is limited to Federal subsistence hunting by rural residents of designated communities in Units 11, 13, and a portion of 12 and 20D. Rural residents can also hunt in the National Preserve under Federal subsistence regulations and any resident can hunt under State regulations. On National Preserve lands, non-residents can hunt under State regulations if accompanied by an Alaska licensed guide or an Alaska resident 19 years or older who is within the second degree of kindred.

From 2004–2010, 132 permits were issued for the Unit 11 elder only and elder/minor hunts; 44 people reported hunting and two sheep were harvested. During the same time period, 68 permits were issued for the Unit 12 elder only and elder/minor sheep hunts and 23 individuals reported hunting and no sheep were reported harvested (FWS 2011).

Effects of the Proposal

If this proposal is adopted, the season for the Elder hunt would be shortened by 21 days and the season dates would change from Sept. 21 – Oct. 20 to Aug. 1 – Aug. 9. The earlier timing of the hunt would be 9 days prior to the opening of the hunt for other users and should provide greater accessibility to elders so they can pass their knowledge of traditional sheep hunting customs and practices on to local youth with less competition from other users. Although the season would be shifted earlier, which may make it more desirable and possibly increase the number of permittees, the proposed shorter season should offset the potential increase of hunters and limit an increase to harvest. In addition, the weather would have little effect of having a wanton waste of harvesting the meat from the animal, since the average high and low temperatures from 2008–2010 are similar between the first week (60° high, 47° low) and second week (62° high, 51° low) of August (Weather Underground 2011: Nabesna (PABN) weather station). However input from the Southcentral Alaska Regional Advisory Council would be appreciated for their knowledge on whether sheep will be low enough for the elders to access during this time of year. In 1998, this season was extended one month beyond the regular sheep season, when sheep were at lower elevations to allow the opportunity for those "elders who are still capable of hunting, but cannot climb high enough into the mountain to find sheep during the early season, to continue to hunt and pass on traditional knowledge about sheep hunting to younger family members. Therefore, while there might not be snow conditions that make it difficult for elders to hunt, the sheep may be at the higher elevations and require strenuous activity by elders to access sheep.

OSM PRELIMINARY CONCLUSION

Support Proposal WP12-32

Justification

The Elder hunt allows a person 60 years of age or older to harvest a sheep by Federal Registration permit. The unit-specific regulation also allows a joint Elder/Minor hunt by Federal permit and provides a hunting opportunity that is accessible to elders so they can pass their knowledge of traditional sheep hunting customs and practices on to local youth is also available for this time period. Reducing the Elder hunt season, and the subsequent unit-specific regulation associated with the joint Elder/Minor hunt, would allow elders and minors to travel during a time of year when travel conditions are less difficult. In addition, the earlier timing of the hunt would be 9 days prior to the opening of the hunt for other users and should provide greater accessibility to elders so they can pass their knowledge of traditional sheep hunting customs and practices on to local youth with less competition from other users.

LITERATURE CITED

EIRAC. 2004. Transcripts of the Eastern Interior Subsistence Regional Advisory Council proceedings, February 27, 2004. Office of Subsistence Management, FWS. Anchorage, AK.

FWS. 1998. Federal Subsistence Board Book, Region 2, Proposal 28. Office of Subsistence Management, FWS. Anchorage, AK.

FSB. 2004. Transcripts of Federal Subsistence Board proceedings, May 21, 2004. Office of Subsistence Management, FWS. Anchorage, AK.

FWS. 2011. Federal permit database, Office of Subsistence Management. Microcomputer database.

Gardner, C. 2002. Unit 12 Dall sheep management report. Pages 51–64 *In* C. Healy, editor. Dall sheep management report of survey and inventory activities 1 July 1998—30 June 2001. ADF&G. Proj. 6.0. Juneau, AK.

Hicks, J. 2004. Cheesh-na Tribal Council, Chistochina, AK. Personal Communication.

Mt. Sanford Tribal Consortium. 2004. *Whouy sze kuinalth, "Teaching our many Grandchildren," A Curriculum Guide.* Internet: http://www.ankn.uaf.edu/Curriculum/Whouy_Sze_Kuinalth/index.html

National Park Service. 1994. Final Report on Upper Tanana Region Customary and Traditional Use Eligibility. For the Communities of Dot Lake, Tanacross, Tetlin, Northway, and Tok. Reference prepared for the Federal Subsistence Board.

National Park Service. 1995. Customary and traditional use reference for the Copper River Basin Area. Reference prepared for the Federal Subsistence Board.

National Park Service. 2011. March 2011 Wildlife Report. Wrangell-St. Elias National Park and Preserve. Reference prepared for the Southcentral Regional Advisory Council.

SCRAC. 2004. Transcripts of the Southcentral Subsistence Regional Advisory Council proceedings, March 10, 2004. Office of Subsistence Management, FWS. Anchorage, AK.

Schmidt, J., M. MacCluskie, K. Rattenbury, J. Lawler. 2011. Using distance sampling and hierarchial models to estimate Dall sheep abundance in Gates of the Arctic National Park and Preserve. Powerpoint Presentation. George Wright Society Conference. March 15, 2011.

Schwanke, R. A. 2008. Unit 11 Dall sheep management report. Pages 16–31 in P. Harper, editor. Dall sheep management report of survey and inventory activities 1 July 2004 – 30 June 2007. Alaska Department of Fish and Game. Project. 6.0. Juneau, Alaska.

Scotton, B. D. 2002. Unit 11 Dall sheep management report. Pages 23–34 *In* C. Healy, editor. Dall sheep management report of survey and inventory activities 1 July 1998—30 June 2001. ADF&G. Proj. 6.0. Juneau, AK.

Weather Underground. www.wunderground.com. June 14, 2011.

Alaska Department of Fish and Game
Comments to Regional Advisory Council

Wildlife Proposal WP12-32: Change the season dates for the four federal subsistence elder sheep hunts in Units 11 and 12.

Introduction: This proposal requests moving the four federal subsistence "Elder Hunt" sheep hunting seasons in Unit 11 and that portion of Unit 12 within Wrangell-St. Elias National Park and Preserve from September 21 through October 20 to August 1 through 9. The proponent indicates the opportunity provided by the Federal Subsistence Board is insufficient because snow conditions impede elder access to the hunting ground in the late season. The proponent indicates an early August season will likely increase harvest success but the request shorter season will offset any increases in harvest.

Impact on Subsistence Users: If adopted, federal subsistence hunters participating in the Elder Hunt will be allowed to access the hunting ground prior to all other user groups during early August. If adopted, federal subsistence users who hunt sheep in the same areas might have fewer sheep to choose from depending upon participation in the Elder Hunt. If adopted, federal subsistence hunters participating in the Elder Hunt with the enhanced access (ATV, jet boat, horse, or airplane) could see harvest success rates significantly increase due to availability of undisturbed/unhunted sheep in early August. If adopted, federal subsistence hunters without enhanced access who plan participating in the Elder Hunt could be disadvantaged because sheep tend to inhabit higher elevations during the summer months and migrate to lower elevations as snow accumulates and as fall progresses.

Opportunity Provided by State: State sheep hunting regulations follow:

Unit 11 - One ram with three-quarter curl horn or larger with a harvest ticket between August 10 and September 20. Nonresident hunters must be accompanied by a registered guide.

Unit 12 Remainder – One ram with a full curl horn or larger with a harvest ticket between August 10 and September 20. Nonresident hunters must be accompanied by a registered guide.

Conservation Issues: Information from surveys and public observations indicate the sheep population in Unit 12 has declined since the late 1990s. However, since this is a full curl ram bag limit in Unit 12 there is no conservation issue in that unit.

Enforcement Concerns: Differences in state and federal regulations create enforcement problems in areas of mixed land ownership. If this proposal is adopted as written, both state and federal enforcement resources may be expended contacting Elder Hunt participants in response to reports "out of season hunting activities" from other hunters in the area.

Other Comments: One of the original intents impacting the development of the "Elder Hunt" was to provide an opportunity for less mobile elders to hunt more accessible sheep. Advancing the "Elder Hunt" season hunt by 52 days will result in requiring elders to

climb to significantly higher elevations to access sheep defeating one of the original intents of this hunt.

This proposal affects two types of Elder Hunts in both Units 11 and 12. The first type of Elder Hunt was established to accommodate a hunt with an elder and a youth with the goal of facilitating the transfer of knowledge between generations. The second type of Elder Hunt was established to allow federally qualified hunter age 60 or older the ability to hunt without competition from all user groups during time of year when the sheep might be more easily accessible at lower elevations.

The department opposes any sheep hunting before August 10 for several reasons. The warm weather during the first 10 days of August can be detrimental to proper care of harvested meat. The access trails into the park are normally still saturated from summer moisture and usage of the trails during the period may result in significant habitat damage.

If adopted as proposed, federally qualified elders participating in the Elder Hunt could unnecessarily impact other user groups by preempting harvest potential through harvesting all legal rams from an area or "scaring" off sheep herds with the preseason hunting activities disturbances.

Recommendation: Support with modification. The department supports liberalizing the Elder Hunt by advancing the season start date from to September 21 to August 10 and retaining the established season closure date of October 20 for the described federal public lands in Units 11 and 12. Adoption of this modification will provide federal subsistence users who qualify and choose to participate in the Elders Hunt an additional 41 days of opportunity to harvest a sheep during an unprecedented 70 day August 10 through October 20 summer/fall sheep hunting season. The department also recommends further defining the Unit 11 Elder Hunt harvest limit be to one sheep, lambs and ewes accompanied by lambs may not be taken.

WP12-33 Executive Summary	
General Description	Proposal WP12-33 seeks to shorten wolf hunting seasons in Units 11 and 12. *Submitted by the Defenders of Wildlife*
Proposed Regulation	**Unit 11—Wolf Hunting** *10 Wolves* ***Nov. 1–Mar. 31*** *~~Aug. 10–April 30~~* **Unit 12— Wolf Hunting** *10 Wolves* ***Nov. 1–Mar. 31*** *~~Aug. 10–April 30~~*
OSM Preliminary Conclusion	**Oppose**
Southcentral Regional Council Recommendation	
Eastern Interior Regional Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	**None**

DRAFT STAFF ANALYSIS
WP12-33

ISSUES

Proposal WP12-33, submitted by the Defenders of Wildlife, seeks to shorten wolf hunting seasons in Units 11 and 12.

DISCUSSION

Proposal WP12-33 requests that wolf hunting be prohibited in Units 11 and 12 in the months of August, September, October, and April. The proponent wishes to apply this restriction in the part of Unit 12 that is outside of the State's predator control program [U.S. Fish and Wildlife Service (FWS) and National Park Service (NPS) lands]. The proponent notes that by late April, in Units 11 and 12, hides are rubbed and pregnant females are approaching full term. The proponent notes that pups are totally dependent on adults for food and protection at the start of the current wolf hunting seasons in Units 11 and 12 and that in August hides are not suitable for commercial sale or trophies.

Existing Federal Regulation

Unit 11—Wolf Hunting	
10 Wolves	*Aug. 10–April 30*
Unit 12—Wolf Hunting	
10 Wolves	*Aug. 10–April 30*

Proposed Federal Regulation

Unit 11—Wolf Hunting	
10 Wolves	***Nov. 1–Mar. 31*** *~~Aug. 10–April 30~~*
Unit 12— Wolf Hunting	
10 Wolves	***Nov. 1–Mar. 31*** *~~Aug. 10–April 30~~*

Existing State Regulation

Unit 11—Wolf Hunting	
5 Wolves	*Aug.10–April 30*
Unit 12—Wolf Hunting	
5 Wolves	*Aug.10–May 31*

Extent of Federal Public Lands

Federal public lands comprise approximately 81% of Unit 11 and consist of 97% National Park Service (NPS), 3% U.S. Forest Service (USFS) and <0.1% Bureau of Land Management (BLM) managed lands (see **Unit 11 Map)**. Federal public lands comprise approximately 59% of Unit 12 and consist of 82% National Park Service (NPS) and 18% U.S. Fish and Wildlife Service (FWS) managed lands (see **Unit 12 Map**).

Customary and Traditional Use Determinations

Rural residents of Units 6, 9, 10 (Unimak Island only), 11, 12, 13, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, and Chickaloon have a positive customary and traditional use determination to harvest wolves in Units 11 and 12. In order to engage in subsistence in Wrangell St. Elias National Park, the National Park Service requires that subsistence users either live within the park's resident zone (36 CFR 13.430, 36 CFR 13.1902) or have a subsistence permit (36 CFR 13.440) issued by the park superintendent.

Regulatory History

The Federal subsistence wolf hunting seasons in Unit 11 and 12 have been from August 10 to April 30 since 1990. The harvest limit in both Units 11 and 12 was 10 wolves in regulatory year 1990/91. This was reduced to five wolves from regulatory years 1992/93 to 1998/99. In regulatory year 1999/00, the Federal Subsistence Board changed the harvest limits in Units 11 and 12 to 10 wolves based on recommendations from the Eastern Interior Alaska Subsistence Regional Advisory Council and the Southcentral Alaska Subsistence Regional Advisory Council.

In 2004, Defenders of Wildlife submitted a proposal (WP05-02) requesting that wolf hunting seasons in Units 1, 3–4, 5A, 6–7, 9–13, 14C, 15–21, and 24–26 be closed until September 15. The Southcentral Alaska Subsistence Regional Advisory Council and Eastern Interior Alaska Subsistence Regional Advisory Council both opposed that proposal, as did six other Regional Advisory Councils. Consistent with these Regional Advisory Council recommendations, the Federal Subsistence Board rejected proposal WP05-02. In its comments concerning WP05-02, the Southcentral Alaska Subsistence Regional Advisory Council noted that there was no biological reason to reduce the wolf season (FSB 2005). At the Southcentral Alaska Subsistence Regional Advisory Council's March 2005 meeting, it was noted that the Denali Subsistence Resource Commission had reported that early season wolf pelts have low commercial value but are a resource for local subsistence users making crafts and clothing for personal use (SCRAC 2005). At its March 2005 meeting, Eastern Interior Alaska Subsistence Regional Advisory Council member Entsminger noted that, as a skin sewer, she has seen wolf hides from August and September and spring. She noted that in August and September wolf's hair tends to be shorter and is more useful for making hats and other things. She noted that while few wolves are taken in the fall, when they are harvested by subsistence users their hides are used (EIRAC 2005).

In 2009, Defenders of Wildlife submitted a proposal (WP10-38) requesting these same regulatory changes. The Southcentral Alaska Regional Advisory Council and the Eastern Interior Regional Advisory Council both opposed WP10-38. Both Councils noted that there were no conservation concerns for wolves in Units 11 and 12. WP10-38 was rejected by the Federal Subsistence Board.

Biological Background

Wolves (*Canis lupus*) have probably been part of Alaska fauna since the Pleistocene glaciation (Murie 1944). Wolves are currently found throughout most of Units 11 and 12. Prey species include caribou, moose, sheep, small mammals, snowshoe hare, and beaver. Murie (1944) noted that there are times of wolf scarcity and times of wolf abundance and suggested that food supply was probably an important factor affecting wolf abundance. Wolves first breed at age two to four and produce pups in dens during the spring (Mech et al. 1998). Litters average five or six pups. Wolves abandon the den after about eight weeks and live at sites above ground until early autumn when the entire pack roams a large territory for the rest of the fall and winter. Wolves live at low densities in a structured population of territorial packs (Mech and Boitani 2003). Meier et al. (2006) reported that 28% of the wolves leave their packs each year, and that most offspring eventually leave the pack. Dispersing wolves form new packs when they locate

dispersers of the opposite sex from another pack and a vacant area to establish a territory (Rothman and Mech 1979). Meier et al. (2006) reported that wolves sometimes disperse great distances. The longest documented dispersal of a Denali National Park and Preserve wolf was 435 miles.

The size of the home range is believed to be dependent on prey abundance, the activities of neighboring packs, and each pack's individual habits. Wolf pack territories overlap one another and change over time (Meier et al. 2006). As a pack makes its way around its territory, it may encounter and engage with other wolves within its territory at any time. A fight to the death can occur during such encounters. Predation by other wolves is probably the major cause of natural mortality among adult wolves. Meier et al. (2006) observed that at least 60% of the wolf deaths in Denali National Park and Preserve came from wolves being killed by other wolf packs. With high reproductive capacity, good survival of young, and high dispersal rates, wolf populations are able to quickly respond to changes in prey abundance.

Unit 11

In the early 1970s, McIlroy (1975) estimated that the wolf density in Unit 11 was 12/1000 mi^2. Kelleyhouse (2006) estimated that there were 10 to 20 wolf packs in regulatory years 1997/98 to 2004/2005. She estimated that there were 70–130 wolves in Unit 11 during that time-period and observed that wolf numbers were higher in the northern portions of the unit because of the higher density of caribou, moose and sheep. In 2008, the spring density of wolves in Unit 11 was approximately 6 wolves/1000 mi^2 (ADF&G 2010).

Unit 12

Hollis (2006) estimated that there were 240–255 wolves in Unit 12. Wolf density estimates for 2001 to 2004 ranged from 14 to 50/1000 mi^2 (Hollis 2006). Hollis (2006) estimated that, in regulatory year 2002/03, there were a total of 31 packs in Unit 12 with an average pack size of 7.0–7.4 wolves. The current fall wolf population estimate for Unit 12 is 179–192 wolves (18 to 19/1000 mi^2) (ADF&G 2010). The Unit 12 wolf population has benefited from high numbers of caribou since 1997 and from the snowshoe hare cycle highs in 1998–2001 and 2007–2009 (ADF&G 2010). The Chisana caribou herd has been a reliable food source for wolves in eastern Unit 12. Caribou from the Mentasta, Nelchina, and Macomb herds also have used portions of the unit and provide a food source for wolves (Hollis 2006)

Harvest History

Halpin (1987) and Stratton and Georgette (1984) provide some subsistence harvest information for communities in Units 11 and 12. Hunters occasionally take wolves in the fall and early spring when they are hunting other species. Once snow-cover and ice are adequate for snowmachine travel, trappers begin establishing and maintaining trap lines. Wolf harvest is spread throughout the winter. Wolf harvest declines in April as snow and ice conditions deteriorate with the spring melt. Fur prices and snow and ice conditions affect wolf trapping effort in any given year. The cost of snowmachines, gas, traps, and other equipment has increased over the last 20 to 25 years, yet the price of wolf pelts has declined. Hollis (2006) observed that in Unit 12, few trappers specifically target wolves, but noted that during years when marten and lynx pelt prices are low and wolf prices are adequate, more trappers concentrate on wolves. Harvest rates in remote areas are dependent on fur prices and weather conditions. Trapping pressure is high along the road system and around communities in Units 11 and 12 (Kelleyhouse 2006, Hollis 2006).

Wolves harvested either by trapping or hunting must be sealed by an ADF&G representative or appointed fur sealer. During the sealing process, information is obtained on the date and location of take, sex, color of pelt, estimated size of the wolf pack, method of take, and access used. Kelleyhouse (2006) observed

that in Unit 11, illegal and unreported wolf harvest was probably minimal. Wolves are difficult animals to bring down and it is not unreasonable to assume that some mortality is occurring as a result of wounding loss. Some wolves caught in traps that are not checked regularly are scavenged by other animals, and the hides are so damaged that they are discarded in the field with the harvest going unreported.

There have been a number of wolf control programs in Units 11 and 12 since the 1940s (Kelleyhouse 2006, Hollis 2006). The Alaska Board of Game authorized aerial wolf control in northern Unit 12 in 2004 (Hollis 2006).

Based on an analysis of information from North American wolf populations, Adams et al. (2008) concluded that wolf populations appear to be largely unaffected by human take of ≤29% annually. Given the limited effects of moderate levels of human take, they concluded that the risks of reducing wolf populations through regulated harvest are quite low.

Unit 11

From regulatory years 1999/00 to 2009/10, the reported annual harvest of wolves in Unit 11 ranged from 15 to 35 wolves per year (**Table 1**). Most of the wolves were taken using traps or snares. Kelleyhouse (2006) observed that the reported harvest was relatively low when compared to the estimated Unit 11 wolf population size. She estimated that the annual harvest rate averaged about 14% for regulatory years 2002/03 to 2004/05.

Of a total of 234 wolves taken in Unit 11 during regulatory years 1999/00 to 2009/10, 28 were shot during the months of August, September, October and April (**Table 1**).

Unit 12

From regulatory years 1999/2000 to 2009/10, the reported annual harvest of wolves in Unit 12 ranged from 21 to 58 wolves per year (**Table 2**). Most of the wolves were taken using traps or snares. The harvest was relatively low when compared to the estimated Unit 12 wolf population size.

Of a total of 436 wolves taken in Unit 12 during regulatory years 1999/00 to 2009/10, 46 were shot during the months of August, September, October and April (**Table 2**).

Effects of the Proposal

If Proposal WP12-33 is adopted, the Federal wolf hunting seasons in Units 11 and 12 will be shortened. The proposals seek to close the Federal wolf hunting seasons in these units from August 10–October 31 and April 1–30, thereby shortening the existing season by 113 days. Between regulatory years 1999/00 and 2009/10, in Unit 11 and Unit 12 combined, 11% of the reported wolf harvest occurred in the months of August, September, October and April (**Tables 1 and 2**; ADF&G 2011). Proposal WP12-33 will eliminate the opportunity for Federally qualified subsistence users to harvest wolves under Federal regulations during the fall and spring when they are hunting other species. This proposal will make the Federal subsistence wolf hunting season in Unit 11 shorter than the State season. The Federal hunting season for wolves in Unit 12 is already shorter than the State season; this proposal seeks to make it even shorter.

OSM PRELIMINARY CONCLUSION

Oppose Proposal WP12-33.

Table 1. Reported wolf harvest and method of take for Unit 11, regulatory years 1999/00 to 2009/10 (ADF&G 2011).

Regulatory year	Reported total harvest	Shot Aug.–Oct. & April harvest	Method of take for total harvest from Unit 11				
			Trap/ snare	(%)	Shot	%	Unknown
1999/2000	23	2	21	91	2	9	0
2000/01	35	4	31	89	4	11	0
2001/02	23	1	21	91	2	9	0
2002/03	19	1	18	95	1	5	0
2003/04	15	2	11	73	3	20	1
2004/05	15	3	12	80	3	20	0
2005/06	26	2	22	85	4	15	0
2006/07	15	1	14	93	1	7	0
2007/08	23	3	19	83	4	17	0
2008/09	18	1	17	94	1	6	0
2009/10	22	8	12	55	10	45	0

Table 2. Reported wolf harvest and method of take for Unit 12, regulatory years 1999/00 to 2009/10 (ADF&G 2011).

Regulatory year	Reported total harvest	Shot Aug.–Oct. & April harvest	Method of take for total harvest from Unit 12				
			Trap/ snare	(%)	Shot	%	Unknown
1999/2000	54	11	40	74	13	24	1
2000/01	58	2	51	88	7	12	0
2001/02	39	4	32	82	7	18	0
2002/03	53	2	49	92	4	8	0
2003/04	25	2	23	92	2	8	0
2004/05	29	1	27	93	2	7	0
2005/06	39	8	22	56	15	38	2
2006/07	30	2	24	80	6	20	0
2007/08	49	5	40	82	9	18	0
2008/09	39	3	29	74	7	18	3
2009/10	21	6	9	43	12	57	0

Justification

Two years ago the Defenders of Wildlife requested these same regulatory changes. The Southcentral Alaska Regional Advisory Council and the Eastern Interior Regional Advisory Council both opposed that proposal and the Federal Subsistence Board rejected it.

The wolf populations in Units 11 and 12 are thought to be healthy. Wolves are prolific reproducers and survival of young is generally high. Young wolves disperse from packs at high rates as yearlings and 2-year-olds; these individuals are abundant and available to be harvested. The wolf population in these units is thought to be regulated more by natural factors than by the harvest by hunters and trappers.

Wolves are an important subsistence resource in Units 11 and 12. The harvest of wolves and the use, barter, and sale of pelts is a long standing component of the subsistence economy. While only a small part of the wolf harvest occurs in the months of August, September, October and April, the opportunity for hunters to take wolves in these months is important to Federally qualified subsistence users.

Even if this proposal is adopted by the Federal Subsistence Board, hunters will still be able to take wolves under State regulations on FWS, BLM, USFS and Wrangell-St. Elias Preserve lands in these two units. Therefore, adoption of this proposal by the Federal Subsistence Board will not have the effect sought by the proponent.

LITERATURE CITED

Adams, L.G., R.O. Stephenson, B.W. Dale, R. T. Ahgook, and D.J. Demma. 2008. Population dynamics and Harvest characteristics of wolves in the central Brooks Range, Alaska. Wildlife Monographs 170.

ADF&G. 2010. January 18 draft written comments to the Interagency Staff Committee. 4 pages.

ADF&G. 2011. Harvest ticket database. Microcomputer database, query April 21, 2011.

EIRAC. 2005. Transcripts of the Eastern Interior Alaska Regional Advisory Council proceedings, 2 March 2005. Office of Subsistence Management, FWS, Anchorage, AK.

FSB. 2005. Regional Council recommendations WP05-02, page 249 in Federal Subsistence Board Meeting Materials, May 3&4, 2005. Office of Subsistence Management, FWS, Anchorage, AK. 322 pages.

Haplin, L. 1987. Living off the land: contemporary subsistence in Tetlin, Alaska. ADF&G Subsistence Division, Technical Paper Number 149. Juneau, AK. 124 pages.

Hollis, A.L. 2006. Unit 12 wolf management report. Pages 76–89 in P. Harper, ed. Wolf management report of survey and inventory activities, 1 July 2002–30 June 2005. ADF&G. Project 14.0, Juneau, AK.

Kelleyhouse, R.A. 2006. Unit 11 wolf management report. Pages 69–73 in P. Harper, ed. Wolf management report of survey and inventory activities, 1 July 2002–30 June 2005. ADF&G. Project 14.0, Juneau, AK.

McIlroy, C. 1975. Unit 11 wolf survey-inventory progress report. Pages 106–109 in D.E. McKnight, ed. Annual report of survey-inventory activities. Part III. Caribou, marine mammals, mountain goat, wolf, and black bear. Vol. V. ADF&G. Fed. Aid in Wildl. Rest. Prog. Report, Project W-17-6. Jobs 3, 8, 12, 14, 17 and 22. Juneau, AK.

Mech. D.L., L.G. Adams, T.J. Meier, J.W. Burch and B.W. Dale. 1998. The wolves of Denali. University of Minnesota Press. Minneapolis, MN. 227 pages.

Mech, L.D. and L. Boitani. 2003. Wolf social ecology. Pages 1–34 in L.D. Mech and L. Boitani. eds. Wolves: Behavior, ecology, and conservation. University of Chicago Press.

Meier, T., J. Burch, and L.G. Adams. 2006. Tracking the movements of Denali's wolves. Alaska Park Science. 5(1):30–35.

Murie, A. 1944. The wolves of Mount McKinley. U.S. Government Printing Office. Washington D.C. 238 pages.

Rothman, R.J. and L.D. Mech. 1979. Scent-marking in lone wolves and newly formed pairs. Anim. Behav. 27:750–760.

SCRAC. 2005. Transcripts of the Southcentral Alaska Regional Advisory Council proceedings, 15–17 March 2005. Office of Subsistence Management, FWS, Anchorage, AK.

Stratton, L. and S. Georgette. 1984. Use of fish and game by communities in the Copper River Basin, Alaska: A report on the 1983 household survey. ADF&G Subsistence Division, Technical Paper Number 107. Juneau, AK. 212 pages.

WP12-52 Executive Summary	
General Description	Proposal WP12-52 of Alakanuk Native Corporation, requests a change in regulations to ban hunting by non-Federally qualified subsistence users along the Yukon River and into Canada. *Submitted by Brian L. Williams*
Proposed Regulation	No regulation language was proposed.
OSM Preliminary Conclusion	**Oppose**
Yukon/Kuskokwim Delta Regional Council Recommendation	
Western Interior Regional Council Recommendation	
Seward Peninsula Regional Council Recommendation	
Eastern Interior Regional Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	**None**

DRAFT STAFF ANALYSIS
WP12-52

ISSUES

Proposal WP12-52, submitted by Brian L. Williams, of Alakanuk Native Corporation, requests a change in regulations to ban hunting by non-Federally qualified subsistence users along the Yukon River and into Canada.

DISCUSSION

The proponent states that subsistence practices need to have priority over sport hunting, in order to preserve wildlife for future generations and their subsistence needs. The proponent also states that sport hunters (i.e., non-Federally qualified users) should not "hunt up and down the Yukon River," and should be fined "for trespassing on our lands." The proponent additionally states that banning sport hunters will result in increased wildlife populations.

For subsistence management purposes, Native Corporation lands are under State management. Neither State nor Federal regulations have jurisdiction in Canada.

Title VIII of the 1980 Alaska National Interest Lands Claim Act (ANILCA) specifically prioritizes subsistence uses over any other consumptive uses such as commercial or sport hunting on Federal public lands. When a conservation concern exists for any resource, commercial and sport uses are restricted before subsistence uses are restricted.

Existing Federal Regulation

In implementing ANILCA, the Federal Subsistence Board was empowered to administer the subsistence taking of fish and wildlife on Federal public lands, while the Secretary of the Interior and the Secretary of Agriculture retained the authority to restrict commercial and sport uses in Alaska on lands other than public lands, as follows:

> *§100.10(a)The Secretary of the Interior and the Secretary of Agriculture hereby establish a Federal Subsistence Board, and assign it responsibility for administering the subsistence taking and uses of fish and wildlife on public lands, and the related promulgation and signature authority for regulations of subparts C and D of this part. The Secretaries, however, retain their existing authority to restrict or eliminate hunting, fishing, or trapping activities which occur on lands or waters in Alaska other than public lands when such activities interfere with subsistence hunting, fishing, or trapping on the public lands to such an extent as to result in a failure to provide the subsistence priority.*

The Federal Subsistence Board was also empowered to implement ANILCA to:

> *§100.10(iv) Allocate subsistence uses of fish and wildlife populations on public lands; (v) Ensure that the taking on public lands of fish and wildlife for nonwasteful subsistence purposes shall be accorded priority over the taking on such lands of fish and wildlife for other purposes; (vi) Close public lands to the non-subsistence taking of fish and wildlife; (vii) Establish priorities for the subsistence taking of fish and wildlife on public lands among rural Alaska residents; (viii) Restrict or eliminate taking of fish and wildlife on public lands.*

Proposed Federal Regulation

The proponent did not propose a regulation.

Extent of Federal Public Lands

Federal public lands affected by this proposal include Yukon Delta National Wildlife Refuge, Innoko National Wildlife Refuge, Nowitna National Wildlife Refuge, Yukon Flats National Wildlife Refuge, Yukon Charley Rivers National Preserve, and Bureau of Land Management lands (see unit maps for Units 18, 20, 21, 25).

Effects of the Proposal

If adopted, the proposal would ban hunting by non-Federally qualified users along the Yukon River on both Federal public lands and other lands. The proposal would affect non-Federally qualified users by not allowing harvests in places where there may not be a conservation issue. The result could be an increase in wildlife populations which would otherwise be taken by non-Federally qualified users. The proposal would not affect large portions of land along the Yukon River that are managed by the State of Alaska; a large percentage of State-managed lands are surrounding villages. There would be no effect in Canada as the Board has no jurisdiction in Canada.

OSM PRELIMINARY CONCLUSION

Oppose Proposal WP12-52.

Justification

Because the proponent's concerns are addressed in Federal Subsistence Management regulations, the proposed regulatory changes are unnecessary and should be opposed. Subsistence uses, including hunting, already have priority over other consumptive uses, including sport hunting. Moreover, the Secretary of the Interior and the Secretary of Agriculture have the authority to restrict hunting, fishing or trapping in Alaska on other than Federal public lands "when such activities interfere with subsistence" activities. In addition, sport hunting along the Yukon River in Canada is outside the purview of the Federal Subsistence Board.

WP12-62 Executive Summary	
General Description	Proposal WP12-62 requests a community harvest permit for brown bear hunting in Unit 25D. *Submitted by the Eastern Interior Alaska Subsistence Regional Advisory Council*
Proposed Regulation	*Unit 25D—1 bear* ***every regulatory year or by community harvest permit***
OSM Preliminary Conclusion	**Oppose**
Eastern Interior Regional Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	**None**

DRAFT STAFF ANALYSIS
WP12-62

ISSUES

Proposal WP12-62, submitted by the Eastern Interior Alaska Subsistence Regional Advisory Council, requests a community harvest permit for brown bear hunting in Unit 25D.

DISCUSSION

The proponent notes that the proposal will have two effects: 1) "It will decrease predator populations that prey on calf moose;" and 2) "It will help the moose population grow to allow for more local harvest and have potential to expand nonlocal participation."

The Federal Subsistence Board does not support predator control proposals. The Board's policy, adopted May 20, 2004 reads as follows:

> As authorized by the Secretaries of Interior and Agriculture [50 CFR Part 100.100 (USDI0) and 36 CFR part 242.10 (USAD)], the Board administers the subsistence taking and uses of fish and wildlife on Federal public lands through regulations that provide for the non-wasteful harvest of fish and wildlife by Federally qualified rural residents, consistent with the maintenance of healthy populations of harvested resources. Such subsistence taking and uses are "*…for direct personal or family consumption*…" (Section 803 of ANILCA). Wildlife management activities on Federal public lands other than the subsistence take and use of fish and wildlife, such as predator control and habitat management, are the responsibility of and remain within the authority of the individual land management agencies.

Existing Federal Regulation

Brown Bear

Unit 25D—1 bear

Proposed Federal Regulation

Brown Bear

Unit 25D—1 bear ***every regulatory year or by community harvest permit***

Extent of Federal Public Lands

Federal public lands affected by this proposal include Yukon Flats National Wildlife Refuge, which comprises approximately 75% of Unit 25D.

Customary and Traditional Use Determination

The customary and traditional use determination for brown bear for Unit 25D is for all rural residents of Unit 25D.

Community Harvest Limits

Current Federal regulations governing community harvests read as follows:

> An animal taken under Federal or State regulations by any member of a community with an established community harvest limit for that species counts toward the community harvest limit for that species. An animal taken by an individual as part of a community harvest limit counts toward every community member's harvest limit for that species taken under Federal or State regulations, except for wildlife taken under permit for special purposes, including ceremonies and potlatches (36 CFR 242.26(e)(2), 50 CFR 100.26(e)(2)).

Two community harvests are currently allowed under Federal regulations for the community of Lime Village in Unit 19. These regulations allow "no individual harvest limit, but a village harvest quota of 200 caribou," and "no individual harvest limit, but a village harvest quota of 28 bulls [moose]." A community harvest is also allowed under Federal regulations for residents of Anaktuvuk Pass in Units 26A and 26B for "60 sheep, no more than 10 of which may be ewes."

Biological Background

Brown bears are widely distributed in northeastern Alaska. The brown bear population in Unit 25 declined in the 1960s primarily from aircraft-supported hunting associated with guiding. As a result, regulations were implemented to limit harvest starting in 1971. As the population recovered, regulations were gradually liberalized. Population trend data for Unit 25 are currently sparse; however, there is a possibility that the population has increased or expanded into new habitat based on an increase in sightings of brown bears by local residents on the Yukon River compared to years prior to 2000 (Lenart 2007).

The current population estimate of brown bears in Units 25A, 25B, and 25D is based on the 1993 estimate of approximately 1,200 brown bears (2.4 bears/100 mi^2) (Lenart 2007) and estimated densities and population size slightly varies between the units. In the mountainous portion of Unit 25C, Eagan (1995) (*cited* in Young 2007) determined that there was a medium density (1.3-2.6 bears/100 mi^2).

In northern Alaska, female brown bears do not successfully reproduce until they are older than 5 years (Reynolds 1987). The delay in reproduction, as well as small litter sizes (1.6 cubs/litter), long intervals between successful reproductive events and short potential reproductive periods cause the low rates of successful production in brown bears in northern Alaska (USFWS 1982). In addition, female brown bears exhibit high fidelity to home ranges and little emigration or immigration (Reynolds 1993 *cited* in Lenart 2007). Therefore, brown bears are often managed conservatively.

Brown bears in Unit 25D have been identified as a significant predator on moose calves that contributes to maintaining a low density of moose. In their moose mortality study, Bertram and Vivion (2002) found that predation was responsible for 97% of known calf mortality, with brown bears causing 39% of it, second only to black bear at 45%. As a result, the *Yukon Flats Cooperative Moose Management Plan* (ADF&G 2002) prescribes increasing brown bear harvest.

The *Yukon Flats Cooperative Moose Management Plan* notes the following about the brown bear population in Unit 25D:

> There are an estimated 380 grizzly bears in 25D, or about 1 bear per 46 mi^2. Based on a 5% sustainable harvest rate, the estimated sustainable harvest is about 19 bears, assuming some harvest of female bears. The reported harvest of grizzly bears averages 3-4 each year and some

additional bears are taken but not sealed. Increased awareness and concern about the effects of bear predation on moose has resulted in greater local interest in harvesting bears (*Yukon Flats Cooperative Moose Management Plan*, 2002: 25).

The Alaska Department of Fish and Game management objectives for Unit 25B and Unit 25D brown bear indicate a combined sustainable harvest of 29 bears, with a minimum of 60% males (Lenart 2007).

Harvest History

There are 25 years of data on brown bear harvests from community household surveys for Unit 25D (e.g. Sumida 1988, 1989; Sumida and Andersen 1990; Lenart 2007; Thomas 2008; Young 2007). The ADF&G Community Subsistence Information System contains the following information, summarized in **Table 1**. Stevens Village residents harvested 2 brown bear in 1984; Fort Yukon residents harvested 31 brown bear in 1987; Venetie residents harvested 1 brown bear in 1987; Canyon Village residents harvested 1 brown bear in 1987 and 2 in 1994; and Chalkyitsik residents harvested 1 brown bear in 1994. More recent data combine Units 25B and 25D, summarized in **Table 2**. These data indicate that 37 brown bears were harvest in Units 25B and 25D in 2006-2007; 17 brown bears in 2007–2008; and 22 brown bears in 2008-2009.

Table 1. Brown bear harvests in Unit 25D. Note that these numbers are from household surveys, which are not conducted every year. A lack of data does not imply that no brown bears were taken in any particular year.

Brown Bear Harvest, Unit 25D					
Community	**Year**				
	1984	1985	1987	1993	1994
Stevens Village	2				
Fort Yukon			31		
Venetie			1		
Canyon Village			1		2
Chalkyitsik					1

Effects of the Proposal

The biological effects of the proposal are difficult to gauge absent specification of community or community harvest limits. Presumably, however, a community harvest permit would decrease brown bear populations in Unit 25D, and possibly assist with increasing moose populations.

OSM PRELIMINARY CONCLUSION

Oppose Proposal WP12-62.

Justification

The Federal Subsistence Board does not support predator control proposals. The proponent will be provided the procedures for submitting their request to the appropriate agencies involved as required in the Board's Predator Management Policy.

Table 2. Unit 25B and 25D brown bear mortality (Lenart 2007, Thomas 2006, Young 2007; see staff analysis of WP10-91 Deferred for further details in Unit 25 generally).

Regulatory Year	Unit 25B and 25D		
	Mortality	% Male	Household Survey Data Mortality[a]
1995–1996	2	100	1
1996–1997	4	75	0
1997–1998	0	0	1
1998–1999	2	100	0
1999–2000	6	67	—
2000–2001	1	100	—
2001–2002	1	100	—
2002–2003	11	64	5
2003–2004	2	100	—
2004–2005	3	100	22
2005–2006	1	100	—
2006–2007	—	—	37
2007–2008	—	—	17
2008–2009	—	—	22

[a] Household survey data does not include nonlocal harvest of brown bears.

In addition, if the proposal resulted in an increase in the allowable harvest, it would misalign Federal and State regulations and thereby complicate current planning actions that are underway by the Yukon Flats Moose Management Planning Committee.

LITERATURE CITED

Lenart, E. A. 2007. Units 25A, 25B, 25D, 26B, and 26C brown bear. Pages 300-323 *in* P. Harper, editor. Brown bear management report of survey and inventory activities 1 July 2004-30 June 2006. Alaska Department of Fish and Game. Project 4.0. Juneau, AK.

FSB, 2004. Predator Management Policy, May 20, 2004. Office of Subsistence Management, FWS. Anchorage, AK.

Sumida, Valerie A. 1988. Land and Resource Use Patterns in Stevens Village, Alaska. ADF&G Div. of Subsistence. Technical Paper No. 129. Juneau, AK.

Sumida, Valerie A. 1989. Patterns of Fish and Wildlife Harvest and Use in Beaver, Alaska. ADF&G Div. of Subsistence. Technical Paper No. 140. Juneau, AK.

Sumida, Valerie A. and David B. Andersen, 1990. Patterns of Fish and Wildlife Use for Subsistence in Fort Yukon, Alaska. ADF&G Div. of Subsistence. Technical Paper No. 179. Juneau, AK.

Thomas, B. 2008. Yukon Flats moose, bear, waterfowl, and furbearing harvest data collection. Final Summary Report. Council of Atahabascan Tribal Governments. Technical Document 08-02. Ft. Yukon, AK.

Young, D. D., Jr. 2007. Units 20A, 20B, 20C, 20F, and 25C brown bear. Pages 212-228 *in* P. Harper, editor. Brown bear management report of survey and inventory activities 1 July 2004-30 June 2006. Alaska Department of Fish and Game. Project 4.0. Juneau, AK.

Yukon Flats Cooperative Moose Management Plan, 2002. ADF&G Div. of Wildlife Conservation, AK.

WP12-63 Executive Summary	
General Description	Proposal WP12-63 would require that all edible meat of the front quarters, hind quarters, and ribs of caribou and moose harvested in Unit 25 remain on the bones until the meat is removed from the field or is processed for human consumption. *Submitted by the Eastern Interior Regional Advisory Council*
Proposed Regulation	**§__.25(a) Definitions** *Salvage means to transport the edible meat, skull, or hide, as required by regulation, of a regulated fish, wildlife, or shellfish to the location where the edible meat will be consumed by humans or processed for human consumption in a manner which saves or prevents the edible meat from waste, and preserves the skull or hide for human use.* **§__.25(j) Utilization of fish, wildlife, or shellfish**. *(3) You must salvage the edible meat of ungulates, bear, grouse, and ptarmigan . . . .* *(5) Failure to salvage the edible meat may not be a violation if such failure is caused by circumstances beyond the control of a person, including theft of the harvested fish, wildlife, or shellfish, unanticipated weather conditions, or unavoidable loss to another animal.* **§__.26(h) Removing harvest from the field** *You must leave all edible meat on the bones of the front quarters and hind quarters of caribou and moose harvested in Units 9, 17, 18, and 19B prior to October 1 until you remove the meat from the field or process it for human consumption. You must leave all edible meat on the bones of the front quarters, hind quarters, and ribs of moose harvested in Unit 21 prior to October 1 until you remove the meat from the field or process it for human consumption. You must leave all edible meat on the bones of the front quarters, hind quarters, and ribs of caribou and moose harvested in Unit 24 prior to October 1 until you remove the meat from the field or process it for human consumption. Meat of the front quarters, hind quarters, or ribs from a harvested moose or caribou may be processed for human consumption and consumed in the field; however, meat may not be removed from the bones for purposes of transport out of the field.* ***You must leave all edible meat on the bones of the front quarters, hind quarters, and ribs of caribou and moose harvested in Unit 25 until you remove the meat from the field or process it for human consumption***.

continued on next page

WP12-63 Executive Summary *(continued)*	
OSM Preliminary Conclusion	
Eastern Interior Regional Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	**None**

DRAFT STAFF ANALYSIS
WP12-63

ISSUES

Proposal WP12-63, submitted by the Eastern Interior Regional Advisory Council, would require that all edible meat of the front quarters, hind quarters, and ribs of caribou and moose harvested in Unit 25 remain on the bones until the meat is removed from the field or is processed for human consumption.

DISCUSSION

The Council is requesting this action because it believes there is a need to reduce the spoilage and waste of the meat of caribou and moose harvested in Unit 25.

The Council submitted parallel proposals to the Alaska Board of Game to consider at its meeting to be held during the November 2011 through March 2012 meeting window. Four proposals were submitted for each of Units 25A, 25B, 25C, and 25D (Mushovic 2011, pers. comm.).

Existing Federal Regulation

§__.25(a) Definitions

Salvage means to transport the edible meat, skull, or hide, as required by regulation, of a regulated fish, wildlife, or shellfish to the location where the edible meat will be consumed by humans or processed for human consumption in a manner which saves or prevents the edible meat from waste, and preserves the skull or hide for human use.

§__.25(j) Utilization of fish, wildlife, or shellfish.

(3) You must salvage the edible meat of ungulates, bear, grouse, and ptarmigan . . . .

(5) Failure to salvage the edible meat may not be a violation if such failure is caused by circumstances beyond the control of a person, including theft of the harvested fish, wildlife, or shellfish, unanticipated weather conditions, or unavoidable loss to another animal.

§__.26(h) Removing harvest from the field

You must leave all edible meat on the bones of the front quarters and hind quarters of caribou and moose harvested in Units 9, 17, 18, and 19B prior to October 1 until you remove the meat from the field or process it for human consumption. You must leave all edible meat on the bones of the front quarters, hind quarters, and ribs of moose harvested in Unit 21 prior to October 1 until you remove the meat from the field or process it for human consumption. You must leave all edible meat on the bones of the front quarters, hind quarters, and ribs of caribou and moose harvested in Unit 24 prior to October 1 until you remove the meat from the field or process it for human consumption. Meat of the front quarters, hind quarters, or ribs from a harvested moose or caribou may be processed for human consumption and consumed in the field; however, meat may not be removed from the bones for purposes of transport out of the field.

Proposed Federal Regulation

§__.25(a) Definitions

Salvage means to transport the edible meat, skull, or hide, as required by regulation, of a regulated fish, wildlife, or shellfish to the location where the edible meat will be consumed by humans or processed for human consumption in a manner which saves or prevents the edible meat from waste, and preserves the skull or hide for human use.

§__.25(j) Utilization of fish, wildlife, or shellfish.

(3) You must salvage the edible meat of ungulates, bear, grouse, and ptarmigan . . . .

(5) Failure to salvage the edible meat may not be a violation if such failure is caused by circumstances beyond the control of a person, including theft of the harvested fish, wildlife, or shellfish, unanticipated weather conditions, or unavoidable loss to another animal.

§__.26(h) Removing harvest from the field

You must leave all edible meat on the bones of the front quarters and hind quarters of caribou and moose harvested in Units 9, 17, 18, and 19B prior to October 1 until you remove the meat from the field or process it for human consumption. You must leave all edible meat on the bones of the front quarters, hind quarters, and ribs of moose harvested in Unit 21 prior to October 1 until you remove the meat from the field or process it for human consumption. You must leave all edible meat on the bones of the front quarters, hind quarters, and ribs of caribou and moose harvested in Unit 24 prior to October 1 until you remove the meat from the field or process it for human consumption. Meat of the front quarters, hind quarters, or ribs from a harvested moose or caribou may be processed for human consumption and consumed in the field; however, meat may not be removed from the bones for purposes of transport out of the field. ***You must leave all edible meat on the bones of the front quarters, hind quarters, and ribs of caribou and moose harvested in Unit 25 until you remove the meat from the field or process it for human consumption***.

Existing State Regulation

5 AAC 92.220. Salvage of game meat, furs, and hides

(d) A person taking game not listed in (a) of this section shall salvage for human consumption all edible meat, as defined in 5 AAC 92.990. In addition,

(1) for moose and caribou taken before October 1 in Unit 9(B), Unit 17, Unit 18, those portions of Unit 19(A) within the Holitna/Hoholitna Controlled Use Area, Unit 19(B), and Unit 23, the edible meat of the front quarters and hindquarters must remain naturally attached to the bone until the meat is transported from the field or is processed for human consumption;

(2) for caribou taken before October 1 in Unit 21(A), the edible meat of the front quarters and hindquarters must remain naturally attached to the bone until the meat has been transported from the field or is processed for human consumption;

(3) for moose taken before October 1 in Units 21 and 24, and for caribou taken before October 1 in Unit 24, the edible meat of the front quarters, hindquarters, and ribs must remain naturally attached to the bone until the meat has been transported from the field or is processed for human consumption.

5 AAC 92.990. Definitions

(17) "edible meat" means, in the case of a big game animal, except a black bear, the meat of the ribs, neck, brisket, front quarters as far as the distal joint of the radius-ulna (knee), hindquarters as far as the distal joint of the tibia-fibula (hock), and the meat along the backbone between the front and hindquarters . . . ; however, "edible meat" of big game or wild fowl does not include meat of the head, meat that has been damaged and made inedible by the method of taking, bones, sinew, incidental meat reasonably lost as a result of boning or a close trimming of the bones, or viscera.

Extent of Federal Public Land

Federal public land comprises approximately 55% of Unit 25 and consists of 68% U.S. Fish and Wildlife Service, 29% Bureau of Land Management, and less than 4% National Park Service lands. Federal public lands exist primarily within the Arctic National Wildlife Refuge, Yukon Flats National Wildlife Refuge, White Mountains National Recreation Area, and Steese National Conservation Area.

Customary and Traditional Use Determination

The customary and traditional use determination for caribou in Unit 25D is residents of Units 20F, 25D, and Manley; and in the remainder area of Unit 25, all rural residents.

The customary and traditional use determination for moose in Unit 25A is residents of Units 25A and 25D; in Units 25B and 25C, all rural residents; in Unit 25D west, residents of Unit 25D west; and in Unit 25D remainder, residents of the remainder of Unit 25.

Background

At the winter and fall 2009 Council meetings, the Council heard that spoilage of moose meat in the field is a problem. At these meetings, Council members talked extensively about the need to educate hunters to properly cut and process meat of harvested animals, and about the effects on rural communities of nonrural residents hunting in the traditional hunting territories of Athabascan villages.

The Council drafted a proposal to the Alaska Board of Game requesting that all edible meat of the front quarters, hind quarters, and ribs from moose harvested in Unit 25 must remain on the bone until the meat is removed from the field or is processed for human consumption. The Council indicated that the proposed regulation to the Alaska Board of Game would make enforcement of the salvage statutes easier (EISRAC 2009a:220 and 2009b:327). Several Council members suggested submitting a parallel proposal to the Federal Subsistence Board because much of the land in Unit 25 is within the boundaries of Fish and Wildlife Service national wildlife refuges. Subsequently, the Council submitted a proposal to the Federal Subsistence Board, Proposal WP10-88.

At their meeting in February 2010, Council members commenting on Proposal WP10-88 indicated that the problem addressed by Proposal WP10-88 was created primarily by people that fly into the area and hunt by themselves. In conversations with pilots it was found that these were the hunters most likely to

skin their harvest and remove meat without adequate care given to preventing spoilage and sand getting on the meat. These hunters then tried to give their harvest away, described as a "big bag of mystery meat covered in sand" (EISRAC 2010:79). The proposed regulation:

> . . . promotes better quality meat. A lot of people, I don't know what's wrong with them sometimes, they aren't thinking well or something, but I see lots of meat that ends up getting lots of dirt on it and hair. And especially if it's boned out when that happens. Then it's practically impossible to really salvage the meat properly. You lose an awful lot of it. And so this promotes better care of the meat and less spoilage and waste (EISRAC 2010:80).

Leaving the hide and meat on the bone promotes preservation of the meat. "I don't pull the hide off until I get it home and hang it . . . . It cools with the hide on. And I never lost any meat yet" (EISRAC 2010:81).

Regulatory History

The Council submitted a proposal identical to Proposal WP10-88 to the Alaska Board of Game and to the Federal Subsistence Board. At its February 2010 meeting, the State Board of Game did not adopt the proposed regulation change (Ardizzone 2010, pers. comm.). Subsequently, in May 2010, the Federal Subsistence Board did not adopt the proposed regulation change either (Proposal WP10-88). If the Federal Subsistence Board had adopted the proposal, Federal wildlife regulations would have been made more restrictive than State regulations concerning hunters' ability to remove moose meat from the field.

At its meeting in March 2011, the Council again submitted the proposal to both the Federal Subsistence Board and the Alaska Board of Game (Mushovic 2011, pers. comm.). In contrast to its earlier proposal (WP10-88), the Council included caribou as well as moose in this proposal (WP12-63).

Effects of the Proposal

If this proposal is adopted, subsistence users harvesting moose or caribou under Federal wildlife regulations would be required to leave the edible meat of the front quarters, hind quarters, and ribs on the bones until the meat was removed from the field or was processed for human consumption. No effects on wildlife populations are anticipated, and no effects on other users are anticipated.

Federal wildlife regulations would be more restrictive than State regulations concerning a hunter's responsibility to remove moose and caribou meat from the field. When making its recommendation, the Council indicated its intent was to address the problem of the spoilage of meat by non-Federally qualified hunters, but this proposed regulation change would not affect non-Federally qualified hunters.

OSM PRELIMINARY CONCLUSION

Oppose Proposal WP12-63.

Justification

This proposed regulation would affect only Federally qualified subsistence users harvesting moose and caribou on Federal public lands under Federal wildlife regulations, and it would not affect non-Federally qualified users. Federal wildlife regulations would be more restrictive than State regulations concerning a hunter's responsibility to remove moose and caribou meat from the field. When making its recommendation, the Council indicated its intent was to address the problem of the spoilage of meat

by non-Federally qualified hunters, but this proposed regulation change would not affect non-Federally qualified hunters.

LITERATURE CITED

Ardizzone, C. 2010. Chief of Division of Wildlife. Personal communication: email. Office of Subsistence Management, FWS. Anchorage, AK.

EISRAC. 2009a. Transcripts of the Eastern Interior Subsistence Regional Advisory Council proceedings, March 10–11, 2009 in Fairbanks, Alaska. FWS, Office of Subsistence Management. Anchorage, AK.

EISRAC. 2009b. Transcripts of the Eastern Interior Subsistence Regional Advisory Council proceedings, October 13–14, 2009 in Fort Yukon, Alaska. FWS, Office of Subsistence Management. Anchorage, AK.

EISRAC. 2010. Transcripts of the Eastern Interior Subsistence Regional Advisory Council proceedings, February 24–26, 2010 in Fairbanks, Alaska. FWS, Office of Subsistence Management. Anchorage, AK.

EISRAC. 2011. Transcripts of the Eastern Interior Subsistence Regional Advisory Council proceedings, March 3–4, 20011 in Fairbanks, Alaska. FWS, Office of Subsistence Management. Anchorage, AK.

Mushovic, K.J. 2011. Coordinator , Eastern Interior Subsistence Regional Advisory Council. Personal communication: in person. FWS, Office of Subsistence Management. Anchorage, AK.

WP12-67/74 Executive Summary	
General Description	Proposal WP12–67 requests the caribou season start date for the fall hunt in Unit 20E be changed from Aug. 10 to Aug. 1. Submitted by Danny Grangaard Proposal WP12–74 requests expanding the joint State-Federal registration permit to include Unit 20F east of the Dalton Highway and south of the Yukon River and Unit 25C. Season dates would be aligned across Units 20E, a portion of 20F east of the Dalton Highway and south of the Yukon River and 25C. The proponent further request that Units 25C and 25C remainder be combined into one unit. *Submitted by the Eastern Interior Regional Advisory Council*
Proposed Regulation	See the analysis for the proposed regulation language.
OSM Preliminary Conclusion	**Support** Proposal WP12-74 **Take No Action** on WP12–67
Eastern Interior Regional Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	**None**

DRAFT STAFF ANALYSIS
WP12–67 AND WP12-74

ISSUES

Proposal WP12–67, submitted by Danny Grangaard, requests the caribou season start date for the fall hunt in Unit 20E be changed from Aug. 10 to Aug. 1.

Proposal WP12–74, submitted by the Eastern Interior Regional Advisory Council, requests expanding the joint State-Federal registration permit to include Unit 20F east of the Dalton Highway and south of the Yukon River and Unit 25C. Season dates would be aligned across Units 20E, a portion of 20F east of the Dalton Highway and south of the Yukon River and 25C. The proponent further request that Units 25C and 25C remainder be combined into one unit.

DISCUSSION

Proposal WP12–67 The proponent request the start date for of the fall hunting season for the Fortymile Caribou Herd (FCH) be changed to Aug. 1 providing Federal subsistence users with increased harvest opportunity. The FCH is available to Federal subsistence users in Unit 20E in the Forty Mile River Corridor along the Taylor Highway. Due to the migratory nature of the FCH, often the herd has moved away from the river corridor by August 10 eliminating the opportunity for Federal subsistence users to harvest caribou from the FCH.

Proposal WP12–74 The Eastern Interior Regional Advisory Council in cooperation with the FCH Harvest Management Coalition has developed this proposal to simplify regulations and expand the area cover by the State-Federal registration permit hunt. The FCH has grown and is returning to portions of its historic range in the White Mountains. Currently, the White Mountains are home to a smaller White Mountains Caribou Herd (WCH). While the proposal states that the WCH and the FCH might mix in the future, at present the two herds remain predominately separate (St Louis, 2010 pers. comm.). Under the proposed regulations the fall general season hunt (Nov. 1 through Mar. 31) for the WCH would be eliminated and new fall and winter State-Federal registration hunts would be created. While harvest of both the FCH and the WCH would be under the same registration permit the herds would be managed separately and have separate harvest quotas. The FCH harvest is managed in zones so that hunters in all parts of the herd's range have hunting opportunities (ADF&G, 2006). A new hunt zone would be created to replace the area currently under the fall general season hunt in 20F and 25C. The FCH harvest would continue to be managed by zones allowing the hunt managers the ability to open and close zones to regulate harvest quotas. The Federal Hunt Mangers will continue to have authority to modify or restrict bag limits, season dates, methods and means. Total State-Federal harvest levels will continue to comply with the population and harvest objectives in the 2006–2012 *Fortymile Caribou Herd Harvest Plan* and the White Mountain Caribou Herd Management Objective.

Existing Federal Regulation

Unit 20E—Caribou

Unit 20E— 1 caribou by joint State–Federal registration permit only. Up to 900 caribou may be taken under a State–Federal harvest quota. During the winter season, area closures or hunt restrictions may be announced when Nelchina caribou are present in a mix of more than 1 Nelchina caribou to 15 Fortymile caribou, except when the number of caribou present is low enough that less than 50 Nelchina caribou will be harvested regardless of the mixing ratio for the two herds.	*Aug. 10–Sept. 30* *Nov. 1–Feb. 28*

Unit 20F —Caribou

Unit 20F—east of the Dalton Highway and south of the Yukon River—1 caribou; however, cow caribou may be taken only from Nov. 1 – Mar. 31. During the Nov. 1– Mar. 31 season, a State registration permit is required.	*Aug. 10–Sept. 20* *Nov. 1–Mar. 31*

Unit 25C —Caribou

Unit 25C—that portion west of the east bank of the mainstem of Preacher Creek to its confluence with American Creek, then west of the east bank of American Creek—1 caribou; however, cow caribou may be taken only from Nov. 1–Mar. 31. However, during the Nov. 1–Mar. 31 season, a State registration permit is required.	*Aug. 10–Sept. 20* *Nov. 1–Mar. 31*

Unit 25C remainder—Caribou

Unit 25C remainder—1 caribou by joint State–Federal registration permit only. During the fall season the harvest will be restricted to 1 bull and the harvest will not exceed 100 caribou between Aug. 10 – 29. Up to 600 caribou may be taken under a State–Federal harvest quota.	*Aug. 10–Sept. 30* *Nov. 1–Feb. 28*

Proposed Federal Regulations

Proposal WP12-67

Unit 20E—Caribou

Unit 20E— 1 caribou by joint State–Federal registration permit only. Up to 900 caribou may be taken under a State–Federal harvest quota. During the fall season the harvest will be restricted to 1 bull and the harvest will not exceed 100 caribou between Aug. 10 – 29. During the winter season, area closures or hunt restrictions may be announced when Nelchina caribou are present in a mix of more than 1 Nelchina caribou to 15 Fortymile caribou, except when the number of caribou present is low enough that less than 50 Nelchina caribou will be harvested regardless of the mixing ratio for the two herds.	*Aug. **1** ~~10~~–Sept. 30 Nov. 1–Feb. 28.*

Proposal WP12-74

Unit 20E—Caribou

*Unit 20E— 1 caribou; ~~by~~ **a** joint State–Federal registration permit **is required** ~~. only. Up to 900 caribou may be taken under a State–Federal harvest quota.~~ **During the Aug. 10–Sept. 30 season the harvest is restricted to 1 bull. The harvest quota between Aug. 10–29 in Units 20E, 20F, and 25C is 100 caribou.** ~~During the fall season the harvest will be restricted to 1 bull and the harvest will not exceed 100 caribou between Aug. 10 – 29.~~ During the ~~winter~~ **Nov. 1 – Mar. 31** season, area closures or hunt restrictions may be announced when Nelchina caribou are present in a mix of more than 1 Nelchina caribou to 15 Fortymile caribou, except when the number of caribou present is low enough that less than 50 Nelchina caribou will be harvested regardless of the mixing ratio for the two herds.*	*Aug. 10–Sept. 30 Nov. 1–~~Feb. 28~~ **Mar. 31***

Unit 20F —Caribou

*Unit 20F—east of the Dalton Highway and south of the Yukon River—1 caribou; **a joint State-Federal registration permit is required.** ~~cow caribou may be taken only from Nov. 1 – Mar. 31. During the Nov. 1–Mar. 31 season, a State registration permit is required.~~ **During the Aug. 10 – Sept. 30 season the harvest is restricted to 1 bull. The harvest quota between Aug. 10–29 in Units 20E, 20F, and 25C is 100 caribou.***	*Aug. 10–Sept. ~~20~~**30** Nov. 1–Mar. 31*

Unit 25C —Caribou

~~*Unit 25C—that portion west of the east bank of the mainstem of Preacher Creek to its confluence with American Creek, then west of the east bank of American Creek—1 caribou; however, cow caribou may be taken only from Nov. 1–Mar. 31. However, during the Nov. 1–Mar. 31 season, a State registration permit is required.*~~	~~*Aug. 10–Sept. 20 Nov. 1–Mar. 31*~~

Unit 25C ~~remainder~~—Caribou

Unit 25C ~~remainder~~—1 caribou; ***a*** *joint State–Federal registration permit* ***is required****.* ~~*only*~~*.* ***During the Aug. 10 – Sept. 30*** ~~*fall*~~ *season the harvest* ~~*will be*~~ ***is*** *restricted to 1 bull.* ***The harvest quota between Aug. 10–29 in Units 20E, 20F, and 25C is 100 caribou****.* ~~*and the harvest will not exceed 100 caribou between Aug. 10 – 29. Up to 600 caribou may be taken under a State–Federal harvest quota.*~~	*Aug. 10–Sept. 30* *Nov. 1–~~Feb. 28~~* ***Mar. 31***

Existing State Regulation

Unit 20E—Caribou

Residents Only: 1 bull (RC860)	***Zone 1 & 3*** *Aug. 29–Sept. 30* ***Zone 2*** *Aug. 10–Sept 30*
Or 1 caribou (RC867)	***Zone 1,2 & 3*** *Dec. 1–Feb. 28*
Nonresidents Only: 1 bull (RC860)	***Zone 1 & 3*** *Aug. 29–Sept. 20* ***Zone 2*** *Aug. 10–Sept. 20*

Extent of Federal Public Lands

Federal public lands comprise approximately 24% of Unit 20E and consists of 4% Forty Mile River Corridor managed by the Bureau of Land Management and 20% Yukon Charley Rivers National Preserve managed by the National Park Service.

Federal public lands comprise approximately 16% of Unit 20F and consist of 15% Dalton Highway Corridor Management Area managed by the Bureau of Land Management and 1% Yukon Flats National Wildlife Refuge managed by US Wildlife Service.

Federal public lands comprise approximately 74% of Unit 25C and consists of 64% Steese National Conservation Area managed by the Bureau of Land Management, 9% Yukon Charley Rivers National Preserve managed by the National Park Service and 1% Yukon Flats National Wildlife Refuge managed by US Wildlife Service (**Unit 20 and 25 Maps**).

Customary and Traditional Use Determinations

Rural residents of Units 12 (north of Wrangell–St. Elias National Preserve), 20D and 20E have a positive customary and traditional use determination for caribou in Unit 20E. Rural residents of Units 20F, 25D and Manley have a positive customary and traditional use determination for caribou in Unit 20F. There has not been a customary and traditional determination made for caribou in Unit 25C, therefore, all rural residents are eligible to harvest caribou in Unit 25C. Currently two proposals, if supported, could

change the positive customary and traditional use determination for caribou in Units 12 and 25. Proposal WP12-68, submitted by the Cheesh'na Tribal Council, requests the residents of Chistochina be added to the Unit 12 caribou customary and traditional use determination. Proposal WP12-69, submitted by the Eastern Interior Alaska Subsistence Regional Advisory Council, requests a change in the customary and traditional use determination for caribou in Unit 25 remainder from "all rural residents," to "residents of Unit 25."

Regulatory History

Fortymile Caribou Herd

The FCH historically provided much of the food needed by residents within eastern central Alaska to Whitehorse Yukon. Because of the importance of the FCH, ineffective State and Federal management, increasing competition among hunters and complex harvest regulations a grassroots planning process was initiated in 1994 (Gronquist, 2005). This effort led to development of the original Fortymile Caribou Herd Planning Team which represented State, Federal and Territorial agencies, and stakeholder groups. The first *Fortymile Caribou Herd Harvest Plan* (Harvest Plan) was completed in October 1995 by the FCH Planning Team. The plan provided guidance from 1995 through 2000 for governing overall herd harvest levels, with the goal of restoring FCH to its former range and abundance. In accordance with the Harvest Plan the Federal Board in cooperation with ADF&G established a joint quota for Units 20E and 25C of "up to 150 bulls" beginning in regulatory year (RY) 1996–1997. In 2001, a new Harvest Plan was developed for 2001–2006. This plan increased the harvest quota from 150 bulls per year to 850 caribou with up to 25% cows until the herd reached 50,000 caribou (ADF&G 1999). This annual harvest quota was maintained when the current 2006–2012 Harvest Plan was adopted (ADF&G 2006). The intent of the 2006–2012 Harvest Plan is to maintain an average annual harvest quota of 850 caribou, but allow up to 15% variation in a single year. If the quota is either not reached or exceeded in one year, the harvest allocation may be adjusted the following year to compensate. Currently, 75% of the harvest quota is allocated to the fall hunt (RC860) and 25% to the winter hunt (RC867). The FCH Planning Team has developed into the FCH Harvest Coalition and has continued to be involved in providing guidance for managing the FCH.

The FCH Harvest Plan made it possible for State and Federal managers in Units 20E and a portion of 25C (east and south of Preacher Creek) to managed the fall and winter FCH hunts using a joint State-Federal registration permit. Since 1995, one permit has been used for all hunts and harvest reports are returned to ADF&G. Federally qualified subsistence users can begin hunting on Federal public lands 15–30 days before other hunters. A short reporting period allows State and Federal managers to closely monitor the State and Federal season and determine when the harvest quota is met.

The State and Federal registration permit hunts for the FCH is divided into 3 zones. The hunt managers open and closed the hunts by zone as necessary to ensure the annual harvest quota is not exceeded. In the past five years, 2007–2011, the State has issued multiple Emergency Orders to close hunting of the FCH due to high harvest near the road system. Several of these Emergency Orders have been followed by Federal hunt closures. In 2010, the FCH Harvest Management Coalition submitted proposals WP10-105 to the Federal Subsistence Board and a companion proposal, Proposal 14, to the Alaska Board of Game with the intent of improving field conditions cause by overcrowding of hunters along the road system and reduced the harvest limit of 1 bull. The Federal proposal also capped the early harvest at 100 animals spreading the harvest over time, ensuring that the harvest quota is not filled before the State fall hunt begins. The Federal proposal also recommended a letter of delegation be issued allowing the Federal

subsistence manager the authority to modify or restrict bag limits, season dates, methods and means. Both proposals passed the respective Boards unanimously.

White Mountains Caribou Herd (WCH)

The WCH has historically sustained a low annual harvest, because of the herd size and location in timbered areas, they are difficult to locate and harvest. In 2000, the Alaska Board of Game changed the general season bag limit from 1 bull to 1 caribou and combined two registration hunts (RC877 and RC878) into one (RC879) with no motorized restrictions. The traditional hunt areas were reduced to accommodate northwest expansion of the FCH . The hunt boundary for the FCH hunt was moved northwest from the Steese Highway to Preacher and American Creeks, removing a portion of the eastern area for hunting White Mountains caribou (Seaton, 2009). In March 2002 the Board of Game reduced the fall caribou bag limit to bulls only because cow harvest in 2000 and 2001 approached sustainable limits.

Current events involving Species

The FCH Harvest Management Coalition will submit a companion wildlife proposal to the Alaska Board of Game at its March 2012 meeting. The State companion proposal is intended to a align State and Federal regulations by requesting the expansion of the State-Federal registration permit to include units 20B, 20D, 20E, 20F and 25C. The State companion proposal also proposes lengthening the winter season to allow more hunting opportunity and the lengthened season would serve to align State and Federal regulations.

Presently, the FCH Management Coalition is drafting the 2012 – 2018 *Fortymile Caribou Herd Harvest Plan,* to be implemented when the current management plan expires. The draft 2012 – 2018 *Fortymile Caribou Herd Harvest Plan* will be presented to the Alaska Board of Game for approval during the March 2012 meeting (St Louis, 2010 pers. comm.).

Biological Background

Fortymile Caribou Herd

Since implementation of the *Fortymile Caribou Herd Harvest Plan* in 1995, herd size has increased significantly. The FCH doubled in size between RY1995 and RY2002, with annual growth rates between 4 and 14% (Gross 2007). This increased adult and calf survival was attributed to reduced overall predation on the herd, favorable climate, good range conditions and reduced harvest. In 2004 and 2005 the herd began to experience a decline likely due to poor climate conditions and wolf predation on both adults and calves (**Table 1**). Increased survival rates among calves since 2006 allowed for a 19% increase in the estimated population (Gross 2007). Most recent herd composition surveys show a decrease in the bull:cow ratio (37 bulls:100 cows) and increase in the calf:cow ratio (33 calves:100 cows) in 2008.

White Mountains Caribou Herd

The WCH was first documented as a distinct herd in the late 1970s, during this time the herd ranged in size from 100 to 200 animals. Today the herd ranges between 529 and 605 animals (**Table 2**). Most of the White Mountains caribou herd's range is encompassed in the White Mountain National Recreation Area managed by BLM. The herd has remained relatively stable and the bull:cow ratios continue to meet the management objective of 30 bulls to 100 cows.

Table 1. Fortymile caribou fall composition counts and estimated herd size, regulatory years 2001-2002 through 2008-2009 (modified from Gross 2007 and Gross 2009).

Regulatory Year	Bulls:100 Cows	Calves:100 Cows	Calves (%)	Cows (%)	Bulls (%)	Composition Sample Size	Estimated Herd Size[a]
2001-2002	49	38	20	53	27	6878	40,800[a]
2002-2003	43	39	21	55	24	6088	44,100[a]
2003-2004	50	17	10	60	30	6296	42,300[a]
2004-2005	45	28	16	59	25	4157	39,700[a]
2005-2006	51	18	10	59	30	2350	39,000[a]
2006-2007	43	34	19	57	24	4995	41,000[a]
2007-2008	36	37	22	58	21	5228	42,000[a]
2008-2009	37	33	19	59	22	4119	46,509[ab]
2009-2010							

[a] Herd estimates were deried from population models using data from summer census counts, fall composition counts, spring parturition surveys and monthly mortality surveys of collared caribou. Population estimate for 15 May of current regulatory year.

[b] Preliminary data.

Table 2 White Mountains Caribou Herd fall composition counts and estimated herd size, regulatory years 2001-2002 through 2009-2010 (modified from Seaton 2009 and St. Louis 2011 pers. comm.)

Regulatory Year	Bulls:100 Cows	Calves:100 Cows	Calves (%)	Cows (%)	Bulls (%)	Composition Sample Size	Estimated Herd Size
2001-2002	57	26	14	55	31	441	700-800
2002-2003	34	29	18	61	21	405	
2003-2004	30	17	11	68	20	308	
2004-2005	35	23	15	63	22	321	642[a]-733
2005-2006	44	21	13	61	27	391	514[a]-600
2006-2007	36	20	13	64	23	362	
2007-2008	39	37	21	57	22	358	590[a]-650
2008-2009[b]	46	42	23	53	24	507	677[a]–762
2009-2010	42	15	9	64	27	333	529[a]–605

[a] Minimum count from summer census.

[b] Some mixing with the Fortymile Caribou Herd occurred; therefore this data is less representative of the White Mountains Herd alone.

Harvest History

Fortymile Caribou Herd

Under both the 2001–2006 and 2006–2012 Harvest Plans, if a herd growth rate of approximately 10% is achieved in a particular year the harvest objective for that hunting season is 2–3% of the herd (ADF&G 1999 & 2006). When that growth rate is not achieved the harvest objective is reduced to the level of the previous year. Because the Fortymile Caribou Herd grew at less than 10% per year and showed some declines after 2003, the annual harvest quota has remained at 850 animals except for 2002, when the quota was set before an accurate population estimate was made. For RY2002 the quota was set at 950 caribou. Since 2002 the total harvest has ranged from 725 to 1080 caribou (**Table 3**). The cooperative management has allowed the harvest to stay within the harvest quota providing for continued conservation of the herd. Guidance provided by the 2006–2012 Harvest Plan ensures harvest quotas will remain conservative through 2012 allowing for continued herd growth and a stable bull:cow ratio (ADF&G 2006).

Table 3. Reported Fortymile caribou harvest by joint State-Federal registration permit, regulatory years 2002-2003 through 2009-1010 (modified from Gross 2009 and Gross 2010, and St. Louis 2011 pers. comm.)

Regulatory Year	Permits Issued	Total Hunters	Number Successfull	Bulls	Cows	Unknown	Total Harvest
2002-2003[a]	4155	2620	860	663	185	12	860
2003-2004[a]	5718	3440	799	612	181	6	799
2004-2005[b]	4217	2497	846	592	243	11	846
2005-2006[b]	4438	2483	741	556	182	3	741
2006-2007[b]	3975	2602	852	601	247	4	852
2007-2008[b]	4576	3182	1012	746	262	4	1012
2008-2009[b]	3582	2493	912	679	217	16	912
2009-2010[b]	2764	1999	1080	876	192	12	1080
2010-2011[b]	5112	3116	725	630	89	6	725

[a] Data from RC863, RC865, RC866, and RC867 harvest reports.
[b] Includes RC860 and RC867 harvest reports

Table 4. Reported White Mountain Caribou harvest by permit hunt RC879, regulatory years 2002-2003 through 2009-2010 (modified from Seaton 2009 and Seaton 2011 pers. comm.)

Regulatory Year	Permits Issued	Total Hunters	Number Successfull	Bulls	Cows	Unknown	Total Harvest
2002-2003	313	113	2	2	0	0	2
2003-2004	259	61	1	1	0	0	1
2004-2005	137	33	1	1	0	0	1
2005-2006	186	44	1	1	0	0	1
2006-2007	271	49	0	0	0	0	0
2007-2008	410	110	1	0	1	0	1
2008-2009	233	52	3	2	1	0	3
2009-2010	111	49	2	1	1	0	2
2010-2011	275	78	3	2	1	0	3

White Mountains Caribou Herd

The majority of White Mountains caribou are harvested by local resident hunter (Seaton, 2009). Success rate is low in both the fall and winter hunts due to the inaccessibility of caribou during both seasons. Modeling efforts by ADF&G indicate the White Mountains caribou herd could sustain a maximum total fall and winter harvest of 40 bulls and 25 cows. Current harvest levels fall far below the maximum allowable levels (**Tables 4 and 5**) Registration Hunt RC879 was closed in 2010 by Emergency Order because a large number of caribou from the FCH were present and at risk of being harvested under registration hunt RC879 (ADF&G 2010). RC879 is intended for the harvest of WCH and no harvest of caribou from the FCH is allocated in this hunt.

Effects of the Proposal

Proposal WP12–67

If this proposal were adopted it would add an additional 9 days to the Unit 20E caribou season, changing the season from Aug. 10 – Sept. 30 to Aug. 1 – Aug. 30. Although this would allow additional time for Federally qualified subsistence users to harvest caribou it would conflict with the FCH Harvest Management Coalition's recommended approach.

Proposal WP12–74

If this proposal were adopted it would simplify regulations by aligning Federal season dates across Units 20E, 20F east of the Dalton Highway and south of the Yukon River and 25C. The area covered by the joint State-Federal registration permit would be expanded to reflect the FCH's current range. Having both the WCH and the FCH on the same permit would provide the hunt managers with more flexibility to manage the hunts separately. Currently, if FCH migrates north of the Steese Hwy into hunt area for RC879 the hunt is closed by Emergency Order because the hunt is intended for the harvest from WCH and there is no harvest of FCH allocated to the WCH hunt. If this proposal is adopted the joint State-Federal hunt permit would cover hunts for both FCH and WCH simplifying regulations for the Federal subsistence users.

OSM PRELIMINARY CONCLUSION

Support Proposal WP12-74

Take No Action on WP12–67

Justification

While proposal WP12-67 would increase caribou harvest opportunities for Federal subsistence users, it proposes a regulation change that is outside the joint State-Federal approach to the managing the FCH harvest. Since 1995, the FCH Harvest Coalition, a joint State and Federal partnership, has worked to develop recommendations for managing the FCH. Their primary goal is to plan and implement strategies that support the herd's ability to grow and reoccupy their traditional range. The Federal Subsistence Board has been supportive of the FCH Harvest Management Coalition's efforts and adoption of this proposal would be contrary to the group's recommendations.

Under proposal WP12-74 the WCH and the FCH would continue to be managed separately. The joint State-Federal management has allowed the FCH population to grow and expand their range. The proposed regulation changes would allow flexibility and increased harvest opportunities for Federal subsistence users. Under the proposed regulatory changes, all necessary safeguards for monitoring inseason harvest of FCH and the WCH would be maintained. Total State-Federal harvest levels will continue to comply with the population and harvest objectives in the 2006–2012 and the 2012-2018 *Fortymile Caribou Herd Harvest Plans* and the White Mountain Caribou Herd management objectives. Season closures and harvest limits would continue to be coordinated between State and Federal managers.

LITERATURE CITED

Alaska Department of Fish and Game, 1999. Fortymile Caribou Herd Harvest Plan 2001–2006, Division of Wildlife Conservation, Fairbanks, AK. August 1999.

Alaska Department of Fish and Game, 2006. Fortymile Caribou Herd Harvest Plan 2006–2012, Division of Wildlife Conservation, Fairbanks, AK. March 2006.

Alaska Department of Fish and Game, 2010. Wildlife Conservation, Hunting and Trapping Emergency Order 03–05–10, Fairbanks, AK. November 30, 2010.

Gronquist R. M., T. L. Haynes, and C. L. Gardner2005, Rebuilding the Fortymile caribou herd: A model of cooperative management planning. Rangifer, Special Issue No. 16, 2005, Girdwood, Alaska.

Gross, J. A. 2007, Units 20B, 20C, 20D, 20E, and 25C caribou. Pages 135–157 *in* P. Harper, editor. Caribou management report of survey and inventory activities 1 July 2004–30 June 2006. Alaska Department of Fish and Game. Project 3.0 Juneau, Alaska, USA.

Gross, J. A. 2009 Wildlife Biologist, ADF&G, Fairbanks, AK. Personal Communication

Seaton, C. T. 2011. Wildlife Biologist, ADF&G, Fairbanks, AK. Personal Communication

St. Louis, Rita, 2011, Planner, ADF&G, Fairbanks, AK. Personal Communication.

WP12-68 Executive Summary	
General Description	Proposal WP12-68 requests the residents of Chistochina be added to the Unit 12 caribou customary and traditional use determination. *Submitted by the Cheesh'na Tribal Council*
Proposed Regulation	**Customary and Traditional Use Determination—Unit 12—Caribou** *Rural residents of Unit 12,* ***Chistochina****, Dot Lake, Healy Lake, and Mentasta Lake.*
OSM Preliminary Conclusion	**Support**
Southcentral Regional Council Recommendation	
Eastern Interior Regional Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	**None**

DRAFT STAFF ANALYSIS
WP12-68

ISSUES

Proposal WP12-68, submitted by the Cheesh'na Tribal Council, requests the residents of Chistochina be added to the Unit 12 caribou customary and traditional use determination.

DISCUSSION

Chistochina is located in Unit 13C just outside the border of Unit 12. Chistochina residents already have a positive customary and traditional use determination for moose, brown bear, and sheep in Unit 12. Mentasta Lake in Unit 13C also has a positive customary and traditional use determination in Unit 12 for caribou. The Cheesh'na Tribal Council requests that Chistochina should be added to the list of communities with positive customary and traditional use determination for caribou in Unit 12, to be consistent with Mentasta Lake. Chistochina already has a positive customary and traditional use determination for caribou in Unit 13.

The proponent states that customary and traditional use determinations made by the Alaska State Board of Game were originally based on herds rather than Game Management Units. Initial customary and traditional use determinations for caribou under Federal Subsistence Management regulations for Unit 12 were adopted from the State for Nelchina and Fortymile herds, but not for the Chisana Caribou Herd. Current unit specific Federal customary and traditional use determinations for caribou are based on species not herd due to the migratory nature of caribou.

Existing Federal Regulation

Customary and Traditional Use Determination—Unit 12—Caribou

Rural residents of Units 12, Dot Lake, Healy Lake, and Mentasta Lake.

Proposed Federal Regulation

Customary and Traditional Use Determination—Unit 12—Caribou

*Rural residents of Unit 12, **Chistochina**, Dot Lake, Healy Lake, and Mentasta Lake.*

Extent of Federal Public Lands

Federal public lands comprise approximately 58% of Unit 12 and consist of 47% National Park Service lands managed by Wrangell-St. Elias National Park and Preserve and 11% U.S. Fish and Wildlife Service lands managed by Tetlin National Wildlife Refuge (**Unit 12 Map**).

Regulatory History

In 1996, the Federal Subsistence Board deferred Proposals 56 and 57 that requested expanding the customary and traditional use determinations for caribou in Unit 12; however, these proposed customary and traditional use determinations were based on herds rather than units and councils requested that the Federal Subsistence Management Program make customary and traditional use determinations by unit.

Chistochina's uses of caribou were reviewed in these analyses (FSB 1996:20–28). In 1997, the Federal Subsistence Board addressed eight proposals in a combined analysis, Proposal 24 (FSB 1997:80–98). The Board made customary and traditional use determinations for caribou in Unit 12 to include a few communities outside of Unit 12, including Dot Lake in Unit 20 and Mentasta Lake in Unit 13 (62 FR 29021 May 29,1997) and Healy Lake in Unit 20 (63 FR 35338 June 29, 1998). Since 1998, there have been no additional customary and traditional determinations for caribou in Unit 12.

Community Characteristics

The village of Chistochina began as an Ahtna fish camp. In 1897, the access road to the village became part of the Valdez-Eagle Trail, built by miners during the gold rush to the Eagle area. The road was then used in the early twentieth century for the construction of U.S. Army Signal Corps telegraph lines from Valdez to Eagle. Gold was mined along the upper Chistochina River and its runoff creeks. The area was later settled by homesteaders, but has remained a traditional Native village. The Federally recognized Cheesh-na Tribe is located in the community (DCRA 2011). The 2000 U.S. census indicates that 93 people live in Chistochina (U.S. Census 2000).

Eight Factors for Determining Customary and Traditional Uses

A community or area's customary and traditional use is generally exemplified through eight factors: (1) a long-term, consistent pattern of use, excluding interruptions beyond the control of the community or area; (2) a pattern of use recurring in specific seasons for many years; (3) a pattern of use consisting of methods and means of harvest which are characterized by efficiency and economy of effort and cost, conditioned by local characteristics; (4) the consistent harvest and use of fish or wildlife as related to past methods and means of taking: near, or reasonably accessible from the community or area; (5) a means of handling, preparing, preserving, and storing fish or wildlife which has been traditionally used by past generations, including consideration of alteration of past practices due to recent technological advances, where appropriate; (6) a pattern of use which includes the handing down of knowledge of fishing and hunting skills, values, and lore from generation to generation; (7) a pattern of use in which the harvest is shared or distributed within a definable community of persons; and (8) a pattern of use which relates to reliance upon a wide diversity of fish and wildlife resources of the area and which provides substantial cultural, economic, social, and nutritional elements to the community or area.

The Board makes customary and traditional use determinations based on a holistic application of these eight factors (50 CFR 100.16(b) and 36 CFR 242.16(b)). In addition, the Board takes into consideration the reports and recommendations of any appropriate Regional Advisory Council regarding customary and traditional use of subsistence resources (50 CFR 100.16(b) and 36 CFR 242.16(b)). The Board makes customary and traditional use determinations for the sole purpose of recognizing the pool of users who generally exhibit the eight factors. The Board does not use such determinations for resource management or restricting harvest. If a conservation concern exists for a particular population, the Board addresses that concern through the imposition of harvest limits or season restrictions rather than by limiting the customary and traditional use finding.

Specific information on each of the eight factors is not required because a community or area seeking a customary and traditional use determination only has to "generally exhibit" the eight factors (50 CFR 100.16(b) and 36 CFR 242.16(b)).

Historically, members of the Upper-Chisana-Upper Nabesna band occupied the north area of the Wrangell-St. Elias Mountains, hunted caribou in the Nutzotin and Mentasta Mountains, and hunted and trapped in the basins of several rivers, including the White, Nabesna, and Chisana Rivers. With a

shift to village life in the late-nineteenth and early twentieth centuries, Upper Chisana-Upper Nabesna band members moved to Northway, Mentasta, and Chistochina (Haynes and Simeone 2007:10) and to Tetlin (Guédon 1974), where their descendants continue to live. This shift was accompanied by other changes, occasioned by the influx of gold miners in the area. Athabascan residents supplied fish and game to mining camps and hauled freight for cash, mixing subsistence activities with the emerging market economy. Later changes were brought about by World War II and the development of a road system in the area. Despite all of the changes, a mixed economy continues to characterize the region; an important component of this economy is a reliance on subsistence-caught food (Guédon 1974; Reckord 1983b).

Documentary evidence demonstrates that members of the Upper Chisana-Upper Nabesna band hunted caribou in what is now Unit 12 (**Map 1**). Archaeological evidence from nineteenth century sites shows high use of caribou. At Paxson Lake, for example, at a site inhabited between 1850 and 1860, 99 percent of recovered bones were from caribou (Ketz 1983). Eighteenth and nineteenth century traveler's accounts also indicate local dependence on caribou (e.g. Grinev 1993; Wrangell [1839] 1980). Wrangell noted that the main activity of local peoples was hunting caribou. In the spring, hunters used fences to guide caribou into areas where they could be killed. These harvest techniques are thought to indicate periods of caribou abundance (Rohn 1900; Skoog 1968). In the fall, hunters drove caribou into lakes and ponds and speared them from canoes. "The existence of the tribe depends on the size of the hunt," Wrangell noted, "for it depends on the animal for food and clothing."

Early and mid-twentieth century descriptions indicate a continued dependence on caribou (Case 1986; Guédon 1974; McKennan 1959; Mishler and Simeone 2006). Robert McKennan, who visited the area on the eastern side of what became Wrangell-St.Elias National Park in 1929–1930, described abundant caribou around Chisana. He described groups of caribou in the area containing as many as 2,000 animals. McKennan noted the following:

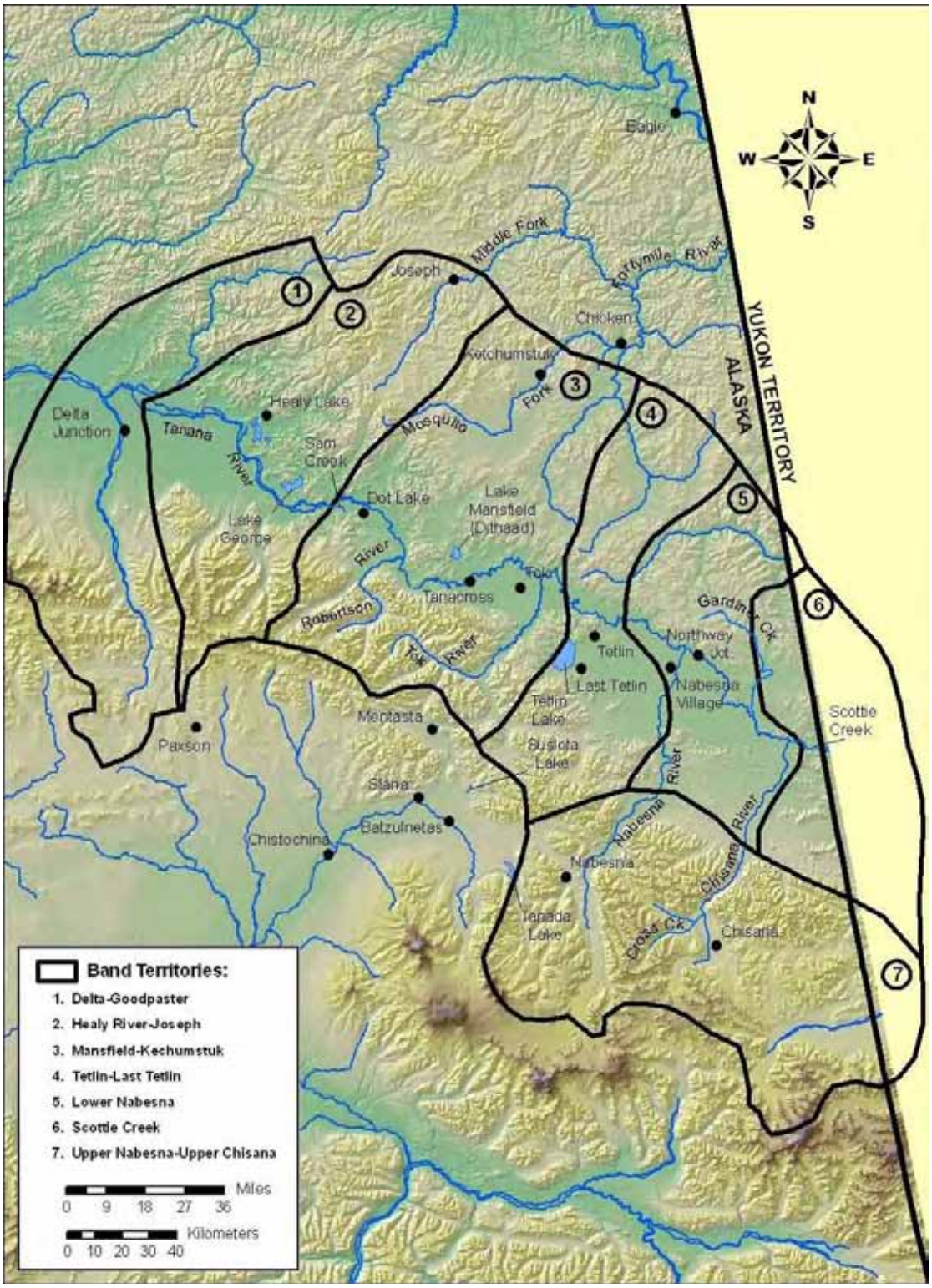
> The economic life of the Upper Tanana centers around the caribou. Not only does the animal constitute the source of food for the natives and their dogs, but it also supplies the material for their clothing, shelters and boots as well as netting for their snowshoes and babiche and sinew for their snares, cords and lashings (McKennan 1959:47).

In reconstructing the historic lifeways of the Lower and Upper Ahtna, who had close ties with Upper Tanana people, de Laguna and McKennan (1981:648) state that:

> While there were caribou in the Klutina area, and probably elsewhere in Lower Ahtna country where they are no longer, the Middle and Upper Ahtna were able to expoit part of the great Yukon-Tanana herd, which occasionally came as far south as Copper Center. Mentasta Ahtna often joined Upper Tanana relatives to work the profitable caribou fence at Ketchumstuk on the upper Tanana drainage.

Similarly, Guédon, who conducted anthropological fieldwork among the Upper Tanana in the early 1970s, described Upper Tanana seasonal rounds for several groups (Last Tetlin, Tetlin, Nabesna, Upper Nabesna-Chisana, Mansfield, Ketchumstuk). Her descriptions (Guédon 1974:38–52) include opportunistic hunting of caribou throughout the year, with concentrated effort at times of migration in the fall (October–November) and spring (April, May, June).

Linguist James Kari (1986) translated and compiled stories from Upper Tanana and Ahtna elders, including stories about the importance of caribou. Fred John, an Upper Ahtna elder, described his childhood after his father had died and his mother provided for the family: "Then, there during the winter,



MAP 1. Upper Tanana region: band territories and villages (Haynes and Simeone 2007:9).

mother set snares for caribou. Caribou would come into the area and she would snare caribou…" (Kari 1986:128).

Adam Sanford, an Upper Ahtna elder, described the annual round of resource use in the Chistochina area, and a specific journey from the mouth of the Sanford River up to the Sanford Glacier and north, on the eastern slopes of Mount Sanford, and then back to the Copper River, "…then we would go up into the country for sheep and moose and caribou." Sanford, who may have been describing Chisana caribou, later noted that

> …not much moose (around) that time…There were only caribou. The next place upriver, 'Creek that has no water', we came back that far. There then, then caribou, we came back among the caribou. There were lots of caribou, summer caribou (Kari 1986:164–165).

In interviews with Ahtna and Upper Tanana elders concerning land use in the area done in preparation for the over-the-horizon backscatter radar system installation by the U.S. Air Force, a number of references are made to historic caribou and caribou hunting. In one interview, Katie John, an Upper Ahtna elder, described the historic seasonal round:

> …Then they move out around September. Then they go out get moose, caribou, sheep, bear, marmot, porcupine, and they all dry, everything they dry, smoke it with the fire, no sun dry. The don't sue sun too much for drying things. The meat they put it all away…they get those birch bark and they gut in inside and they sew it together and they make package. And then they bring it back home when they move back and they just bring it back like that and they put it in the cache (Katie John, in Ahtna 1988:2).

Recent oral histories also demonstrate the significance of caribou in the area of Unit 12 in the first half of the twentieth century. William Simeone (2006:7–12) interviewed a number of residents in the area in 2004, and cites interviews of area residents conducted by other researchers. Robert Marshall, for example, who lived in the 1930s around Lower Tonsina, "described a caribou migration route that took the caribou across the Copper River in the vicinity of Lower Tonsina and Kenny Lake, passed Tonsina Mountain, 'up top the Klutina Glacier,' to Tolsona Lake and on to the calving grounds at the head of the Nelchina River." Simeone notes that Virginia Pete, "whose family hunted and trapped in the vicinity of Crosswind Lake," recalled abundant caribou: her family "used to see it on the lake [Crosswind Lake] thousands of them we see when we travel with dog team" (Simeone 2006:7–8).

In addition to archaeological, historical and contemporary evidence, linguists have documented the complex set of terms used to refer to caribou (Kari 1990), which indicates the importance of caribou in local culture. Ahtna terms distinguish between lead caribou, baby caribou, bull caribou, calf caribou; caribou during different seasons; caribou that do not migrate; medium sized caribou; rutting caribou; young male caribou; and caribou without neck hair, among others.

The literature shows that caribou were part of a larger Athabascan reliance on a diversity of fish and game species. These included salmon, moose, black bear, arctic hare, Dall sheep, mountain goat, beaver, ground squirrel, and various species of birds, as well as a variety of furbearers such as marten, ermine, mink, river otter, and wolverine (Reckord 1983b:25).

In her study of wild resource use in Northway, which included data on hunting between 1920–1960, Martha Case (1986:28–29) notes the following:

> From September until later in the fall (November) when the Fortymile caribou herd passed through the lower Chisana drainage heading southeast into Canada, concerted caribou hunting took place, and again members of the Chisana band came down to Scottie Creek to hunt. Members of the Old Nabesna band moved north into the Ladue River hills to camp and hunt caribou. Caribou was a dietary mainstay, contributing, according to one respondent, the same amount to the diet as moose. McKennan (1959:32, 47) observed that caribou constituted a greater proportion of the diet than moose in 1929–30.

In 2004, William Simeone (2006) interviewed Wilson Justin (currently tribal administrator for the Cheesh'na Tribal Council) about the Chisana Caribou Herd (**Map 2**). Justin had grown up and worked as a second generation hunting guide in the area. He described the Chisana Herd and his clan's—the 'Alts'e'tnaey clan's—close relationship with the caribou.

> Those caribou belong to the 'alts'e'tnaey clan. We are interested in their well-being and we need to be told where the caribou are and that's all we or the managers need to know. The 'alts'e'tnaey have a relationship with those caribou. No one should kill those caribou without our permission and in addition to that you have to be somebody to go out and kill those animals. Cannot just be anybody (Simeone 2006:11).

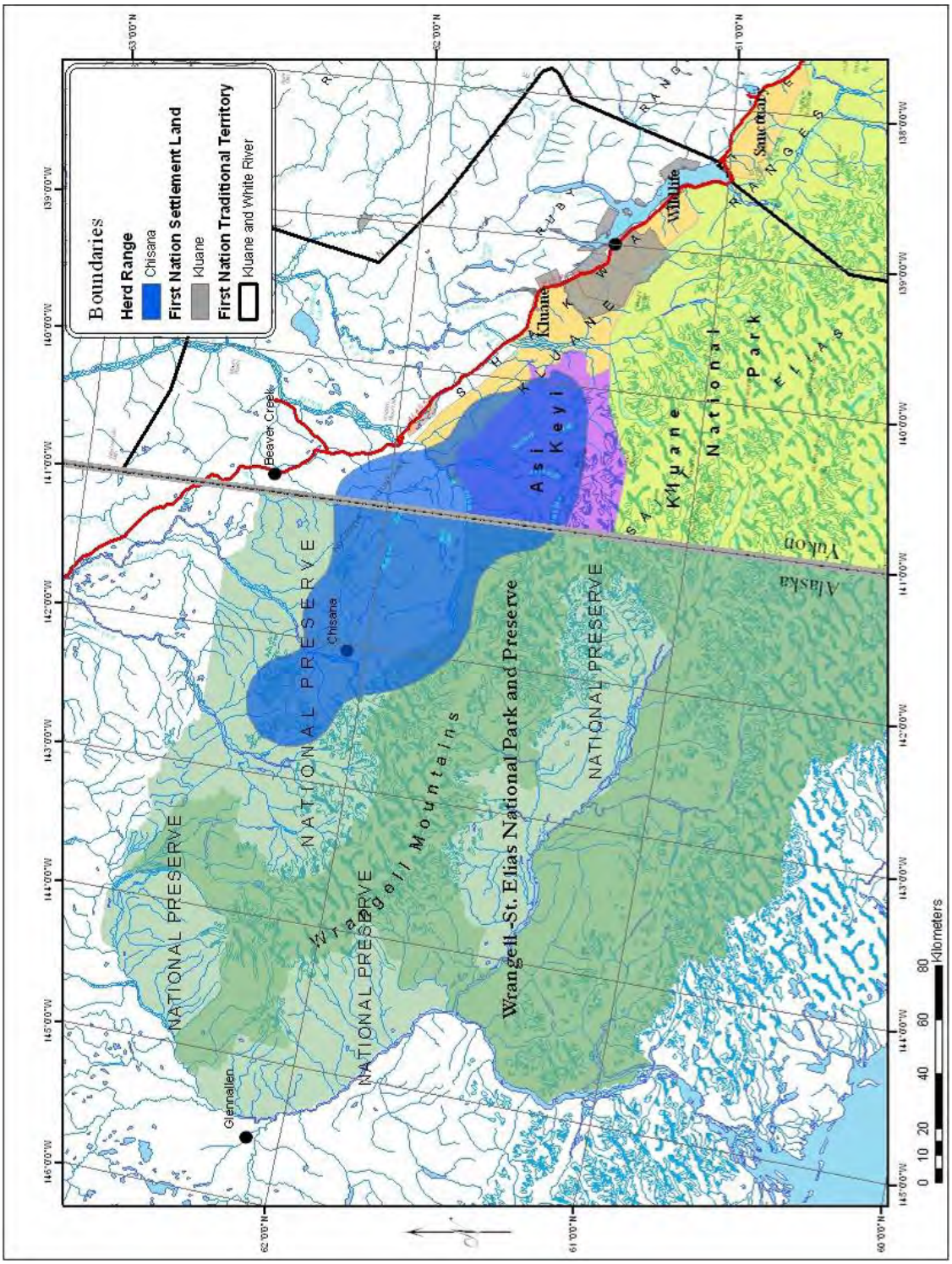
Justin later clarified his clan's relationship to the caribou. At the March 10, 2010 Southcentral Alaska Subsistence Regional Advisory Council meeting, Justin noted the following:

> In the area that I'm from, there were three tribes had what you would call sway over the area in term of the alts'e'tnaey trail that comes through there and they were the Naltsiine…out of Northway and the Alts'e'tnaey.[1] We shared pretty much ownership of the trail.
>
> That caribou herd that we're talking about was under the province of the Naltsiine. The Naltsiine were the medicine men clan and these medicine people pretty much kept that—control and reins over the use and take of these caribou to the exclusion of the other clans including the Alts'e'tnaey.
>
> …the Alts'e'etnaey in my estimation was the successor-in-interest to the Naltsiine over these carbou because the Naltsiine had pretty much faded out of the picture and into the background (SCRSAC 2010:340–341).

In his testimony before the Southcentral Council, Justin provided further historical background:

> Now, the issue of the treaty part really is intriguing because from the family history, there were people like Titus Joe and Titus John who lived near Burwash Landing and were allowed to pursue these caribou, there were Naltsiine all the way into Canada.
>
> Likewise Canadian Indians came up the White River all the way to the headwaters of Chitina and over as far as the very near to the—this side of Chisana in hunting these caribou. So the Naltsiine and the First nations shared an affinity for these caribou and the Royal Canadian Mounted Police who left record of attending meeting in Tetlin and come to Nabesna up to 1932 recognized the fact that the Indians from this side of the border had their right to pursue those caribou into the Canadian side and vice versa (SCRSAC 2010:341).

1 The transcript reads "…they were the Naltsiine, the Taltsiine out of Northway." Wilson Justin (pers. comm. 2011) notes that this is either a transcription error or he misspoke. The reference to the Taltsiine should be deleted.



MAP 2. Chisana caribou range. (Source: Simon and Brown 2010).

A year later, again at the Southcentral Council meeting, Justin added the following information:

> …I spoke at Tok last fall on the medicine people's caribou, commonly referred to as Chisana Herd and I spoke about how that the Chisana Herd originated. It was actually a gift to the Naltsiine people from eastern or east Canadian Indians to end the medicine man wars back in the 1800s. And I just reviewed the minutes not so long ago, there was nothing in the minutes about that. And I reiterate, I am the legal representative of the Cheesh'Na. My words were not brought into the minutes of that meeting and that's really an issue or concern and a problem, both in a—what you would call a Federal sense, ANILCA sense and a participation sense. I meant my words and that story to be remembered as a legal basis for access to those caribou by Cheesh'Na, but it didn't even make it into the minutes (SCRSAC 2011:39–40).

Other people in Chistochina have ties to the community of Chisana. Gilliam Joe, grandson of Chisana Joe, was born in Chisana and left the village when he was two or three years old. Reflecting on the technological changes in his lifetime, he noted that "I left [Chisana] by dog team and returned by airplane." Joe currently resides in Chistochina. As a young man, Gilliam Joe worked as a hunting guide based out of Chisana. He guided in the area between 1964 and 1984, and since that time has frequently returned to Chisana. Over two decades, Joe guided hunting parties into the mountains around Chisana. These parties hunted caribou, among other animals (Joe 2011, pers. comm.). Joe worked for a variety of outfitters, including those run by Bud Konkle and Terry Overly (Overly continues to reside in Chisana). Joe also taught other guides the craft. For example, he taught Deb Overly, who lived in Chisana and was a Chisana caribou guide for many years, and currently resides in Tok (Joe 2011, pers. comm.).

Effect of the Proposal

If this proposal is adopted, the Federal Subsistence Board would recognize the customary and traditional uses of residents of Chistochina to harvest caribou in Unit 12. Additionally, if Proposal WP12-66, which would establish a hunt for Chisana Caribou Herd, is adopted by the Federal Subsistence Board, then Chistochina residents could harvest Chisana caribou, as well as other caribou herds in Unit 12 under Federal subsistence regulations. There are no anticipated biological effects of the proposal. Any conservation issues would be addressed by regulations managing seasons and harvest limits.

OSM PRELIMINARY CONCLUSION

Support Proposal WP12-68.

Justification

The documentary record indicates that Chistochina residents exhibit customary and traditional practices associated with hunting caribou Unit 12. Historically, members of the Upper-Chisana-Upper Nabesna band occupied the north area of the Wrangell-St. Elias Mountains, hunted caribou in the Nutzotin and Mentasta Mountains, and hunted and trapped in the basins of several rivers, including the White, Nabesna, and Chisana Rivers. With a shift to village life in the late-nineteenth and early twentieth centuries, Upper Chisana-Upper Nabesna band members moved to Northway, Mentasta, Chistochina and Tetlin (Guédon 1974), where their descendants continue to live. Of these communities, only Chistochina lacks a customary and traditional use determination for caribou in Unit 12.

LITERATURE CITED

Ahtna, Inc. 1988. Report of investigation: over-the-horizon backscatter radar system at Gulkana, Alaska, oral/ethnohistoric cultural studies program. Report written by Ahtna, Inc., and produced by the United States Air Force.

Case, M. F. 1986. Wild Resource Use in Northway, Alaska. Alaska Depart of Fish and Game, Div. of Subsistence Technical Paper No. 132. Juneau, Alaska.

De Laguna, F. and R. McKennan, 1981. Ahtna. In *Handbook of North American Indians*, vol. 6, Subarctic. J. Hewlm, ed. Washington, D.C.: Smithsonian Institution.

DCRA, 2011. Alaska Division of Community and Regional Affairs. Htpp://www.commerce.state.ak.us/dea. Juneau, AK.

FSB. 1996. Transcript of Federal Subsistence Board meeting. May 2, 1996. Volume IV. Anchorage, AK.

FSB. 1997. Transcript of Federal Subsistence Board meeting. April 7, 1997. Volume I. Anchorage, AK.

Grinev, A.V. 1993. On the Banks of the Copper River: The Ahtna Indians and the Russians, 1783–1867. *Arctic Anthropology* 30:54–66.

Guédon Marie-Francoise, 1974. People of Tetlin, Why are you Singing? National Museum of Man, Mercury Series, Paper No. 9.

Haynes, T. L. and W. E. Simeone, 2007. Upper Tanana ethnographic overview and assessment, Wrangell St. Elias National Park and Preserve. Alaska Depart of Fish and Game, Div. of Subsistence Technical Paper No. 325. Juneau, Alaska.

Joe, Gulliam, 2011. Resident of Chistochina. Personal communication: in-person and phone.

Justin, Wilson, 2011. Cheesh'na Tribal Administrator. Personal communication: in-person and phone.

Kari, J. Ed. 1986. *Tatl'awnt'aenn Nenn'" The Headwaters People's Country, narratives of the Upper Ahtna Athabaskans*. Alaska Native Language Center. Fairbanks, Alaska.

Kari, J. 1990. *Ahtna Athabaskan Dictionary*. Alaska Native language Center, Fairbanks, Alaska.

Ketz. J. A. 1983. Paxson Lake: Two Nineteenth Century Ahtna Sites in the Copper River Basin, Alaska. Occasional Paper No. 33. Cooperative Park Studies Unit, University of Alaska, Fairbanks.

McKennan, R. 1959. *The Upper Tanana Indians*. New Haven, Conn.: Yale University Press.

Mishler, C. and W. E. Simeone. 2006. *Tanana and Chandalar*. Fairbanks. Alaska: University of Alaska Press.

Overly, Deb, 2011. Personal communication: in-person.

Reckord, H. 1983a. That's the Way We Live: Subsistence in the Wrangell-St. Elias National Park and Preserve. Anthropology and Historic Preservation Cooperative Park Studies Unit, Occasional Paper No 34.

Reckord, H. 1983b. Where Raven Stood: Cultural Resources of the Ahtna Region. Anthropology and Historic Preservation Cooperative Park Studies Unit, Occasional Paper No 35.

Rohn, O. 1900. A Reconnaissance of the Chitina and Skolai Mountains, Alaska. In, U.S. Geological Survey, 21st Annual Report, 1899–1900, pt. 2, pp. 393–440. Washington, D.C.

Simeone, W. E. 2006. Some Ethnographic and Historical Information on the Use of Large Land Mammals in the Cooper River Basin. Resource Report, NPS/AR/CRR-2006-56. Wrangell-St. Elias National Park and Preserve.

Simon, J.J., and C. Brown, 2010. Customary and Traditional Worksheet: Chisana Caribou Herd, GMU 12, Upper Tanana-White River Area. Special Publication No. BOG 2010-03. ADFG, Div. of Subsistence. Fairbanks, AK.

Skoog, Ronald. 1968. Ecology of the Caribou (*Rangifer tarandus garnti*) in Alaska. Ph.D. dissertation. University of California at Berkeley. University Microfilms.

SCRAC. 2010. Transcripts of the Southcentral Alaska Subsistence Regional Advisory Council meeting, May 11–12, 2010, in Anchorage, Alaska. Office of Subsistence Management, FWS. Anchorage, AK.

SCRAC. 2011. Transcripts of the Southcentral Alaska Subsistence Regional Advisory Council meeting, March 10–11, 2011, in Anchorage, Alaska. Office of Subsistence Management, FWS. Anchorage, AK.

U.S. Census 2000. State and County Quick Facts. htpp://quickfacts.census.gov.

Wrangell, Ferdinand von. 1839. *Statistische und Ethnographische Nachrichten uber die Russischen Besitzungen an der Nordwestkuste von Amerika*, ed. By K. E. von Baer, St. Petersberg. Reprinted in translation in 1980 as *Russian America: Statistical and Ethnographic Information*. Kingston, Ontario: Limestone Press.

WP12-69 Executive Summary	
General Description	Proposal WP12-69 requests a change in the customary and traditional use determination in Unit 25 remainder from "all rural residents," to "residents of Unit 25." *Submitted by the Eastern Interior Alaska Subsistence Regional Advisory Council*
Proposed Regulation	**Customary and Traditional Use Determination—Caribou** **Unit 25D** *Rural residents of Units 20F, 25D, and Manley.* **Unit 25, remainder.** ~~*All rural residents.*~~***Residents of Unit 25***
OSM Preliminary Conclusion	**Support** Proposal WP612-69 **with modification**. The modification would be to include residents of Unit 24A in the customary and traditional use determination for caribou in Unit 25 remainder. The modified regulation should read: **Customary and Traditional Use Determination—Caribou** **Unit 25D** *Rural residents of Units 20F, 25D, and Manley.* **Unit 25, remainder.** ~~*All rural residents.*~~***Residents of Unit 25 and 24A.***
Western Interior Regional Council Recommendation	
Eastern Interior Regional Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	**Support**
Written Public Comments	**None**

DRAFT STAFF ANALYSIS
WP12-69

ISSUES

Proposal WP12-69, submitted by the Eastern Interior Alaska Subsistence Regional Advisory Council, requests a change in the customary and traditional use determination in Unit 25 remainder from "all rural residents," to "residents of Unit 25."

DISCUSSION

The proponent expresses concern that as the Fortymile Caribou herd expands, it may draw Federally qualified subsistence users from outside Unit 25. The proponent makes the following observations in support of the proposed regulatory change:

> Currently the 40 Mile Caribou herd population is increasing; as the population grows the herd is expanding its range into Unit 25C (the White Mountains National Recreation Area)… Recently, there have been concerns expressed that as the herds range expands there is a potential for increased Federal harvest in Unit 25C. The current C&T in Unit 25C allows all Federally qualified subsistence users in Alaska to harvest 1 caribou by a joint Federal/State registration permit. Because this area is road accessible and is a relatively easy hunt, the herd's expansion may draw additional Federally qualified subsistence users from outside of the unit.

Note that the proponent's concern is focused on the Fortymile Caribou Herd in Unit 25C, but the proposal speaks to Unit 25 remainder, i.e. Unit 25A, B and C. The proponent states that "the C&T should be narrowed to the Federally Qualified Subsistence users in Unit 25 or as determined by staff analysis."

Existing Federal Regulation

Customary and Traditional Use Determination—Caribou

Unit 25D

Rural residents of Units 20F, 25D, and Manley.

Unit 25, remainder.

All rural residents.

Proposed Federal Regulation

Customary and Traditional Use Determination—Caribou

Unit 25D

Rural residents of Units 20F, 25D, and Manley.

Unit 25, remainder.

~~*All rural residents*~~.***Residents of Unit 25***

Extent of Federal Public Lands

The Arctic National Wildlife Refuge comprises approximately 74% of Unit 25A; a small portion (2%) is managed by the Bureau of Land Management.

Approximately 64% of Unit 25B is comprised of Federal public lands, including the U.S. Fish and Wildlife Service (36%), comprised of the Yukon Flats National Wildlife Refuge, the Arctic National Wildlife Refuge, the National Park Service (8%), comprised of the Yukon-Charley Rivers National Preserve, and BLM lands (20%).

Approximately 74% of Unit 25C is comprised of Federal public lands, including BLM managed lands (64%) comprised of the White Mountains National Recreation Area, the Steese National Conservation Area, NPS managed lands (9%), comprised of Yukon-Charley Rivers National Preserve, and less than 1% of land managed by the FWS (**Unit 25 Map**).

Regulatory History

In 1998, the Federal Subsistence Board adopted a customary and traditional use determination for caribou in Unit 25D for rural residents of Units 20F, 25D, and Manley. For the remainder of Unit 25, the Board made no specific customary and traditional use determination, which meant that all Federally qualified users were eligible to harvest caribou in Unit 25, remainder (63 FR June 29, 1998).

Community Characteristics and Subsistence History

The communities in Unit 25D include Stevens Village, Beaver, Birch Creek, Fort Yukon, Chalkyitsik, Venetie, and Circle; Arctic Village is in Unit 25A; and Central (including Circle Hot Springs) is in Unit 25C. There are no communities in Unit 25B. The estimated populations 1970-2010 for these communities, and Coldfoot and Wiseman, are shown in **Table 1**.

The following community information is derived from the Alaska Community Database Community Information Summaries (ADCCED 2011), and from the *Proposed Land Exchange Yukon Flats National Wildlife Refuge Final Environmental Impact Statement* (USFWS 2010).

Arctic Village

Arctic Village is on the east fork of the Chandalar River, 100 miles north of Fort Yukon and 290 miles north of Fairbanks. Until the 1950s, the Neets'aii Gwichin ("residents of the north side") lived a nomadic lifestyle. They traditionally used seasonal camps and semi-permanent settlements, such as Arctic Village, Christian, Venetie, and Sheenjak, in pursuit of fish and game. With the introduction of firearms in the early 1900s, family groups began to gather more permanently at several locations, and no longer dispersed into small groups to hunt caribou. A federally-recognized tribe is located in the community -- the Native Village of Venetie Tribal Government. The Neets'aii Gwich'in of Arctic Village lead a subsistence-based lifestyle (ADCCED 2011).

Between 1993 and 1997, the total subsistence harvest for residents of Arctic Village was 10,000 to 21,000 pounds; caribou and moose represented more than 90% of the harvest by weight for most years. Arctic Village harvest areas, based on Caulfield (1983), are shown in **Figure 1**. This figure represents lifetime subsistence harvest areas based on 11 interviews in 1980 (USFWS 2010:3-113ff.).

Table 1. Community Population Estimates (ADCCED 2011 and US Census 2000).

COMMUNITY	POPULATION				
	2010	2000	1990	1980	1970
Arctic Village	152	152	96	111	85
Beaver	84	84	103	66	101
Birch Creek	33	28	42	32	n/a
Coldfoot	10	13	0	0	0
Central	96	134	52	36	26
Chalkyitsik	69	83	90	100	130
Circle	104	100	73	81	54
Fort Yukon	583	595	580	619	448
Stevens Village	78	87	102	96	74
Venetie	166	202	182	132	112
Wiseman	14	21	33	8	0

Beaver

Beaver is located on the north bank of the Yukon River, approximately 60 air miles southwest of Fort Yukon and 110 miles north of Fairbanks. It lies in the Yukon Flats National Wildlife Refuge. Gold discoveries in the Chandalar region in 1907 led to the founding of Beaver. It was established as the Yukon River terminus for miners heading north to the gold fields. A federally-recognized tribe is located in the community -- the Beaver Village. The population of Beaver is predominantly mixed Gwitchin/Koyukuk Athabascan and Inupiat Eskimo. Subsistence is an important source of food items (ADCCED 2011).

Beaver harvest areas, based on Sumida (1989), are shown in **Figure 2**. This figure represents lifetime subsistence harvest areas based on 15 interviews in 1985-86, and covers the years between 1930 and 1986 (USFWS 2010: 3-114 ff.).

Birch Creek

The first written reference to a settlement in the Birch Creek area was in 1862 by a Fort Yukon clergyman who visited a camp established to provide fish for Hudson's Bay Company in Ft. Yukon. Some anthropologists believe that this settlement was annihilated by scarlet fever in the 1880s, but there are ethnographic accounts of the use of this area from 1867 onwards. Birch Creek Jimmy was the founder of Birch Creek and was great chief among the chiefs in his days. He built a cabin in 1898 at the site of the Hudson Bay fish camp. Several years later, he was joined by other extended family members. Around

Figure 1

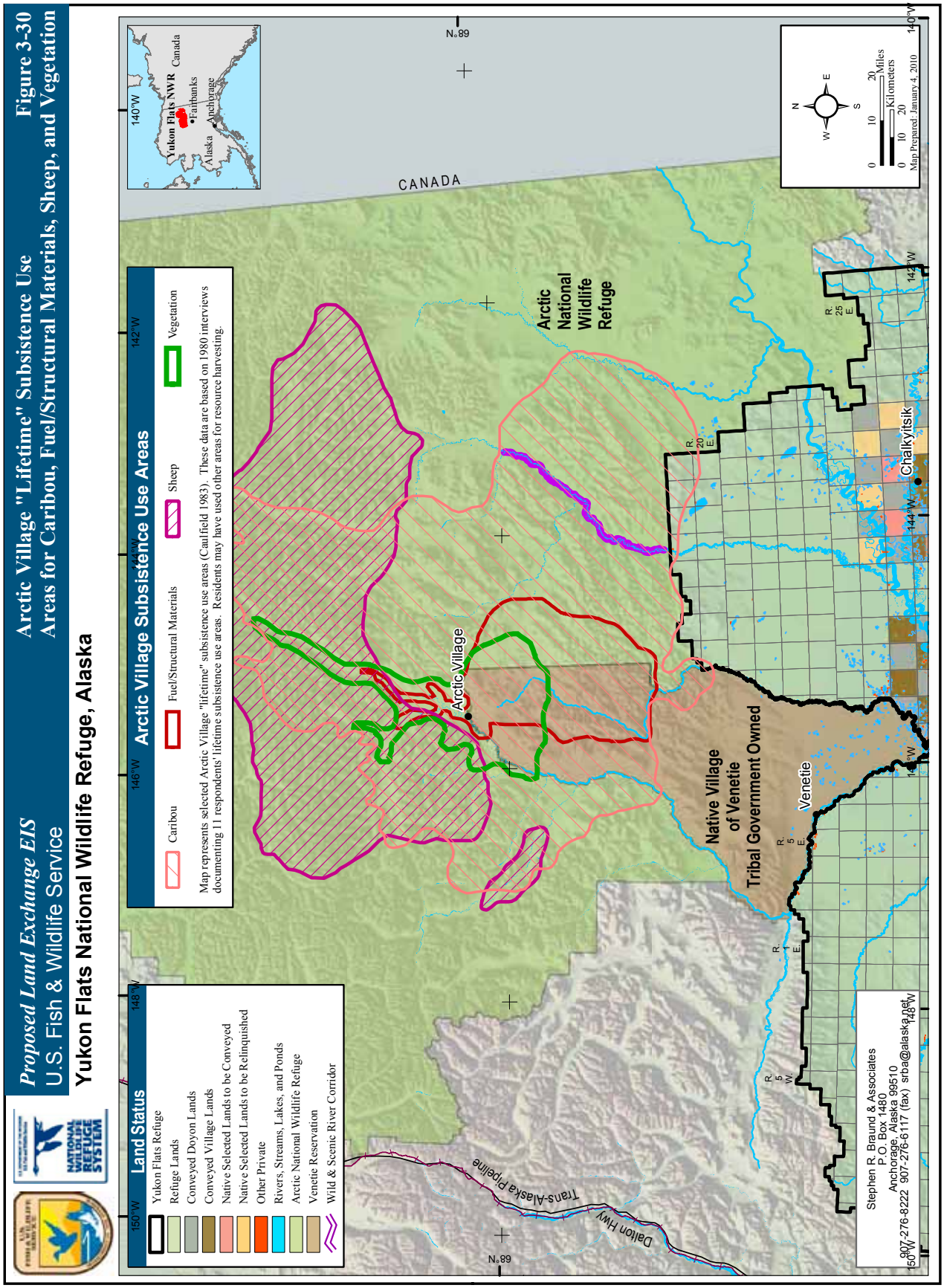
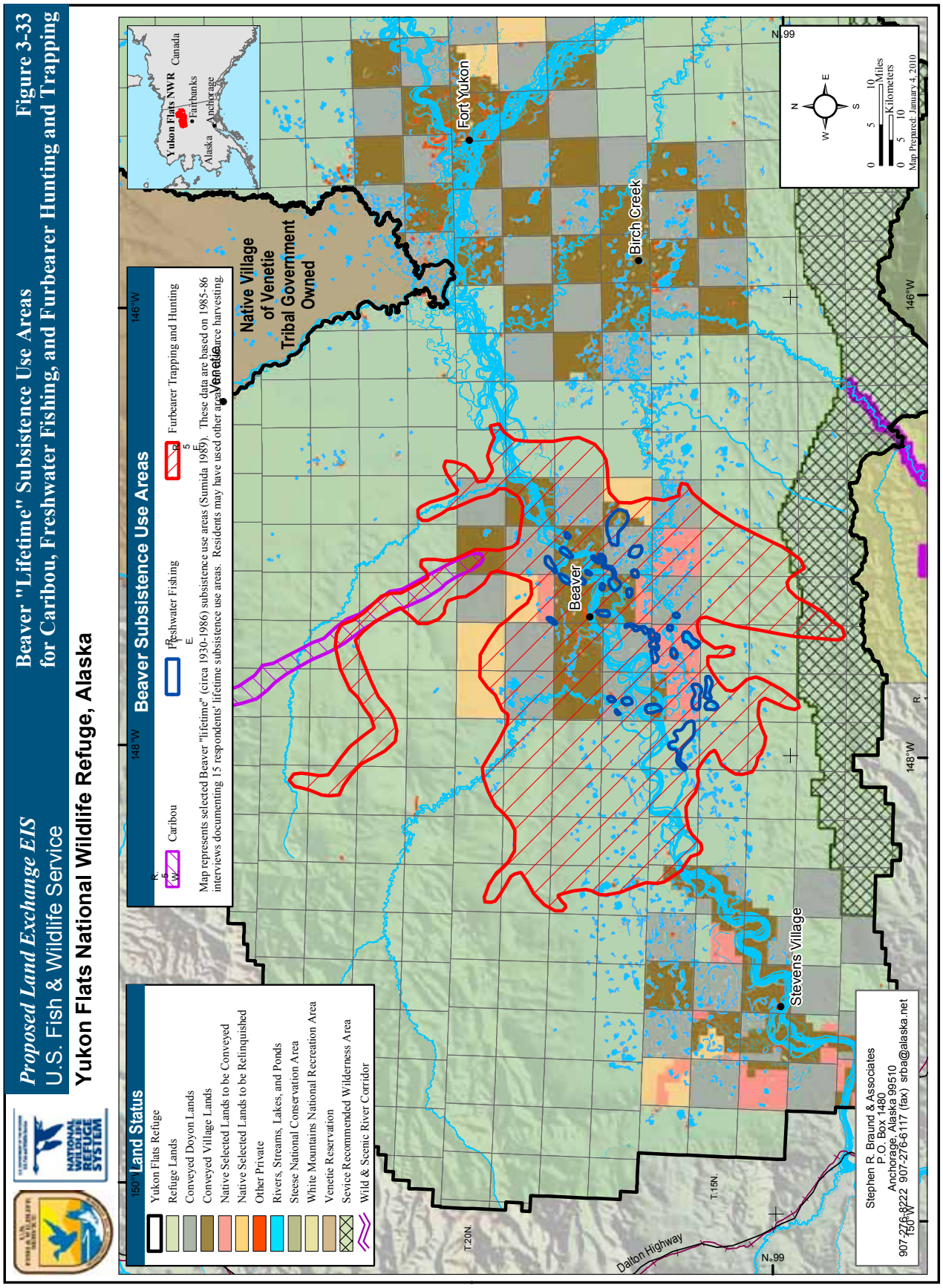

Proposed Land Exchange EIS
U.S. Fish & Wildlife Service
Yukon Flats National Wildlife Refuge, Alaska
Arctic Village "Lifetime" Subsistence Use
Areas for Caribou, Fuel/Structural Materials, Sheep, and Vegetation
Figure 3-30
Land Status
Yukon Flats Refuge
Refuge Lands
Conveyed Doyon Lands
Conveyed Village Lands
Native Selected Lands to be Conveyed
Native Selected Lands to be Relinquished
Other Private
Rivers, Streams, Lakes, and Ponds
Arctic National Wildlife Refuge
Venetie Reservation
Wild & Scenic River Corridor
Arctic Village Subsistence Use Areas
Caribou
Fuel/Structural Materials
Sheep
Vegetation
Map represents selected Arctic Village "lifetime" subsistence use areas (Caulfield 1983). These data are based on 1980 interviews documenting 11 respondents' lifetime subsistence use areas. Residents may have used other areas for resource harvesting.
CANADA
Arctic National Wildlife Refuge
Arctic Village
Native Village of Venetie Tribal Government Owned
Venetie
Chalkyitsik
Dalton Hwy
Trans-Alaska Pipeline
Yukon Flats NWR
Canada
Fairbanks
Anchorage
Alaska
Map Prepared: January 4, 2010
Stephen R. Braund & Associates
P.O. Box 1480
Anchorage, Alaska 99510
907-276-8222 907-276-6117 (fax) srba@alaska.net

Figure 2


Proposed Land Exchange EIS
U.S. Fish & Wildlife Service
Yukon Flats National Wildlife Refuge, Alaska
Beaver "Lifetime" Subsistence Use Areas
for Caribou, Freshwater Fishing, and Furbearer Hunting and Trapping
Figure 3-33
Land Status
Yukon Flats Refuge
Refuge Lands
Conveyed Doyon Lands
Conveyed Village Lands
Native Selected Lands to be Conveyed
Native Selected Lands to be Relinquished
Other Private
Rivers, Streams, Lakes, and Ponds
Steese National Conservation Area
White Mountains National Recreation Area
Venetie Reservation
Sevice Recommended Wilderness Area
Wild & Scenic River Corridor
Beaver Subsistence Use Areas
Caribou
Freshwater Fishing
Furbearer Trapping and Hunting
Map represents selected Beaver "lifetime" (circa 1930-1986) subsistence use areas (Sumida 1989). These data are based on 1985-86 interviews documenting 15 respondents' lifetime subsistence use areas. Residents may have used other areas for resource harvesting.
Native Village of Venetie Tribal Government Owned
Yukon Flats NWR
Fairbanks
Anchorage
Alaska
Canada
Fort Yukon
Birch Creek
Beaver
Stevens Village
Dalton Highway
T.20N.
T.15N.
R.
150°W
148°W
146°W
N.99
Map Prepared: January 4, 2010
Miles
Kilometers
Stephen R. Braund & Associates
P.O. Box 1480
Anchorage, Alaska 99510
907-276-8222 907-276-6117 (fax) srba@alaska.net

1916, the group moved three miles upstream to the site of the present village. It was used as a seasonal base for harvest activities until the early 1950s, when the establishment of a school encouraged village residents to adopt a less nomadic way of life. The first airstrip was constructed in 1973. The school was closed in 1999 due to insufficient students. A federally-recognized tribe is located in the community -- the Birch Creek Tribe; Dendu Gwich'in Tribal Council. Local residents are Dendu Gwich'in Athabascans and are active in subsistence practices (ACDR 2011).

Subsistence harvest data on Birch Creek do not include caribou. **Figure 3** represents a general pattern of subsistence use, based on Stephen R. Braund & Associates (2007). The figure covers the years between 1997 and 2006, based on 17 interviews in 2007 (USFWS 2010: 3-122 ff.).

Central

Central is located on the Steese Highway about 125 miles northeast of Fairbanks and 28 miles southwest of Circle. Circle Hot Springs is located nearby. After the discovery of gold in the Circle Mining District in the 1890s, a centrally-located roadhouse was required between Circle, a supply point on the Yukon, and the mining operations at Mammoth, Mastodon, Preacher, and Birch Creeks. Central House, originally built around 1894, was located at the supply trail's crossing of Crooked Creek. A post office was established in 1925. In 1927, the road link to Fairbanks was completed. Mining continued until the beginning of World War II. After the war, a few miners returned to Central, but mining declined through the 1950s and 60s. Activity increased again in the mid-1970s with the rise in gold prices (ADCCED 2011).

Limited recent use area data are available for Central. **Figure 4** represents subsistence areas for Central, Circle, and Eagle (USFWS 2010:3-123 ff.).

Chalkyitsik

Chalkyitsik is located on the Black River about 50 miles east of Fort Yukon. Chalkyitsik means "fish hooking place" and has traditionally been an important seasonal fishing site for the Gwich'in. Archaeological excavations in the area reveal use and occupancy of the region as early as 10,000 BC. Village elders remember a highly nomadic way of life, living at the headwaters of the Black River from autumn to spring and then floating downriver to fish in summer. By 1969, there were 26 houses, a store, two churches, and a community hall in Chalkyitsik. A Federally-recognized tribe is located in the community -- the Chalkyitsik Village. Chalkyitsik is a traditional Gwich'in Athabascan village, with a subsistence lifestyle (ADCCED 2011).

There are limited caribou subsistence harvest use area data available for Chalkyitsik. **Figure 5** represents lifetime subsistence harvest areas based on 8 interviews in 1981 (Caulfield 1983; USFWS 2010:3-128 ff.).

Circle

Circle is located on the south bank of the Yukon River at the edge of the Yukon Flats, 160 miles northeast of Fairbanks. It is at the eastern end of the Steese Highway. Circle (also known as Circle City) was established in 1893 as a supply point for goods shipped up the Yukon River and then overland to the gold mining camps. Early miners believed the town was located on the Arctic Circle, and named it Circle. The town was virtually emptied after gold discoveries in the Klondike (1897) and Nome (1899). A federally-recognized tribe is located in the community -- the Circle Native Community. The population of Circle is predominantly Athabascan, and there are several non-Native families.

Figure 3

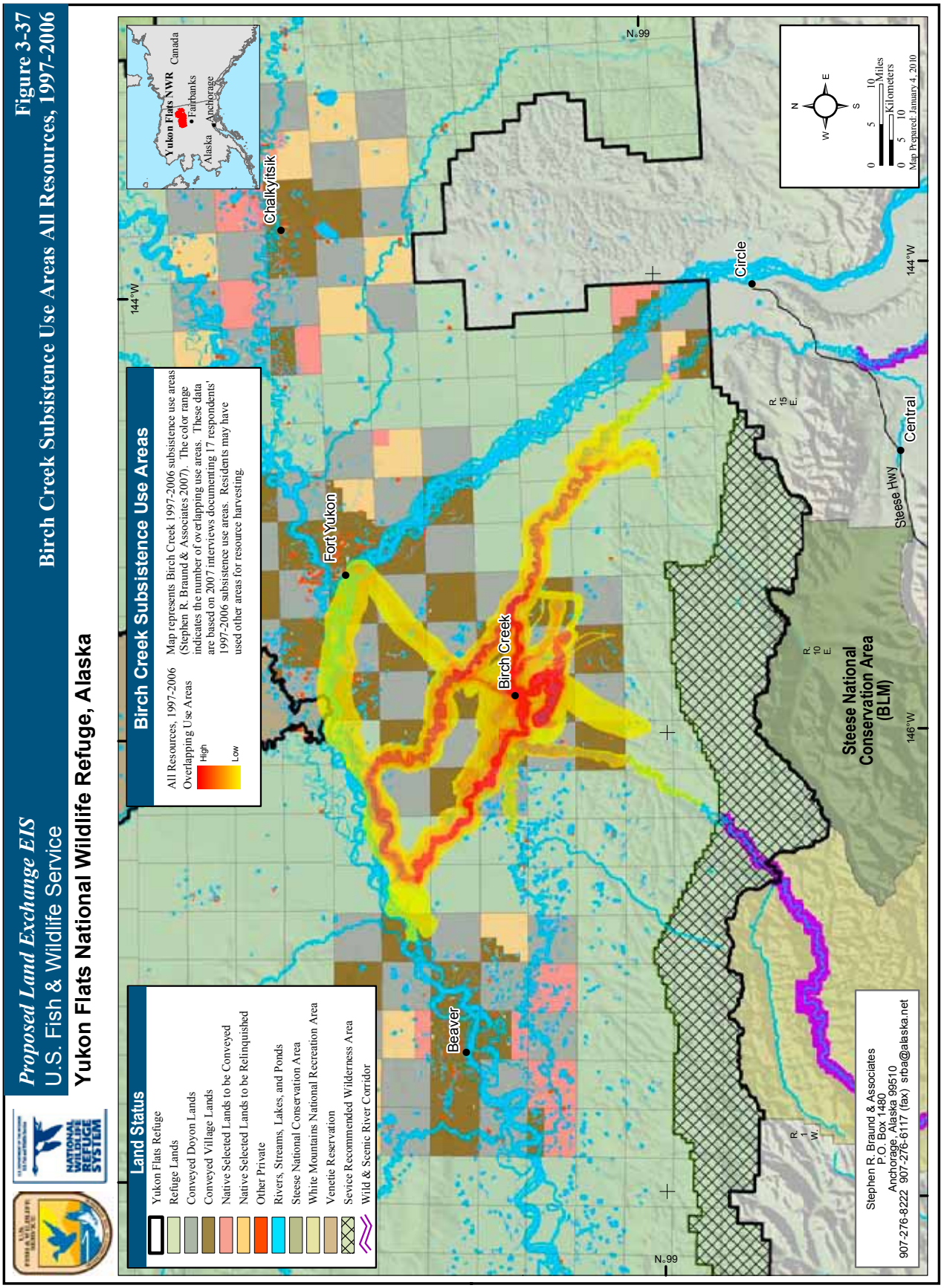

Proposed Land Exchange EIS
U.S. Fish & Wildlife Service
Yukon Flats National Wildlife Refuge, Alaska
Figure 3-37
Birch Creek Subsistence Use Areas All Resources, 1997-2006
Land Status
Yukon Flats Refuge
Refuge Lands
Conveyed Doyon Lands
Conveyed Village Lands
Native Selected Lands to be Conveyed
Native Selected Lands to be Relinquished
Other Private
Rivers, Streams, Lakes, and Ponds
Steese National Conservation Area
White Mountains National Recreation Area
Venetie Reservation
Sevice Recommended Wilderness Area
Wild & Scenic River Corridor
Birch Creek Subsistence Use Areas
All Resources, 1997-2006 Overlapping Use Areas
High
Low
Map represents Birch Creek 1997-2006 subsistence use areas (Stephen R. Braund & Associates 2007). The color range indicates the number of overlapping use areas. These data are based on 2007 interviews documenting 17 respondents' 1997-2006 subsistence use areas. Residents may have used other areas for resource harvesting.
Yukon Flats NWR
Canada
Fairbanks
Anchorage
Alaska
Chalkyitsik
Fort Yukon
Birch Creek
Beaver
Circle
Central
Steese Hwy
Steese National Conservation Area (BLM)
144°W
146°W
N.99
R. 1 W.
R. 10 E.
R. 15 E.
N
W
E
S
0 5 10 Miles
0 5 10 Kilometers
Map Prepared: January 4, 2010
Stephen R. Braund & Associates
P.O. Box 1480
Anchorage, Alaska 99510
907-276-8222 907-276-6117 (fax) srba@alaska.net

Figure 4

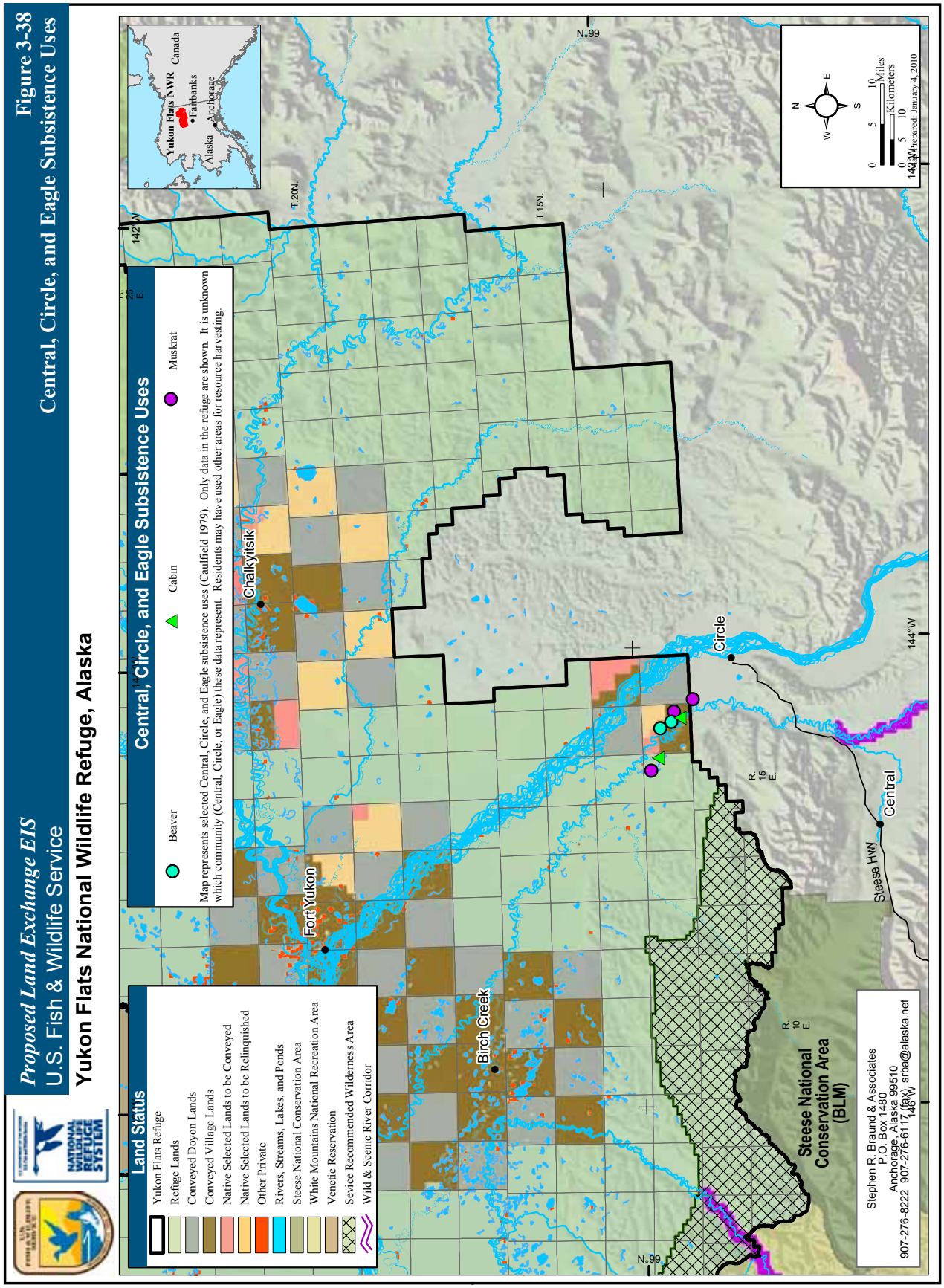
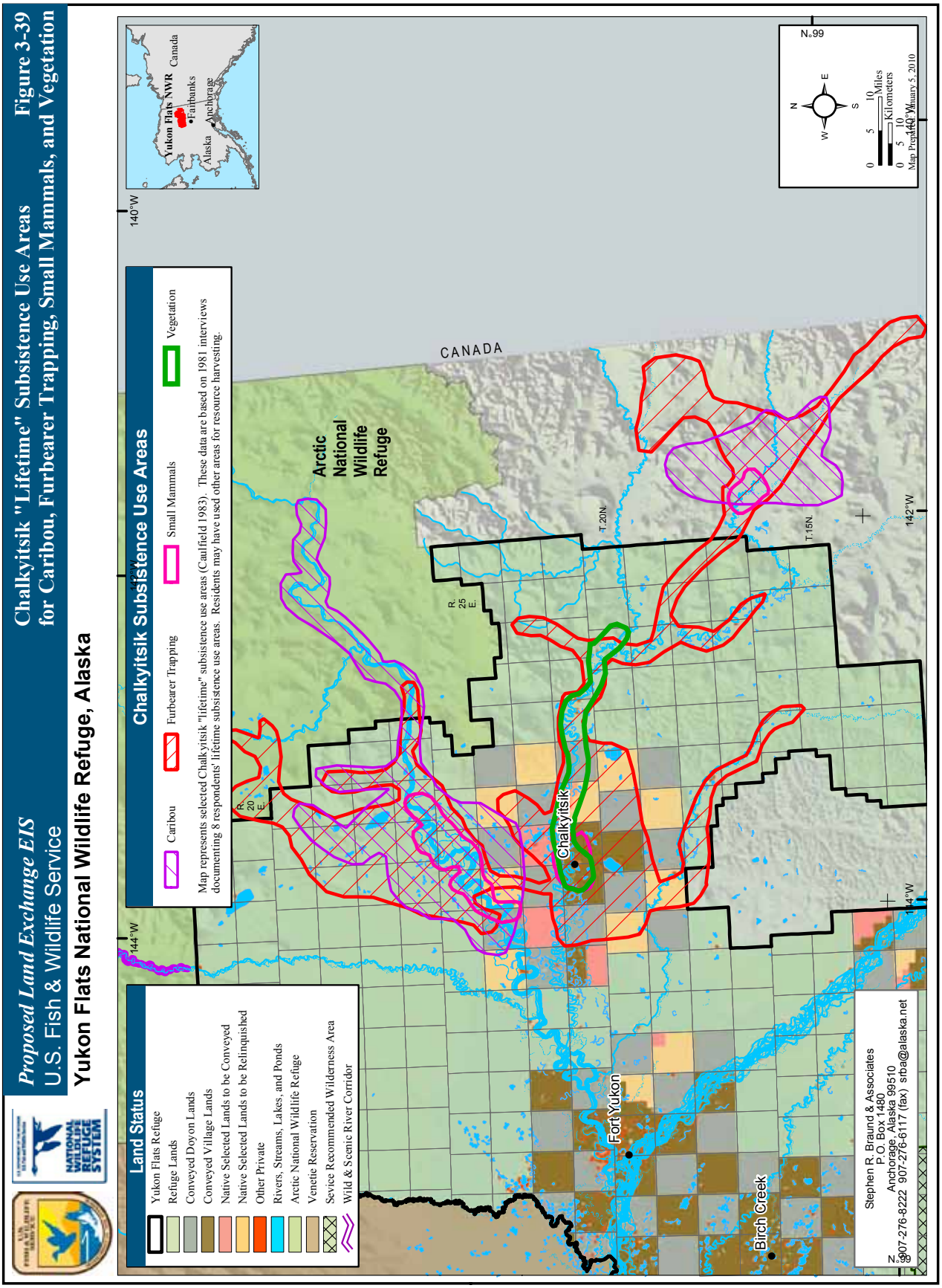

Proposed Land Exchange EIS
U.S. Fish & Wildlife Service
Yukon Flats National Wildlife Refuge, Alaska
Figure 3-38
Central, Circle, and Eagle Subsistence Uses
Land Status
Yukon Flats Refuge
Refuge Lands
Conveyed Doyon Lands
Conveyed Village Lands
Native Selected Lands to be Conveyed
Native Selected Lands to be Relinquished
Other Private
Rivers, Streams, Lakes, and Ponds
Steese National Conservation Area
White Mountains National Recreation Area
Venetie Reservation
Sevice Recommended Wilderness Area
Wild & Scenic River Corridor
Central, Circle, and Eagle Subsistence Uses
Beaver
Cabin
Muskrat
Map represents selected Central, Circle, and Eagle subsistence uses (Caulfield 1979). Only data in the refuge are shown. It is unknown which community (Central, Circle, or Eagle) these data represent. Residents may have used other areas for resource harvesting.
Yukon Flats NWR
Canada
Fairbanks
Alaska
Anchorage
Chalkyitsik
Fort Yukon
Birch Creek
Circle
Central
Steese Hwy
Steese National Conservation Area (BLM)
T.20N.
T.15N.
N.99
142°W
144°W
R. 15 E.
R. 10 E.
Miles
Kilometers
Map prepared: January 4, 2010
Stephen R. Braund & Associates
P. O. Box 1480
Anchorage, Alaska 99510
907-276-8222 907-276-6177 (fax) srba@alaska.net

Figure 5


Proposed Land Exchange EIS
U.S. Fish & Wildlife Service
Yukon Flats National Wildlife Refuge, Alaska
Chalkyitsik "Lifetime" Subsistence Use Areas
for Caribou, Furbearer Trapping, Small Mammals, and Vegetation
Figure 3-39
Land Status
Yukon Flats Refuge
Refuge Lands
Conveyed Doyon Lands
Conveyed Village Lands
Native Selected Lands to be Conveyed
Native Selected Lands to be Relinquished
Other Private
Rivers, Streams, Lakes, and Ponds
Arctic National Wildlife Refuge
Venetie Reservation
Sevice Recommended Wilderness Area
Wild & Scenic River Corridor
Chalkyitsik Subsistence Use Areas
Caribou
Furbearer Trapping
Small Mammals
Vegetation
Map represents selected Chalkyitsik "lifetime" subsistence use areas (Caulfield 1983). These data are based on 1981 interviews documenting 8 respondents' lifetime subsistence use areas. Residents may have used other areas for resource harvesting.
Yukon Flats NWR
Fairbanks
Anchorage
Alaska
Canada
CANADA
Arctic National Wildlife Refuge
Chalkyitsik
Fort Yukon
Birch Creek
R. 20 E.
R. 25 E.
T. 20N.
T. 15N.
144°W
142°W
140°W
N. 99
Miles
Kilometers
Map Prepared January 5, 2010
Stephen R. Braund & Associates
P.O. Box 1480
Anchorage, Alaska 99510
907-276-8222 907-276-6117 (fax) srba@alaska.net

Limited caribou subsistence use area data are available for Circle. **Figure 4** represents subsistence areas for Central, Circle, and Eagle (USFWS 2010:3-123 ff.).

Fort Yukon

Fort Yukon is located at the confluence of the Yukon and Porcupine Rivers, about 145 air miles northeast of Fairbanks. Fort Yukon was founded in 1847 by Alexander Murray as a Canadian outpost in Russian territory. It became an important trade center for the Gwich'in Indians, who inhabited the vast lowlands of the Yukon Flats and River valleys. During the 1950s, a White Alice Communications System and an Air Force station were established. Fort Yukon incorporated as a city in 1959. A federally-recognized tribe is located in the community -- the Native Village of Fort Yukon; Canyon Village Traditional Council (not recognized). Most Fort Yukon residents are descendants of the Yukon Flats, Chandalar River, Birch Creek, Black River, and Porcupine River Gwich'in Athabascan tribes. Subsistence is an important component of the local culture (ADCCED 2011).

Fort Yukon subsistence harvest areas, based on Caulfield (1983) and Sumida and Anderson (1990), are shown in **Figure 6**. This figure represents lifetime subsistence harvest areas based on 10 interviews in 1981 and 26 interviews in 1988 (USFWS 2010: 3-114 ff.).

Stevens Village

Stevens Village is located on the north bank of the Yukon River, 17 miles upstream of the Dalton Highway bridge crossing and 90 air miles northwest of Fairbanks. The original settlement, called Dinyea (meaning "mouth of the canyon"), was founded by three Athabascan brothers from the Koyukon region: Old Jacob, Gochonayeeya, and Old Steven. The village was named for Old Steven when he was elected chief in 1902. A post office began operations in 1936, and scheduled air service was initiated in 1939. A federally-recognized tribe is located in the community -- the Native Village of Stevens. The Native population is predominantly Kutchin Natives, who depend upon subsistence (ADCCED 2011).

Stevens Village harvest areas, based on Sumida (1988), are shown in **Figure 7**. This figure represents subsistence harvest areas based on 24 interviews in 1984-1985, and covers the years between 1974 and 1984 (USFWS 2010: 3-135 ff.). Note that the map does not depict caribou harvest areas.

Venetie

Venetie is located on the north side of the Chandalar River, 45 miles northwest of Fort Yukon. Known to early explorers as Old Robert's Village or Chandalar Village, Venetie was founded in 1895 by a man named Old Robert, who chose Venetie because of its plentiful fish and game. During the 1950s and 60s, the use of seasonal camps declined, but the advent of the snowmachine enabled Venetie residents to renew use of areas which had traditionally been occupied seasonally. A federally-recognized tribe is located in the community -- the Village of Venetie; Native Village of Venetie Tribal Government (Arctic Village and Village of Venetie). Venetie is comprised largely of descendants of the Neets'ai Gwich'in and, to a lesser extent, the Gwichyaa and Dihaii Gwich'in (ADCCED 2011).

Between 1970 and 1982, caribou were important elements of harvest during some years—as much as 71% of the total harvest. In other years, residents of Venetie harvested no caribou. Venetie lifetime harvest areas, based on Caulfield (1983), are shown in **Figure 8**. This figure represents lifetime subsistence harvest areas based on 9 interviews in 1981 (USFWS 2010: 3-142 ff.).

Figure 6

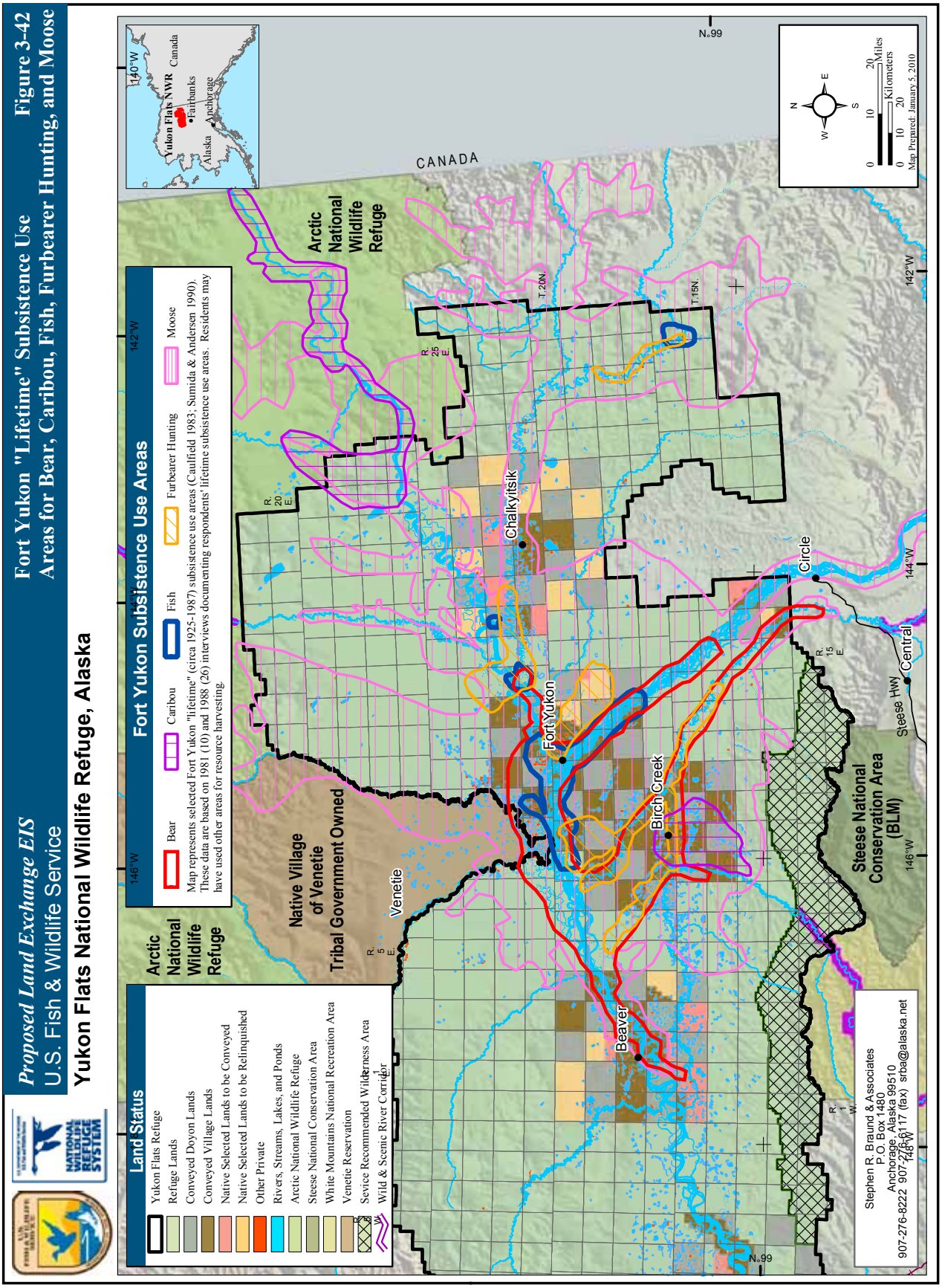

Proposed Land Exchange EIS
U.S. Fish & Wildlife Service
Yukon Flats National Wildlife Refuge, Alaska
Fort Yukon "Lifetime" Subsistence Use Areas for Bear, Caribou, Fish, Furbearer Hunting, and Moose
Figure 3-42
Land Status
Yukon Flats Refuge
Refuge Lands
Conveyed Doyon Lands
Conveyed Village Lands
Native Selected Lands to be Conveyed
Native Selected Lands to be Relinquished
Other Private
Rivers, Streams, Lakes, and Ponds
Arctic National Wildlife Refuge
Steese National Conservation Area
White Mountains National Recreation Area
Venetie Reservation
Sevice Recommended Wilderness Area
Wild & Scenic River Corridor
Fort Yukon Subsistence Use Areas
Bear
Caribou
Fish
Furbearer Hunting
Moose
Map represents selected Fort Yukon "lifetime" (circa 1925-1987) subsistence use areas (Caulfield 1983; Sumida & Andersen 1990). These data are based on 1981 (10) and 1988 (26) interviews documenting respondents' lifetime subsistence use areas. Residents may have used other areas for resource harvesting.
Arctic National Wildlife Refuge
Native Village of Venetie Tribal Government Owned
Venetie
Chalkyitsik
Fort Yukon
Birch Creek
Beaver
Circle
Central
Steese Hwy
Steese National Conservation Area (BLM)
CANADA
Yukon Flats NWR
Fairbanks
Anchorage
Alaska
Canada
Map Prepared: January 5, 2010
Stephen R. Braund & Associates
P.O. Box 1480
Anchorage, Alaska 99510
907-276-8222 907-243-0117 (fax) srba@alaska.net

Figure 7

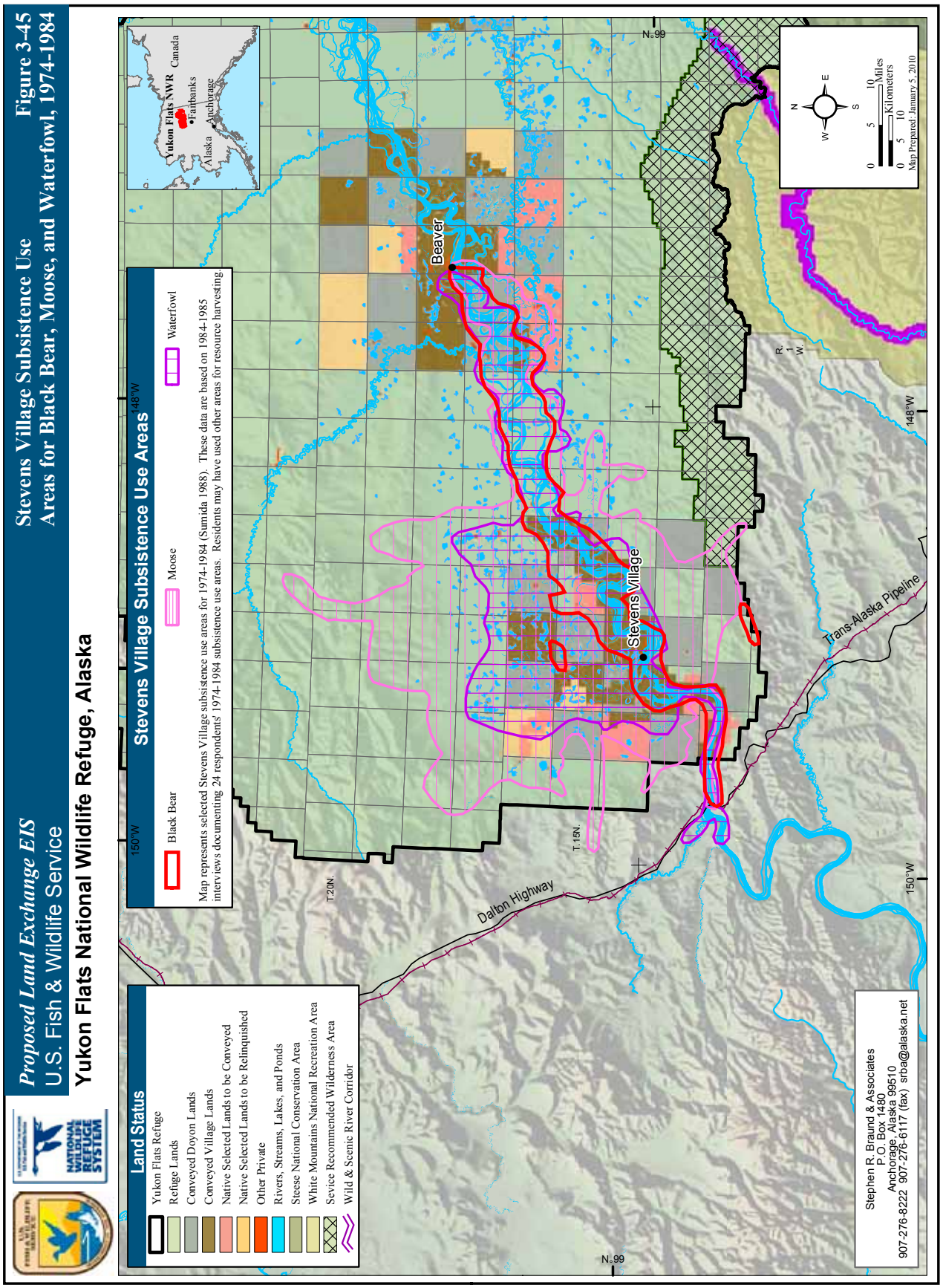
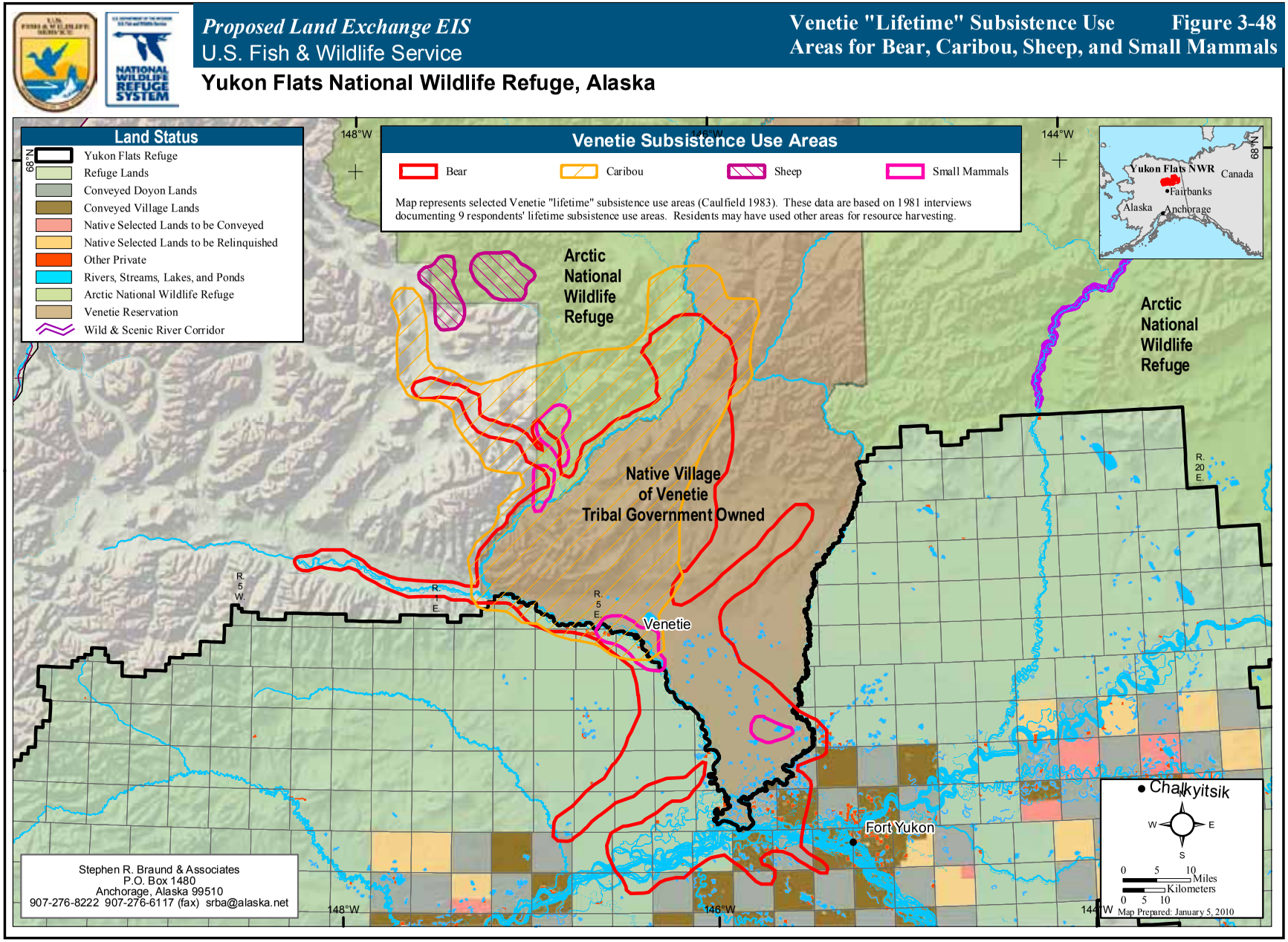

Proposed Land Exchange EIS
U.S. Fish & Wildlife Service
Yukon Flats National Wildlife Refuge, Alaska
Stevens Village Subsistence Use
Areas for Black Bear, Moose, and Waterfowl, 1974-1984
Figure 3-45
Land Status
Yukon Flats Refuge
Refuge Lands
Conveyed Doyon Lands
Conveyed Village Lands
Native Selected Lands to be Conveyed
Native Selected Lands to be Relinquished
Other Private
Rivers, Streams, Lakes, and Ponds
Steese National Conservation Area
White Mountains National Recreation Area
Sevice Recommended Wilderness Area
Wild & Scenic River Corridor
Stevens Village Subsistence Use Areas
Black Bear
Moose
Waterfowl
Map represents selected Stevens Village subsistence use areas for 1974-1984 (Sumida 1988). These data are based on 1984-1985 interviews documenting 24 respondents' 1974-1984 subsistence use areas. Residents may have used other areas for resource harvesting.
Yukon Flats NWR
Canada
Fairbanks
Alaska
Anchorage
Beaver
Stevens Village
Dalton Highway
Trans-Alaska Pipeline
T.20N.
T.15N.
R. 1 W.
N.99
148°W
150°W
Miles
Kilometers
Map Prepared January 5, 2010
Stephen R. Braund & Associates
P.O. Box 1480
Anchorage, Alaska 99510
907-276-8222 907-276-6117 (fax) srba@alaska.net

Figure 8


Proposed Land Exchange EIS
U.S. Fish & Wildlife Service
Venetie "Lifetime" Subsistence Use Areas for Bear, Caribou, Sheep, and Small Mammals
Figure 3-48
Yukon Flats National Wildlife Refuge, Alaska
Land Status
Yukon Flats Refuge
Refuge Lands
Conveyed Doyon Lands
Conveyed Village Lands
Native Selected Lands to be Conveyed
Native Selected Lands to be Relinquished
Other Private
Rivers, Streams, Lakes, and Ponds
Arctic National Wildlife Refuge
Venetie Reservation
Wild & Scenic River Corridor
Venetie Subsistence Use Areas
Bear
Caribou
Sheep
Small Mammals
Map represents selected Venetie "lifetime" subsistence use areas (Caulfield 1983). These data are based on 1981 interviews documenting 9 respondents' lifetime subsistence use areas. Residents may have used other areas for resource harvesting.
Arctic National Wildlife Refuge
Arctic National Wildlife Refuge
Native Village of Venetie Tribal Government Owned
Venetie
Fort Yukon
Chalkyitsik
Yukon Flats NWR
Canada
Fairbanks
Alaska
Anchorage
148°W
146°W
144°W
68°N
R. 5 W.
R. 1 E.
R. 5 E.
R. 20 E.
Miles
Kilometers
Map Prepared: January 5, 2010
Stephen R. Braund & Associates
P.O. Box 1480
Anchorage, Alaska 99510
907-276-8222 907-276-6117 (fax) srba@alaska.net

Coldfoot

Coldfoot is located at the mouth of Slate Creek on the east bank of the Middle Fork of the Koyukuk River at mile 175 of the Dalton Highway. The community received its name when gold prospectors ventured up the Koyukuk River in 1900, got "cold feet," and turned back (ADCCED 2011).

As shown in Table 1, between 2000 and 2009, Coldfoot residents hunted caribou in Unit 25. Over this time, three permits were issued to Coldfoot residents, resulting in two harvested caribou.

Wiseman

Wiseman is located on the Middle Fork of the Koyukuk River at its junction with Wiseman Creek about 13 miles north of Coldfoot. In the early 1900s, residents began to abandon Coldfoot in response to increasing mining activity around Wiseman; the town was established in 1907, fist as Wrights, then as Nolan, and finally as Wiseman in 1923. A territorial school operated from 1934 to 1941. The pipeline haul road, now called the Dalton Highway, passes near Wiseman (ADCCED 2011).

Scott (1993:60) notes that Wiseman residents harvest game in Units 24, 25 and 26, including caribou. In 1991, for example, Wiseman residents harvested 10 caribou; however, Scott does not indicate in which unit the caribou were harvested.

Eight Factors for Determining Customary and Traditional Uses

A community or area's customary and traditional use is generally exemplified through eight factors: (1) a long-term, consistent pattern of use, excluding interruptions beyond the control of the community or area; (2) a pattern of use recurring in specific seasons for many years; (3) a pattern of use consisting of methods and means of harvest which are characterized by efficiency and economy of effort and cost, conditioned by local characteristics; (4) the consistent harvest and use of fish or wildlife as related to past methods and means of taking: near, or reasonably accessible from the community or area; (5) a means of handling, preparing, preserving, and storing fish or wildlife which has been traditionally used by past generations, including consideration of alteration of past practices due to recent technological advances, where appropriate; (6) a pattern of use which includes the handing down of knowledge of fishing and hunting skills, values, and lore from generation to generation; (7) a pattern of use in which the harvest is shared or distributed within a definable community of persons; and (8) a pattern of use which relates to reliance upon a wide diversity of fish and wildlife resources of the area and which provides substantial cultural, economic, social, and nutritional elements to the community or area.

The Board makes customary and traditional use determinations based on a holistic application of these eight factors (50 CFR 100.16(b) and 36 CFR 242.16(b)). In addition, the Board takes into consideration the reports and recommendations of any appropriate Regional Advisory Council regarding customary and traditional use of subsistence resources (50 CFR 100.16(b) and 36 CFR 242.16(b)). The Board makes customary and traditional use determinations for the sole purpose of recognizing the pool of users who generally exhibit the eight factors. The Board does not use such determinations for resource management or restricting harvest. If a conservation concern exists for a particular population, the Board addresses that concern through the imposition of harvest limits or season restrictions rather than by limiting the customary and traditional use finding.

Specific information on each of the eight factors is not required because a community or area seeking a customary and traditional use determination only has to "generally exhibit" the eight factors (50 CFR 100.16(b) and 36 CFR 242.16(b)).

An analysis of customary and traditional caribou use for communities in 25D, communities in 20F and Manley, is found in the staff analysis for Proposal 102 (OSM 1998:118 ff.). That analysis concluded that historical and contemporary Gwich'in Athabascan territories encompassed Unit 25D, portions of which were also used by Koyukon Athabascan. Members of these Athabascan communities recognized and continue to recognize caribou as an important subsistence resource. Evidence of patterns of use includes caribou fences (Hosley 1981), traditions associated with hunting (Nelson 1973; Slobodin 1981), seasonal hunts (Case and Halpin 1990), traditional means of storage (Caulfield 1983), meat distribution through networks of kin (Caulfield 1983), and the incorporation of caribou into a larger pattern of resource use, which included sheep, moose, bear, waterfowl, small game, fish and other resources (Osgood 1936; Slobodin 1981). These patterns broadly persist to the present day, conditioned by current state and federal wildlife management regimes and other historical alterations.

Hosley (1981:534) indicated that the Gwich'in Athabascan of Unit 25D and the Koyukon of Unit 20F historically took caribou in the fall (October and November). Harvest data collected by the Council of Athabascan Tribal Governments (CATG) indicated that by the early 1990s the Gwich'in who had access to caribou harvested them as available. A definite season of intensive harvest was associated with game fences; a generalized pattern of harvest resulted from the adoption of firearms, dog teams, and snow machines for caribou hunting (Case and Halpin 1990). In the past, Gwich'in would travel considerable distances to harvest caribou. Throughout the 1980s, residents of 25D communities traveled up the Porcupine River to take caribou (Caulfield 1983:64).

The Gwich'in traditionally stored caribou by freezing or drying. The meat was prepared by boiling. Caribou heads were considered a delicacy and were baked, roasted, or boiled. Caribou stomachs were used as storage containers (Caulfield 1983:66).

Meat is frequently shared among members of hunting parties, among related households within communities, and between members of different communities. In the early 1980s, Caulfield noted the following:

> Sharing and exchange of locally-derived products continues in the region today. Certain communities, especially Arctic Village and Fort Yukon, serve as regional providers of localized resources. When caribou are available near Arctic Village, meat is shared not only with relatives in Venetie where kinship ties appear especially strong, but also with all other communities in the region. Small amounts of caribou meat may also be sent to the elderly confined in the hospital in Fairbanks or to university students living away from home (Caulfield 1983:203).

Residents in Unit 25 remainder exhibit similar historical and contemporary patterns of caribou use, which are not geographically limited to Unit 25D. Gwich'in Athabascan territory, for example, extended beyond Arctic Village to the north and into western Canada (Slobodin 1981). For Unit 25, remainder, the evidence of patterns of caribou use is the same as the evidence for Unit 25D. In general, when caribou migrations entered into areas proximate to human settlements, caribou were harvested. For example, Arctic Village residents harvested 92 caribou in 1993, 168 in 1994, 110 in 1995, 56 in 1996, and 11 in 1997. This pattern is in shown in **Table 2** for Arctic Village, Beaver, Central, Chalkyitsik, Circle, Fort Yukon, Stevens Village, and Venetie**.** Similar data for Birch Creek are unavailable.

Residents from a number of Federally qualified rural communities statewide have hunted caribou with a joint State/Federal permit in Unit 25. For example, residents from Kodiak, Barrow, and Sitka, among many other communities, have hunted caribou in Unit 25 between 2000 and 2009. Over this time, Kodiak residents received 24 permits and harvested 7 caribou; Barrow residents received 1 permit and harvested no caribou; Sitka residents received 12 permits and harvested 5 caribou. Rural resident caribou harvest

Table 2. Unit 25 caribou harvest data, 2000-2009 for all Federally qualified rural residents (USFWS 2011).

Res Community	Unit	Issued	State Res	Hunted	Kill	Days hunted	Success	CPUE
Skagway	1	1	1	1	0	6	0	0
Haines	1	13	13	9	2	76	22.2	2.6
Gustavus	1	5	5	2	1	4	50	25
Craig	2	6	6	6	0	49	0	0
Thorne Bay	2	2	2	1	0	7	0	0
Klawock	2	3	3	3	1	21	33.3	4.8
Wrangell	3	12	12	10	5	55	50	9.1
Petersburg	3	6	6	3	2	4	66.7	50
Elfin Cove	4	1	1	1	0	6	0	0
Tenakee Springs	4	8	8	7	2	28	28.6	7.1
Sitka	4	12	12	11	5	91	45.5	5.5
Yakutat	5	2	2	0	0	0		
Falls Bay	6	1	1	1	0	3	0	0
Cordova	6	14	14	12	5	51	41.7	9.8
Whittier	6	3	3	3	2	14	66.7	14.3
Chenega Bay	6	1	1	0	0	0		
Cooper Landing	7	6	6	3	2	23	66.7	8.7
Hope	7	2	2	0	0	0		
Kenny Lake	13	2	2	1	0	1	0	0
Copper Center	13	10	10	9	3	54	33.3	5.6
Glennallen	13	2	2	2	1	8	50	12.5
Cantwell	13	9	9	5	3	6	60	50
Lake Louise	13	1	1	1	1	1	100	100
Kashwitna	14	1	1	1	0	2	0	0
Peters Creek	14	4	4	4	0	23	0	0
Talkeetna	14	17	17	14	1	59	7.1	1.7
Willow	14	28	28	21	3	126	14.3	2.4
Chickaloon	14	1	1	0	0	0		
Seldovia	15	1	1	1	0	10	0	0
Nanwalek	15	1	1	1	0	0	0	
Ninilchik	15	21	21	20	8	100	40	8
Trapper Creek	16	7	7	6	2	16	33.3	12.5
Kodiak	8	24	24	17	7	96	41.2	7.3
Unalaska	10	2	2	1	0	8	0	0
Dutch Harbor	10	2	2	1	0	3	0	0
King Salmon	9	6	6	5	1	29	20	3.4
Newhalen	9	1	1	0	0	0		
South Naknek	9	1	1	0	0	0		
Dillingham	17	3	3	3	2	8	66.7	25

Table 2. Continued.

Res Community	Unit	Issued	State Res	Hunted	Kill	Days hunted	Success	CPUE
Aleknagik	17	1	1	1	1	8	100	12.5
St Marys	18	1	1	1	0	1	0	0
Akiachak	18	1	1	1	0	3	0	0
Hooper Bay	18	1	1	1	0	3	0	0
Toksook Bay	18	1	1	1	1	1	100	100
Tok	12	23	23	21	7	121	33.3	5.8
Fort Greely	20D	10	10	8	0	25	0	0
Rampart	20F	1	1	1	0	4	0	0
Healy	20C	18	18	17	1	63	5.9	1.6
Anderson	20A	14	14	10	1	42	10	2.4
Nenana	20A	83	83	71	11	234	15.5	4.7
Clear	20A	19	19	11	2	17	18.2	11.8
Delta Jct	20D	35	35	17	4	76	23.5	5.3
Denali Park	20C	5	5	4	1	20	25	5
Manley Hot Springs	20B	1	1	0	0	0		
Livengood	20B	3	3	0	0	0		
Chicken	20E	2	2	0	0	0		
Circle	25C	18	18	16	1	66	6.3	1.5
Fort Yukon	25D	43	43	42	15	200	35.7	7.5
Central	25C	440	440	351	135	2,918	38.5	4.6
Chuathbaluk	19A	1	1	1	0	10	0	0
Nulato	21D	4	4	3	2	3	66.7	66.7
Galena	21D	1	1	1	1	1	100	100
Coldfoot	24	3	3	3	2	8	66.7	25
Nome	22	1	1	1	0	1	0	0
Kotzebue	23	4	4	1	0	2	0	0
Colville Village	26	1	1	1	0	1	0	0
Barrow	26	1	1	1	0	1	0	0
Wainwright	26	1	1	1	0	7	0	0
Nuiqsut	26	1	1	1	1	1	100	100
Harvest by non-rural residents								
Fort Wainwright	20	774	774	561	108	1,480	19.3	7.3
Meadow Lakes	14	5	5	3	3	4	100	75

data for Unit 25, from 2000 to 2009, are shown in **Table 3**. When taking factor 4, "near, or reasonably accessible from the community or area," into consideration, rural residents from outside of Unit 25 who hunt caribou in Unit 25 may be reasonably excluded from a customary and traditional use determination, with a few exceptions. There is no available information indicating that the harvests by residents of communities outside of Unit 25 should be included in the customary and traditional use determination for Unit 25. For these residents, Unit 25 is not "reasonably accessible." The exception may be residents in Unit 24A. Residents of Coldfoot harvest caribou in Unit 25, as shown in **Table 2**. Between 2000 and 2009, Coldfoot residents were issued 3 permits for Unit 25 and harvested 2 caribou. Residents of Wiseman and other Unit 24A residents also hunt caribou in Unit 25 (Scott 1993; Jack Reakoff, pers. comm.). For these residents, Unit 25 is reasonably accessible and should be considered for a positive customary and traditional use determination.

Table 3. Caribou harvest by community in Unit 25, 1993-1997 (ADF&G 2011 and USFWS 2011)

Community	Caribou Harvest by Year				
	1997	1996	1995	1994	1993
ARCTIC VILLAGE	11	56	110	168	92
BEAVER	n/a	n/a	n/a	5	n/a
CENTRAL	n/a	n/a	n/a	n/a	n/a
CHALKYITSIK	n/a	n/a	n/a	n/a	n/a
CIRCLE	5	2	2	n/a	n/a
FORT YUKON	20	10	50	75	2
STEVENS VILLAGE	n/a	n/a	n/a	n/a	n/a
VENETIE	n/a	n/a	n/a	179	34

Effects of the Proposal

The effect of the proposal would be to exclude Federally qualified users from outside of Unit 25, with the possible exceptions of those residents in Unit 24A, from harvesting caribou under Federal regulations in the remainder of Unit 25 (Units 25A, 25B, and 25C). Such users could still harvest caribou under State regulations. If the proposal is adopted as written, then recognition of customary and traditional use of caribou for residents of Unit 25 would not be provided to those who have a pattern of use (residents of Unit 24A) within the remainder of Unit 25. If Federally qualified users who customarily and traditionally harvest caribou in this unit have been inadvertently excluded, they may choose to submit a proposal to be considered for a for a positive customary and traditional use determination. The Eastern Interior and Western Interior Alaska Regional Advisory Councils should provide further guidance on including appropriate rural residents.

OSM PRELIMINARY CONCLUSION

Support Proposal WP612-69 **with modification**. The modification would be to include residents of Unit 24A in the customary and traditional use determination for caribou in Unit 25 remainder.

The modified regulation should read:

Customary and Traditional Use Determination—Caribou

Unit 25D

Rural residents of Units 20F, 25D, and Manley.

Unit 25, remainder.

~~*All rural residents*~~.***Residents of Unit 25 and 24A.***

Justification

Residents of Unit 25 generally exhibit the eight factors determining customary and traditional use of caribou throughout Unit 25 remainder. Adopting the proposal would recognize the customary and traditional uses of caribou by Federally qualified rural residents of Unit 25. Modifying the proposal to include Federally qualified rural residents of Unit 24A for the remainder of Unit 25 would recognize customary and traditional uses of caribou by those residents.

LITERATURE CITED

Alaska Department of Commerce, Community and Economic Development (ADCCED), Division of Community and Regional Affairs. 2011. http://www.dced.state.ak.us/dca/commdb/CIS.cfm.

ADF&G. 2011. Community Subsistence Information System. http://www.adfg.alaska.gov/sb/CSIS

Case, M. and Libby H. 1990. *Contemporary Wild Resource Use Patterns in Tanana, Alaska, 1987*. Alaska Department of Fish and Game, Div. of Subsistence, Technical Report 178. Juneau, AK.

Caufield, R. A., 1983. *Subsistence Land Use in Upper Yukon Porcupine Communities, Alaska: Dinjii Nats'aa Nan Kak Adagwaandaii*. Alaska Department of Fish and Game, Div. of Subsistence, Technical Paper No. 16. Juneau, AK.

EIRAC. 2011. Transcripts of the Eastern Interior Alaska Subsistence Regional Advisory Council meeting, March 3-4, 2011, in Fairbanks, Alaska. Office of Subsistence Management, FWS. Anchorage, AK.

Nelson, R. K. 1973. *Hunters of the Northern Forest*. Chicago: Aldine.

Osgood, C. M. 1936. *The Han Indians: A compilation of ethnographic and historical data on the Alaska-Yukon boundary area*. Yale University Publications in Anthropology 74. New Haven.

Reakoff, J. 2011. Chair, Western Interior Subsistence Regional Advisory Council. Personal communication (phone conversation). Office of Subsistence Management. Anchorage, AK.

Scott, Carol Patricia. 1993. Continuity and Change in the Wiseman Area of Alaska: A Look at Land and Renewable Resource Use Over Time. Master of Science Thesis, University of Alaska, Fairbanks, AK. 268 pages.

Slobodin, R. 1981. Kutchin. In *Handbook of North American Indians*, Vol. 6, Subarctic. June Helm, ed. Washington, D.C.: Smithsonian Institution.

Stephen R. Braund and Associates. 2007. Yukon Flats land exchange EIS supplemental baseline study: Subsistence use areas and traditional knowledge study for Beaver, Birch Creek, and Fort Yukon, Alaska. Prepared for the U.S. Fish and Wildlife Service. Anchorage, AK.

Sumida, V. 1988 Land and resource use patterns in Stevens Village, Alaska. Technical Paper No. 129. Alaska Department of Fish and Game, Subsistence Division. Juneau, AK.

Sumida, V.1989. Pattern of fish and wildlife harvest and use in Beaver, Alaska. Technical Paper No. 140. Alaska Department of Fish and Game, Subsistence Division. Juneau, AK.

Sumida, V. and D. Anderson 1990. Pattern of fish and wildlife use for subsistence in Fort Yukon, Alaska. Technical Paper No. 179. Alaska Department of Fish and Game, Subsistence Division. Juneau, AK.

US Census. 2000. http://www.censtats.census.gov

USFWS. 2010. Yukon Flats Wildlife Refuge Proposed Land Exchange Final Environmental Impact Statement. Anchorage, AK.

USFWS. 2011. Office of Subsistence Management, Federal Permit System Database. Anchorage, AK.

ADF&G Comments on WP12-69
August 31, 2011; Page 1 of 1

Alaska Department of Fish and Game
Comments to Regional Advisory Council

Wildlife Proposal WP12-69 (GMU 25D Remainder C&T Caribou): This proposal would establish a Federal Customary and Traditional Use determination (C&T) for caribou in Unit 25 Remainder for all residents of Unit 25.

Introduction: This proposal requests the federally qualified residents of Unit 25 have a C&T for caribou in Unit 25 Reminder to narrow federal subsistence user access to the 40 Mile caribou herd. For clarity, Unit 25 Remainder is comprised of all of Unit 25 minus Unit 25D. The proponent indicates recent concerns about the potential range expansion of the 40 Mile herd and additional interest for federal subsistence harvest in Unit 25C by rural residents from outside of the area. The proponent indicates that all rural residents are currently eligible to participate in the federal subsistence hunt and increased interest is likely in this area as caribou are easily accessed. This proposal was submitted to limit participation in the Unit 25 Remainder caribou hunt to residents of Unit 25 only.

Impact on Subsistence Users: If adopted, federal subsistence users who are residents of Unit 25 will be granted proprietal opportunity to harvest caribou in Unit 25 Remainder under federal regulations. If adopted, federally qualified subsistence users residing outside Unit 25 will be prohibited from participation in this federal caribou hunt.

Opportunity Provided by State: Hunting is by joint state/federal registration permit with a fall and winter season. The state resident fall season is August 10-September 30 in the roadless portion of the herd's range and August 29-September 30 in the road accessible areas. The state non-resident fall season in the roadless area is August 10-September 20. The bag limit is 1 bull for all fall seasons. The state winter season in restricted to residents only and is December 1-February 28 with a bag limit of 1 caribou. All hunts are subject to openings and closings on short notice to prevent overharvest.

Other Comments: This proposal resulted from Eastern Interior Regional Advisory Council participation in the Fortymile Caribou Herd Harvest Coalition which includes the Council, 6 state fish and game advisory committees, Yukon First Nations, and Yukon Government. The intent of the proposal may have been to change the C&T use determination for only Unit 25C. This needs to be clarified.

Recommendation: Support for Unit 25C, No recommendation for other areas in Unit 25

WP12-70/73 Executive Summary	
General Description	Proposal WP12-70 requests dividing Unit 11 into two hunt areas, changing the harvest limits and dates of the fall moose season in Unit 12 remainder, and creating a single, joint Federal/State registration permit to administer the hunt area along the Nabesna Road in Unit 11 and Unit 12 remainder. *Submitted by the Upper Tanana Fortymile Fish and Game Advisory Committee* Proposal WP12-73 requests changing the dates of the fall moose harvest season in Unit 12 remainder and removing the spike-fork antler harvest restriction during August 15–23. *Submitted by the Wrangell-St. Elias National Park Subsistence Resource Commission*
Proposed Regulation	**WP12-70** **Unit 11 — Moose** ~~*Unit 11—1 antlered bull by Federal registration permit only.*~~ ~~*Aug. 20–Sept. 20*~~ ***Unit 11–that portion draining into the east bank of the Copper River upstream from and including the Slana River drainage—1 bull by joint Federal/State registration permit only.*** ***Aug. 20–Sept. 20*** ***Unit 11 remainder—1 antlered bull by Federal registration permit only.*** ***Aug. 20–Sept. 20*** **Unit 12 — Moose** *Unit 12 remainder—1 ~~antlered~~ bull~~;~~ ~~however, during Aug. 15–Aug. 23 season, only bulls with spike fork antlers may be taken~~* ***by joint Federal/State registration permit only***. ***Aug. 20–Sept. 20*** ~~*Aug. 15–Aug. 28*~~ ~~*Sept. 1–Sept. 17*~~ **WP12-73** **Unit 12 — Moose** *Unit 12 remainder—1 antlered bull~~;~~ ~~however, during Aug. 15–Aug. 23 season, only bulls with spike fork antlers may be taken~~.* ***Aug. 25–Sept. 25*** ~~*Aug. 15–Aug. 28*~~ ~~*Sept. 1–Sept. 17*~~
OSM Preliminary Conclusion	**Support** Proposals WP12-70 and WP-12-73 **with modification** to retain a harvest limit of 1 antlered bull in all of Unit 11, and to make the season dates the same (August 20–September 20) in Units 11 and 12. **Unit 11 — Moose** ~~*Unit 11—1 antlered bull by Federal registration permit only.*~~ ~~*Aug. 20–Sept. 20*~~

continued on next page

WP12-70/73 Executive Summary *(continued)*	
OSM Preliminary Conclusion (Continued)	***Unit 11—that portion draining into the east bank of the Copper River upstream from and including the Slana River drainage—****1 antlered bull* ***by joint Federal/ State registration permit. .*** ***Aug. 20–Sept. 20*** Note: Permit requirement contingent on Alaska Board of Game endorsing a joint permit in March 2013. If not endorsed, then by Federal registration permit only. ***Unit 11 remainder—****1 antlered bull* ***by Federal registration permit only.*** ***Aug. 20–Sept. 20*** **Unit 12 — Moose** *Unit 12 remainder—1 ~~antlered~~ bull~~; however, during Aug. 15–Aug. 23 season, only bulls with spike fork antlers may be taken~~* ***by joint Federal/State registration permit only****.* ***Aug. 20–Sept. 20*** ~~*Aug. 15–Aug. 28*~~ ~~*Sept. 1–Sept. 17*~~ Note: Permit requirement contingent on Alaska Board of Game endorsing a joint permit in March 2012. If not endorsed, then by Federal registration permit only.
Southcentral Regional Council Recommendation	
Eastern Interior Regional Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	**None**

DRAFT STAFF ANALYSIS
WP12-70 AND WP12-73

ISSUE

Proposal WP12-70, submitted by the Upper Tanana Fortymile Fish and Game Advisory Committee, requests dividing Unit 11 into two hunt areas, changing the harvest limits and dates of the fall moose season in Unit 12 remainder, and creating a single, joint Federal/State registration permit to administer the hunt area along the Nabesna Road in Unit 11 and Unit 12 remainder.

Proposal WP12-73, submitted by the Wrangell-St. Elias National Park Subsistence Resource Commission, requests changing the dates of the fall moose harvest season in Unit 12 remainder and removing the spike-fork antler harvest restriction during August 15–23.

DISCUSSION

The "remainder" portion of Unit 12 is different under Federal and State regulations. Under Federal regulations, the "remainder" only includes National Park Service lands lying to the west of the Nabesna River and Glacier to the boundary of Unit 11.

Currently there are two different sets of moose season dates and harvest limits along the Nabesna Road (Units 11 and 12) and two permits/tags required for Federally qualified users hunting under Federal regulations; Unit 11 requires a Federal Registration Permit and Unit 12 remainder requires a State (green) harvest ticket. Milepost 25.2 along the Nabesna road is the boundary between Units 11 and 12.

WP12-70 would change the harvest limit to 1 bull in a proposed, newly designated portion of Unit 11 along and near the Nabesna Road and in Unit 12 remainder. It would also change the dates of the fall moose harvest season in Unit 12 remainder to August 20–September 20, to match the current season dates in Unit 11. The proponent requests the creation of a joint Federal/State permit, modeled after the joint state/federal registration moose permit RM865 utilized in Unit 20E off the Taylor Highway, which has had much better reporting compliance than the State green harvest ticket (Gross, 2011).

WP12-73 would change the fall moose harvest season in the Federal Unit 12 remainder to August 25–September 25 and would liberalize the harvest limit to 1 antlered bull for the entire season, by eliminating a spike-fork restriction during part of the current fall season.

Note: Proposals WP12-71 and -72 are related to the two proposals in this analysis, in that they request changes to the dates of the fall and winter season dates in an adjacent portion of Unit 12; that portion on Federal lands within the Tetlin National Wildlife Refuge and those lands within the Wrangell-St. Elias National Preserve north and east of a line formed by the Pickerel Lake Winter Trail from the Canadian border to Pickerel Lake.

Existing Federal Regulations

Unit 11 — Moose

Unit 11 —1 antlered bull by Federal registration permit only.	*Aug. 20–Sept. 20*

Unit 12 — Moose

Unit 12 remainder—1 antlered bull; however, during Aug. 15–Aug. 23 season, only bulls with spike fork antlers may be taken.	*Aug. 15–Aug. 28* *Sept. 1–Sept. 17*

Proposed Federal Regulations

WP12-70

Unit 11 — Moose

~~*Unit 11—1 antlered bull by Federal registration permit only.*~~	~~*Aug. 20–Sept. 20*~~
Unit 11–that portion draining into the east bank of the Copper River upstream from and including the Slana River drainage—1 bull by joint Federal/State registration permit only.	***Aug. 20–Sept. 20***
Unit 11 remainder—1 antlered bull by Federal registration permit only.	***Aug. 20–Sept. 20***

Unit 12 — Moose

Unit 12 remainder—1 ~~*antlered*~~ *bull*~~*; however, during Aug. 15–Aug. 23 season, only bulls with spike fork antlers may be taken*~~ ***by joint Federal/State registration permit only***.	***Aug. 20–Sept. 20*** ~~*Aug. 15–Aug. 28*~~ ~~*Sept. 1–Sept. 17*~~

WP12-73

Unit 12 — Moose

Unit 12 remainder—1 antlered bull~~*; however, during Aug. 15–Aug. 23 season, only bulls with spike fork antlers may be taken*~~.	***Aug. 25–Sept. 25*** ~~*Aug. 15–Aug. 28*~~ ~~*Sept. 1–Sept. 17*~~

Existing State Regulations

Unit 11 — Moose

Unit 11	*Resident: One bull*	*CM300 Harvest permit*	*Aug. 10–Sept. 20*
	Nonresident: One bull with spike fork or 50-inch antlers or antlers with 3 or more brow tines on at least one side		*Aug. 20–Sept. 20*

Unit 12 — Moose

Unit 12—that portion including all drainages into the west bank of the Little Tok River, from its headwaters in Bear Valley at the intersection of the unit boundaries of Unit 12 and 13 to its junction with the Tok River, and all drainages into the south bank of the Tok River from its junction with the Little Tok River to the Tok Glacier.	*Resident: One bull with spike fork or 50-inch antlers or antlers with 4 or more brow tines on at least one side*	*Harvest permit*	*Aug. 24–Aug. 28 OR Sept. 8–Sept. 17*
	Resident: One bull with spike fork or 50-inch antlers or antlers with 4 or more brow tines on at least one side	*CM300*	*Aug. 24–Aug. 28 Sept. 8–Sept. 17*
	Nonresident: One bull with 50-inch antlers or antlers with 4 or more brow tines on at least one side.	*Harvest permit*	*Sept. 8–Sept. 17*
Unit 12— remainder of that portion in the Tok River drainage upstream from the Tok Cutoff Bridge, including the Little Tok River drainage.	*Resident: One bull with spike fork or 50-inch antlers or antlers with 4 or more brow tines on at least one side*	*Harvest permit*	*Aug. 24–Aug. 28 OR Sept. 8–Sept. 17*
	Nonresident: One bull with 50-inch antlers or antlers with 4 or more brow tines on at least one side.	*Harvest permit*	*Sept. 8–Sept. 17*
Unit 12—that portion east of the Nabesna River, and south of the winter trail running southeast from Pickerel Lake to the Canadian border.	*Both residents and nonresidents: One bull with 50-inch antlers or antlers with 4 or more brow tines on at least one side.*	*Harvest permit*	*Sept. 1–Sept. 30*
Unit 12—remainder	*Resident: One bull*	*Harvest permit*	*Aug. 24–Aug. 28 OR Sept. 8–Sept. 17*
	Nonresident: One bull with 50-inch antlers or antlers with 4 or more brow tines on at least one side.	*Harvest permit*	*Sept. 8–Sept. 17*

Extent of Federal Public Lands

Federal public lands comprise approximately 81% of Unit 11; 2% U.S. Forest Service managed lands and 79% National Park Service managed lands (see **Unit 11 Map**).

Federal public lands comprise approximately 59% of Unit 12; 11% U.S. Fish and Wildlife Service managed lands and 48% National Park Service managed lands (see **Unit 12 Map**).

Customary and Traditional Use Determinations

Unit 11 north of the Sanford River – Rural residents of Units 11, 12, 13A, 13B, 13C, and 13D, and Healy Lake, Chickaloon and Dot Lake.

Unit 11 remainder – Rural residents of Units 11, 13A, 13B, 13C, 13D, and Chickaloon.

Unit 12, that portion within the Tetlin National Wildlife Refuge and those lands within the Wrangell-St. Elias National Preserve north and east of a line formed by the Pickerel Lake Winter Trail from the Canadian border to Pickerel Lake – Residents of Units 12, 13C, Dot Lake and Healy Lake.

Unit 12–that portion east of the Nabesna River, and the Nabesna Glacier and south of the Winter Trail running southeast from Pickerel Lake to the Canadian border – Residents of Units 12, 13C and Healy Lake.

Unit 12 remainder – Residents of Units 11 north of the 62nd parallel, 12, 13A, 13B, 13C, 13D, and the residents of Chickaloon, Dot Lake and Healy Lake.

Regulatory History

Unit 11

In 1992, the Federal Subsistence Board added 10 days to the moose season in Unit 11, aligning it with the seasons in adjoining units. In 1999, the Board revised the customary and traditional use determinations and added five days to the start of the Unit 11 moose season. In May 2007, the Board rejected proposal WP07-20 to change the season dates to September 1–30 (FWS 2007).

Unit 12

For the regulatory history of Unit 12, see the analysis for proposals WP12-71 and -72.

State Management Goals and Objectives for moose (Tobey 2008)

Unit 11

Population Objective

- Allow the population to fluctuate as dictated by available habitat and predation rates.
- Maintain a minimum post hunting ratio of at least 30 bulls:100 cows, with 10–15 adult bulls:100 cows.

Human Use Objective

- Allow human harvest of bulls when it does not conflict with management goals for the unit or population objectives for the herd.

Unit 12

Management Goals

- Protect, maintain and enhance the moose population in concert with other components of the ecosystem.
- Continue sustained opportunities for subsistence use of moose
- Maximize sustained opportunities to participate in hunting moose.
- Maximize opportunities for the non-consumptive use of moose.

Management Objective

- Maintain a minimum post hunting ratio of at least 40 bulls:100 cows east of the Nabesna River, and a minimum of 20 bulls:100 cows in the remainder of the unit.

Intensive Management Objectives

- Population: 4000–6000 moose.
- Harvest: 250–450 moose annually.

Biological Background

Unit 11

A moose population census for all of Unit 11 has never been conducted; although density estimates have been extrapolated from trend counts beginning in the 1950s. Density estimates have ranged from 0.3 to 0.6 moose/mi^2, or between 2,500 and 3,000 moose in all of Unit 11 (**Table 1a**) between 1999 and 2009 (Tobey 2004; Schwanke 2011).

Sex and age composition trend surveys are conducted regularly in Unit 11 by the ADF&G on the western slopes of the Mount Drum Count Area 11 (CA11), an aircraft-accessible, lightly hunted moose population. The total number of moose counted in CA11 averaged 112 moose annually between 1998 and 2004. Though Unit 11 calf:cow ratios have been chronically low, the 2003–2004 calf:cow ratio in CA11 increased 67 percent from 2001 to 15 calves:100 cows (Tobey 2004). From 1998 through 2004, on average, 17 calves:100 cows were observed in CA11. Calves made up approximately 7 percent of the population during this time period. Interestingly, the bull:cow ratio averaged 117 bulls:100 cows from 1998 through 2004, which is among the highest ever observed (Tobey 2004). During this period, the bull:cow ratio greatly exceeded the ADF&G management objective of maintaining a minimum of at least 30 total bulls and 15 adult bulls:100 cows post hunting season.

In 2007 and 2010, National Park Service staff at the Wrangell-St. Elias National Park and Preserve (WRST) conducted GeoSpatial Population Estimator (GSPE) surveys in Unit 11, which covered much larger areas than previous surveys. For the Mt. Drum area, the ratios of bulls per 100 cows continued to remain high at 118:100 in 2007 and 55:100 in 2010 (**Table 1b**). Moose density increased slightly in 2010 from the 2008 survey.

Moose population information is also collected by WRST staff near the north end of Unit 11 in the Upper Copper River (UCR) moose survey area, which covers the Boulder Creek drainage east to Copper Lake. A portion of this survey area is accessible using all-terrain vehicles from the Nabesna Road, but the western portion of the survey area is accessible only by aircraft. No moose survey data is collected along the Nabesna Road, where a majority of the moose hunting occurs (Schwanke, 2011). Between 2003 and 2008 (excluding 2007), an average of 297 moose were counted annually in the UCR moose survey area (**Table 1c**) (Reid 2007). The calf:cow ratio was fairly stable, averaging 12 calves:100 cows. Calves made up about 7% of the population. The bull:cow ratio remained fairly stable as well, averaging 46 bulls:100 cows; again, well above the management objective.

Results of the 2007 and 2010 GSPE surveys for the UCR are consistent with previous surveys, with 2–3 times more moose observed than the other two survey areas. The ratios of calves per 100 cows and bulls per 100 cows were both slightly higher in 2010 (**Table 1c**) than the previous survey conducted in 2008 (**Table 1b**).

Table 1a. Unit 11 moose population demographics on the western slopes of Mount Drum, WRST, AK, 1998–2009 — a lightly hunted population (Tobey 2004, 2008; Schwanke 2011).

Year	Number of Bulls	Number of Cows	Number of Calves	Total Moose	Bulls:100 Cows	Calves/ 100 Cows	% Calves	Moose /Hour	Density Moose/ mi²
1998–99	51	46	7	104	111	15	7	24	0.4
1999–00	58	53	11	122	109	21	9	28	0.4
2000–01	58	37	9	104	157	24	9	23	0.4
2001–02	43	46	4	93	94	9	4	19	0.3
2002–03	—	—	—	—	—	---	--	---	—
2003–04	69	60	9	138	115	15	7	30	0.5
2004–05	—	—	—	—	—	—	—	—	—
2005–06	—	—	—	—	—	—	—	—	—
2006–07	57	62	30	149	92	48	20	32	0.5
2007–08	—	—	—	—	—	—	—	—	—
2008–09	63	86	15	164	73	17	9	38	0.6
Total	399	390	85	874					
Mean	57	56	12	112	125	21	9	28	0.4

Table 1b. Unit 11 moose population demographics in the Upper Copper River survey area, Boulder Creek to Copper Lake,WRST, AK, 2003–2008 — a relatively heavily hunted population accessible by aircraft and all-terrain vehicles (Reid 2007, 2008; Putera 2011).

Year	Number of Bulls	Number of Cows	Number of Calves	Total Moose	Bulls:100 Cows	Calves/ 100 Cows	% Calves
2003	97	215	21	333	45	10	6
2004	78	142	25	245	55	18	10
2005	92	183	11	286	50	6	4
2006	86	218	31	335	39	14	9
2008	77	186	22	285	41	12	8
Total	430	944	110	1,484			
Mean	86	189	22	297	46	12	7

Table 1c. Moose Population Estimates for selected areas of Unit 11, from surveys conducted in 2007 and 2010 (Reid 2008; Putera 2011).

Area	Year	Population Estimate	Moose Observed	Calf: 100 Cow	Bull: 100 Cow	No. Units Surveyed	Density (mi²)
Total Survey 3170 mi²	2007	1576 ± 244	500	19	52	87	0.50
	2010	1584 ± 214	623	17	50	94	0.50
Upper Copper 524 mi²	2007	403 ± 70	170	16	38	25	0.77
	2010	506 ± 97	193	14	51	19	0.97
Mt. Drum 349 km²	2007	232 ± 65	82	11	118	8	0.66
	2010	186 ± 51	66	35	55	11	0.53
Crystalline Hills 349 km²	2007	260 ± 93	63	29	42	9	0.74
	2010	259 ± 55	134	17	50	16	0.74

Predation on moose calves by bears and wolves has been shown to be an important limiting factor in some moose populations. The relatively high brown bear numbers in Unit 11, and possibly high wolf numbers, may be contributing to the low calf:cow ratios observed in this unit, as well as the overall low, but stable density moose population (Tobey 2008).

Unit 12

The Unit 12 moose population is considered to be of low density and relatively stable. However, in the Nabesna Road area, the density of moose is extremely low and hunting pressure has been increasing the past 5–7 years (Gross, 2011).

The ADF&G conducted moose population estimation surveys in southern Unit 12, within the Tok West and Tok Central survey areas during 1998—2006, using the geospatial population estimator (GSPE) moose survey technique (Ver Hoef 2001, Kellie and DeLong 2006). The data collected were utilized to determine population trends, herd composition in the survey areas and to estimate moose numbers in the entire unit by extrapolation (**Table 2**).

The amount of moose observed has ranged from 150 to 1,317 animals. The ratio of bulls per 100 cows has ranged from 22 to 97.The long term (1988–2006)average has been above the management objective of 40 bulls per 100 cows.

Harvest History

Unit 11

From 2000 to 2009, an annual average of 118 hunters harvested an average of 29 moose per year under State regulations (**Table 3**). On Federal lands, an annual average of 142 Federally qualified users harvested an average of 20 moose under the Federal Subsistence permit (**Table 4**) (FWS 2011). Some of the moose harvested under State regulations were likely taken on Federal lands.

Unit 12

Between 1990 and 2007, there was an annual average of 473 hunters (**Table 5**) that reported an average harvest of 115 moose per year, with a range of 71–149 (**Table 6**). However the total annual estimated harvest is higher based on estimates of unreported legal harvest, illegal harvest and accidental deaths, which averaged between 143 and 174 moose per year (Gross 2008).

Alternative for Consideration

Expand the current Federal registration permit for Unit 11 to include Unit 12 remainder on Federal lands, instead of breaking out Unit 11 into two portions. Should the Federal Subsistence Board authorize, and the Alaska Board of Game concur with, a joint State/Federal registration permit, the joint permit could be valid for all of Unit 11 and Unit 12 remainder on Federal lands.

Current Events

The proponent for WP12-70 also submitted a companion proposal to the Alaska Board of Game. The earliest the Alaska Board of Game could take up the companion proposal is March 2012 for Unit 12 (Region III). For Unit 11 (Region IV), the Alaska Board of Game is scheduled to meet in March 2013. If the proposed joint permit were adopted by the Federal Subsistence Board at its scheduled January 2012

Table 2. Unit 12 aerial moose composition counts, fall 1988—2006 (Gross 2008).

Year	Bulls: 100 Cows	Yearling bulls:100 Cows	Calves: 100 Cows	Moose observed	Adults observed	Calves observed	Percent Calves
1988	64	18	33	1133	943	189	17
1989[a]	50	13	30	1317	1094	223	17
1990	47	12	25	1256	1071	185	15
1991	49	12	24	1472	1264	200	14
1992	45	10	26	1071	906	165	15
1993[b]	26	7	36	850	662	187	22
1994[c]	38	16	39	414	327	87	21
1994[d]	97	13	25	421	374	47	11
1995[d]	82	12	26	526	461	65	12
1996	39	9	32	1258	1022	236	19
1997[c]	36	11	41	596	458	138	23
1997[d]	87	22	31	512	439	73	14
1998[e]	65	14	34	277	229	48	17
1998[f]	38	7	29	150	124	26	17
1999[b]	22	8	17	823	721	102	12
2000[g,h]	40	9	18	630	558	72	11
2000[h,i]	84	10	34	268	229	39	15
2001[g,h]	40	11	27	672	566	106	16
2001[h,i]	64	18	33	466	400	66	14
2002[g,h]	42	12	15	350	305	45	13
2003[g,h]	25	7	32	575	464	111	19
2003[h,i]	89	15	33	564	475	89	15
2004[h,i]	70	16	48	437	351	89	22
2005[g,h]	22	11	30	384	315	69	20
2006[g,h]	37	7	41	873	688	185	21

[a] Tok and Dry Tok not surveyed.
[b] Cheslina and the northern face of the Nutzotin Mountains not surveyed.
[c] Based on population estimation results from northwestern Unit 12.
[d] Cheslina, Kalukna, Nabesna and Chisana count areas were sampled using contour survey techniques.
[e] Based on population estimation results from the Chisana area, southwest Unit 12 using the “No stratification” technique.
[f] Only the north face of the Alaska Range sampled using the contour survey technique.
[g] Survey area includes state and private lands in western and northern Unit 12. Survey conducted by ADF&G.
[h] Ratios and percentages determined using weighted contributions from high and low sample areas. Actual counts of cows, calves and bulls were not used in estimates.
[i] Survey area includes Federal and private lands in eastern and southern Unit 12. Survey conducted by USFWS.

Table 3. Unit 11 Moose Harvest data, State only, 2000–2009 (FWS, 2011)

Regulatory Year	Permits issued	Permits hunted	Number harvested	Male	Female	Unkn sex	Percent Success	Days hunted	CPUE*
2000–01	110	110	30	30	0	0	27.3	763	3.9
2001–02	119	119	31	31	0	0	26.1	893	3.5
2002–03	123	123	33	33	0	0	26.8	883	3.7
2003–04	127	127	30	30	0	0	23.6	854	3.5
2004–05	111	111	30	29	0	1	27	751	4
2005–06	122	122	24	24	0	0	19.7	845	2.8
2006–07	96	96	22	22	0	0	22.9	633	3.5
2007–08	124	124	24	23	1	0	19.4	862	2.8
2008–09	128	128	30	30	0	0	23.4	890	3.4
2009–10	117	117	37	35	0	2	31.6	870	4.3
Total	1,177	1,177	291	287	1	3		8,244	

* No. of moose harvested per 100 days of effort

Table 4. Unit 11 Moose Harvest, FM1106, Federal only, 2000–2009 (FWS, 2011)

Regulatory Year	Permits issued	Permits hunted	Number harvested	Male	Female	Unkn sex	Percent Success	Days hunted	CPUE*
2000	155	116	23	22	0	1	19.8	769	3
2001	176	122	13	11	1	1	10.7	854	1.5
2002	93	56	8	7	0	1	14.3	323	2.5
2003	244	156	15	15	0	0	9.6	1,066	1.4
2004	259	150	26	26	0	0	17.3	891	2.9
2005	228	146	23	23	0	0	15.8	820	2.8
2006	251	169	19	18	0	1	11.2	1,049	1.8
2007	282	184	24	24	0	0	13	1,134	2.1
2008	277	179	28	28	0	0	15.6	1,132	2.5
2009	253	137	19	19	0	0	13.9	853	2.2
Total	2,218	1,415	198	193	1	4		8,891	

* No. of moose harvested per 100 days of effort

Table 5. Unit 12 reported moose hunter residency and success, regulatory years 1990–1991 through 2006–2007 (Gross 2008)

	Successful hunters					Unsuccessful hunters					
Regulatory Year	Local[a] Res	Non Local Res	Non Res and Uknwn	Total	(%)	Local[a] Res	Non Local Res	Non resident and Unkwn	Total	(%)	Total Hunters
1990–1991	45	26	27	98	(23)	186	131	15	332	(77)	430
1991–1992	48	49	13	110	(27)	160	132	13	305	(73)	415
1992–1993	23	35	13	71	(15)	222	164	22	408	(85)	479
1993–1994	38	33	20	91	(24)	186	90	13	289	(76)	380
1994–1995	43	28	17	88	(19)	240	118	16	374	(81)	462
1995–1996	55	34	29	118	(24)	249	113	16	378	(76)	496
1996–1997	62	41	21	124	(24)	251	119	14	384	(75)	508
1997–1998	43	29	30	102	(21)	245	125	14	384	(79)	486
1998–1999	68	46	35	149	(29)	232	110	19	361	(71)	510
1999–2000	69	41	29	139	(25)	240	155	23	418	(75)	557
2000–2001	49	41	22	112	(21)	241	144	24	409	(79)	521
2001–2002	49	27	24	101	(19)	242	155	22	419	(81)	520
2002–2003	53	43	28	124	(23)	212	170	25	407	(770	531
2003–2004	54	44	36	134	(24)	230	164	39	433	(76)	567
2004–2005	49	53	35	137	(25)	204	167	30	401	(75)	538
2005–2006	53	51	32	136	(24)	234	167	37	438	(76)	574
2006–2007	48	42	28	118	(20)	255	178	43	476	(80)	594

[a] Residents of Unit 12, 20E and eastern 20D are considered local residents. Major population centers are Eagle, Chicken, Boundary, Northway, Tetlin, Tok, Tanacross, Slana and Dot Lake.

meeting, it would likely need to be contingent upon positive action (concurrence) by the Alaska Board of Game. The proponent for WP12-73 has also submitted a proposal to Alaska Board of Game to address the "overcrowding, high hunting pressure on a low density moose population" along the Nabesna Road in Units 11 and 12 (Celleraius, 2011). Its proposal calls for changing the harvest limit for residents in the State's Unit 12 remainder from "1 bull" to "1 bull with spike-fork antlers or 50-inch antlers with 3 or more brow tines on at least one side", which would align the harvest limit with the harvest limit in Unit 11.

Effects of the Proposals

If Proposal WP12-70 were adopted:

- The Federal moose seasons, harvest limits and permit requirements along the Nabesna Road and along the trail systems off the Nabesna Road in Unit 11 and adjacent Unit 12 remainder would be aligned to simplify regulations and to improve harvest reporting.
- The requirements will be more complicated for those who also hunt elsewhere in Units 11 or 12. For the remainder of Unit 11, hunters would need a separate Federal registration permit.
- The current split season in Unit 12 remainder would be eliminated and the September portion of the season would be extended, which would result in one additional day of harvest opportunity.

Table 6. Unit 12 reported and estimated moose harvest, regulatory years 1990–1991 through 2006–2007 (Gross 2008)

Regulatory	Reported				Estimated	TOTAL
Year	Bulls	Cows	Unk	Total	Unreported, Illegal and Accidental deaths	
1990–1991	94	0	4	98	49–65	147–183
1991–1992	109	0	1	110	49–65	159–175
1992–1993	71	0	0	71	49–65	120–136
1993–1994	91	0	0	91	50–72	141–163
1994–1995	87	0	1	88	52–72	140–160
1995–1996	117	0	1	118	28–40	146–158
1996–1997	124	0	0	124	26–40	150–164
1997–1998	102	0	0	102	26–40	128–142
1998–1999	148	1	0	149	26–40	175–189
1999–2000	137	0	2	139	26–65	165–204
2000–2001	112	0	0	112	26–65	138–177
2001–2002	99	0	2	101	26–65	127–166
2002–2003	124	0	0	124	26–65	150–189
2003–2004	132	1	1	134	26–65	160–199
2004–2005	137	0	0	137	26–65	163–202
2005–2006	134	0	2	136	28–45	164–181
2006–2007	118	0	0	118	28–45	146–163

- Harvest by Federally qualified users would likely increase due to the harvest limit being liberalized to 1 bull in the affected area with a road-accessible moose population. This vulnerability necessitates improved harvest reporting to accurately determine the amount of harvest and to closely monitor the population for conservation purposes.
- The affected management agencies, ADF&G and the NPS, would need to work out the details of permit administration; how and where the joint permits are issued, how screening for (Federal) eligibility will be conducted, which agency will be the recipient of the harvest reports and how and when the results will be shared.

If Proposal WP12-73 were adopted,

- The fall season dates of August 25–September 25 in Unit 12 remainder would be different than the season dates for Unit 11 and the other two portions of Unit 12
- Harvest by Federal hunters would likely increase due to the harvest limit being liberalized and the season extending even further into the rut than the dates proposed in WP12-70.

OSM PRELIMINARY CONCLUSION

Support Proposals WP12-70 and WP-12-73 **with modification** to retain a harvest limit of 1 antlered bull in all of Unit 11, and to make the season dates the same (August 20–September 20) in Units 11 and 12.

The proposed regulations would read:

Unit 11 — Moose

~~*Unit 11—1 antlered bull by Federal registration permit only.*~~	~~*Aug. 20–Sept. 20*~~
Unit 11—that portion draining into the east bank of the Copper River upstream from and including the Slana River drainage—*1 antlered bull* ***by joint Federal/State registration permit. .***	***Aug. 20–Sept. 20***

Note: Permit requirement contingent on Alaska Board of Game endorsing a joint permit in March 2013. If not endorsed, then by Federal registration permit only.

Unit 11 remainder—*1 antlered bull* ***by Federal registration permit only.***	***Aug. 20–Sept. 20***

Unit 12 — Moose

Unit 12 remainder—1 ~~*antlered*~~ *bull*~~*; however, during Aug. 15–Aug. 23 season, only bulls with spike fork antlers may be taken*~~ ***by joint Federal/State registration permit only****.*	***Aug. 20–Sept. 20*** ~~*Aug. 15–Aug. 28*~~ ~~*Sept. 1–Sept. 17*~~

Note: Permit requirement contingent on Alaska Board of Game endorsing a joint permit in March 2012. If not endorsed, then by Federal registration permit only.

Justification

The Federal moose seasons, harvest limits and permit requirements along the Nabesna Road and along the trail systems off the Nabesna Road in Unit 11 and adjacent Unit 12 remainder would be aligned to simplify regulations. The use of a joint Federal/State registration permit should improve harvest reporting.

The population appears healthy enough to allow for a few more bulls to be harvested. However, adopting the harvest limit of 1 antlered bull proposed in WP12-73 should lessen the increase in harvest and is consistent with the harvest limit in the rest of Units 11 and 12.

LITERATURE CITED

Boertje, R.D., K. A. Kellie, C. T. Seaton, M.A. Keech, D.D. Young, B.W. Dale, L.G. Adams and A.R. Alderman. 2007. Ranking Alaska moose nutrition; signals to begin liberal antlerless harvests. Journal of Wildlife Management 71:1494–1506.

Cellarius, B. 2011. Subsistence Specialist. WRST, NPS, Copper Center, AK. Personal Communication.

FWS. 2007. Staff Analysis WP07-20. Pages 237–246 *in* Federal Subsistence Board Wildlife Meeting Materials, April 30 – May 2, 2007. Office of Subsistence Management. Anchorage, AK. 622 pages.

FWS 2011. Federal Subsistence Permit System (Permit Database). Office of Subsistence Management. Anchorage, AK.

Gross, J. A. 2008. Unit 12 moose. Pages 424–440 *in* P. Harper, editor. Moose management report of survey and inventory activities 1 July 2005 through 30 June 2007. Project 1.0. Alaska Department of Fish and Game. Juneau, AK.

Gross, J. A. 2011. Area Biologist. Alaska Department of Fish and Game, Tok, Alaska. Personal communication

Kellie, K. A., and R. A. DeLong. 2006. Geospatial survey operations manual. Alaska Department of Fish and Game. Fairbanks, Alaska, USA. Website address: http://winfonet.alaska.gov//moose/surveys/documents/GSPEOperationsManual.pdf .

Putera, J. 2011. Wildlife Biologist. WRST, NPS, Copper Center, AK. Personal Communication.

Reid. M. 2007. Wildlife Biologist. WRST, NPS, Copper Center, AK. Written Communication.

Reid. M. 2008. 2007 Aerial Moose Survey, Wrangell-St. Elias National Park and Preserve. NPS, Copper Center, AK. 10 pages.

Route, B. and B. Dale. 2004. Abundance and composition of moose in northwestern Wrangell-St. Elias National Park and Preserve, Alaska. Report #WRST-94-04. 20pp.

Schwanke, R., B. 2011. Area Wildlife Biologist. ADF&G. Glennallen, AK. Personal communication.

Tobey, R. W. 2004. Unit 11 moose management report. Pages 121–129 *in* C. Brown, editor. Moose management report of survey and inventory activities 1 July 2001–30 June 2003. ADF&G. Project 1.0. Juneau, AK.

Tobey, R.W. 2008. Unit 11 moose management report. Pages 125–133, *in* P. Harper, editor. Moose management report of survey and inventory activities 1 July 2005 through 30 June 2007. Project 1.0. Alaska Department of Fish and Game. Juneau, AK.

Ver Hoef, J. M. 2001. Predicting finite populations from spatially correlated data. 2000 Proceedings of the Section on Statistics and the Environment of the American Statistical Association. pp. 93–98.

WP12-71/72 Executive Summary	
General Description	Proposal WP12-71, submitted by the Tetlin National Wildlife Refuge, requests that the fall moose harvest in a portion of Unit 12 be changed from a split season of August 24–28 and September 8–17 to a consecutive days season of August 24–September 20 and that the season be administered through a joint State-Federal registration permit. Proposal WP12-72, submitted by the Tetlin National Wildlife Refuge, requests that the winter moose harvest season in a portion of Unit 12 be changed from November 20–December 10 to November 1–March 31 and that the season be administered through a joint State-Federal registration permit. Both proposals request a single joint State-Federal registration permit which would be valid for both the fall and winter seasons.
Proposed Regulation	**Unit 12 — Moose** *Unit 12—that portion within the Tetlin National Wildlife Refuge and those lands within the Wrangell-St. Elias National Preserve north and east of a line formed by the Pickerel Lake Winter Trail from the Canadian border to Pickerel Lake —1 antlered bull* ***by joint State-Federal registration permit (valid for both the fall and winter seasons)*** *~~The Nov.–Dec. season is open by Federal registration permit only.~~* — *Aug. 24~~–Aug. 28~~ ~~Sept. 8–Sept. 17~~* ***–Sept. 20*** ; *Nov.* ***1*** *~~20–Dec. 10~~* ***–Mar. 31*** *Unit 12—that portion east of the Nabesna River, and the Nabesna Glacier and south of the Winter Trail running southeast from Pickerel Lake to the Canadian border—1 antlered bull.* — *Aug. 24–Sept. 30* *Unit 12 remainder—1 antlered bull; however, during Aug. 14–Aug. 23 season, only bulls with spike fork antlers may be taken.* — *Aug. 15–Aug. 28 Sept. 1–Sept. 17*
OSM Preliminary Conclusion	**Unit 12 — Moose** *Unit 12—that portion within the Tetlin National Wildlife Refuge and those lands within the Wrangell-St. Elias National Preserve north and east of a line formed by the Pickerel Lake Winter Trail from the Canadian border to Pickerel Lake —1 antlered bull.* ***The fall season is by joint State-Federal registration permit.*** *The Nov.~~–Dec.~~* ***Feb****. season is open by Federal registration permit only.* — *Aug. 24~~–Aug. 28~~ ~~Sept. 8–Sept. 17~~* ***–Sept. 20*** ; *Nov.* ***1*** *~~20–Dec. 10~~* ***–Feb. 28***

continued on next page

WP12-71/72 Executive Summary *(continued)*	
OSM Preliminary Conclusion (Continued)	Note: Permit requirement contingent on Alaska Board of Game endorsing a joint permit in March 2012. If not endorsed, then by Federal registration permit only. *Unit 12—that portion east of the Nabesna River, and the Nabesna Glacier and south of the Winter Trail running southeast from Pickerel Lake to the Canadian border—1 antlered bull.* *Aug. 24–Sept. 30* *Unit 12 remainder—1 antlered bull; however, during Aug. 14–Aug. 23 season, only bulls with spike fork antlers may be taken.* *Aug. 15–Aug. 28* *Sept. 1–Sept. 17*
Southcentral Regional Council Recommendation	
Eastern Interior Regional Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	**None**

DRAFT STAFF ANALYSIS
WP12-71/72

ISSUE

Proposal WP12-71, submitted by the Tetlin National Wildlife Refuge, requests that the fall moose harvest in a portion of Unit 12 be changed from a split season of August 24–28 and September 8–17 to a consecutive days season of August 24–September 20 and that the season be administered through a joint State-Federal registration permit.

Proposal WP12-72, submitted by the Tetlin National Wildlife Refuge, requests that the winter moose harvest season in a portion of Unit 12 be changed from November 20–December 10 to November 1–March 31 and that the season be administered through a joint State-Federal registration permit.

Both proposals request a single joint State-Federal registration permit which would be valid for both the fall and winter seasons.

DISCUSSION

WP12-71: The proponent states that the current Federal fall season is the same as the State season, from which it was adopted. The State adopted a split fall season as a means to inhibit a large influx of urban Alaska residents from coming to the area. It was believed that if the initial part of the season were only five days, fewer people would travel the long distance to participate. The proponent states that the split season has impacted local rural residents by making it difficult for them to harvest moose. Additionally, the Federal season does not provide a priority to Federally qualified subsistence users. The proposed season of August 24 to September 20 would provide Federally qualified subsistence users almost two additional weeks of harvest opportunity. A continuous season has the added benefit of eliminating the illegal harvest that may be occurring during the current closed period between August 29 and September 7.

WP12-72: The proponent states that there has been no reported harvest in the Federal-only winter hunt (2000–2009). The proponent's intent is to provide a substantial increase in time to allow Federally qualified users more harvest opportunity. In discussions with the proponent after submission of the proposal, the proponent requested that the proposed end date of the winter season be changed to February 28 instead of March 31.

Note: Proposals WP12-70 and -73 are related to the two proposals in this analysis, in that they both request changes to the fall season dates in the adjacent Federal "remainder" portion of Unit 12; those Federal lands to the west of the Nabesna River and the Nabesna Glacier.

Existing Federal Regulations

Unit 12 — Moose

Unit 12—that portion within the Tetlin National Wildlife Refuge and those lands within the Wrangell-St. Elias National Preserve north and east of a line formed by the Pickerel Lake Winter Trail from the Canadian border to Pickerel Lake —1 antlered bull. The Nov.–Dec. season is open by Federal registration permit only.	*Aug. 24–Aug. 28* *Sept. 8–Sept. 17* *Nov. 20–Dec. 10*
Unit 12—that portion east of the Nabesna River, and the Nabesna Glacier and south of the Winter Trail running southeast from Pickerel Lake to the Canadian border—1 antlered bull.	*Aug. 24–Sept. 30*
Unit 12 remainder—1 antlered bull; however, during Aug. 14–Aug. 23 season, only bulls with spike fork antlers may be taken.	*Aug. 15–Aug. 28* *Sept. 1–Sept. 17*

Proposed Federal Regulations

Unit 12 — Moose

Unit 12–that portion within the Tetlin National Wildlife Refuge and those lands within the Wrangell-St. Elias National Preserve north and east of a line formed by the Pickerel Lake Winter Trail from the Canadian border to Pickerel Lake —1 antlered bull ***by joint State-Federal registration permit (valid for both the fall and winter seasons)*** *~~The Nov.–Dec. season is open by Federal registration permit only.~~*	*Aug. 24~~–Aug. 28~~* *~~Sept. 8–Sept. 17~~* ***–Sept. 20*** *Nov.* ***1*** *~~20–Dec. 10~~* ***–Mar. 31***
Unit 12–that portion east of the Nabesna River, and the Nabesna Glacier and south of the Winter Trail running southeast from Pickerel Lake to the Canadian border—1 antlered bull.	*Aug. 24–Sept. 30*
Unit 12 remainder–1 antlered bull; however, during Aug. 14–Aug. 23 season, only bulls with spike fork antlers may be taken.	*Aug. 15–Aug. 28* *Sept. 1–Sept. 17*

Existing State Regulations

Unit 12 — Moose

Unit 12—that portion including all drainages into the west bank of the Little Tok River, from its headwaters in Bear Valley at the intersection of the unit boundaries of Unit 12 and 13 to its junction with the Tok River, and all drainages into the south bank of the Tok River from its junction with the Little Tok River to the Tok Glacier.	*Resident: One bull with spike fork or 50-inch antlers or antlers with 4 or more brow tines on at least one side*	*Harvest permit*	*Aug. 24–Aug. 28* *OR* *Sept. 8–Sept. 17*
	Resident: One bull with spike fork or 50-inch antlers or antlers with 4 or more brow tines on at least one side	*CM300*	*Aug. 24–Aug. 28* *Sept. 8–Sept. 17*
	Nonresident: One bull with 50-inch antlers or antlers with 4 or more brow tines on at least one side.	*Harvest permit*	*Sept. 8–Sept. 17*

Unit 12— remainder of that portion in the Tok River drainage upstream from the Tok Cutoff Bridge, including the Little Tok River drainage.	*Resident: One bull with spike fork or 50-inch antlers or antlers with 4 or more brow tines on at least one side*	*Harvest permit*	*Aug. 24–Aug. 28 OR Sept. 8–Sept. 17*
	Nonresident: One bull with 50-inch antlers or antlers with 4 or more brow tines on at least one side.	*Harvest permit*	*Sept. 8–Sept. 17*
Unit 12—that portion east of the Nabesna River, and south of the winter trail running southeast from Pickerel Lake to the Canadian border.	*Both residents and nonresidents: One bull with 50-inch antlers or antlers with 4 or more brow tines on at least one side.*	*Harvest permit*	*Sept. 1–Sept. 30*
	Resident: One bull	*Harvest permit*	*Aug. 24–Aug. 28 OR Sept. 8–Sept. 17*
Unit 12— remainder	*Nonresident: One bull with 50-inch antlers or antlers with 4 or more brow tines on at least one side*	*Harvest permit*	*Sept. 8–Sept. 17*

Extent of Federal Public Lands

Federal public lands comprise approximately 59% of Unit 12; 11% U.S. Fish and Wildlife Service managed lands and 48% National Park Service managed lands (see **Unit 12 Map**).

Customary and Traditional Use Determination

Unit 12, that portion within the Tetlin National Wildlife Refuge and those lands within the Wrangell-St. Elias National Preserve north and east of a line formed by the Pickerel Lake Winter Trail from the Canadian border to Pickerel Lake – Residents of Units 12, 13C, Dot Lake and Healy Lake have a positive Customary and Traditional Use determination.

Unit 12, that portion east of the Nabesna River, and the Nabesna Glacier and south of the Winter Trail running southeast from Pickerel Lake to the Canadian border — Residents of Units 12, 13C and Healy Lake.

Unit 12, remainder — Residents of Units 11 north of the 62nd parallel, 12, 13A, 13B, 13C, 13D, and the residents of Chickaloon, Dot Lake and Healy Lake.

Regulatory History

Federal and State moose hunting regulations in Unit 12 have changed numerous times since 1989. The Federal seasons and harvest limits have most often been changed in response to the State's establishment, modification, and/or subsequent discontinuance of spike-fork seasons. The State and Federal regulations for the remote hunt area south of the Pickerel Lakes Winter Trail remained constant from 1989 and 1991, respectively, until the State Board of Game (BOG) added the unit wide August 20 to August 28 spike-fork season in 1995, and the Federal Subsistence Board followed suit in 1996. In 1998, the BOG opened the Unit 12 spike-fork season on August 15 — five days earlier. In 1999, the Federal Subsistence Board aligned the Federal regulations with the more liberal state-hunting season. In March of 2000, the BOG considered and adopted a proposal, submitted by the Alaska Department of Fish and Game (ADF&G),

which changed the State's Unit 12 moose hunting seasons and harvest limits. These changes included elimination of all spike-fork seasons in Unit 12.

Due to conservation concerns expressed by the ADF&G and staff of the Tetlin National Wildlife Refuge, the Eastern Interior Regional Advisory Council submitted Proposal WP01-41 requesting changes to the dates of the fall season and the removal of the August spike-fork season from a portion of Unit 12. The Board adopted the proposed regulations for the 2001–2002 regulatory year for the Tetlin National Wildlife Refuge portion of Unit 12 (FWS 2001). In May 2003, the Board adopted Proposal WP03-45 (FWS 2003), which established the current dates for the fall moose season and aligned with BOG actions eliminating the spike-fork season, in that portion of Unit 12 east of the Nabesna River, and the Nabesna Glacier and south of the Winter Trail running southeast from Pickerel Lake to the Canadian border. In 2007, the Board adopted WP07-57 with modification, which requested a change in the winter season dates. The Board adopted the Eastern Interior Regional Advisory Council's recommendation of November 20 – December 10.

State Management Goals and Objectives Unit 12 moose (Gross 2008):

Management Goals

- Protect, maintain and enhance the moose population in concert with other components of the ecosystem.
- Continue sustained opportunities for subsistence use of moose
- Maximize sustained opportunities to participate in hunting moose.
- Maximize opportunities for the non-consumptive use of moose.

Management Objective

- Maintain a minimum post hunting ratio of at least 40 bulls:100 cows east of the Nabesna River, and a minimum of 20 bulls:100 cows in the remainder of the unit.

Intensive Management Objectives

- Population: 4000–6000 moose.
- Harvest: 250–450 moose annually.

Biological Background

The Unit 12 moose population is considered to be of low density and relatively stable (Gross, 2011). The latest moose survey in the Tetlin NWR and adjacent areas in Wrangell-St. Elias Preserve affected by the proposal was conducted in 2008. From that survey, the moose population was estimated to be 1,843 animals, at a density of 0.62 moose per square mile (**Table 1**). Between 2004 and 2008, the ratio of calves per 100 cows declined from 47.8 to 24.5 and the ratio of yearling bulls per 100 cows declined from 16.2 to 14.

In the Tetlin NWR portion of the unit, the bull/cow ratio has been relatively high, with a range of 60–90 bulls/100 cows, in surveys conducted since 1990, so management objectives have consistently been met in the Tetlin NWR portion of Unit 12.

Harvest History

All hunters utilize a State harvest ticket for the Federal and State fall moose seasons on the Tetlin NWR. The reported harvest on the Tetlin NWR averaged 12 moose per year from 1991 to 2010, with a range of

Table 1. Observed and estimated moose population from aerial surveys on Tetlin National Wildlife Refuge and adjacent areas in Unit 12; 1990, 2000-2001, 2003-2004 and 2008 (Keller et. al. 2009)

	Year					
	1990	**2000**	**2001**	**2003**	**2004**	**2008**
Moose Observed						
Yearling Bulls	49	14	33	30	24	56
Bulls 30-50 inches	94	44	65	71	45	90
Bulls 50+ inches	74	43	81	117	76	73
Cows with no calves	260	93	159	174	119	257
Cows with one calf	48	31	58	76	65	71
Cows with two calves	4	4	4	6	12	5
Total bulls	217	101	179	218	155	219
Total cows	312	128	221	256	196	333
Total calves	56	39	66	89	89	81
Total moose	585	268	466	563	437	633
Population Estimates *						
Total Moose	1,339	844	1,411	1,317	1,272	1,843
Density (moose/mi²)	0.36	0.28	0.48	0.45	0.43	0.62
Percent Cows	43.8	45.7	49.1	46	45.8	52.7
Percent Calves	11.1	15.6	16.3	15.1	21.9	12.7
Percent Yearling Bulls	8.1	4.3	8	7	7.4	7.3
Percent Bulls	28.9	38.6	36.7	41.1	31.9	32.3
Bulls/100 Cows	71.2	84.4	74.8	89.4	69.8	61.7
Yearling Bulls/100 Cows	15.4	9.5	16.4	15.3	16.2	14
Calves/100 Cows	21.9	34	33.2	32.8	47.8	24.5

* 1990 estimates computed from MOOSEPOP (Reed 1989). All other estimates from spatial analysis (Ver Hoef 2000, 2001)

4 to 23 (**Table 2**). It should be noted that reporting has been poor for several years and it is suspected that out-of-season harvest takes place (Gross, 2011).

The winter moose season is for Federally qualified users only and is prosecuted under a Federal registration permit. Since 2000, an average of 24 permits have been issued per year, with an average of 7 people actually hunting per year (**Table 3**). To date, there has been no reported harvest of moose in the winter season.

Effects of the Proposal

If the proposal were adopted, the falls season dates would change from August 24–28 and September 8–17 to August 24–September 20 and the winter season dates would change from November 20–

Table 2. Reported moose harvest on Tetlin NWR and WRST Preserve in the affected area (UCU 404, 801, 802, 901, 903 and 12ZY001002) with State green harvest ticket, fall season, regulatory years 1990–1991 through 2009–2010 (Berg, pers. comm., based on ADF&G data, 2011; FWS 2011).

	Successful hunters			
Regulatory year	Local[a] residents	Non Local residents	Non residents	Harvest Total
1990–1991	1	2	2	5
1991–1992	3	3	2	8
1992–1993	4	2	1	7
1993–1994	1	2	1	4
1994–1995	4	3	5	12
1995–1996	5	2	1	8
1996–1997	4	3	3	10
1997–1998	4	3	4	11
1998–1999	10	1	0	11
1999–2000	7	3	2	12
2000–2001	6	2	4	12
2001–2002	10	5	2	17
2002–2003	3	7	8	18
2003–2004	11	8	5	24
2004–2005	4	6	2	12
2005–2006	4	10	5	19
2006–2007	5	7	4	16
2007–2008	6	9	5	20
2008–2009	9	6	5	20
2009–2010	4	5	4	13

[a] Residents of Unit 12, 20E and eastern 20D are considered local residents. Major population centers are Eagle, Chicken, Boundary, Northway, Tetlin, Tok, Tanacross, Slana and Dot Lake.

December 10 to November 1–March 31, which would provide an additional 14 days of harvest opportunity in the fall season and an additional 130 days in the winter season.

All users hunting in the Tetlin NWR and the northeast corner of Wrangell-St. Elias Preserve portion of Unit 12 would be required to utilize a joint State-Federal registration permit on Federal lands for the fall season instead of a State green harvest ticket. Note: If the proposed joint permit were adopted by the Federal Subsistence Board at its scheduled January 2012 meeting, it would likely need to be contingent upon positive action (adoption) by the Board of Game, which is scheduled to meet in March 2012 for Unit 12 (Region III).

There would likely be an increase in the number of moose harvested, due to longer fall and winter seasons.

Table 3 Unit 12 Moose Harvest data, Federal only winter season, 2000–2009 (FWS 2011)

Regulatory Year	Permits Issued	Permits Hunted	Number Harvested	Male	Female	Unkn Sex	Percent Success	Days Hunted	CPUE*
2000	6	4	0	0	0	0	0	9	0
2001	25	11	0	0	0	0	0	19	0
2003	32	5	0	0	0	0	0	14	0
2004	33	6	0	0	0	0	0	19	0
2005	28	8	0	0	0	0	0	19	0
2006	11	4	0	0	0	0	0	10	0
2007	41	9	0	0	0	0	0	29	0
2008	46	12	0	0	0	0	0	37	0
2009	20	9	0	0	0	0	0	27	0
Total	242	68	0	0	0	0	0	183	0

*No. of moose harvested per 100 days of effort

OSM PRELIMINARY CONCLUSION

Support WP12-71 and **Support** WP12-72 **with modification** to extend the winter season only to February 28, not March 31, and to create a joint State-Federal registration for the fall season only.

The modified regulations would read:

Unit 12 — Moose

Unit 12—that portion within the Tetlin National Wildlife Refuge and those lands within the Wrangell-St. Elias National Preserve north and east of a line formed by the Pickerel Lake Winter Trail from the Canadian border to Pickerel Lake —1 antlered bull. ***The fall season is by joint State-Federal registration permit.*** *The Nov.~~–Dec.~~* ***Feb****. season is open by Federal registration permit only.*	*Aug. 24~~–Aug. 28~~* *~~Sept. 8–Sept. 17~~* ***–Sept. 20*** *Nov.* ***1*** *~~20–Dec. 10~~* ***–Feb. 28***
Note: Permit requirement contingent on Alaska Board of Game endorsing a joint permit in March 2012. If not endorsed, then by Federal registration permit only.	
Unit 12—that portion east of the Nabesna River, and the Nabesna Glacier and south of the Winter Trail running southeast from Pickerel Lake to the Canadian border—1 antlered bull.	*Aug. 24–Sept. 30*
Unit 12 remainder—1 antlered bull; however, during Aug. 14–Aug. 23 season, only bulls with spike fork antlers may be taken.	*Aug. 15–Aug. 28* *Sept. 1–Sept. 17*

Justification

Federally qualified subsistence users would be provided an additional 113 days of harvest opportunity in the affected portion of Unit 12, with more days to hunt without competition from other users. The ratio

of bulls per 100 cows in the affected area is well above the management objective and the population appears healthy enough to allow for a few more bulls to be harvested. The joint permit for the fall season would allow managers to monitor the harvest and address conservation concerns if they arise. There has been no reported harvest in the winter season (2000–2009) and the extended season is not anticipated to increase the harvest significantly. A joint State-Federal registration permit for the winter season is unnecessary, as the State has no winter moose season in the affected portion of Unit 12. The winter season end date modification of February 28 is a result of the updated request from the proponent (see page 1).

LITERATURE CITED

Berg, N. 2011. U.S. Fish and Wildlife Service. Tetlin National Wildlife Refuge. Personal communication. Tok, Alaska.

Boertje, R.D., K. A. Kellie, C. T. Seaton, M.A. Keech, D.D. Young, B.W. Dale, L.G. Adams and A.R. Alderman. 2007. Ranking Alaska moose nutrition; signals to begin liberal antlerless harvests. Journal of Wildlife Management 71:1494–1506.

FWS. 2001. Staff Analysis WP01-41. Pages 83–94 *in* Federal Subsistence Board Wildlife Meeting Materials, May 09–10, 2001. Office of Subsistence Management. Anchorage, AK. Section 9. 117 pages.

FWS. 2003. Staff Analysis WP03-45. Pages 489–499 *in* Federal Subsistence Board Wildlife Meeting Materials, May 20–22, 2003. Office of Subsistence Management. Anchorage, AK. 757 pages.

FWS 2011. Federal Subsistence Permit System (Permit Database). Office of Subsistence Management. Anchorage, Alaska.

Gross, J. A. 2008. Unit 12 moose. Pages 134–150 *in* P. Harper, editor. Moose management report of survey and inventory activities 1 July 2005 through 30 June 2007. Project 1.0. Alaska Department of Fish and Game. Juneau, Alaska.

Gross, J. A. 2010. Alaska Department of Fish and Game. Personal communication. Tok, Alaska.

Gross, J. A. 2011. Alaska Department of Fish and Game. Personal communication. Tok, Alaska.

Keller, P. A., W.N. Johnson and H.K. Timm. 2009. Moose Population Survey, 2008. Tetlin National Wildlife Refuge. Game Management Unit 12, eastern Alaska. Progress Report 09-01. U.S. Fish and Wildlife Service, Tok, Alaska.

Kellie, K. A., and R. A. DeLong. 2006. Geospatial survey operations manual. Alaska Department of Fish and Game. Fairbanks, Alaska, USA. Website address: http://winfonet.alaska.gov//moose/surveys/documents/GSPEOperationsManual.pdf .

Ver Hoef, J. M. 2001. Predicting finite populations from spatially correlated data. 2000 Proceedings of the Section on Statistics and the Environment of the American Statistical Association. pp. 93–98.

WP12-75 Executive Summary	
General Description	Proposal WP12-75 requests that the fall moose harvest season be changed from August 24 – September 25 to August 20 – September 30 in a portion of Unit 20E, to match the existing season in another portion of the unit, and that the end date of the season in the remainder portion of the unit be extended to September 30. *Submitted by the Upper Tanana Fortymile Fish and Game Advisory Committee*
Proposed Regulation	**Unit 20E — Moose** *Unit 20E—that portion within Yukon-Charley Rivers National Preserve—1 bull* — *Aug. 20 –Sept. 30* *Unit 20E—that portion drained by the Middle Fork of the Fortymile River upstream from and including the Joseph Creek drainage—1 bull* — *Aug. ~~24~~**20**–Sept. ~~25~~**30*** *Unit 20E remainder—1 bull by joint Federal/ State registration permit only.* — *Aug. 24–Sept. ~~25~~ **30***
OSM Preliminary Conclusion	**Support**
Southcentral Regional Council Recommendation	
Eastern Interior Regional Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	**None**

DRAFT STAFF ANALYSIS
WP12-75

ISSUE

Proposal WP12-75, submitted by the Upper Tanana Fortymile Fish and Game Advisory Committee, requests that the fall moose harvest season be changed from August 24 – September 25 to August 20–September 30 in a portion of Unit 20E, to match the existing season in another portion of the unit, and that the end date of the season in the remainder portion of the unit be extended to September 30.

DISCUSSION

The proponent is requesting that the dates of the Federal fall moose season for Bureau of Land Management administered lands in Unit 20E drained by the Middle Fork of the Fortymile River upstream from and including the Joseph Creek drainage, be changed to August 20–September 30 to match the season dates in the portion of Unit 20E within the Yukon-Charley Rivers National Preserve (Preserve). The proponent states that adoption of this proposal would benefit Federally qualified subsistence users by providing an additional 9 days to hunt moose in the affected area and would also align fall season dates in the portions of Unit 20E off the road system on Federal lands.

Existing Federal Regulations

Unit 20E — Moose

Unit 20E—that portion within Yukon-Charley Rivers National Preserve—1 bull	*Aug. 20 –Sept. 30*
Unit 20E—that portion drained by the Middle Fork of the Fortymile River upstream from and including the Joseph Creek drainage—1 bull	*Aug. 24–Sept. 25*
Unit 20E remainder—1 bull by joint Federal/State registration permit only.	*Aug. 24–Sept. 25*

Proposed Federal Regulations

Unit 20E — Moose

Unit 20E—that portion within Yukon-Charley Rivers National Preserve—1 bull	*Aug. 20 –Sept. 30*
Unit 20E—that portion drained by the Middle Fork of the Fortymile River upstream from and including the Joseph Creek drainage—1 bull	*Aug. ~~24~~**20**–Sept. ~~25~~**30***
Unit 20E remainder—1 bull by joint Federal/State registration permit only.	*Aug. 24–Sept. ~~25~~ **30***

Existing State Regulations

Unit 20E — Moose

Unit 20E drainages of the Middle Fork of the Fortymile River upstream from and including the Joseph Creek drainage	*Resident: One bull*	*Harvest permit*	*Aug. 24–Aug. 28* *Sept. 8–Sept. 17*
	Nonresident: One bull with 50-inch antlers or antlers with 4 or more brow tines on at least one side.	*Harvest permit*	*Sept. 8–Sept. 17*
Unit 20E remainder	*Resident: One bull by permit available in person in Tok, Delta Junction, Eagle and Fairbanks beginning Aug. 18; may not possess RC860 at the same time as RM865*	*RM865*	*Aug. 24–Aug. 28* *Sept. 8–Sept. 17*
	OR		
	Resident: One bull by permit in the Ladue River Controlled Use Area	*DM794 / 796*	*Nov. 1–Nov. 30*
	Nonresident: One bull with 50-inch antlers or antlers with 4 or more brow tines on at least one side by permit available in person in Tok, Delta Junction, Eagle and Fairbanks beginning Aug. 18; may not possess RC860 at the same time as RM865	*RM865*	*Sept. 8–Sept. 17*

Extent of Federal Public Lands

Federal public lands comprise approximately 24% of Unit 20E; 4% Bureau of Land Management managed lands and 20% National Park Service managed lands (**Map 1**).

Customary and Traditional Use Determination

Rural residents of Unit 20E, Unit 12 (north of Wrangell-St. Elias National Preserve), Circle, Central, Dot Lake, Healy Lake and Mentasta Lake have a positive customary and traditional use determination for moose in Unit 20E.

Regulatory History

In 2000, the Alaska Board of Game created registration hunt RM865 in Unit 20E (excluding the Middle Fork Fortymile River) and split the moose season into two periods: August 24–28 and September 8–17, except within the Yukon River drainage, where the season became August 24–28 and 5–25 September. The Alaska Board of Game also stipulated that a hunter could hunt both moose (RM865) and caribou (RC860), but not hold a registration permit for both species at the same time. These actions were in response to increased moose harvest, due to increasing numbers of caribou hunters in most of Unit 20E, and were designed to stabilize the moose harvest to maintain the bull:cow ratio within the management objective (listed below).

In 2002, the Alaska Board of Game reduced the season within the Yukon River drainage to match the season in the remainder of Unit 20E (August 24–28 and September 8–17).

Prior to the 2004–2005 regulatory year, the Alaska Board of Game changed to the present area descriptions (listed above in State regulations), from the previous area descriptions of **"***Unit 20E draining into the Middle Fork of the Fortymile River upstream from the drainage of the North Fork Fortymile River"* and *"Remainder of Unit 20E."* The seasons and bag limits did not change.

In 2006, the Alaska Board of Game identified the entire Unit 20E moose population as being important for providing high levels of human consumptive use under the Intensive Management law (AS 16.05.255[e]–[g]), and applied the intensive management objectives to the entire unit. From 2000 to 2005, these intensive management objectives only applied to the moose populations within the drainages of the Fortymile and Ladue rivers.

In February 2010, the Eastern Interior Alaska Subsistence Regional Advisory Council deliberated wildlife proposal WP10-101, submitted to the Federal Subsistence Board, and recommended breaking out the proposed single, all-encompassing Unit 20E area description into three area descriptions to retain the Yukon-Charley Rivers National Preserve portion and to closely align the other two portions with State regulations for purposes of permit administration and harvest reporting. The Board adopted the Council's recommendation and the (current) regulations were effective 1 July 2010.

Unit 20E State Management Goals and Objectives for moose (Gross 2008):

Management Goals

- Protect, maintain and enhance the moose population in concert with other components of the ecosystem
- Continue sustained opportunities for subsistence use of moose
- Provide for a sustained harvest and promote moose habitat enhancement by allowing natural fires to alter vegetation.

Management Objective

- Maintain a post hunting ratio of at least 40 bulls:100 cows in all survey areas

Biological Background

The ADF&G conducted moose population estimation surveys in southern Unit 20E, within the Tok West and Tok Central survey areas during 1998—2009, using the geospatial population estimator (GSPE) moose survey technique (Ver Hoef 2001, Kellie and DeLong 2006). The data collected were utilized to determine population trends, herd composition in the survey areas and to estimate moose numbers in the entire unit by extrapolation (**Table 1**).

The highest densities of moose have been in a portion of southern Unit 20E, entirely within the Tok West and Tok Central moose survey areas, including the Mosquito Fork Fortymile River drainage downstream from and including Mosquito Flats, the West Fork Fortymile River drainage and the northern Mount Fairplay — lower Dennison Fork Fortymile River areas, where habitat availability and quality are also highest.

The bull:cow ratio remained above 40 bulls:100 cows (1998–2009), but varied across the unit. In the most popular hunting areas — Nine Mile Trail, Mitchell's Ranch, and along the Yukon River and the Taylor

Table 1. Moose population estimates for portions of Unit 20E using GSPE, fall 1998—2009 (Gross 2008; 2010).

Year	Bulls: 100 Cows	Yearling bulls:100 Cows	Calves: 100 Cows	Percent Calves	Total moose observed	Density moose/mi^2 (90% CI)	Population estimate (90% CI)
1998[a]	64	18	19	10	278	0.56	1,086
1998[b]	59	14	23	14	450	0.62	1,694
1999[a]	80	16	22	10	365	0.47	901
2000[a]	60	11	14	8	561	0.58	1,115
2000[c]	49	11	21	13	347	0.70	1,272
2001[a]	76	9	14	7	531	0.47	915
2001[d]	51	6	10	6	624	0.75	2,026
2002[a]	59	10	25	14	364	0.60	1,166
2002[d]	71	8	20	10	396	0.63	1,707
2003[e]	64	9	15	9	355	0.58	1,128
2003[d]	53	5	11	6	297	0.51	1,379
2004[f]	61	11	26	14	283	0.59	1,435
2004[g]	48	11	23	14	233	0.37	802
2005[f]	55	13	30	16	543	0.73	1,801
2005[g]	48	8	16	10	344	0.50	1,097
2006[f]	39	9	37	20	584	0.98	2,398
2006[g]	46	3	24	14	520	0.45	979
2007[f]	50	11	30	16	503	0.86	2,098
2007[g]	46	11	22	13	440	0.62	1,348
2008[f]	47	11	27	16	509	.83	2040
2008[g]	72	16	31	16	356	.72	1571
2009[f]	63	18	34	18	585	1.00	2445
2009[g]	51	11	25	14	461	0.68	1471

[a] Tok West Survey Area, 1,932 mi$^{2)}$ sampled
[b] Tok Central Survey Area, 2,750 mi$^{2)}$ sampled
[c] Tok Central Survey Area, 1,821 mi$^{2)}$ sampled
[d] Tok Central Survey Area, 2,703 mi$^{2)}$ sampled
[e] Tok West Survey Area, 1,944 mi$^{2)}$ sampled
[f] Tok West Survey Area, 2,452 mi$^{2)}$ sampled
[g] Tok Central Survey Area, 2,178 mi$^{2)}$ sampled

Highway — bull populations were noticeably lower, but still the bull:cow ratio remained ≥ 40 bulls:100 cows (**Table 1**) (Gross 2008; 2010).

Twinning rates in the southern portion of Unit 20E were moderate at 24–30% in 2004, 2005 and 2007, but higher in 2006 at 47% (Gross 2008). These twinning rates indicate that nutritional status is adequate to support an increase in the moose population (Boertje et. al. 2007).

Harvest History

Between 1998 and 2009, the reported number of hunters in Unit 20E averaged 647 per year, with a range of 472–913 (**Table 2**). The reported harvest averaged 144 moose per year, with a range of 95–174 (**Table 3**). Illegal harvest is estimated at 5–10 moose per year (Gross 2008).

Table 2. Unit 20E reported moose hunter residency and success, regulatory years 1998–1999 through 2006–2009 (Gross 2008; 2010)

	Successful hunters					Unsuccessful hunters					
Regulatory Year	Local[a] Res	Non Local Res	Non Res /Uknwn	Total	(%)	Local[a] Res	Non Local Res	Non Res /Unkwn	Total	(%)	Total Hunters
1998–1999	47	91	12	150	(32)	76	205	39 / 2	322	(68)	472
1999–2000	36	77	17 /1	131	(23)	98	299	30 / 4	431	(77)	562
2000–2001	36	84	15	135	(26)	98	255	33 / 1	387	(74)	522
2001–2002	33	88	16 /1	138	(19)	222	323	58 / 4	607	(81)	745
2002–2003	29	119	20 /1	169	(18)	200	449	92 / 3	744	(82)	913
2003–2004	21	81	26 /1	129	(16)	143	448	74 / 4	669	(84)	798
2004–2005	20	55	19	94	(19)	102	238	47 / 3	390	(81)	484
2005–2006	25	83	29	137	(22)	129	311	58 / 1	499	(78)	636
2006–2007	27	85	18	130	(19)	131	364	68 / 2	565	(81)	695
2007–2008	25	107	12	144	(19)	141	374	90	605	(81)	749
2008–2009	26	130	23	179	(23)	134	375	81	591	(77)	770

[a] Residents of Unit 12 and Unit 20E and eastern 20D are considered local residents. Major population centers are Eagle, Chicken, Boundary, Northway, Tetlin, Tok, Tanacross, Slana and Dot Lake.

Effects of the Proposal

If the proposal were adopted, the fall season dates in portions of Unit 20E would be changed to August 20–September 30. This aligns Federal regulations in those portions of Unit 20E off the road system on Federal lands.

If adopted, this proposal would provide an additional 9 days of harvest opportunity for Federally qualified subsistence users in the portion of Unit 20E drained by the Middle Fork of the Fortymile River upstream from and including the Joseph Creek drainage; more days to hunt without competition from non-subsistence users. Federally qualified subsistence users would also be provided an additional 5 days of harvest opportunity in Unit 20E remainder.

Table 3. Unit 20E reported moose harvest, regulatory years 1998–1999 through 2008–2009 (Gross 2008; 2010)

Regulatory	General and registration					Drawing permits			TOTAL
Year	Bulls	Cows	Unk	Total		DM794	DM796	Total	
1998–1999	145	0	5	150		1	10	11	161
1999–2000	127	0	4	131		3	9	12	143
2000–2001	135	0	0	135		2	6	8	143
2001–2002	137	0	1	138		5	3	8	146
2002–2003	169	0	1	170		1	3	4	174
2003–2004	129	0	0	129		0	0	0	129
2004–2005	93	0	1	94		1	0	1	95
2005–2006	137	0	0	137		1	0	1	138
2006–2007	129	1	0	130		0	0	0	130
2007–2008	144	0	0	144		0	0	0	144
2008–2009	176	0	0	176		1	2	3	179

There would likely be an increase in the number of moose harvested, due to the season extending into the rut, when moose are more vulnerable. The population appears healthy enough to allow for a few more bulls to be harvested.

OSM PRELIMINARY CONCLUSION

Support Proposal WP12-75.

Justification

The fall season dates would become uniform for Federally qualified subsistence users in those portions of Unit 20E off the road system.

Federally qualified subsistence users would be provided an additional 9 days of harvest opportunity in the affected portion of Unit 20E (outside the Preserve), and 5 more days to hunt in Unit 20E remainder without competition from non-subsistence users.

The population appears healthy enough to allow for a few more bulls to be harvested.

LITERATURE CITED

Boertje, R.D., K. A. Kellie, C. T. Seaton, M.A. Keech, D.D. Young, B.W. Dale, L.G. Adams and A.R. Alderman. 2007. Ranking Alaska moose nutrition; signals to begin liberal antlerless harvests. Journal of Wildlife Management 71:1494–1506.

Gross, J. A. 2008. Unit 20E moose. Pages 424–440 *in* P. Harper, editor. Moose management report of survey and inventory activities 1 July 2005 through 30 June 2007. Project 1.0. Alaska Department of Fish and Game. Juneau, Alaska.

Gross, J. A. 2010. Alaska Department of Fish and Game. Personal communication. Tok, Alaska.

Kellie, K. A., and R. A. DeLong. 2006. Geospatial survey operations manual. Alaska Department of Fish and Game. Fairbanks, Alaska, USA. Website address:

http://winfonet.alaska.gov//moose/surveys/documents/GSPEOperationsManual.pdf .

Ver Hoef, J. M. 2001. Predicting finite populations from spatially correlated data. 2000 Proceedings of the Section on Statistics and the Environment of the American Statistical Association. pp. 93–98.

WP12-76 Executive Summary	
General Description	Proposal WP12-76 requests that the Red Sheep and Cane Creek drainages be closed to non-Federally qualified users during the Aug. 10 – Sept. 20 portion of the season in the Arctic Village Sheep Management Area (AVSMA) of Unit 25A. *Submitted by the Eastern Interior Alaska Subsistence Regional Advisory Council*
Proposed Regulation	*Unit 25A — Arctic Village Sheep Management Area — 2 rams by Federal registration permit only. Federal public lands, ~~except the drainages of Red Sheep Creek and Cane Creek during the period of Aug. 10–Sept. 20~~, are closed to the taking of sheep except by rural Alaska residents of Arctic Village, Venetie, Fort Yukon, Kaktovik, and Chalkyitsik hunting under these regulations.* *Aug. 10 – Apr. 30*
OSM Preliminary Conclusion	**Oppose**
Eastern Interior Regional Council Recommendation	
North Slope Regional Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	**Oppose**
Written Public Comments	**None**

DRAFT STAFF ANALYSIS
WP12-76

ISSUES

Proposal WP12-76, submitted by the Eastern Interior Alaska Subsistence Regional Advisory Council, requests that the Red Sheep and Cane Creek drainages be closed to non-Federally qualified users during the Aug. 10 – Sept. 20 portion of the season in the Arctic Village Sheep Management Area (AVSMA) of Unit 25A.

DISCUSSION

The proponent states that the Red Sheep Creek and Cane Creek drainages are important subsistence and cultural areas for residents of Arctic Village and that the influx of non-Federally qualified hunters into these drainages has interfered with the traditional uses and practices of Arctic Village residents. Title VIII, § 815(3) of the Alaska National Interest Lands Conservation Act (ANILCA) addresses the restriction on the take of fish and wildlife for nonsubsistence uses. The Secretaries have empowered the Federal Subsistence Board (Board) to implement Title VIII of ANILCA, and as such, may restrict use to continue subsistence uses. Title § 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 §816, *to continue subsistence uses of such populations*, or pursuant to other applicable law [emphasis added];

The Board may reopen public lands to non-Federally qualified users if new information or changed conditions indicate that the closure is no longer warranted.

Existing Federal Regulation

Unit 25A — Sheep

Unit 25A — Arctic Village Sheep Management Area – 2 rams by Federal registration permit only. Federal public lands, except the drainages of Red Sheep Creek and Cane Creek during the period of Aug. 10–Sept. 20, are closed to the taking of sheep except by rural Alaska residents of Arctic Village, Venetie, Fort Yukon, Kaktovik, and Chalkyitsik hunting under these regulations.	*Aug. 10 – Apr. 30*

Proposed Federal Regulation

Unit 25A — Sheep

Unit 25A — Arctic Village Sheep Management Area — 2 rams by Federal registration permit only. Federal public lands, ~~except the drainages of Red Sheep Creek and Cane Creek during the period of Aug. 10–Sept. 20,~~ are closed to the taking of sheep except by rural Alaska residents of Arctic Village, Venetie, Fort Yukon, Kaktovik, and Chalkyitsik hunting under these regulations.	*Aug. 10 – Apr. 30*

Existing State Regulations

Unit 25A — Sheep

Residents, one ram with full-curl horn or larger	*Aug. 10 –Sept. 20*
OR	
Three sheep by permit available online at hunt. alaska.gov or in person in Fairbanks and Kaktovik beginning Sept. 22. The use of aircraft for access to hunt sheep and to transport harvested sheep is prohibited in this hunt except into and out of the Arctic Village and Kaktovik airports. No motorized access from the Dalton Highway.	*Oct. 1 – Apr. 30*
One ram with full-curl or larger for nonresidents	*Aug. 10 – Sept. 20*

Extent of Federal Public Lands

Federal public lands comprise approximately 76% of Unit 25A and consist of 74% U.S. Fish and Wildlife Service managed lands and 2% Bureau of Land Management managed lands (**Map 1**).

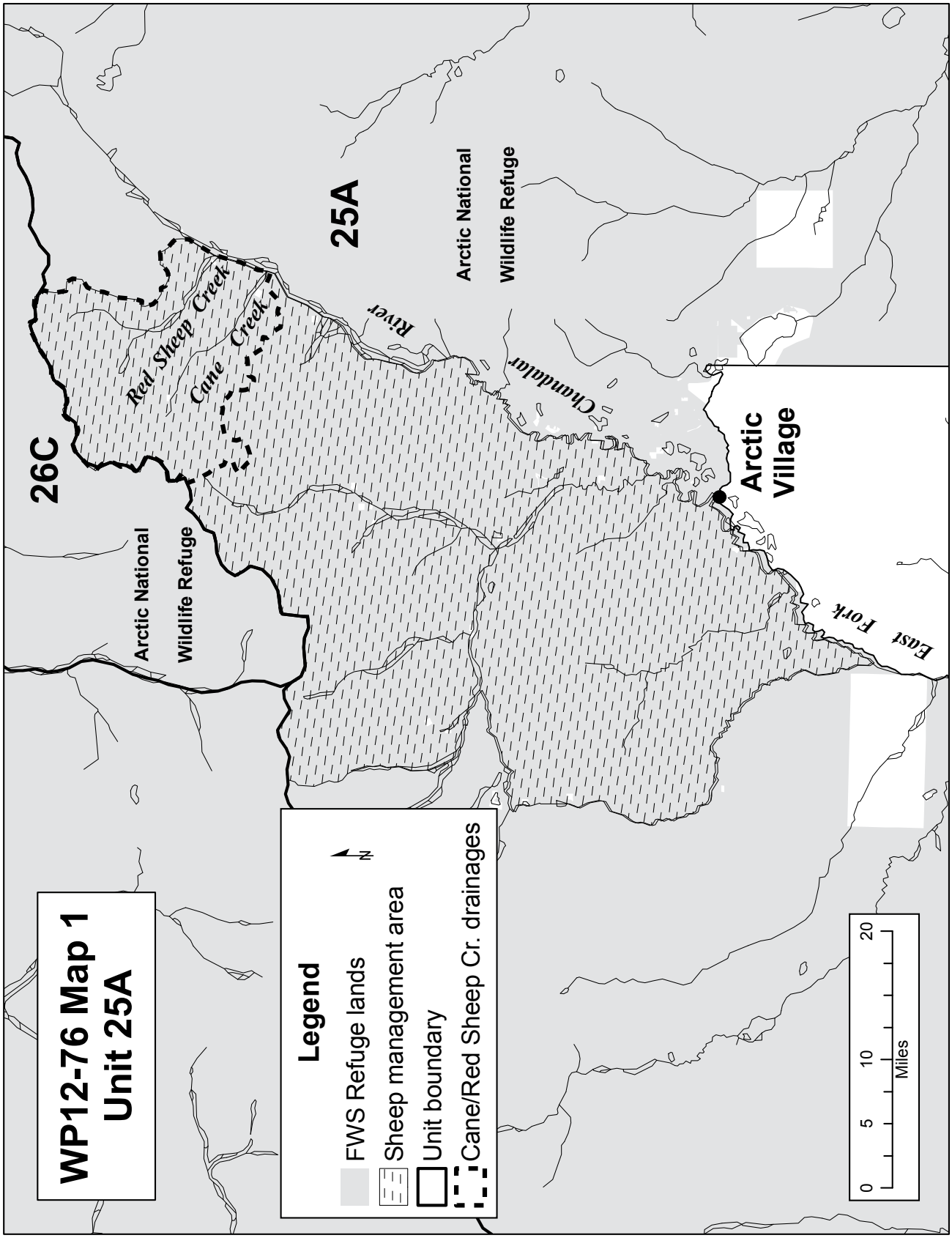
Customary and Traditional Use Determinations

Residents of Arctic Village, Chalkyitsik, Fort Yukon, Kaktovik, and Venetie have a positive customary and traditional determination for sheep in Unit 25A.

Regulatory History

The establishment of the AVSMA and the opening and closing of the Red Sheep and Cane Creek drainages to non-Federally qualified users have been before the Federal Subsistence Board nine times since 1991 (see **Appendix A** for a listing of proposals). Residents of Arctic Village have been trying to keep the Red Sheep Creek and Cane Creek drainages area of the AVSMA closed to non-Federally qualified subsistence users, while other user and interest groups have been trying to keep it open. The issue has been contentious.

In 1995, the AVSMA, which is closed to all but Federally qualified subsistence users, was expanded to include the Red Sheep and Cane Creek drainages. The initial closure was established to provide for continued subsistence use of sheep in the area (FSB 1995). More recently, Proposal WP06-57, submitted by Alaska Department of Fish and Game (ADF&G), requested removal of the Federal closure within the AVSMA. The Board rejected the proposal in May 2006, but requested that the Arctic National Wildlife


WP12-76 Map 1
Unit 25A
Legend
FWS Refuge lands
Sheep management area
Unit boundary
Cane/Red Sheep Cr. drainages
N
0
5
10
20
Miles
26C
25A
Arctic National
Wildlife Refuge
Arctic National
Wildlife Refuge
Red Sheep Creek
Cane Creek
Chandalar
River
Arctic
Village
East Fork

Refuge staff conduct a sheep population survey within the affected area. The Board intended to revisit the issue at its May 2007 meeting, pending the results of a population survey and a revised analysis.

In July 2006, the U.S. Fish and Wildlife Service submitted Special Action WSA06-03, which requested that the closure to non-Federally qualified users for harvesting sheep in the Red Sheep and Cane Creek drainages be lifted during the Aug. 10–Sept. 20 portion of the 2006 season. This request followed a commitment by the Board to address the closure to all but Federally qualified users in the AVSMA following completion of a sheep population survey. Results of the survey found that the sheep population in these drainages was healthy, so the Board adopted the Special Action effective for the 2006 season. Subsequent to action on Special Action WSA06-03, ADF&G submitted Proposal WP07-56, which requested lifting the Federal closure within the Red Sheep and Cane Creek drainages. The Board adopted this proposal in May 2007 because sheep populations in these drainages were determined to be healthy (FSB 2007:305).

For additional regulatory history on this closure see **Appendix A**.

Biological Background

The current ADF&G management objectives for the Unit 25 sheep population are to manage for a harvest of Dall sheep rams with full-curl or larger horns (Caikoski 2008).

Surveys were conducted in 2006, 2007, and 2008 within the Red Sheep and Cane Creek areas that are within the AVSMA, but as of 2007, are no longer closed to non-Federally qualified users. Densities of sheep varied: 1.7 sheep/mile^2 in 2006 (Payer 2006) and 0.8 sheep/mile^2 in 2007 (Brackney and Payer 2007). Densities may have differed due to differing survey areas associated with mineral licks that could have attracted sheep from outside the survey unit (Wald 2010, pers. comm.). Although densities of sheep in the area are low relative to other areas in the Brooks Range, this is probably a reflection of the poor habitat quality of the area (Payer 2006). In 2008, during a sheep population-composition survey, 130 sheep in 20 groups were observed (Payer 2008) with a ratio of 59 lambs:100 ewes, suggesting good productivity.

In 1991, density of Dall sheep in the Red Sheep and Cane Creek drainages was estimated to be 2.25 sheep/mile^2 (Mauer 1996), which was higher than that found during surveys in 2006 and 2007. The sheep population may have declined during this interval despite harvest restrictions for non-Federally qualified users. This is consistent with trends observed in other Brooks Range sheep populations, and likely reflects incomplete recovery from weather-related declines during 1990–1994 (Mauer 1996). Thirty-two of 96 rams (33%) were classified as “mature” in the 2006 survey (Payer 2006) and 6 of 14 rams (43%) were classified as “mature” in the 2007 survey. The “mature” category included rams with full-curl horns as well as larger-bodied rams having horns with massive bases and horn tips pointing upwards. These latter rams may have been less than full curl, but could not be differentiated from full-curl rams from a fixed-wing aircraft.

Mauer (1996) estimated sheep density in the southern part of the AVSMA between Cane and Crow Nest Creeks to be only 0.2 sheep/mile^2. Most of the sheep that Mauer (1996) observed in this area were clustered around mineral licks between Crow Nest and Ottertail Creeks. Similarly, Payer (2006) surveyed the area between Ottertail and Crow Nest Creeks (but not the remainder north of Ottertail Creek to Cane Creek), and observed 87 sheep, 85 of which were associated with two mineral licks.

There are significant differences in sheep abundance and distribution within the AVSMA (Mauer 1990). Specifically, the region north of Cane Creek has supported a sheep density approximately eight times

greater than the region between Crow Nest and Cane Creeks. This is probably related to differences in geology and vegetation; shale formations that occur more commonly north of Cane Creek support more vegetation and therefore this area supports more sheep (Smith 1979).

The Dall sheep population in the Red Sheep and Cane Creek drainages may have declined between 1991 and 2007, while the trend for the southern part of the AVSMA is unknown. However, 2008 composition data indicated good production (Payer 2008). Anecdotal reports from hunters suggest that sheep populations in the area continue to be relatively low, corroborating survey results presented above (USFWS 2010).

Harvest History

Arctic National Wildlife Refuge staff have engaged in outreach efforts to encourage Federally qualified users to document their harvests in general, as well as their use of the AVSMA for sheep hunting. Nonetheless, data on reported use of the AVSMA by Federally qualified users is sparse, and just how many sheep are harvested by Federally qualified subsistence users in the AVSMA is not known. Compliance with the harvest permit system is generally low for residents of Arctic Village, a not uncommon phenomenon for parts of rural Alaska (cf. Andersen and Alexander 1992). A total of six Federal permits to harvest sheep in the AVSMA sheep were issued between 1991 and 2004; none were returned (USFWS 2007). Between 2005 and 2007, 27 Federal registration permits were issued for the AVSMA; 4 sheep were reported harvested and 23 harvest reports were not returned. No permits were issued in 2008 and 2009. Four permits were issued in 2010 for the AVSMA, and of these, one sheep was reported harvested (USFWS 2011).

Some information from household surveys is available on sheep harvests by Arctic Village, Fort Yukon, and Kaktovik residents (**Table 1**), although the data does not specify location of harvest. ADF&G household survey data indicates that Arctic Village residents harvested three sheep in 1993, one in 1996, and five in 1997 (**Table 2)** (ADF&G 2011). Dinero (2003) reported that 5 (14%) of 35 Arctic Village households (out of 40 total households in the community) harvested sheep during the year of his study (1998–1999).

Harvest success by non-Federally qualified hunters in Red Sheep and Cane Creek drainages averaged 69% from 2006 to 2009 (2010 data not yet available). Sheep harvests under State regulations ranged from 2–7 sheep annually between 2006 and 2009 (**Table 3**). However, between 2006, when the Red Sheep and Cane Creek drainages were re-opened, and 2009, a total of 18 rams were harvested by non-Federally qualified hunters (Payer 2011, pers. comm.).

Cultural Considerations

Of the five communities with recognized customary and traditional uses of Dall sheep in Unit 25A, the residents of Arctic Village have the strongest tie to the Red Sheep and Cane Creek drainages (USFWS 1993; see also Reed et al. 2008, Gustafson 2004, Dinero 2003). Sheep hunting is a "longstanding" tradition for Arctic Village residents, most of whom are Gwich'in Athabascan (Caulfield 1983:68, Dinero 2003, Gustafson 2004, EIRAC 2006, 2007, 2011), and the Red Sheep and Cane Creek areas have been a longstanding focus of this activity. Sheep are a prestigious subsistence resource and providing sheep meat to the community is highly respected (cf. Caulfield 1983 and Dinero 2003 for discussion). Sheep are also known as an important "hunger food," that is, a food source that is critical when caribou are unavailable (Caulfield 1983, Dinero 2011, pers. comm., Gilbert 2011, pers. comm.). Local people report increasing uncertainty of caribou migrations in recent years, declining quality of caribou meat, and increasing difficulty and travel distance to obtain moose in recent years: in light of this, local residents claim that

Table 1. The use and harvest of Dall sheep based on household surveys (ADF&G 2011).

		Percentage of Households					Dall Sheep Harvest				
Community	Study Year	Using Sheep (%)	Hunt-ing Sheep (%)	Harvest-ing Sheep (%)	Giving Sheep (%)	Receiv-ing Sheep (%)	Reported (Number)	Expanded to House-holds Not Surveyed (Number)	Lower Estimate (Number)	Higher Estimate (Number)	95% Con-fidence Interval (+/- %)
Arctic Village	1997							5			
	1996							1			
	1995							0			
	1994							0			
	1993							3			
Fort Yukon	1998							0			
	1997							0			
	1996							0			
	1995							0			
	1994							0			
	1993							0			
	1987	9	3	0	0	9	0	0	0	0	0
Kaktovik[a]	1992	70		28	32	64	33	44	32	56	27
	1986	75		9	9	68	15	17	10	24	41
	1985	79		21	21	74	37	47	28	66	40

Blank cell=question not asked or information not available.

[a] The majority of the harvest of Dall sheep by residents of Kaktovik was in Unit 26 (Jacobson and Wentworth 1982).

sheep are an increasingly important resource (Gilbert 2011 pers. comm., Swaney 2011, pers. comm.) As noted by one prominent elder, "…when we have no caribou, that's the time we have to go up [to get sheep]" (Gilbert 2011, pers. comm.).

The public record supports the fact that Arctic Village residents have a long history of using the Red Sheep and Cane Creek drainages, and that it continues be a culturally significant area to them. Extensive discussion included in previous proposal analyses (cf. Proposal 58 in 1993 and Proposal 54 in 1994) pointed to regular use of these drainages by residents of Arctic Village (USFWS 1993 and 1995). In the final report for a Fisheries Resource Monitoring Program project, Gustafson discusses the importance and continued use of the Red Sheep Creek Area for sheep hunting (USFWS 2004). Testimony by Arctic Village residents in 2006, 2007, and as recently as 2011 at the Eastern Interior Regional Advisory Council meeting about hunting in the Red Sheep and Cane Creek drainages demonstrates continued (though sporadic) hunting. Discussions with Refuge Information Technicians from Arctic Village, other Arctic National Wildlife Refuge staff, researchers working in the area, and subsistence hunters from Arctic village also confirm continued sheep hunting in the Red Sheep and Cane Creek drainages (Bryant 2011, pers. comm., Dinero 2011 pers. comm., Mathews 2011, pers. comm., John 2011, pers. comm.).

A story about how Red Sheep Creek was named illustrates the link between subsistence and religious practices and beliefs among the Gwich'in of Arctic Village. It also underlies the importance of this area to local people. The story relates Red Sheep Creek to the Episcopalian Church, a primary influential factor in establishing Arctic Village, and also sheds some light on why Arctic Village residents consider Red

Table 2 . Summary of Dall Sheep Harvests from Household Surveys in Arctic Village 1993-1997 ADF&G 2011, CSIS Database

Community Name	Study Year	Resource	Percent Harvesting	Percent Receiving	Units	Estimated Harvest	Estimated Pounds Harvested
Arctic Village	1993	Dall Sheep	unkwn	unkwn	Individual	3	312
Arctic Village	1993	Dall Sheep, Male	unkwn	unkwn	Individual	3	312
Arctic Village	1996	Dall Sheep	unkwn	unkwn	Individual	1	104
Arctic Village	1996	Dall Sheep, Male	unkwn	unkwn	Individual	1	104
Arctic Village	1997	Dall Sheep	unkwn	unkwn	Individual	5	520
Arctic Village	1997	Dall Sheep, Sex Unknown	unkwn	unkwn	Individual	5	520

Table 3. Summary of Dall Sheep Harvest for Red Sheep & Cane Creek Drainages under State regulations ADF&G 2011

Year	Number Hunters	Number Successful Hunts
2006	9	7
2007	5	5
2008	8	4
2009	4	2
2010	Not yet available	
Average	6.5	4.5

Sheep Creek a revered place (Dinero 2007, 2011 pers. comm.). The story begins that people were hungry and one day at the church someone spotted something moving in the brush. People thought they saw caribou, but upon closer inspection the people realized they were sheep. They were not just any sheep, but these sheep had red stripes, or what many say were crosses on their coats. The next day, the people followed the red sheep far into the mountains where they were finally able to harvest them. The hides of the sheep were kept and passed down because of their distinctive markings (Dinero 2011, pers. comm.). It is significant that the story of the red sheep links a prestigious subsistence resource (sheep) to traditional and modern beliefs and practices (i.e., the Church and hunting sheep along Red Sheep Creek). This demonstrates the complementary nature of subsistence to place, tradition, culture, and modern beliefs.

Because of the importance of this area to residents of Arctic Village, they have repeatedly argued that it should remain closed to non-Federally qualified users. They feel strongly that these lands are theirs, and that access should be limited. As one Arctic Village resident stated at a public meeting in 2006, “Those are our traditional lands, our traditional homelands, our traditional hunting grounds that our fathers and forefathers have hunted for generations and generations” (EIRAC 2006:130). Arctic Village residents have also long argued that the presence of non-Federally qualified users has affected their access and reduced their harvest opportunities (EIRAC 2006, 2011; FSB 1991, 1995, 1995, 2006, and 2007; USFWS 1993, 1995, 1996, 2006, 2007; Swaney 2011, pers. comm.; Gilbert 2011, pers. comm.; John 2011, pers.

comm.; and see Appendix A). Arctic Village residents have repeatedly told the Board that they believe that plane traffic and use by non-Federally qualified users has interfered with their ability to successfully hunt sheep in the Red Sheep and Cane Creek drainages. Residents reported that plane fly-overs "spooked" sheep and that, "older rams can climb to higher elevations, making them more difficult to hunt" (USFWS 1993: 4, Proposal 58; see also USFWS 1994, Proposal 54 for additional discussion). These disturbances have also been related by local residents (Swaney 2011, pers. comm., John 2011 pers. comm., Gilbert pers. comm.). One study corroborates this type of disruption: Frid (2003) found that fixed-wing aircraft disrupted resting or caused fleeing behavior in Dall sheep in the Yukon Territory during overflights. This disruption was of a longer duration during direct flight approaches. Results of this study could help provide managers with guidelines for determining spatial and temporal restrictions to aircraft in areas frequented by this species.

In summary, while there are no conservation reasons to close Red Sheep and Cane Creek to non-Federally qualified users, from the perspective of local users there are cultural reasons to do so. Arctic Village residents believe that allowing non-Federally qualified users to harvest sheep in Red Sheep Creek and Cane Creek during August 10 to September 20 adversely affects their experience in their traditional hunting area, and impairs their ability to successfully harvest sheep.

Other Alternatives Considered

When necessary for the conservation of healthy populations of fish and wildlife or to continue subsistence uses of such populations, the Federal Subsistence Board is authorized to restrict or to close the taking of fish and wildlife by subsistence and non-subsistence users on Federal public lands and waters (ANILCA Sections 804 and 815(3)). The Federal Subsistence Board Policy on closures states "the analysis will identify the availability and effectiveness of other management options that could avoid or minimize the degree of restriction to subsistence and non-subsistence users" (FSB 2007). The Board may reopen public lands to non-subsistence uses if new information or changed conditions indicate that the closure is no longer warranted.

Three alternatives to the closure to non-Federally qualified users were considered, (1) a 10-day season extension for Federally qualified subsistence users, (2) removing the ram restriction to allow for the harvest of any sheep by Federally qualified subsistence users, and (3) establishing a community harvest system.

Extend the season opening by ten days

One alternative to a closure would be to move the season opening from August 10 to July 31. Arctic Village residents have stated that the influx of non-Federally qualified users has interfered with their traditional subsistence uses and practices, especially if airplanes displace sheep to higher elevations. The season extension would allow ten additional days at the beginning of the season without competition from non-Federally qualified users. The timing of the season extension may not be preferred by Arctic Village residents as they generally harvest sheep in early fall (late August or early September) or early winter (November). Concerns also have been raised by Arctic Village residents in the past that opening the season too early makes it too hot to care for the sheep meat adequately (FSB 1995:623). Federally qualified subsistence users already have priority to harvest later in the season as the Federal season is currently Aug. 10 – Apr. 30, whereas the State season is Aug. 10–Sept. 20.

Harvest of any sheep

The removal of the ram restriction for Federally qualified subsistence users would increase harvest opportunity by providing for a less selective harvest. Federal regulation currently allows for the harvest of two rams within the Unit 25A Arctic Village Sheep Management Area. There is a lack of population and harvest information for sheep in the Red Sheep and Cane Creek drainages, which affects the ability of managers to monitor the impacts of harvesting ewes. In 2008, this population showed good productivity with a ratio of 59 lambs:100 ewes. Thus, it would not be advisable to liberalize a harvest that includes the harvest of ewes, which have a higher reproductive value than rams. In addition, Federally qualified subsistence users currently have more harvest opportunity than non-Federally qualified users as Federal regulations allow for the harvest of two rams, while State regulations have a harvest limit of one ram with full-curl horn or larger.

Establish a community harvest system

The final alternative considered was to establish a community harvest system for sheep in Arctic Village, which could allow Federally qualified users to harvest sheep in a manner more consistent with customary and traditional practices of the village residents. In accordance with Federal subsistence management regulations, 36 CFR 242.26(e)(2) and 50 CFR 100.26(e)(2), "An animal harvested under Federal or State regulations by any member of a community with an established community harvest limit counts toward the community harvest limit for that species." Members of a community with a community harvest system do not have individual harvest limits; all harvests, both State and Federal, are combined for the community. A community harvest system can create a more efficient and less costly hunt, as multiple sheep could be harvested in one trip. A community harvest system might also help to address low compliance with harvest reporting, as typically a hunt administrator would be responsible for ensuring that all harvests are reported.

This alternative was not further considered because a community harvest system should not be implemented without more information on harvests and discussions with members of the community to establish a harvest limit. If the Eastern Interior Regional Advisory Council, Arctic Village residents, and the Arctic Refuge support this alternative, then a community harvest limit should be proposed for consideration by the Federal Subsistence Board.

Effects of Proposal

If adopted, this proposal would close the Aug. 10 – Sept. 20 sheep hunting season to non-Federally qualified hunters in Red Sheep and Cane Creek drainages. There is a strong concern by Arctic Village hunters that non-Federally qualifies users are interfering with subsistence users' access and ability to harvest of sheep in the area. The closure would eliminate competition with non-Federally qualified users.

Federally qualified users can take rams of any age and are not limited by the full curl restriction required of non-Federally qualified users; however, this may not provide adequate opportunity for the subsistence harvest of sheep if efforts are thwarted by unsuccessful hunts due to non-Federally qualified hunters also seeking the same resource during the same time period

OSM PRELIMINARY CONCLUSION

Oppose Proposal WP12-76.

Justification

Section 815(3) of ANILCA allows for restrictions on the taking of fish and wildlife for nonsubsistence uses public lands only if necessary for the conservation of healthy fish and wildlife populations, to continue subsistence uses of such populations, or pursuant to other applicable law. The proposal under consideration appears to address the subsistence use clause of Section 815(3).

While it is recognized that Red Sheep Creek and Cane Creek are culturally important to the people of Arctic Village and that this is a longstanding issue for the people of Arctic Village, reinstating the Federal closure is not supported by the available biological data or formal harvest data. Although relatively low compared to some areas of the state, sheep densities are more a reflection of the poor habitat quality of the area. The most recent population surveys indicate good productivity of the sheep population. Allowing sheep hunting by non-Federally qualified hunters in these drainages should not have an adverse effect on the population since these users are limited to one full curl ram during the hunting season. Based on the harvest information and population surveys, allowing sheep hunting by non-Federally qualified hunters does not have a measurable effect. A partial harvest of full curl rams would not reduce the productivity of the local sheep population.

In addition, reinstating this closure is not necessary to meet the continued use clause of Section 815(3). Despite past closures to non-Federally qualified hunters and a more liberal subsistence harvest limit, there has been relatively little hunting reported in the Red Sheep and Cane Creek drainages by Arctic Village and other Federally qualified communities. Since subsistence users can take two rams of any age, the number of sheep available to them is much greater than the number of full-curl rams to which non-Federally qualified hunters are limited.

LITERATURE CITED

ADF&G. 2011. Community Subsistence Information System. Accessed August 18, 2011. http://www.adfg.alaska.gov/sb/CSIS/

Andersen, D.B., and C.L. Alexander. 1992. Subsistence hunting patterns and compliance with moose harvest reporting requirements in rural interior Alaska. ADF&G, Div. of Subsistence Tech. Paper No. 215. Juneau, AK. 30 pages.

Brackney, A. W. and D. C. Payer. 2007. Dall sheep survey in the vicinity of Red Sheep Creek, Arctic Village Sheep Management area, Arctic National Wildlife Refuge, 2007. Unpublished report, USFWS, Fairbanks, AK.

Bryant, J Gustafson. 2011. RIT Technician, ANWR, former resident Arctic Village. Personal communication: phone. July 2011.

Caikoski, J. R. 2008. Units 24A East, 25A, 26B, and 26C Dall sheep. Pages 177–196 in P. Harper, editor. Dall sheep management report of survey and inventory activities 1 July 2004–30 June 2007. ADF&G. Project. 6.0. Juneau, AK.

Caulfield, R. 1983. Subsistence land use in upper Yukon Porcupine communities, Alaska. Dinjii Nats'aa Nan Kak Adagwaandaii. ADF&G, Div. of Subsistence Tech. Paper No. 16. Fairbanks, AK. 252 pages.

Dinero, S. 2003. Analysis of a "Mixed Economy" in an Alaskan Native Settlement: The Case of Arctic Village. The Canadian Journal of Native Studies XXII, 1:135–164.

Dinero, S. 2007. Globalisation and development in a post-nomadic hunter/gatherer Alaskan village: a follow-up assessment. Polar Record 43(226): 225–269.

Dinero, S. 2011. PhD. Anthropologist conducting research in Arctic Village. Personal communication: phone. July/August 2011. Philadelphia University, PA.

EIRAC. 2006. Transcripts of the Eastern Interior Regional Advisory Council Meeting. March 21, 2006. Fairbanks, AK. Pages 110–137.

EIRAC. 2011. Transcripts of the Eastern Interior Regional Advisory Council Meeting. March 3, 2011. Fairbanks, AK.

Frid, A. 2003. Dall's sheep responses to overflights by helicopter and fixed-wing aircraft. Biological Conservation 110: 387–399.

FSB. 1991. Transcripts of the Federal Subsistence Board. June 5, 1991. Anchorage, AK. Pages 291–311.

FSB. 1995. Transcripts of the Federal Subsistence Board. Volume V. April 14, 1995. Anchorage, AK. Pages 611–635.

FSB. 2006. Transcripts of the Federal Subsistence Board. September 5, 2006. Anchorage, AK.

FSB. 2007. Transcripts of the Federal Subsistence Board. May 1, 2007, Anchorage, AK. Pages 292–306.

Gilbert, T. 2011. Elder, resident Arctic Village. Personal communication: phone. August 2011.

Gustafson, J. 2004. Traditional Ecological Knowledge of Subsistence Harvests and Fishes, Old John Lake, Alaska. Final Report No. FIS01-003. USFWS. Anchorage, AK.

John, J. 2011. Arctic Village Council, First Chief, Elder, resident. Personal communication: phone. August 2011.

Mauer, F.J. 1990. Dall sheep investigations in the Chandalar River drainage of the Arctic National Wildlife Refuge, 1990. ANWR Progress Report No. FY90-03, USFWS, Fairbanks, AK.

Mauer, F.J. 1996. Dall sheep investigations in the Arctic Village area. Unpublished report, USFWS, Fairbanks, AK.

Mathews, V. 2011. Refuge Subsistence Specialist. Personal communication: email, phone. Arctic National Wildlife Refuge. Fairbanks, AK.

Payer, D.C. 2008. Population composition survey of Dall sheep, Cane and Red Sheep Creek, Arctic National Wildlife Refuge, 2008. Unpublished report, USFWS, Fairbanks, AK.

Payer, D.C. 2006. Dall sheep survey in the Arctic Village Sheep Management area and vicinity, Arctic National Wildlife Refuge, 2006. Unpublished report, USFWS, Fairbanks, AK.

Payer, D.C. 2011. Supervisory Ecologist. Personal communication: email. Arctic National Wildlife Refuge. Fairbanks, AK.

Reed, J., C. Villa, and T. Underwood. 2008. Red Sheep Creek airstrip public use monitoring, Arctic National Wildlife Refuge, Alaska, 2006–2007. Report for USFWS-Arctic National Wildlife Refuge. Fairbanks, AK. 10 pages.

Smith, T. 1979. Distribution and abundance of Dall sheep in the Arctic National Wildlife Range. Unpublished report, USFWS, Fairbanks, AK.

Swaney, C. 2011. Subsistence user, resident Arctic Village. Personal communication: phone. July 2011.

USFWS. 1993. Staff Analysis P93–58. Pages 1–9 *in* Federal Subsistence Board Meeting Materials. April 5–8, 1993. Office of Subsistence Management, FWS. Anchorage, AK.

USFWS. 1995. Staff Analysis P95-54. Pages 352–359 *in* Federal Subsistence Board Meeting Materials. April 14, 1995. Office of Subsistence Management, FWS. Anchorage, AK.

USFWS. 1996. Staff Analysis. P96-55. Pages 'Eastern Interior 2-12' *in* Federal Subsistence Board Meeting Materials. April 14, 1995. Office of Subsistence Management, FWS. Anchorage, AK.

USFWS. 2006. Staff Analysis. Special Action WSA06-03. Pages 1–5 *in* Federal Subsistence Board Meeting Materials. July 18, 2006.

USFWS. 2007. Staff Analysis WP07-56. Pages 529–538 *in* Federal Subsistence Board Meeting Materials April 30–May 2, 2007. Office of Subsistence Management, USFWS. Anchorage, AK. 622 pages.

USFWS. 2010. Federal Closure Review WCR-10-21. Office of Subsistence Management, USFWS. Anchorage, AK.

USFWS. 2011. Harvest database. Microcomputer database. Office of Subsistence Management, USFWS. Anchorage, AK.

Wald, E. 2010. Arctic National Wildlife Refuge. Personal communication: email. Fairbanks, AK.

APPENDIX A. REGULATORY HISTORY FOR UNIT 25A SHEEP.

Regulatory Year Initiated: 1991

Proposal number of initial closure and any subsequent proposals: The establishment of the Arctic Village Sheep Management Area (AVSMA) closed Federal public lands to non-Federally qualified users in 1991. The establishment of the AVSMA did not include the Cane Creek and Red Sheep Creek drainages. OSM was not able to find the original proposal for the establishment of the AVSMA. The Federal Subsistence Board (Board) meeting transcript for June 4, 1991 mentions the establishment of the AVSMA at the "last meeting;" however, the previous Board meeting transcript (December 17, 1990) does not include proceedings regarding the AVSMA.

1991 — Proposal 91-21, submitted by Brooks Range Arctic Hunts, requested that the Board remove the closure restriction to allow for the harvest of sheep by non-Federally qualified users in the closure area. The Board rejected the proposal.

1991 — Proposal 91-25, submitted by the Arctic Village Council, requested that the Board include the drainages of Cane Creek and Red Sheep Creek into the Federal closure area. The Board rejected this proposal.

1993 — Proposal P93-58, submitted by the Arctic Village Council, again requested the Board to include the drainages of Cane Creek and Red Sheep Creek within the Management Area. The Board rejected the proposal on the basis that the drainages of Cane Creek and Red Sheep Creek supported adequate numbers of sheep to provide for both subsistence and nonsubsistence harvest.

1995 — Proposal 95-54, submitted by the Arctic Village Council, again requested the Board to include the drainages of Cane Creek and Red Sheep Creek into the Federal closure area. A representative of Arctic Village told the Board that Cane Creek and Red Sheep Creek drainages contain many allotments and traditional cultural sites and that this area is the key sheep hunting area for the village. The Board was told by the proponents that the issue was one of displacement of the subsistence users because of considerable air traffic causing the sheep to remain high in the mountains where Arctic Village hunters cannot get to them; and because Arctic Village hunters could not compete with nonlocal hunters using more sophisticated equipment such as more powerful scopes and the use of aircraft to track sheep. The Board recognized that the issue was not one of resource abundance, as staff reported the population could support both subsistence and nonsubsistence harvests. The Board tabled the proposal in April 14, 1995 until they could revisit it in June 1995, after the Arctic Refuge staff had worked with Arctic Village residents. The Board adopted the proposal with a commitment to review the issue the following year. Following that Board's decision, the Alaska Department of Fish and Game (ADF&G) submitted a Request for Reconsideration 96-06, which was rejected by the Board.

1996 — Proposal 96-55, submitted by the ADF&G, requested to exclude Cane Creek and Red Sheep Creek from the Federal closure area. The analysis of Proposal 96-55 included the results of an Arctic National Wildlife Refuge monitoring project: In a 30-day period during the previous sheep hunting season, forty-two aircraft events by guides based in Red Sheep Creek, who were guiding hunts in drainages east of Red Sheep Creek, were observed. The Board rejected the proposal, expressing disappointment with the absence of dialogue between the State and Arctic Village.

2005 — A 2005 analysis of the Federal closure of the Unit 25A sheep regulations for the Management Area was conducted by OSM staff. The closure was evaluated using three criteria: 1) How the current

resource abundance is related to the management objectives for the species, 2) the current resource population trend, and 3) the current hunter harvest trend and/or hunter effort. OSM staff reached a preliminary conclusion that there was no current need for the regulatory closure based on the evaluation of the three criteria, and recommended the affected Councils initiate a proposal to modify or eliminate the closure. OSM staff presented the closure review analysis at the fall 2005 Council meetings. The North Slope and Eastern Interior Regional Councils recommended maintaining the closure after reviewing the closure analysis at their fall 2005 meetings. The Councils felt that the information presented in the closure review analysis did not support the need to eliminate the closure.

Justification for original closure (Section 815(3) criteria): The Board established the AVSMA in 1991 in response to concerns raised by residents of Arctic Village, who felt that non-Federally qualified hunters interfered with sheep hunting by Arctic Village residents. In 1995, the Board extended the original boundary of the AVSMA to include the Cane Creek and Red Sheep Creek drainages, but then eliminated these areas from Federal closure in 2007. The Board also established the management area to facilitate better harvest reporting. The AVSMA was established in response to social concerns of Federally qualified users to continue subsistence uses (Section 815(3) criteria), and not in response to any biological concerns about the status and trends in the sheep population.

Alaska Department of Fish and Game
Comments to Regional Advisory Council

Wildlife Proposal WP12-76: Reclose a portion of Unit 25A sheep hunt to non-federally qualified users.

Introduction: This proposal requests reclosing the Red Sheep Creek and Cane Creek drainages to non-federally qualified sheep hunters. The proponent indicates recent non-federally qualified hunters have interfered with traditional subsistence uses and practices of Arctic Village residents. The proponent also indicates if this proposal is adopted, trespass issues will be eliminated and the sheep population will retain more of its full-curl rams which contribute to breeding.

Red Sheep and Cane creeks drainages were reopened to non-federally qualified hunters by emergency action (WSA 06-03) in July 2006. The Federal Subsistence Board could not justify maintaining the closure based upon their closure policy.

Impact on Subsistence Users: Little or no effects. Harvest history indicates few of any residents harvest sheep from the Red Sheep Creek and Cane Creek drainages under state or federal subsistence regulations. If adopted, the Residents of Arctic Village will have sole access to these populations of sheep.

Opportunity Provided by State: State sheep hunting regulations for 25A east of the Middle Fork of the Chandalar River follow:

> Unit 25A - One ram with full curl horn or larger with a harvest ticket between August 10 and September 20. Nonresident hunters must be accompanied by a registered guide. or
>
> Three sheep by permit RS595 available online or in person in Fairbanks and Kaktovik beginning September 21 for season between October 1 and April 30. The use of aircraft for access to hunt sheep and transport harvested sheep is prohibited in this hunt except into and out of Arctic Village and Kaktovik airports. No motorized access from Dalton Highway.

Conservation Issues: None

Enforcement Issues: If this proposal is adopted, federal agencies will be responsible for enforcement of this closure.

Other Comments: Section 815(3) of ANLICA authorized a restriction of taking of fish and 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 reason set forth in section 816, to continue subsistence uses of such populations, or pursuant to other applicable law. The sheep populations in Red Sheep Creek and Cane Creek drainages are healthy and can support harvest of both

federally qualified and non-federally qualified users. This closure is not necessary for continuation of subsistence users for the residents of Arctic Village.

Recommendation: Oppose.

WP12-77 78 79 81 Executive Summary	
General Description	Proposals WP12-77, -78, -79 and -81 seek to shorten wolf seasons and/or lower harvest limits for wolves in Units 12, 20A and 25A. *Submitted by the Defenders of Wildlife*
Proposed Regulation	**WP12-77** **Unit 12—Wolf Trapping** *No limit* — ***Nov. 1–Mar. 31 ~~Oct. 1–April 30~~*** **WP12-78** **Unit 20A—Wolf Hunting** ***~~10~~5*** *Wolves* — ***Nov. 1–Mar. 31 ~~Aug. 10–April 30~~*** **WP12-79** **Unit 20A—Wolf Trapping** *No limit* — *Nov. 1–~~April 30~~* ***Mar. 31*** **WP12-81** **Unit 25A—Wolf Hunting** ***~~No limit~~10 Wolves*** — *Aug. 10–April 30*
OSM Preliminary Conclusion	**Oppose**
Eastern Interior Regional Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	**None**

DRAFT STAFF ANALYSIS
WP12-77, -78, -79 AND -81

ISSUES

Proposals WP12-77, -78, -79 and -81 were submitted by the Defenders of Wildlife and seek to shorten wolf seasons and/or lower harvest limits for wolves in Units 12, 20A and 25A.

DISCUSSION

WP12-77 requests that wolf trapping not be allowed in October and April in Unit 12. The proponent wishes to apply this restriction in the part of Unit 12 that is outside of the State's predator control program (U.S. Fish and Wildlife Service (FWS) and National Park Service (NPS) lands).

WP12-78 requests that hunting not be allowed in Unit 20A in the months of August, September, October and April and that the harvest limit be reduced from 10 wolves to five.

WP12-79 requests that wolf trapping not be allowed in April in Unit 20A.

WP12-81 requests that the harvest limit for wolf hunting in Unit 25A be reduced from "no limit" to 10 wolves.

The proponents note that in Unit 12, wolf hides are not fully prime by October 1, and trappers generally do not begin trapping until later when snow and ice conditions permit. The proponents note that in late April, in Units 20A and 12, hides are rubbed and that pregnant females are approaching full term. The proponents note that pups are only half grown at the start of the current wolf hunting seasons in 20A and 25A and that in August hides are not suitable for commercial sale or trophies. The proponents states that "Hunters shooting wolves in August would likely discard the low-quality hide or leave the intact carcass in the field."

Existing Federal Regulation

Unit 12—Wolf Trapping	
No limit	*Oct. 1–April 30*
Unit 20—Wolf Hunting	
10 Wolves	*Aug. 10–April 30*
Unit 20A—Wolf Trapping	
No limit	*Nov. 1–April 30*
Unit 25A—Wolf Hunting	
No limit	*Aug. 10–April 30*
Unit 25A—Wolf Trapping	
No limit	*Nov. 1–Apr. 30*

Proposed Federal Regulation

Proposal WP12-77

Unit 12—Wolf Trapping

No limit	***Nov. 1–Mar. 31 ~~Oct. 1–April 30~~***

Proposal WP12-78

Unit 20A—Wolf Hunting

~~10~~5 *Wolves*	***Nov. 1–Mar. 31 ~~Aug. 10–April 30~~***

Proposal WP12-79

Unit 20A—Wolf Trapping

No limit	*Nov. 1–~~April 30~~* ***Mar. 31***

Proposal WP12-81

Unit 25A—Wolf Hunting

~~No limit~~10 Wolves	*Aug. 10–April 30*

Existing State Regulation

Unit 12—Wolf Trapping

No limit	*Oct. 15–April 30*

Unit 20A—Wolf Trapping

No limit	*Nov. 1–April 30*

Hunting

5 Wolves	*Aug. 10–May 31*

Unit 25A—Wolf Hunting

10 Wolves	*Aug. 10–May 31*

Extent of Federal Public Lands

Federal public lands comprise approximately 59% of Unit 12 and consist of 82% NPS managed lands and 18% FWS managed lands (see **Unit 12 Map**). Federal public lands comprise approximately 1% of Unit 20A and are all Bureau of Land Management (BLM) managed lands (see **Unit 20 Map**). Federal public lands comprise approximately 76% of Unit 25A and consist of 97% FWS managed lands and 3% BLM managed lands (see **Unit 25 Map**).

Customary and Traditional Use Determinations

Rural residents of Units 6, 9, 10 (Unimak Island only), 11, 12, 13, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26 and Chickaloon have a positive customary and traditional use determination to harvest wolves in Units 12, 20A and 25A. In order to engage in subsistence in Wrangell St. Elias National Park, the National Park

Service requires that subsistence users either live within the park's resident zone (36 CFR 13.430, 36 CFR 13.1902) or have a subsistence permit (36 CFR 13.440) issued by the park superintendent.

Regulatory History

The Federal subsistence wolf trapping season for Unit 12 has been October 1 to April 30 since 1990.

The Federal subsistence wolf hunting season in Unit 20A has been August 10 to April 30 since 1990. There was no harvest limit for wolf hunters in Unit 20A in regulatory year 1990/91; the harvest limit was reduced to 10 wolves in 1991/92 and has remained at that level since then. The Federal subsistence wolf trapping season in Unit 20A has been November 1 to April 30 since 1990.

There has been no harvest limit for wolf hunting in Unit 25A since 1990. Units 25A and 22 are the only units in Alaska that have no harvest limit for wolf in the Federal hunting regulations.

In 2004, Defenders of Wildlife submitted a proposal (WP05-02) requesting that wolf hunting seasons in Units 1, 3–4, 5A, 6–7, 9–13, 14C, 15–21 and 24–26 be closed until September 15. The Eastern Interior Alaska Subsistence Regional Advisory Council (Council) opposed that proposal, as did seven other Regional Advisory Councils. Consistent with these Regional Advisory Council recommendations, the Federal Subsistence Board rejected Proposal WP05-02. At its March 2005 meeting, Council member Entsminger noted that, as a skin sewer, she has seen wolf hides from August and September and spring. She noted that in August and September wolf's hair tends to be shorter and is more useful for making hats and other things. She noted that while few wolves are taken in the fall, when they are harvested by subsistence users their hides are used (EIRAC 2005).

In 2009, the Alaska Wildlife Alliance submitted proposals (WP10-97, -98, -99 and -100) requesting these same regulatory changes. Proposals WP10-97, -98, -99 and 100 were opposed by the Eastern Interior Regional Advisory Council and were rejected by the Federal Subsistence Board.

Biological Background

Wolves (*Canis lupus)* have probably been part of Alaska fauna since the Pleistocene glaciation (Murie 1944). Wolves are found throughout most of Units 12, 20A and 25A and are well adapted to living in the interior Alaska boreal forests, river valleys and mountains. Prey species include caribou, moose, sheep, small mammals, snowshoe hare, and beaver. Murie (1944) noted that there are times of wolf scarcity and times of wolf abundance and suggested that food supply was probably an important factor affecting wolf abundance. Wolves first breed at age two to four and produce pups in dens during the spring (Mech et al. 1998). Litters average five or six pups. Wolves abandon the den after about eight weeks and live at sites above ground until early autumn when the entire pack roams a large territory for the rest of the fall and winter. Wolves live at low densities in a structured population of territorial packs (Mech and Boitani 2003). Meier et al. (2006) reported that 28% of the wolves leave their packs each year, and that most offspring eventually leave the pack. Dispersing wolves form new packs when they locate dispersers of the opposite sex from another pack and a vacant area to establish a territory (Rothman and Mech 1979). Meier et al. (2006) reported that wolves sometimes disperse great distances. The longest documented dispersal of a Denali National Park and Preserve wolf was 435 miles. With high reproductive capacity, good survival of young, and high dispersal rates, wolf populations are able to quickly respond to changes in prey abundance.

The size of the home range is believed to be dependent on prey abundance, the activities of neighboring packs, and each pack's individual habits. Wolf pack territories overlap one another and change over time

(Meier et al. 2006). As a pack makes its way around its territory, it may encounter and engage other wolves within its territory at any time. A fight to the death can occur during such encounters. Predation by other wolves is probably the major cause of natural mortality among adult wolves. Meier et al. (2006) observed that at least 60% of the wolf deaths in Denali National Park and Preserve came from wolves being killed by other wolf packs. ADF&G (2010) observed that wolves have evolved and thrived under natural conditions where adult mortality occurs regularly through interspecific competition. It is the adults, including pregnant and lactating females that do the killing of large prey. Thus the adults are subject to injury and death during attempted predation. In cases of natural adult mortality, the pack social structure provides a continuation of normal pack behavior and support of pups (ADF&G 2010).

Unit 12

While information is limited, Hollis (2006) estimated that there were 240–255 wolves in Unit 12. Wolf density estimates for 2001 to 2004 ranged from 16 to 50/1000 mi^2 (Hollis 2006). Hollis (2006) estimated that in regulatory year 2002/03 that there were a total of 31 packs with an average pack size of 7.0–7.4 wolves. The fall wolf population estimate for Unit 12 was 179–192 wolves (18 to 19/1000 mi^2) (ADF&G 2010). The Unit 12 wolf population has benefited from high numbers of caribou since 1997 and from the snowshoe hare cycle highs in 1998–2001 and 2007–2009 (ADF&G 2010). The Chisana caribou herd has been a reliable food source for wolves in eastern Unit 12. Caribou from the Mentasta, Nelchina, and Macomb herds also have used portions of the unit and are a food source for wolves (Hollis 2006).

Unit 20A

While information is limited, Young (2006) estimated that there were 200–250 wolves and 20–25 packs in Unit 20A. ADF&G (2009) reported that there were 224–229 wolves in Unit 20A in fall 2008. The Unit 20A fall wolf density estimate is 36/1000 mi^2; this is the highest density in interior Alaska (ADF&G 2010).

Unit 25A

The fall wolf population density estimate for Unit 25A is 230–277 wolves (11–13/1000 mi^2) (ADF&G 2010). Wolf population numbers have been relatively stable in Unit 25A for many years (ADF&G 2010).

Harvest History

Fur prices and snow conditions affect wolf trapping effort in any given year. The cost of snowmachines, gas, traps, and other equipment has increased over the last 20 to 25 years, yet the price of wolf pelts has declined. Hollis (2006) observed that few trappers selected for wolves, but noted that during years when martin and lynx pelt prices are low and wolf prices are adequate, more trappers concentrate on wolves. Harvest rates in remote areas are dependent on fur prices and weather conditions. Trapping pressure is high along the road system, especially around communities (Hollis 2006). Hunters occasionally take wolves opportunistically in the fall and early spring when they are hunting other species. During the early winter period, conditions are inadequate for travel. Once snow-cover and ice are adequate for snowmachine travel, trappers began establishing and maintaining trap lines. In these interior Alaska units, wolf harvest is spread throughout the winter. Wolf harvest declines in April as snow and ice conditions deteriorate with the spring melt. ADF&G (2010) observed that adult wolves learn to avoid humans through experience and are the most difficult pack members to take; pups are the most vulnerable pack members to harvest.

Wolves harvested either by trapping or hunting must be sealed by an ADF&G representative or appointed fur sealer. During the sealing process, information is obtained on the date and location of take, sex, color of pelt, estimated size of the wolf pack, method of take, and access used. Wolves are difficult animals to bring down and it is not unreasonable to assume that some mortality is occurring as a result of wounding loss. Some wolves caught in traps that are not checked regularly are scavenged by other animals, and the hides are so damaged that they are discarded in the field with the harvest going unreported.

There have been a number of wolf control programs in these units over the years (Young 2006, Hollis 2006). The Alaska Board of Game authorized aerial wolf control in northern Unit 12 in 2004 (Hollis 2006).

Based on an analysis of information from North American wolf populations, Adams et al. (2008) concluded that wolf populations appear to be largely unaffected by human take of ≤29% annually. Given the limited effects of moderate levels of human take, they concluded that the risks of reducing wolf populations through regulated harvest are quite low.

Unit 12

From regulatory years 1999/2000 to 2009/10, the reported annual harvest of wolves in Unit 12 ranged from 21–58/year (**Table 1**). Most of the wolves were taken using traps or snares. Annual harvest rates in Unit 12 have been <24% since 1998 (ADF&G 2010).

Table 1. Reported wolf harvest and method of take for Unit 12, regulatory years 1999/00 to 2009/10 (ADF&G 2011).

Regulatory year	Reported total harvest	Trap/snare Oct. & April harvest	Method of take for total harvest from Unit 12				
			Trap/snare	(%)	Shot	%	Unknown
1999/2000	54	3	40	74	13	24	1
2000/01	58	1	51	88	7	12	0
2001/02	39	0	32	82	7	18	0
2002/03	53	1	49	92	4	8	0
2003/04	25	4	23	92	2	8	0
2004/05	29	1	27	93	2	7	0
2005/06	39	0	22	56	15	38	2
2006/07	30	1	24	80	6	20	0
2007/08	49	5	36	73	9	18	4
2008/09	39	0	29	74	7	18	3
2009/10	21	0	9	43	12	57	0

Of a total of 436 wolves taken Unit 12 for regulatory years 1999/2000 to 2009/10, 16 were trapped or snared during the months of October and April (**Table 1;** ADF&G 2011). Seven wolves were shot in October and April; it isn't clear whether the seven wolves that were shot were taken under hunting or trapping regulations. With a trapping license, during trapping season, a trapper may take free ranging wolves with a firearm on FWS lands in Unit 12.

Unit 20A

From regulatory years 1999/2000 to 2009/10, the reported annual harvest of wolves in Unit 20A ranged from 33–98/year (**Table 2**; ADF&G 2011). Most were taken with traps or snares. Of the total Unit 20A wolf harvest, from 3 to 15 wolves/year were taken in August, September, October and April. The harvest rate of wolves in Unit 20A is higher than in some other areas.

Table 2. Reported wolf harvest and method of take for Unit 20A, regulatory years 1999/2000 to 2009/2010 (ADF&G 2011).

Regulatory year	Reported total harvest	Aug.–Oct. & April harvest	Method of take for total harvest in Unit 20A				
			Trap/snare	(%)	Shot	%	Unknown
1999/2000	67	11	53	79	14	21	0
2000/01	95	10	79	83	12	13	4
2001/02	98	10	90	92	8	8	0
2002/03	82	11	70	85	12	15	0
2003/04	61	3	52	85	2	3	7
2004/05	54	9	44	81	8	15	2
2005/06	33	7	28	85	5	15	0
2006/07	67	10	55	82	11	16	1
2007/08	42	11	27	64	13	31	2
2008/09	57	15	39	68	16	28	2
2009/10	50	5	41	82	9	18	0

Unit 25A

From regulatory years 1999/2000 to 2009/10, the reported annual harvest of wolves in Unit 25A ranged from 12–24/year (**Table 3**; ADF&G 2011). Most were taken with traps or snares. Stephenson (2006) estimated that the reported annual harvest accounted for a maximum of 8 to 10% of the estimated wolf population in Unit 25A.

Other Alternatives Considered

Consideration was given to recommending a November 1 start date for the trapping season in Unit 12 (WP12-77) and the 10 wolf limit for hunters in Unit 25A (WP12-81 and alignment with the State). There is no trapping harvest limit in Unit 25A; therefore there should be no effect on the wolf population if the

Table 3. Reported wolf harvest and method of take for Unit 25A, regulatory year 1999/00 to 2009/2010 (ADF&G 2011).

Regulatory year	Reported total harvest	Aug.–Oct. & April harvest	Method of take for total harvest in Unit 25A				
			Trap/snare	(%)	Shot	%	Unknown
1999/2000	13	4	8	62	5	38	0
2000/01	24	4	13	54	11	46	0
2001/02	13	5	5	38	8	62	0
2002/03	12	3	9	75	3	25	0
2003/04	18	4	12	67	6	33	0
2004/05	15	5	12	80	3	20	0
2005/06	21	5	14	67	6	29	1
2006/07	24	9	14	58	10	42	0
2007/08	15	6	7	47	8	53	0
2008/09	21	5	12	57	9	43	0
2009/10	22	10	5	23	17	77	0

hunting harvest limit remains unchanged. There are no records of a person shooting more than 10 wolves per year in Unit 25A.

Effects of the Proposal

If adopted, these proposals will decrease opportunity for Federally qualified subsistence users to harvest wolves in Units 12, 20A and 25A. The harvest of wolves and the use, barter, and sale of pelts has long been very important for subsistence uses in Units 12, 20A and 25A (Halpin 1987; Andrews 1988; Caulfield 1983).

If proposal WP12-77 is adopted, the Federal wolf trapping season in Unit 12 will be closed in October and April, thereby shortening the season by 61 days. This will restrict subsistence opportunity to take a wolf while trapping other species such as muskrat or beaver in the fall or spring. The wolf harvest in the months of October and April in Unit 12 was relatively small in regulatory years 1999/00 to 2009/10.

If Proposal WP12-78 is adopted, the Federal wolf hunting season in Unit 20A will be closed August 10–October 31 and April 1–30 thereby shortening the season by 113 days. Between regulatory years 1999/00 and 2009/10, 14% of the reported Unit 20A wolf harvest occurred in August, September, October and April (**Table 1)**. If Proposal WP12-79 is adopted, the Federal wolf trapping season in Unit 20A will be closed during April, thereby shortening the season by 30 days. Federal subsistence wolf hunting and trapping in Unit 20A have little impact on wolf numbers; Federal public lands comprise a small part of Unit 20A (approximately 1%).

Currently, there is no limit on the number of wolves that can be taken by hunters under Federal regulations in Unit 25A. If proposal WP12-81 is adopted, the Federal wolf harvest limit for hunters will be reduced to 10 wolves. While it is possible that Proposal WP12-81 will negatively impact subsistence

users, it does not appear that this will be the case. Based on ADF&G's wolf harvest records from1990/91 to 2009/10, there are zero records of one person shooting ≥ 10 wolves in a given regulatory year in Unit 25A (ADF&G 2011).

WP12-77 and WP12-78 will eliminate the opportunity for subsistence users to harvest wolves under Federal regulations during the fall and spring when they are hunting other species.

Proposals WP12-77, -78 and -79 will make the Federal subsistence wolf seasons shorter than the State seasons. Proposal WP12-81 will align the Federal subsistence wolf hunting harvest limit with the State harvest limit.

OSM PRELIMINARY CONCLUSION

Oppose Proposals WP12-77, -78, -79 and -81.

Justification

The Alaska Wildlife Alliance proposed these same regulatory changes two years ago. Those proposals were opposed by the Eastern Interior Regional Advisory Council and rejected by the Federal Subsistence Board.

The wolf populations in Units 12, 20A and 25A are considered healthy. Wolves are prolific and survival of young is generally high. Young wolves disperse from packs at high rates as yearlings and 2-year-olds; these individuals are abundant and available to be harvested. The wolf population in these units is thought to be regulated more by natural factors than by the harvest by hunters and trappers.

Wolves are a very important subsistence resource in Units 12, 20A and 25A. The harvest of wolves and the use, barter, and sale of pelts is a long standing component of the subsistence economy.

While less than 1% of the Unit 12 wolf harvest with traps and snares occurred in the months of October and April over the past eleven years, the opportunity for trappers to take wolves in these two months is important to subsistence users that participate in the harvest. Hunter may have an opportunity to take more than 10 wolves in Unit 25A.

Over the past eleven years, 14% of the reported, Unit 20A wolf harvest has occurred in the months of August, September, October and April. In the fall, the wolves have shorter hair and their hides are used primarily for personal use and to make clothing and handicrafts.

Even if Proposals WP12-77, -78, and -79 were adopted by the Federal Subsistence Board, hunters and trappers will still be able to take wolves under State regulations on FWS, BLM, and Wrangell-St. Elias Preserve lands in Units 12 and 20A. As such, adoption of these proposals by the Federal Subsistence Board will not have the effect sought by the proponent.

LITERATURE CITED

Adams, L.G., R.O. Stephenson, B.W. Dale, R. T. Ahgook, and D.J. Demma. 2008. Population dynamics and Harvest characteristics of wolves in the central Brooks Range, Alaska. Wildlife Monographs 170.

ADF&G. 2009. The status of wolves and factors influencing their population. Annual survey and inventory report. 1 July 2008–30 June 2000. ADF&G. Project 1.0, Juneau, AK. 8 pages.

ADF&G. 2010. Draft comments to the Interagency Staff Committee on WP10-97, -98, -99, and -100. January 20, 2010. 2 pages.

ADF&G. 2011. Harvest ticket database. Microcomputer database, query April 21, 2011.

Andrews, E.F. 1988. The harvest of fish and wildlife for subsistence by residents of Minto, Alaska. ADF&G Subsistence Division, Technical Paper Number 137. Juneau, AK. 334 pages.

Caulfield, R.A. 1983. Subsistence land use in the upper Yukon-Porcupine communities, Alaska. Dinjii nats'aa nan kak adagwaandaii. ADF&G Subsistence Division, Technical Paper Number 16. Juneau, AK. 231 pages.

EIRAC. 2005. Transcripts of the Eastern Interior Alaska Regional Advisory Council proceedings, 2 March 2005. Office of Subsistence Management, FWS, Anchorage, AK.

Haplin, L. 1987. Living off the land: contemporary subsistence in Tetlin, Alaska. ADF&G Subsistence Division, Technical Paper Number 149. Juneau, AK. 124 pages.

Hollis, A.L. 2006. Unit 12 wolf management report. Pages 76–89 *in* P. Harper, ed. Wolf management report of survey and inventory activities, 1 July 2002–30 June 2005. ADF&G. Project 14.0, Juneau, AK.

Mech. D.L., L.G. Adams, T.J. Meier, J.W. Burch and B.W. Dale. 1998. The wolves of Denali. University of Minnesota Press. Minneapolis, MN. 227 pages.

Mech, L.D. and L. Boitani. 2003. Wolf social ecology. Pages 1–34 *in* L.D. Mech and L. Boitani. eds. Wolves: Behavior, ecology, and conservation. University of Chicago Press.

Meier, T., J. Burch, and L.G. Adams. 2006. Tracking the movements of Denali's wolves. Alaska Park Science. 5(1):30–35.

Murie, A. 1944. The wolves of Mount McKinley. U.S. Government Printing Office. Washington D.C. 238 pages.

Rothman, R.J. and L.D. Mech. 1979. Scent-marking in lone wolves and newly formed pairs. Anim. Behav. 27:750–760.

Stephenson, R.O. 2006. Units 25A, 25B, 25D, 26B, and 26C wolf management report. Pages 76–89 *in* P. Harper, ed. Wolf management report of survey and inventory activities, 1 July 2002–30 June 2005. ADF&G. Project 14.0, Juneau, AK.

Young, D.D. 2006. Units 20A, 20B, 20C, 20F, and 25C wolf management report. Pages 239–252 *in* P. Harper, ed. Wolf management report of survey and inventory activities, 1 July 2002–30 June 2005. ADF&G. Project 14.0, Juneau, AK.

WP12-80 Executive Summary	
General Description	Proposal WP12-80 requests that the Unit 25 wolf trapping season start a month earlier. *Submitted by the Eastern Interior Subsistence Regional Advisory Council*
Proposed Regulation	**Unit 25—Wolf Trapping** *No limit* ***Oct.*** *~~Nov.~~ 1–April 30*
OSM Preliminary Conclusion	**Support**
North Slope Regional Council Recommendation	
Interagency Staff Committee Comments	
ADF&G Comments	
Written Public Comments	**None**

DRAFT STAFF ANALYSIS
WP12-80

ISSUES

Proposal WP12-80, submitted by the Eastern Interior Subsistence Regional Advisory Council, requests that the Unit 25 wolf trapping season start a month earlier.

DISCUSSION

Currently the wolf trapping season in Unit 25 extends from November 1 to April 30. Proposal WP12-80 requests that the trapping season for wolf in Unit 25 be from October 1 to April 30. The proponent notes that this season extension would allow subsistence users the opportunity to harvest more wolves. This proposal would align the Federal and State season in Unit 25D, but the Federal season would open a month earlier than the State season in Units 25A, 25B, and 25C. The Eastern Interior Regional Advisory Council is submitting a proposal to the Alaska Board of Game requesting that the State wolf trapping seasons in Units 25A, 25B and 25C start on October 1.

Existing Federal Regulation

Unit 25—Wolf Trapping

No limit	*Nov. 1–April 30*

Proposed Federal Regulation

Unit 25—Wolf Trapping

No limit	***Oct.*** *~~Nov.~~ 1–April 30*

Existing State Regulation

Unit 25A, 25B and 25C — Wolf Trapping

No Limit	*Nov. 1–April 30*

Unit 25D —Wolf Trapping

No Limit	*Oct. 1–April 30*

Extent of Federal Public Lands

Federal public lands comprise approximately 76% of Unit 25A and consist of 97% FWS managed lands and 3% BLM managed lands (see **Unit 25 Map**).

Customary and Traditional Use Determinations

Rural residents of Units 6, 9, 10 (Unimak Island only), 11, 12, 13, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26 and Chickaloon have a positive customary and traditional use determination to harvest wolves in Unit 25.

Regulatory History

In regulatory year 1990/91 the Federal Subsistence Management Program wolf trapping season for Unit 25 was November 10 to March 31. Beginning in regulatory year 1992/93, the Unit 25 wolf trapping season was extended from November 1 to March 31. Beginning in regulatory year 2002/03, the Unit 25 wolf trapping season was extended from November 1 to April 30.

Biological Background

Wolves (*Canis lupus)* have probably been part of Alaska fauna since the Pleistocene glaciation (Murie 1944). Wolves are found throughout Unit 25 and are well adapted to living in the Northeastern Interior Alaska boreal forests, river valleys and mountains. Prey species include caribou, moose, sheep, small mammals, snowshoe hare, salmon, beaver, small mammals and birds. Wolves first breed at age two to four and produce pups in dens during the spring. Burch (2002) reported that packs in the Yukon-Charley Rivers National Preserve produced an average of 3.7 pups (range, 1.4-4.9) annually. Wolves abandon the den after about eight weeks and live at sites above ground until early autumn when the entire pack roams a large territory for the rest of the fall and winter. In the central Brooks Range study, pups constituted about half of the wolf population each August; these young wolves disperse from packs at high rates as yearlings and 2-year-olds (Adams et al. 2008).

Murie (1944) noted that there are times of wolf scarcity and times of wolf abundance and suggested that food supply was probably an important factor affecting wolf abundance. Wolves live at low densities in a structured population of territorial packs (Mech and Boitani 2003). The size of the home range is believed to be dependent on prey abundance, the activities of neighboring packs, and each pack's individual habits (Adams et al. 2008). Wolf pack territories overlap one another and change over time (Meier et al. 2006). As a pack makes its way around its territory, it may encounter and engage other wolves within its territory at any time. A fight to the death can occur during such encounters (Adams et al. 2008). Predation by other wolves is probably the major cause of natural mortality among adult wolves. Meier et al. (2006) observed that at least 60% of the wolf deaths in Denali National Park and Preserve came from wolves being killed by other wolf packs.

Wolves sometimes disperse great distances. Burch (2002) reported an average home range of 886 mi^2 for packs in the Yukon-Charley Rivers National Preserve, and that 28% of 91 radiocollared wolves dispersed 18-292 miles. The longest documented dispersal of a Denali National Park and Preserve wolf was 435 miles. Adams et al. (2008) reported that 7 of 11 dispersing wolves (<36 months old) were subsequently detected 40–430 miles from their initial home range in the Gates of the Arctic National Park and Preserve. Garner and Reynolds (1986) observed that several wolves in Arctic National Wildlife Refuge dispersed as far as 500 miles from their home range. Dispersing wolves form new packs when they locate dispersers of the opposite sex from another pack and a vacant area to establish a territory (Rothman and Mech 1979). With high reproductive capacity, good survival of young, and high dispersal rates, wolf populations are able to quickly respond to changes in prey abundance (Adams et al. 2008).

In fall 1992, estimates from surveys, hunter observations, and harvest data indicated that 72-93 packs, including 520-630 wolves, were present in Units 25A, 25B and 25D (Stephenson 2006, Caikoski 2009). These estimates were still considered representative from 2000 to 2007. The 2009 fall wolf population density estimate for Unit 25A was 230–277 wolves (11–13/1000 mi^2) (ADF&G 2010). Burch (2002) reported that wolf population density averaged 10.6 wolves/1000 mi^2 in Yukon-Charley Rivers National Preserve, including part of Unit 25B. He reported that fall pack size averaged 7.2 wolves with a range of 4.3-9.1 wolves. Wolf population numbers have been relatively stable in Unit 25A for many years

(ADF&G 2010). The fall wolf population in Unit 25C was estimated at 75-125 wolves in 10-20 packs (Young 2006). In A March 2009 survey in western Unit 25D revealed a pack size of 2-10 wolves with an average of 4.6 wolves/pack and a density estimate of 11.4-13.9 wolves/1000 mi^2 (Caikoski 2009). The relatively low density of wolves in Northeastern Interior Alaska is consistent with the relative scarcity of prey. Caikoski (2009) reported that wolf populations in Units 25A, 25B and 25D appeared to be stable, but data on the population trends are limited, except in Unit 25D. Prey species in Unit 25D are limited. Moose populations have been at low density, and caribou are only seasonally abundant because of their wide-ranging migrations (Stephenson 2006, Caikoski 2009).

Harvest History

Fur prices and snow conditions affect wolf trapping effort in any given year. The cost of snowmachines, gas, traps, and other equipment has increased over the last 20 to 25 years, yet the price of wolf pelts has declined. Hunters occasionally take wolves opportunistically in the fall and early spring when they are hunting other species. During the early winter period, conditions are inadequate for travel. Once snow-cover and ice are adequate for snowmachine travel, trappers begin establishing and maintaining trap lines (Stephenson 2006, Caikoski 2009). Wolf harvest is spread throughout the winter. Wolf harvest declines in April as snow and ice conditions deteriorate with the spring melt;the quality of the pelt declines as well.

Wolves harvested either by trapping or hunting must be sealed by an ADF&G representative or appointed fur sealer. During the sealing process, information is obtained on the date and location of take, sex, color of pelt, estimated size of the wolf pack, method of take and access used. From regulatory years 1999/2000 to 2009/10, the reported annual harvest of wolves during the normal hunting and trapping seasons in Unit 25 ranged from 45–83/year (**Table 1**; ADF&G 2011). Wolves are difficult animals to bring down and it is not unreasonable to assume that some mortality is occurring as a result of wounding loss. Some wolves caught in traps that are not checked regularly are scavenged by other animals, and the hides are so damaged that they are discarded in the field with the harvest going unreported.

Based on an analysis of information from North American wolf populations, Adams et al. (2008) concluded that wolf populations appear to be largely unaffected by human take of less than or equal to 29% annually. Given the limited effects of moderate levels of human take, they concluded that the risks of reducing wolf populations through regulated harvest are quite low. In Unit 25 most were taken with traps or snares. Stephenson (2006) estimated that the reported annual harvest accounted for a maximum of 8 to 10% of the estimated wolf population in Unit 25A, 25B and 25D. Caikoski (2009) reported the harvest in regulatory years 2005/06 to 2007/08 accounted for a maximum of 8-20% of the estimated wolf population in Unit 25D and 5-10% in Units 25A, 25B and 25C.

In March 2006, the Alaska Board of Game shifted the start date for wolf trapping season in Unit 25D from November 1 to October 1. No wolves have been harvested in October in Unit 25D since this regulatory change was implemented (ADF&G 2011). In October, conditions limit the ability for trappers to travel; rivers are freezing over in October and there usually isn't enough snow to travel by snowmachine.

Effects of the Proposal

If adopted, this proposal will increase opportunity for Federally qualified subsistence users to harvest wolves in Unit 25. The harvest of wolves and the use, barter, and sale of pelts has long been very important for subsistence uses (Caulfield 1983). While the hides of wolves would not yet be in prime condition in October, the hides would be suitable for certain types of clothing and handicrafts.

Table 1. Reported wolf harvest and method of taken under hunting and trapping regulations in Unit 25, regulatory years 1999/00 to 2009/10 (ADF&G 2011).

Regulatory year	Reported total harvest	Wolf harvest in October	Method of take for total harvest in Unit 25				
			Trap/snare	(%)	Shot	%	Unknown
1999/2000	45	0	38	84	7	16	0
2000/01	48	0	33	69	15	31	0
2001/02	51	0	39	76	12	24	0
2002/03	50	1	38	76	12	24	0
2003/04	59	0	44	75	15	25	0
2004/05	66	0	58	88	8	12	0
2005/06	47	0	35	74	12	26	0
2006/07	86	0	72	84	14	16	0
2007/08	74	0	60	81	14	19	0
2008/09	77	0	61	79	16	21	0
2009/10	83	1	45	54	35	42	3

Under current Federal regulations in Unit 25, the wolf trapping season begins on November 1. Proposal WP12-80 requests that the trapping season for wolf in Unit 25 begin on October 1. This change will not likely have a significant effect on the wolf harvest level.

The proposed change will align the start date for Federal and State wolf trapping seasons in Unit 25D. If this proposal is adopted, wolf trapping season in Units 25A, 25B and 25C would start a month earlier than the current State wolf trapping seasons. As stated, the Eastern Interior Regional Advisory Council is submitting a proposal to the Alaska Board of Game requesting that the State wolf trapping seasons in Units 25A, 25B and 25C start on October 1.

OSM PRELIMINARY CONCLUSION

Support Proposal WP12-80.

Justification

The wolf population in Unit 25 is considered healthy and could sustain additional harvest. Wolves are prolific and survival of young is generally high. Young wolves disperse from packs at high rates as yearlings and 2-year-olds; these individuals are abundant and available to be harvested. The wolf population in Unit 25 is thought to be regulated more by natural factors than by the harvest by hunters and trappers.

The harvest of wolves and the use, barter, and sale of pelts is a long-standing component of the subsistence economy in Unit 25. While this proposed regulatory change would provide additional opportunity for subsistence users, it would not likely result in a significant increase in wolf harvest. This regulatory change would align the start date for the State and Federal wolf trapping seasons in Unit 25D.

A similar proposal is being submitted to the Alaska Board of Game for Unit 25; that decision will be made in March 2012.

LITERATURE CITED

Adams, L.G., R.O. Stephenson, B.W. Dale, R. T. Ahgook, and D.J. Demma. 2008. Population dynamics and Harvest characteristics of wolves in the central Brooks Range, Alaska. Wildlife Monographs 170.

ADF&G. 2010. Draft comments to the Interagency Staff Committee on WP10-97, -98, -99, and -100. January 20, 2010. 2 pages.

ADF&G. 2011. Harvest ticket database. Microcomputer database, query April 21, 2011.

Burch, J. 2002. Ecology and demography of wolves in Yukon-Charley Rivers National Preserve, Alaska. Technical Report NPS/AR/NRTR-2001/41. National Park Service-Alaska Region.

Caikoski, J.R. 2009. Units 25A, 25B, 25D, 26B, and 26C wolf management report. Pages 248–264 *in* P. Harper, ed. Wolf management report of survey and inventory activities, 1 July 2005–30 June 2008. ADF&G. Project 14.0, Juneau, AK.

Caulfield, R.A. 1983. Subsistence land use in the upper Yukon-Porcupine communities, Alaska. Dinjii nats'aa nan kak adagwaandaii. ADF&G Subsistence Division, Technical Paper Number 16. Juneau, AK. 231 pages.

Mech. D.L., L.G. Adams, T.J. Meier, J.W. Burch and B.W. Dale. 1998. The wolves of Denali. University of Minnesota Press. Minneapolis, MN. 227 pages.

Mech, L.D. and L. Boitani. 2003. Wolf social ecology. Pages 1–34 *in* L.D. Mech and L. Boitani. eds. Wolves: Behavior, ecology, and conservation. University of Chicago Press.

Meier, T., J. Burch, and L.G. Adams. 2006. Tracking the movements of Denali's wolves. Alaska Park Science. 5(1):30–35.

Murie, A. 1944. The wolves of Mount McKinley. U.S. Government Printing Office. Washington D.C. 238 pages.

Rothman, R.J. and L.D. Mech. 1979. Scent-marking in lone wolves and newly formed pairs. Anim. Behav. 27:750–760.

Stephenson, R.O. 2006. Units 25A, 25B, 25D, 26B, and 26C wolf management report. Pages 76–89 *in* P. Harper, ed. Wolf management report of survey and inventory activities, 1 July 2002–30 June 2005. ADF&G. Project 14.0, Juneau, AK.

Young, D.D. 2006. Units 20A, 20B, 20C, 20F, and 25C wolf management report. Pages 239–252 *in* P. Harper, ed. Wolf management report of survey and inventory activities, 1 July 2002–30 June 2005. ADF&G. Project 14.0, Juneau, AK.

Young, D.D. 2009. Units 20A, 20B, 20C, 20F, and 25C wolf management report. Pages 162–173 *in* P. Harper, ed. Wolf management report of survey and inventory activities, 1 July 2005–30 June 2008. ADF&G. Project 14.0, Juneau, AK.

WP12-56 Executive Summary		
General Description	Proposal WP12-56 requests an extension of the fall moose season by seven days (from Sept. 5 – Oct. 1 to Sept. 5– Oct. 8) in a portion of Unit 21B. *Submitted by Kathleen ZuRay of the Tanana Tribal Council*	
Proposed Regulation	*Unit 21B—that part of the Nowitna River drainage downstream from (and including) the Little Mud River drainage—1 bull; a State registration permit is required during Sept. 5–25. A Federal registration permit is required during the Sept. 26–Oct. ~~1~~**8** season.*	*Sept. 5–Oct. ~~1~~**8***
	Unit 21B—that part of the Nowitna River drainage downstream from (and including) the Little Mud River drainage—1antlered bull. A Federal registration permit is required during the five-day season and shall be limited to one per household. The five-day season may be announced by the Koyukuk/Nowitna National Wildlife Refuge Manage after consultation with ADF&G and the Chairs of the Western Interior Alaska Subsistence Regional Advisory Council and the Ruby Fish and Game Advisory Committee.	*Five-day, to-be-announced season between Dec. 1 and Mar. 31*
	Units 21A and 21B remainder—1bull	*Aug. 20–Sept. 25* *Nov. 1–Nov. 30*
OSM Preliminary Conclusion	**Oppose**	
Western Interior Regional Council Recommendation		
Eastern Interior Regional Council Recommendation		
Interagency Staff Committee Comments		
ADF&G Comments		
Written Public Comments	**None**	

DRAFT STAFF ANALYSIS
WP12-56

ISSUES

Proposal WP12-56, submitted by Kathleen ZuRay of the Tanana Tribal Council, requests an extension of the fall moose season by seven days (from Sept. 5 – Oct. 1 to Sept. 5– Oct. 8) in a portion of Unit 21B.

DISCUSSION

The proponent is requesting that the Federal-only moose season in a portion of Unit 21B be extended from Sept. 26–Oct. 1 to Sept. 26–Oct. 8 to provide additional harvest opportunities for Federally qualified subsistence users. The remainder of the season (Sept. 5 – 25) overlaps with State regulations and would remain the same. The proponent states that, due to warm weather conditions, fall moose movements have been delayed and the season extension is needed to harvest moose. The proposal affects rural residents of Units 21B, 21C, Tanana, Galena, and Ruby and would extend the season on Federal public lands in Unit 21B, which are primarily within the Nowitna National Wildlife Refuge (**Map 1**).

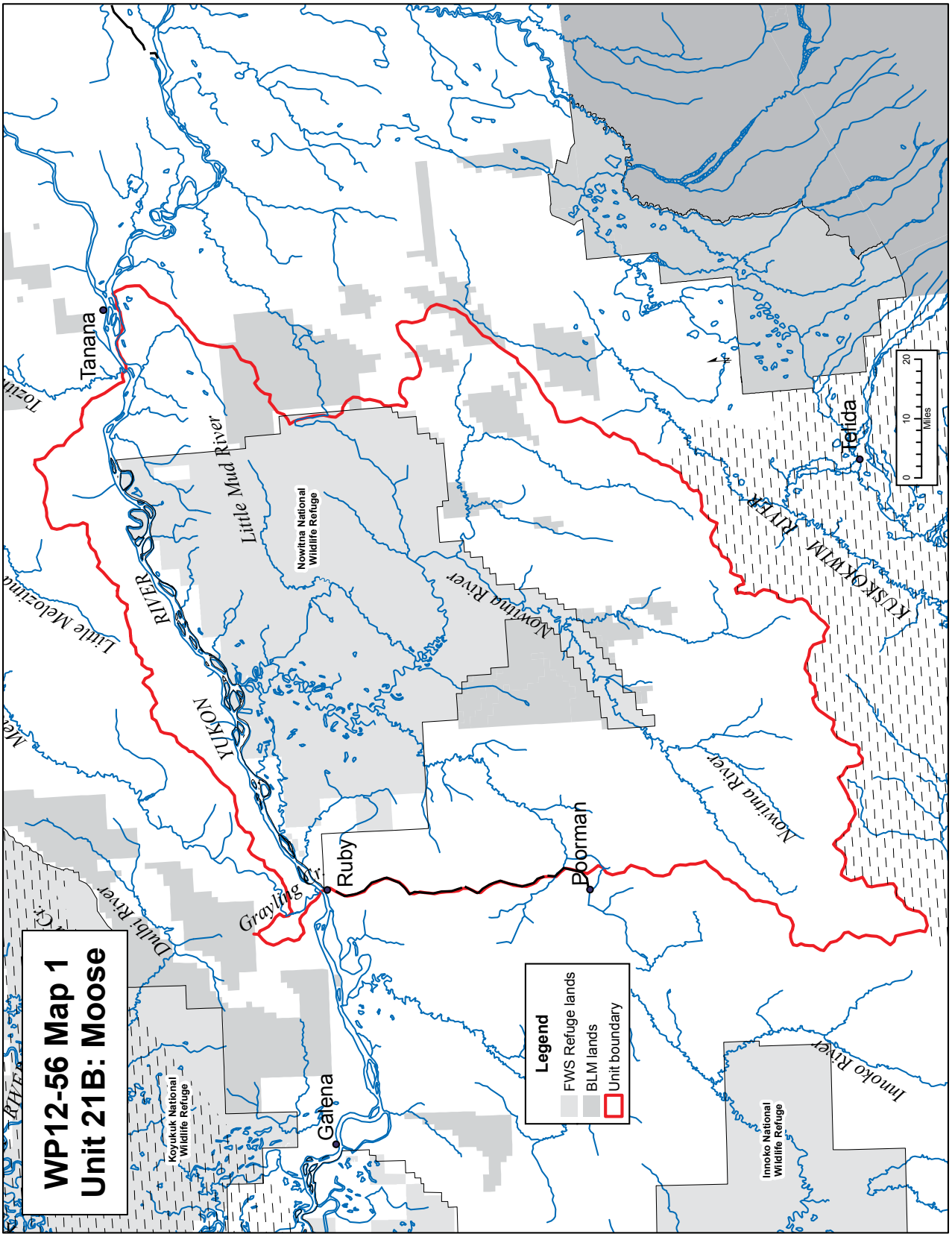
Existing Federal Regulation

Unit 21B — Moose

Unit 21B—that part of the Nowitna River drainage downstream from (and including) the Little Mud River drainage—1 bull; a State registration permit is required during Sept. 5–25. A Federal registration permit is required during the Sept. 26–Oct. 1 season.	*Sept. 5–Oct. 1*
Unit 21B—that part of the Nowitna River drainage downstream from (and including) the Little Mud River drainage—1 antlered bull. A Federal registration permit is required during the five-day season and shall be limited to one per household. The five-day season may be announced by the Koyukuk/Nowitna National Wildlife Refuge Manage after consultation with ADF&G and the Chairs of the Western Interior Alaska Subsistence Regional Advisory Council and the Ruby Fish and Game Advisory Committee.	*Five-day, to-be-announced season between Dec. 1 and Mar. 31*
Units 21A and 21B remainder—1bull	*Aug. 20–Sept. 25* *Nov. 1–Nov. 30*

Proposed Federal Regulation

*Unit 21B—that part of the Nowitna River drainage downstream from (and including) the Little Mud River drainage—1 bull; a State registration permit is required during Sept. 5–25. A Federal registration permit is required during the Sept. 26–Oct. ~~1~~**8** season.*	*Sept. 5–Oct. ~~1~~**8***


WP12-56 Map 1
Unit 21B: Moose
Legend
FWS Refuge lands
BLM lands
Unit boundary
Tanana
Ruby
Poorman
Galena
Tetlida
Little Mud River
Nowitna National Wildlife Refuge
Nowitna River
YUKON RIVER
KUSKOKWIM RIVER
Grayling Cr.
Dulbi River
Innoko River
Koyukuk National Wildlife Refuge
Innoko National Wildlife Refuge
0 10 20
Miles

Unit 21B—that part of the Nowitna River drainage downstream from (and including) the Little Mud River drainage—1antlered bull. A Federal registration permit is required during the five-day season and shall be limited to one per household. The five-day season may be announced by the Koyukuk/Nowitna National Wildlife Refuge Manage after consultation with ADF&G and the Chairs of the Western Interior Alaska Subsistence Regional Advisory Council and the Ruby Fish and Game Advisory Committee.	*Five-day, to-be-announced season between Dec. 1 and Mar. 31*
Units 21A and 21B remainder—1bull	*Aug. 20–Sept. 25* *Nov. 1–Nov. 30*

Existing State Regulation

Unit 21B that portion within the Nowitna River drainage upstream from the Little Mud River drainage, and outside a corridor extending two miles on either side, and including, the Nowitna River.	*Resident: One bull*		*Aug. 22–Aug. 31* *Or* *Sept. 5–Sept. 25*
	Nonresident: One bull with 50-inch antlers or antlers with 4 or more brow tines on at least one side		*Sept. 5–Sept. 25*
Unit 21B remainder	*Resident: One bull by permit, available at hunt.alaska.gov or in person at license vendors in Units 21B, 21D, 24, and ADF&G in Fairbanks beginning Aug 18. Trophy value must be destroyed*	*RM834*	*Aug. 22–Aug. 31* *Sept. 5–Sept. 25*
	Resident: One bull by permit.	*DM802/806 808/810*	*Sept. 5–Sept. 25*
	Nonresident: One bull with 50-inch antlers or 4 or more brow tines on at least one side by permit	*DM802/805 808/809/811*	*Sept. 5–Sept. 25*

Extent of Federal Public Lands/Waters

Federal public lands comprise approximately 38% of Unit 21B and consist of 34% Fish and Wildlife Service, 4% Bureau of Land Management managed lands (**Unit Map 21B**).

Customary and Traditional Use Determinations

Residents of Units 21B, 21C, Tanana, Galena, and Ruby have a positive customary and traditional use determination for moose in Unit 21B.

Regulatory History

Federal regulations for Unit 21B moose were adopted by the Federal Subsistence Board (Board) from State regulations in 1990. A summary of the regulatory history for Unit 21B is as follows:

July 1, 1990 – June 30, 1996: Units 21B, 1 bull, Sept. 5 – 25.

July 1, 1996 – June 30, 2006: Units 21B, 1 bull by State registration permit, Sept. 5–25.

Proposal WP04-62, submitted by the Tanana Tribal Council, requested extending the Unit 21B Federal fall moose hunt season from Sept. 5–Sept. 25 to Aug. 27–Sept. 25. This proposal was rejected due to low and declining bull moose numbers and increased hunter effort. Problems with increased hunter effort had been addressed by a 2004 Alaska Board of Game decision to replace the general harvest permit with subsistence registration permits (trophy value had to be destroyed) and resident and nonresident drawing permits. The Board required a State registration permit for harvesting of moose on Federal public lands in Unit 21B (FSB 2004).

Special actions WSA05-07 and WSA05-08 were submitted to the Board by the community of Ruby and the Ruby Fish and Game Advisory Committee. The proponents requested a Sept. 26–Oct. 2 season extension for the Unit 21B moose seasons. These requests were also based on warmer than normal fall temperatures that hampered hunter success during the fall seasons. An emergency order petition, in companion to WSA05-08, was also sent to the Alaska Board of Game. The Federal Board and the Alaska Board of Game rejected the three requests based on the fact that the proposals did not meet the criteria for Special Actions or Emergency Orders. WSA05-07 and WSA05-08 did not meet the stated criteria in §___.19(a) and (c) for accepting Special Action requests. There had been no changes to the affected moose population that would have impacted the local 2005 fall harvest in Unit 21B. Warmer than normal fall temperatures and higher than normal rainfall are not new challenges for moose hunters. Moose harvest within the Nowitna drainage for 2005 was not notably lower than the reported harvest by local and non-local hunters in recent years. A Board special action was not necessary to assure the continued viability of the affected moose population, to provide a meaningful priority, to continue subsistence uses, or for reasons of public safety or administration.

The ADF&G submitted proposal WP06-35 to the Board and a similar proposal (State Proposal 96) to the Alaska Board of Game for consideration in May 2006 and March 2006, respectively. The proposed actions were to establish a Federal/State Dec.1–10 season in Unit 21B. ADF&G also submitted State Proposal 96A to the Alaska Board of Game eliminating the Dec. 1–10 season and established an Aug. 22–31 season. The intent of the proposals was to provide users the opportunity to harvest bull moose during December in a remote area not easily accessed during the fall moose seasons. In support of the Western Interior Subsistence Region Advisory Council (Council) recommendation, the Board did not adopt the Dec. 1–10 season for Unit 21B and retained the Aug.20–Sept.25 and Nov. 1–30 season for Unit 21A. The Board also adopted the Council modification to adopt the Aug. 22–31 season for Unit 21B that was recommended to the Alaska Board of Game by the Ruby Fish and Game Advisory Committee.

Proposal WP06-34, submitted by the Council, requested a change in the closing dates for the fall moose seasons in Units 21A, 21B, 21D, and 21E, and Unit 24 from Sept. 25 to Oct. 1 and in the Koyukuk Controlled Use Area in Unit 21D and Unit 24 from Sept. 20 to Oct. 1. The proponent's intent was based on warmer than normal fall temperatures that had limited moose harvests for local residents in the affected areas. At its March 2006 meeting, the Council stated that it would support an Aug. 22–31 season over the proposed Sept. 26–Oct. 1 season extension, should the Alaska Board of Game adopt the proposed Aug.22–31 State season. Following the Council's request and the Alaska Board of Game's March 2006 action that adopted the Aug. 22–31 season instead of the Sept. 26–Oct.1 season, the Board adopted the earlier August season for Unit 21B.

The current Federal moose season regulations for Unit 21B were established when the Board adopted WP07-36 and a modification of WP07-37. Both proposals were submitted by the Council. Proposal WP07-36 requested the elimination of the Aug. 22–31 season and the extension of the Sept. 5–25 season to Sept. 5–Oct. 1. The extended portion of the season (Sept. 26–Oct. 1) was out of alignment with State regulations and required an additional Federal registration permit. The intent of the season adjustments was to provide additional harvest opportunity for moose when temperatures are cooler and bull moose are more actively moving. The modified WP07-37 proposal established the five-day winter "to-be-announced" moose season that takes place between Dec. 1 and Mar. 31. The five-day season is opened at the discretion of the Koyukuk/Nowitna National Wildlife Refuge Manager, after consultation with ADF&G and the chairs of the Council and the Ruby Fish and Game Advisory Council.

Biological Background

The State management objectives for Unit 21B (Stout 2008) are to:

- Provide for harvest of 50 – 200 moose or 5% of the annual moose population estimate, whichever is less.
- In combination with Unit 21C, implement at least two habitat enhancement activities every five years.
- Maintain a moose population of greater than 4,000–5,000.

The moose population for most of Unit 21B (8,565 mi^2 out of 9,311 mi^2) was estimated at 2,317 moose (90% CI: 1,899 to 2,735) in 2008 (Havener 2011, pers. comm.). These estimates were based on aerial surveys on the Nowitna NWR. Stout (2008) estimated the Unit 21B moose population to be 4,049 moose (90% CI: 2,449 to 5,649) for 2005/2006 from surveys in the lower Nowitna River area and by extrapolating moose density data into the portion of Unit 21B upstream of the Little Mud River drainage.

Aerial moose trend surveys were conducted on the Koyukuk/Nowitna NWR from November 1–15, 2010. Note that these results are for areas of the Nowitna NWR and not all of Unit 21B. Results from the combined trend count areas (TCA) extending from the Little Mud River down to the Nowitna River mouth (Nowitna/Sulatna Confluence and Nowitna Mouth TCAs) showed improved fall calf abundance and low yearling recruitment (Bryant and Scotton 2010) (**Figure 1**). Yearling bull numbers declined, probably in response to very low calf numbers in 2009. The medium and large bull numbers were average in 2010. The 2010 bull and calf counts were above average, despite the observed low recruitment of yearling bulls. The estimated densities in 2010 were 1.37 total moose/mi^2 and 0.84 cow moose/mi^2, both of which were slightly lower than the 2001–2010 means of 1.47 total moose/mi^2 and 0.98 cow moose/mi^2 (Bryant and Scotton 2010).

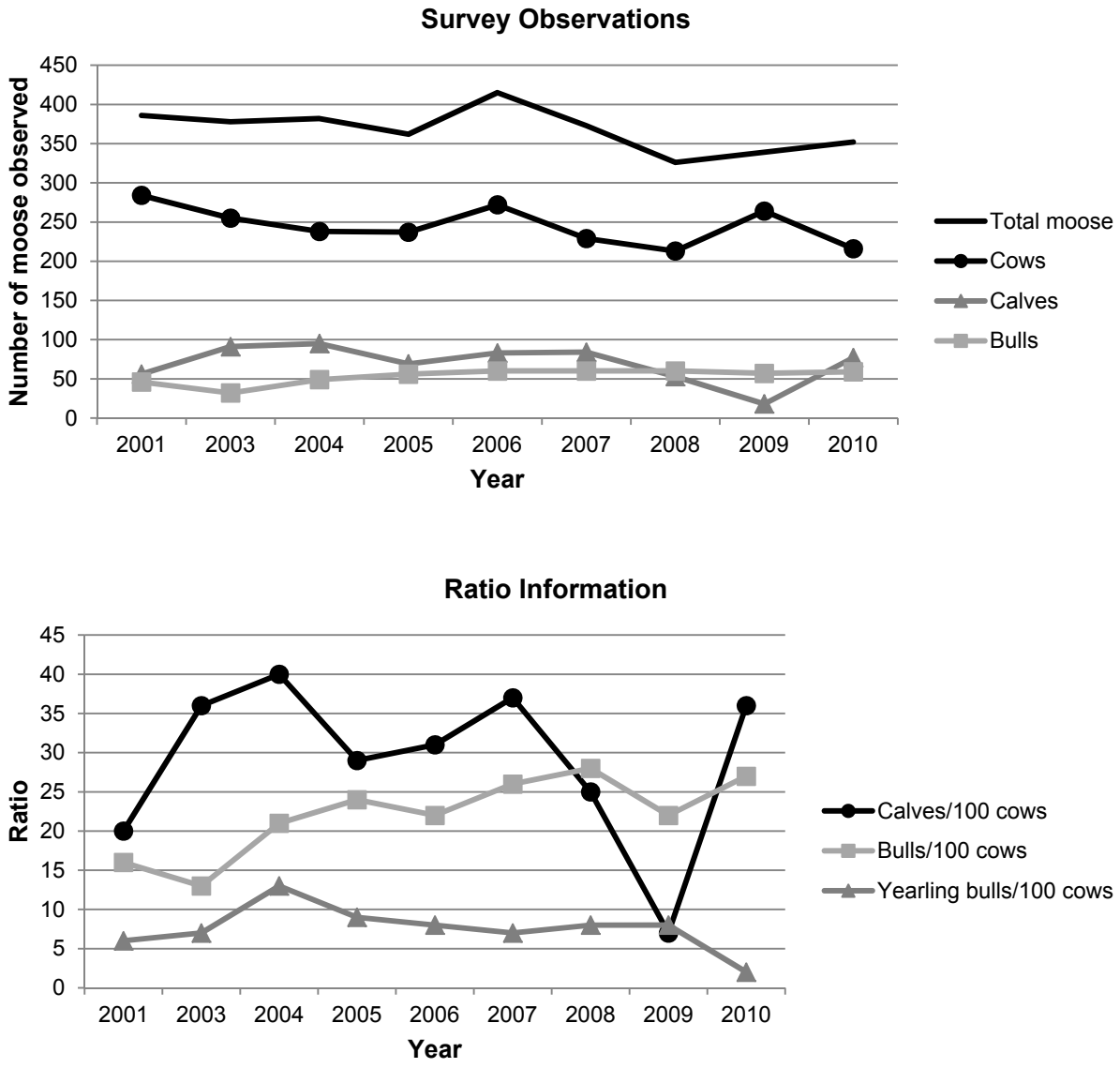


Figure 1. Moose observations and ratio information from aerial surveys in the Lower Nowitna River composition area, which includes the Nowitna/Sulatna Confluence and Nowitna Mouth Trend Count Areas, 2001–2010.

Population composition data in the area affected by this proposal (Nowitna River area) are different from the rest of Unit 21B (**Table 1**), suggesting hunting pressure along the Nowitna River has lowered the bull:cow ratio (Havener 2011, pers. comm.). Note, however, the survey years differ for the two areas. Over the long term, the Nowitna moose population appears stable at a low density. A conservative harvest strategy is warranted due to poor recruitment into the population, fluctuating cow numbers, and the recently recovered bull:cow ratio from a low in 2003 (Byrant and Scotton 2010).

No habitat enhancement or monitoring activities were conducted in Unit 21B between 2005 and 2007 (Stout 2008). However, a wildfire was allowed to burn in the upper drainage of the Little Mud River in 2005; and this could improve habitat in the affected area (Stout 2008).

Table 1. Estimated composition ratios of the overall moose population in Unit 21B (2008 survey) and within the Nowitna River area of Unit 21B (2010 survey).

Ratio	All of Unit 21B	Nowitna River Area[a]
Bulls:cows	50:100	27:100
Yearling bulls:cows	12:100	2:100
Calves:cows	49:100	36:100

[a] Combined Nowitna/Sulatna Conflunce and Nowitna Mouth Trend Count Areas.

Harvest History

Moose continue to be the most important and widely used large animal for the subsistence users of the Interior Region. Brown et al. (2004) found 92% of Middle Yukon and Koyukuk River community households used moose. Household surveys conducted in 2002–2003 resulted in total harvest estimates of 31 moose for Ruby households and 60 moose for Tanana households (Brown et al. 2004). These harvest estimates were expanded from surveys within a sample of households in each community and are not limited to harvest within Unit 21B. In 2002, reportedly 99% of Tanana households used moose, 72% attempted to harvest moose, and 39% harvested moose. Thirty-six percent reported giving moose to other people and 86% reported receiving moose. In 2002, 88% of Ruby residents reported using moose, 64% attempted to harvest moose, and 40% harvested moose. Twenty percent reported giving moose to others in the community and 54% reported receiving moose.

Moose harvest in Unit 21B has been variable for all users (**Figure 2**). Harvest by all Alaska residents (under State and Federal registration permits) was higher between 1983 and 1990, but has since leveled off at lower stable numbers. Overall, the mean annual harvest by all Alaska residents (local and nonlocal) has been 75 moose. The mean nonresident harvest of moose in Unit 21B has been 10 moose per year, but this harvest dropped to 8 moose per year between 2004 and 2009. The drop in nonresident harvest coincides with the State's 2004 implementation of a drawing system to reduce harvest effort. Ruby residents harvested an average of 13 moose per year under Federal and State registration permits between 1983 and 2009, and reported harvests were above average from 2007 to 2009 after a period of below-average harvests (1994–2006) (**Figure 2**). Tanana residents harvested an average of 5 moose per year under Federal and State registration permits between 1983 and 2009, and reported harvests were low in 2006 and 2008–2009 (**Figure 2**).

The current Federal season (Sept. 26 – Oct. 1) was initiated in 2007 to provide additional harvest opportunity for Federally qualified subsistence users. Residents of Ruby and Tanana reportedly harvested six bull moose on Federal public land in Unit 21B between 2007 and 2010 (**Table 2**). Recent use of the Federal season and harvest in Unit 21B have primarily been associated with Ruby residents, as they account for five of the six harvested moose (2007–2010) and all of the issued permits in 2009 and 2010. Tanana residents harvested one moose in 2007 during the Federal season in 21B. Residents of Tanana were issued 11 permits between 2007 and 2008, but only 3 residents reportedly used their permit and no moose were harvested. No permits were requested or issued to Tanana residents for this hunt in 2009 or 2010.

Effects of the Proposal

Adoption of this proposal would extend the end date for the fall moose hunt on a portion of Federal public lands in Unit 21B from Oct. 1 to Oct. 8. The one-week season extension would provide additional

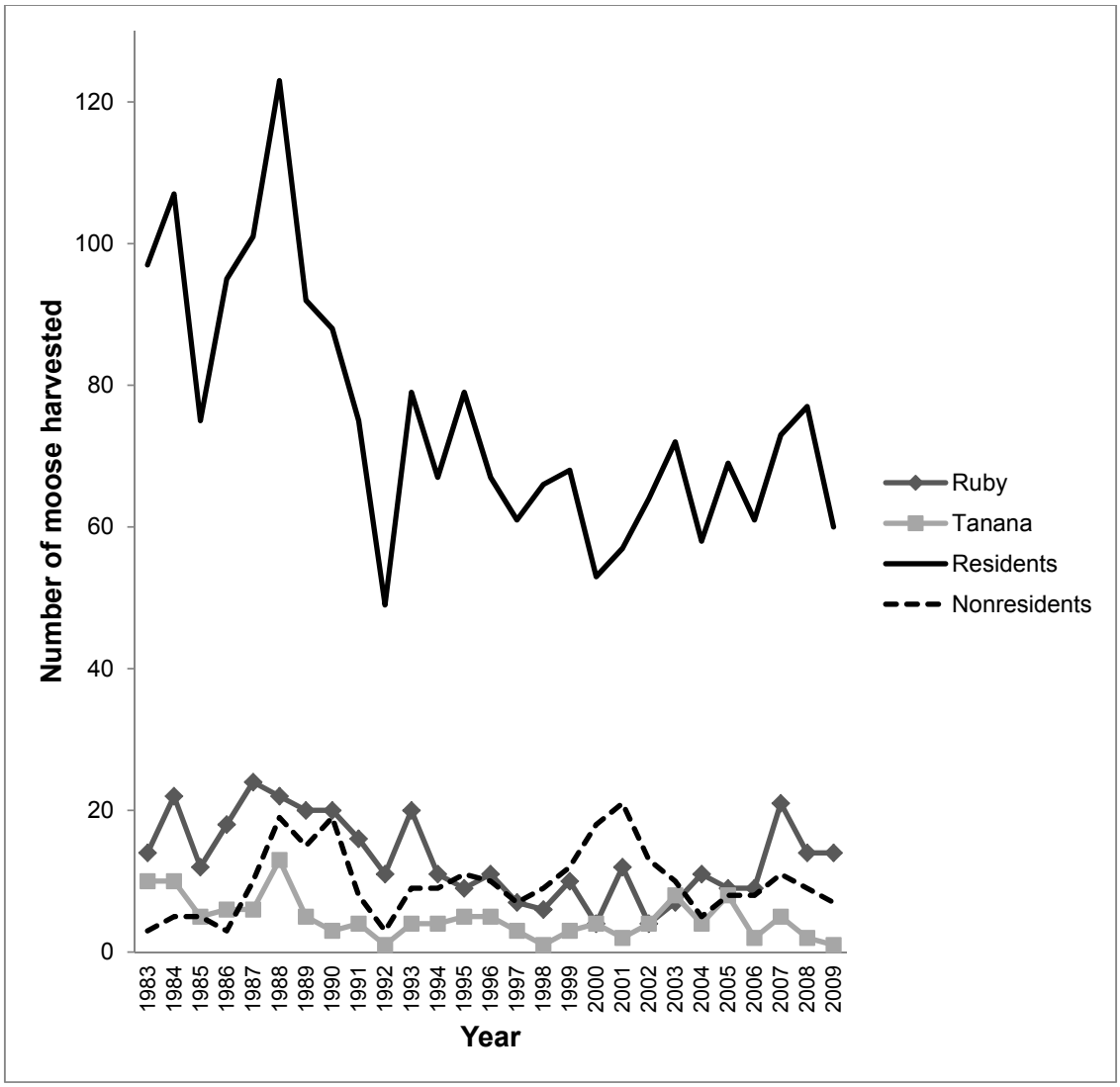


Figure 2. The number of moose harvested by the local communities of Ruby and Tanana, all residents, and nonresidents in Unit 21B using State and Federal registration permits from 1983 to 2009. Residents are all Alaska residents, including those from Ruby and Tanana.

Table 2. Harvest and permit information for the Federal subsistence moose season (Sept. 26 – Oct. 1) on the Nowitna National Wildlife Refuge from 2007–2010.

Year	No. of permits issued	No. hunters through check station	Moose harvested
2007	12	8	3
2008	12	6	0
2009	6	3*	2
2010	5	1*	1

* Check station closed early due to icing on the river and snow conditions.

opportunity for Federally qualified subsistence users to harvest a bull moose. The proponent states that warmer temperatures have delayed fall movements of moose, which has affected harvest opportunity. By extending the season an additional week, bull moose may be more accessible to subsistence users due to increased movements.

The adoption of the extended season would not likely lead to a large increase in bull moose harvest in Unit 21B, especially with recent low participation rates by Federally qualified subsistence users. Use of the current Federal fall moose season extension (Sept. 26 – Oct. 1) has decreased, as fewer residents of Galena and Ruby have been acquiring permits and no permits have been issued to residents of Tanana since 2008. In addition, the extended season would not open all Federal public lands of Unit 21B for the proposed fall moose season. Only Federal public lands on the part of the Nowitna River drainage, downstream from and including the Little Mud River drainage would be included. Residents of Tanana would be required to travel a minimum of 30 river miles to reach the eastern boundary open area.

The proposed season extension would overlap with the peak of rut, which may affect the population. The peak of the rut in Alaska is estimated as October 5 and ranges from September 28–October 12 (Schwartz 2007). There appears to be little variation in breeding season dates among years, suggesting an association with photoperiod rather than temperature (Wilton 1992, references therein; Schwartz 2007); however, other factors such age and proportion of males and body mass of females may also affect timing of ovulation (Garel, et al. 2009). Wilton (1992, 1995) suggested seasons that overlap with the rut could have adverse effects on moose populations, including degradation of genetic diversity by removing dominant breeding individuals. However, the extent of such impacts from harvesting during the rut is not known, as much of effects are speculative and direct evidence of such impacts are lacking.

Potential impacts of harvesting during the rut are associated with the removal of prime breeding males. Prime (5–10 years of age; Timmermann 1992) breeding males may be more susceptible to harvest during the time period leading up to, and at, the peak of the rut due to increased movements while searching for cows and reduced wariness (Wilton 1992, Hundertmark 2007, Timmermann and Buss 2007). The removal of prime breeding males around the peak of the rut may affect the timing of breeding. Cows will still likely be bred as pregnancy rates remained high (90%) with bull:cow ratios as low as 4–9 bulls:100 cows (Bishop and Rausch 1974), but cows may be bred by younger or less dominant bulls. Younger bull moose come into rut later than older prime bulls which may lead to delayed pregnancy (Bubenik 2007). Moose are polyestrous, which means if they do not conceive on the first cycle of the breeding season, they will continue with subsequent cycles (Schwartz et al. 1994). The estrous period of most cow moose is approximately 15–26 hours and the duration of the estrous cycle is 22–28 days (Schwartz and Hundertmark 1993). Therefore, if breeding does not occur within the short estrous period of the first cycle, breeding is delayed at least 22 days. Calves conceived during the second, or later, estrous have been shown to enter the winter at a lower body mass, which can lead to higher winter mortality rates (Schwartz et al. 1994). In Quebec, Laurian et al. (2000) found more young males paired with cows in an intensely harvested population compared to an unharvested population, but did not observe overall effects on reproduction or population productivity. These results, however, may not be directly comparable due to different breeding strategies between moose in Quebec and Alaska moose (*Alces alces gigas*).

The proposed Federal season extension would occur during a period of uncertain ice conditions on the river. In 2009 and 2010, icing conditions on the river in late September forced refuge staff to close the check station early (Havener 2011, pers. comm.). Travel conditions on the rivers may affect use of the proposed season, especially as Tanana residents would have to travel approximately 30 river miles to reach the eastern boundary. It should also be noted that the season extension would require the Nowitna National Wildlife Refuge moose check station to remain open for an additional seven days (Moos 2011,

pers. comm.). The Nowitna check station is set up on or about August 27 and camp is broken at the end of the Federal season (October 1). If icing trends continue, the refuge may not be able to safely operate the check station during the proposed season, which could result in the loss of important management data (Havener 2011, pers. comm.). Harvest reporting by other means, such as mail-in harvest reports, would have to be emphasized to monitor the proposed season.

OSM PRELIMINARY CONCLUSION

Oppose Proposal WP12-56

Justification

Based on trends in the participation of the current Federal-only season (Sept. 26–Oct.1), the proposed season extension would not likely provide much additional harvest opportunity to Federally qualified subsistence users. The current Federal season (Sept. 26 – Oct. 1) has had low levels of participation and use has recently decreased for residents of Tanana. In addition, residents of Tanana would have to travel a minimum of 30 river miles to reach the eastern boundary of the Nowitna National Wildlife Refuge. Moreover, the season extension would occur during a period when ice conditions on the rivers could affect transportation to Federal public lands.

Due to low recruitment into the population, fluctuating cow numbers, and the recently recovered bull:cow ratio from a low in 2003, a conservative harvest strategy is warranted for the affected areas of Unit 21B (Bryant and Scotton 2010). Therefore, despite the uncertainty of biological effects of harvesting during the peak of the rut, the proposed season extension is not supported.

LITERATURE CITED

ADF&G. 2002. 2002 data for Unit 21B plus surrounding 25 miles. Game Management Unit Plus Area Harvest Information. Community Subsistence Information System. <http://www.adfg.alaska.gov/sb/CSIS/index.cfm?ADFG=main.home>. Accessed on 19 May 2011.

Bishop, R. H., and R. A. Rausch. 1974. Moose population fluctuations in Alaska 1950 – 1972. Naturaliste Canadien. 101:559–593.

Brown, C. L., R. J. Walker, and S. Vanek. 2004. The 2002–2003 harvest of moose, caribou, and bear in Middle Yukon and Koyukuk River communities. Technical Paper No. 280, Alaska Department of Fish and Game, Juneau, AK.

Bryant, J., and B. Scotton. 2010. Moose trend survey summary 2010, Koyukuk/Nowitna National Wildlife Refuge Complex (Game Management Units 21B, 21D, and 24D). November 19, 2010, Koyukuk/Nowitna National Wildlife Refuge, FWS. Galena, AK.

Bubenik, A. B. 2007. Behavior. Pages 173 – 221 in A. W. Franzmann and C. C. Schwartz, eds. Ecology and Management of the North American Moose, second edition. University Press of Colorado. Boulder, CO. 733 pages.

FSB. 2004. Transcripts of the Federal Subsistence Board proceedings, May 20, 2004. Office of Subsistence Management, FWS. Anchorage, AK.

Garel, M., E. J. Solberg, B-E Saether, V. Grotan, J. Tufto, and M. Heim. 2009. Age, size, and spatiotemporal variation in ovulation patterns of a seasonal breeder, the Norwegian moose (*Alces alces*). American Naturalist 173:89–104.

Havener. 2011. Koyukuk/Nowitna National Wildlife Refuge subsistence specialist, personal communication: email. USFWS. Galena, AK.

Hundertmark, K. J. 2007. Home range, dispersal and migration. Pages 303–335 *in* A. W. Franzmann and C. C. Schwartz, eds. Ecology and Management of the North American Moose, second edition. University Press of Colorado. Boulder, CO. 733 pages.

Laurian, C., J-P Ouellet, R. Courtois, L. Breton, and S. St-Onge. 2000. Effects of intensive harvesting on moose reproduction. Journal of Applied Ecology 37:515–531.

Moos. 2011. Koyukuk/Nowitna National Wildlife Refuge manager, personal communication: phone. USFWS. Galena, AK.

Schwartz, C. C. 2007. Reproduction, natality, and growth. Pages 141–171 *in* A. W. Franzmann and C. C. Schwartz, eds. Ecology and Management of the North American Moose, second edition. University Press of Colorado. Boulder, CO. 733 pages.

Schwartz, C. C., and K. J. Hundertmark. 1993. Reproductive characteristics of Alaskan moose. Journal of Wildlife Management 57:454–468.

Schwartz, C. C., K. J. Hundertmark, and E. F. Becker. 1994. Growth of moose calves conceived during the first versus second estrus. Alces 30:91–100.

Stout, G. W. 2008. Unit 21B moose. Pages 455–475 *in* P. Harper, editor. Moose management report of survey and inventory activities 1 July 2005–30 June 2007. Alaska Department of Fish and Game. Project 1.0. Juneau, Alaska.

Timmermann, H. R. 1992. Moose sociobiology and implications for harvest. Alces 28:59–77.

Timmermann, H. R., and M. E. Buss. 2007. Population and harvest management. Pages 559–615 *in* A. W. Franzmann and C. C. Schwartz, eds. Ecology and Management of the North American Moose, second edition. University Press of Colorado. Boulder, CO. 733 pages.

Wilton, M. L. 1992. Implications of harvesting moose during pre-rut and rut activity. Alces 28:31–34.

Wilton, M. L. 1995. The case against calling and hunting dominant moose during the main rut period – a viewpoint. Alces 31:173–180.

INTRODUCTION

BACKGROUND

Since 1999, under the authority of Title VIII of ANILCA, the Federal government has assumed expanded management responsibility for subsistence fisheries on Federal public lands in Alaska. Expanded subsistence fisheries management has imposed substantial new informational needs for the Federal system. Section 812 of ANILCA directs the Departments of the Interior and Agriculture, cooperating with the State of Alaska and other Federal agencies, to undertake research on fish and wildlife and subsistence uses on Federal public lands, and to seek data from, consult with, and make use of the special knowledge of local residents engaged in subsistence uses. To increase the quantity and quality of information available for management of subsistence fisheries, the Fisheries Resource Monitoring Program (Monitoring Program) was established within the Office of Subsistence Management. The Monitoring Program was envisioned as a collaborative interagency, interdisciplinary approach to enhance existing fisheries research, and effectively communicate information needed for subsistence fisheries management on Federal public lands.

Although all proposals addressing subsistence fisheries on Federal lands will be considered, the 2012 Request for Proposals was focused on priority information needs developed either by strategic planning efforts or by expert opinion, followed by review and comment by the Subsistence Regional Advisory Councils. The Monitoring Program is administered by region, and strategic plans sponsored by this program were developed by workgroups of fisheries managers, researchers, Federal Subsistence Regional Advisory Council members and other stakeholders for three of the six regions: Southeast, Southcentral (excluding Cook Inlet Area), and Southwest Alaska. These plans identify prioritized information needs for each major subsistence fishery and can be viewed on or downloaded from the Office of Subsistence Management's website: http://alaska.fws.gov/asm/index.cfml. Independent strategic plans were completed for the Yukon and Kuskokwim regions for salmon in 2005. For the Northern Region and the Cook Inlet Area, assessments of priority information needs were developed from the expert opinions of the Regional Advisory Councils, the Technical Review Committee, Federal and State managers and staff from the Office of Subsistence Management. Additionally, a strategic plan for research on whitefish species in the Yukon and Kuskokwim river drainages was completed in spring 2011 as a result of efforts supported through Monitoring Program project 08-206.

Cumulative effects of climate change will likely fundamentally affect subsistence fishery resources, their uses, and how they are managed. Therefore, all investigators were asked to consider examining or discussing climate change effects as part of their project. Investigators conducting long-term projects were encouraged to participate in a standardized air and water temperature monitoring program for which the Office of Subsistence Management will provide calibrated temperature loggers and associated equipment, analysis and reporting services, and access to a temperature database. The Office of Subsistence Management has also specifically requested research proposals that would focus on effects of climate change on subsistence fishery resources and uses, and that would describe management implications.

> *The mission of the Monitoring Program is to identify and provide information needed to sustain subsistence fisheries on Federal public lands, for rural Alaskans, through a multidisciplinary, collaborative program.*

To implement the Monitoring Program, a collaborative approach is utilized in which five Federal agencies (Fish and Wildlife Service, Bureau of Land Management, National Park Service, Bureau of

Indian Affairs, and U.S. Forest Service) work with the Alaska Department of Fish and Game, Regional Advisory Councils, Alaska Native organizations, and other organizations. An interagency Technical Review Committee provides scientific evaluation of proposals and investigation plans. The Regional Advisory Councils provide review and recommendations, and public comment is invited. The Interagency Staff Committee also provides recommendations. The Federal Subsistence Board takes into consideration recommendations and comments from the process, and approves the final monitoring plan.

PROJECT EVALUATION PROCESS

The Technical Review Committee evaluates proposals, and subsequently full investigation plans, and makes recommendations for funding. The committee is chaired by the Fisheries Division Chief of the Office of Subsistence Management and is composed of representatives from each of the five Federal agencies and three representatives from the Alaska Department of Fish and Game. Fisheries and Anthropology staff from the Office of Subsistence Management provide support for the committee.

Four factors are used to evaluate studies:

1. **Strategic Priority**

   Proposed projects should address the following and must meet the first criteria to be eligible for Federal subsistence funding.

   Federal Jurisdiction—Issue or information needs addressed in projects must have a direct association to a subsistence fishery within a Federal conservation unit as defined in legislation, regulation and plans.

   Conservation Mandate—Risk to the conservation of species and populations that support subsistence fisheries, and risk to conservation unit purposes as defined in legislation, regulation and plans.

   Allocation Priority—Risk of failure to provide a priority to subsistence uses.

   Data Gaps—Amount of information available to support subsistence management (higher priority given where a lack of information exists).

   Role of Resource—Contribution of a species to a subsistence harvest (e.g., number of villages affected, pounds of fish harvested, miles of river) and qualitative significance (e.g., cultural value, unique seasonal role).

   Local Concern—Level of user concerns over subsistence harvests (e.g., upstream vs. downstream allocation, effects of recreational use, changes in fish abundance and population characteristics).

2. **Technical-Scientific Merit**

   The project must meet accepted standards for design, information collection, compilation, analysis, and reporting. Projects should have clear study objectives, an appropriate sampling design, correct statistical analysis, a realistic schedule and budget, and appropriate products, including written reports. Projects must not duplicate work already being done.

3. **Investigator Ability and Resources**

Investigators must have the ability and resources to successfully complete the proposed study. This will be evaluated considering ability in terms of education and training, related work experience, publications, reports, presentations, and past or ongoing work on Monitoring Program studies; and considering resources in terms of office and laboratory (if relevant) facilities, technical and logistic support, and personnel and budget administration.

4. Partnership-Capacity Building

Partnerships and capacity building are priorities of the Monitoring Program. ANILCA mandates that the Federal government provide rural residents a meaningful role in the management of subsistence fisheries, and the Monitoring Program offers tremendous opportunities for partnerships and participation of local residents in monitoring and research. Investigators are requested to include a strategy for integrating local capacity development in their investigation plans. Investigators must complete appropriate consultations with local villages and communities in the area where the project is to be conducted. Letters of support from local organizations add to the strength of a proposal. Investigators and their organizations should demonstrate their ability to maintain effective local relationships and commitment to capacity building.

POLICY AND FUNDING GUIDELINES

Several policies have been developed to aid in implementing funding.

- Proposals of up to four years duration may be considered in any year's monitoring plan.
- Studies must be non-duplicative with existing projects. Most Monitoring Program funding is dedicated to non-Federal sources.
- Activities not eligible for funding under the Monitoring Program include: a) habitat protection, restoration, and enhancement; b) hatchery propagation, restoration, enhancement, and supplementation; c) contaminant assessment, evaluation, and monitoring; and d) projects where the primary objective is capacity building (e.g., science camps, technician training, intern programs). These activities would most appropriately be addressed by the land management agencies.
- When long-term projects can no longer be funded by agencies, and the project provides direct information for Federal subsistence fisheries management, the Monitoring Program may fund up to 50% of the project cost.

Finances and Guideline Model for Funding

The Monitoring Program was first implemented in 2000, with an initial allocation of $5 million. Since 2001, a total of $6.25 million has been annually allocated for the Monitoring Program. In 2010, the total funding was reduced to $6.05 million. The Department of the Interior, through the U.S. Fish and Wildlife Service, has provided $4.25 million. The Department of Agriculture, through the U.S. Forest Service, provided $1.8 million annually. But the level of funding for 2012 is uncertain. If Department of Agriculture funding is not provided, none of the project investigation plans submitted for the Southeast Region would be funded.

The Monitoring Program budget funds continuations of existing projects (year-2, 3 or 4 of multi-year projects), and new projects in the biennial year. The Office of Subsistence Management issued requests for proposals on an annual basis until 2008, and then shifted to a biennial basis. Therefore, the next request for proposals after 2012 will be for 2014 proposals. Budget guidelines are established by

geographic region and data type, and for 2012, $2 million is projected to be available for new starts. Proposals are solicited according to the following two data types:

5. **Stock Status and Trends Studies (SST)**.

   These projects address abundance, composition, timing, behavior, or status of fish populations that sustain subsistence fisheries with linkage to Federal public lands. The budget guideline for this category is two-thirds of available funding.

6. **Harvest Monitoring and Traditional Ecological Knowledge (HM-TEK)**.

   These projects address assessment of subsistence fisheries including quantification of harvest and effort, and description and assessment of fishing and use patterns. The budget guideline for this category is one-third of available funding.

2012 FISHERIES RESOURCE MONITORING PLAN

For 2012, a total of 32 investigation plans are under consideration for funding (**Table 1**). Of these, 22 are SST projects and 10 are HM-TEK projects. The Technical Review Committee recommends funding 29 of these investigation plans.

Table 1. Number of investigation plans received for funding consideration in 2012, and number recommended for funding by the Technical Review Committee. Data types are stock status and trends (SST), and harvest monitoring and traditional ecological knowledge (HM-TEK).

	Investigation Plans			Technical Review Committee		
Geographic Region	**SST**	**HM-TEK**	**Total**	**SST**	**HM-TEK**	**Total**
Northern Alaska	4	3	7	3	3	6
Yukon	6	1	7	5	1	6
Kuskokwim	7	1	8	6	1	7
Southwest Alaska	0	3	3	0	3	3
Southcentral Alaska	1	1	2	1	1	2
Southeast Alaska	3	1	4	3	1	4
Multi-Regional	1	0	1	1	0	1
Total	22	10	32	19	10	29

Total funding available for new projects in 2012 is $2.70 million, while the proposed cost of funding all 32 projects submitted would be $2.74 million. The 29 projects recommended for funding by the Technical Review Committee have a total cost of $2.18 million. In making their recommendations, the committee weighed the importance of funding new projects in 2012 with the knowledge that the next request for proposals will be issued in 2014. As has been done in past years, any unallocated Monitoring Program funds from the current year will be used to increase the amount of funding available for subsequent years.

The 2012 draft Monitoring Plan recommended by the Technical Review Committee would provide 28% of the funding to Alaska Native organizations, 47% to State agencies, 14% to Federal agencies, and 11% to other non-government organizations.

YUKON REGION OVERVIEW

Issues and Information Needs

The 2012 Request for Proposals for the Yukon Region identified eight priorities:

- Reliable estimates of Chinook and chum salmon escapements (e.g., weir and sonar projects).
- Effects on salmon stocks (e.g., gillnet dropout mortality) and users of fishery management practices implemented to conserve Chinook salmon (e.g., gillnet mesh size, gillnet depth, and windowed openings).
- Methods for including "quality of escapement" measures (e.g., egg deposition, size composition, habitat utilization) in establishing Chinook salmon spawning goals and determining the reproductive potential of spawning escapements.
- Contemporary economic strategies and practices in the context of diminished salmon runs. Topics may include an evaluation of barter, sharing, and exchange of salmon for cash, as well as other economic strategies and practices that augment and support subsistence activities. Of particular interest are distribution networks, decision making, and the social and cultural aspects of salmon harvest and use.
- Description of changes through time in gillnet use (set versus drift, and by mesh size) for Chinook salmon subsistence harvest in the mainstem Yukon River, in context with harvest and escapement levels.
- Location and timing of Bering cisco spawning populations in the Yukon River drainage.
- Complete genetic baseline sampling and population marker development for sheefish spawning populations in the Yukon River drainage.
- Harvest, use, and associated contextual information for whitefish by species in lower Yukon River drainage communities

Projects Funded Under the Fisheries Resource Monitoring Program

Since the inception of the Monitoring Program in 2000, 93 projects have been funded in the Yukon Region, and seven of these will still be operating in 2012 (Tables 1 and 2). Some of the projects continue previously funded work. Seventy-two of the projects have been directed at salmon, 20 projects have addressed resident fish species such as whitefish and northern pike, and one project has examined climate change impacts on fisheries. Of the seven ongoing projects, five address salmon, one focuses on non-salmon, and one examines climate change (Table 2).

Projects Forwarded for Investigation Plan Development

Fifteen Yukon Region proposals were initially submitted to the Office of Subsistence Management in response to the 2012 Request for Proposals. In March 2011, the Technical Review Committee reviewed these proposals and recommended nine for investigation plan development, including seven Stock Status and Trends projects and two Harvest Monitoring and Traditional Ecological Knowledge projects. One Stock Status and Trends and one Harvest Monitoring/Traditional Ecological Knowledge proposal were withdrawn by the investigators prior to submittal of an investigation plan. Investigators for the remaining seven projects responded to Technical Review Committee proposal review comments in developing their investigation plans. Detailed budgets submitted with each investigation plan allowed identification of funds requested by Alaska Native, State, Federal, and other organizations; funds that would be used to hire local residents; and matching funds from investigating agencies and organizations (Tables 3 and 4).

Available Funds

Federal Subsistence Board guidelines direct initial distribution of funds among regions and data types. While regional budget guidelines provide an initial target for planning, they are not rigid allocations. Upon review and evaluation, the Technical Review Committee, Regional Advisory Councils, Interagency Staff Committee and Federal Subsistence Board have the opportunity to address the highest priority projects across regions. For 2012, approximately $783,000 is available for funding new projects in the Yukon Region.

Recommendations for Funding

The mission of the Monitoring Program is to identify and provide information needed to sustain subsistence fisheries on Federal public lands for rural Alaskans through a multidisciplinary, collaborative program. It is the responsibility of the Technical Review Committee to develop the strongest possible monitoring plan for each region and across the entire state. After reviewing the seven investigation plans, the Technical Review Committee recommended funding six projects (Table 5):

12-200	Alatna River Inconnu Population Structure	$	32,547
12-202	Abundance and Run Timing of Salmon in Henshaw Creek	$	136,990
12-204	Anvik River Sonar Project	$	93,366
12-205	Kaltag Chinook Salmon Sampling Project	$	4,000
12-207	Yukon River Bering Cisco Spawning Origins Telemetry	$	71,050
12-251	In-season Management Teleconferences and Harvest Interviews	$	24,866
	Total	$	362,819

The six projects recommended for funding by the Technical Review Committee comprise a strong Monitoring Plan for the region by addressing strategically important information needs based on sound science and by promoting cooperative partnerships. Each investigation plan recommended for funding in the Yukon region in 2012 is summarized below (see Executive Summaries for more details).

12-200 Alatna River Inconnu Population Structure. This one-year project would provide biological information on inconnu (often referred to as sheefish) harvested by subsistence fishermen in the Alatna River during September. Age, sex, length, and gonadosomatic index information would be obtained, and tissue samples would be collected for development of a genetic baseline. The Alatna River contains the only documented spawning habitat for inconnu in the Koyukuk River, and the stock utilizing this habitat is thought to be the second largest one in the Yukon River drainage. Development of genetic baselines and description of stock structure for whitefish stocks was a priority information need identified in the 2012 Request for Proposals as well as in the Whitefish Strategic Plan.

12-202 Abundance and Run Timing of Salmon in Henshaw Creek. This two-year project would allow continued operation of the Henshaw Creek weir, which provides run timing and escapement information for Chinook and summer chum salmon in a stream located in the upper Koyukuk River. Data collected at the Henshaw Creek weir has been used as an index for salmon populations in the upper Koyukuk River drainage, and these stocks support subsistence fisheries in the Koyukuk River and lower Yukon River drainage. Continuation of this work is supported by Tribal, State and Federal stakeholders. Information obtained from this project has been used to evaluate escapements; estimate the age, sex, and length composition; and determine run timing of Chinook and summer chum salmon entering Henshaw Creek. While this project would address a priority information need identified in the 2012 Request for Proposals, collected information primarily supports the management of commercial fisheries directed at summer chum salmon.

12-204 Anvik River Sonar Project. This two-year project would allow continued operation of Anvik River sonar, which provides information used to assess run strength and monitor escapement of the summer chum salmon run. The Anvik River is one of the top producers of summer chum salmon in the Yukon River and currently represents about one third of total production. While information from the project primarily supports management of commercial fisheries directed at summer chum salmon, approximately 70% of the total subsistence harvest of summer chum salmon occurs below the Anvik River. The Alaska Department of Fish and Game has operated this project since 1979, but lost dedicated State funding for its continued operation in 2004. The Monitoring Program has provided 50% of the funding needed to operate the project since that time. This project would address a priority information need identified in the 2012 Request for Proposals.

12-205 Kaltag Chinook Salmon Sampling Project. This four-year project would continue biological sampling of subsistence caught Chinook salmon downstream from Kaltag in Subdistrict 4A. Collected information has been used to supplement age, sex, and length information collected from the Chinook salmon subsistence fishery in the middle Yukon River. The project has allowed direct involvement of a local community in the collection of fisheries data from the subsistence harvest, and requires two local technicians to data and collect scale samples. The Monitoring Program has funded this work since 2001. Although the project would not address priority information need identified in the 2012 Request for Proposals, the information collected would continue to be of use in evaluating Chinook salmon subsistence harvests.

12-207 Yukon River Bering Cisco Spawning Origins Telemetry. This three-year project would use radio telemetry to document the spawning locations and timing of Bering cisco in the Yukon River drainage. Bering cisco is an important component of Yukon River subsistence fisheries, but spawning in the entire Yukon drainage may be limited to only a few areas in the main stem of the river. It is likely that one of these is located in the Yukon Flats National Wildlife Refuge. The identification and characterization of spawning areas is essential for conservation and management of this species, and was a priority information need identified in the 2012 Request for Proposals as well as in the Whitefish Research Strategic Plan.

12-251 In-season Management Teleconferences and Harvest Interviews. This four-year project would allow continuation of weekly in-season teleconferences between managers of and fishers for Chinook, chum, and coho salmon stocks spawning in the Yukon River. These teleconferences between fishers and managers in Alaska and Canada, facilitated by the Yukon River Drainage Fisheries Association, have been funded through the Monitoring Program since 2000. The project would also provide for the collection of qualitative information on Chinook salmon harvests from ten Alaskan villages (Marshall, Russian Mission, Holy Cross, Kaltag, Nulato, Huslia, Galena, Nenana, Fort Yukon, Eagle), which would be reported during teleconferences. Although the project would not address priority information need identified in the 2012 Request for Proposals, in-season teleconferences have become an important part of the management process and provide a vital outreach and communication tool for managers and fishers throughout the Yukon drainage.

Table 1. Summary of Fisheries Resource Monitoring Program projects completed in the Yukon since 2000. Abbreviations used for investigators are: AC=Alaskan Connections, ADFG=Alaska Department of Fish and Game, AVCP=Association of Village Council Presidents, AV= Arctic Village, BF=Bill Fliris, BLM=Bureau of Land Management, BSFA=Bering Sea Fisherman's Association, CATG=Council of Athabascan Tribal Governments, COK=City of Kaltag, DFO=Department of Fisheries and Oceans, EMV= Emmonak Village Council, NPS=National Park Service, LTC=Louden Tribal Council, NVE=Native Village of Eagle, NVHB= Native Village of Hooper Bay, NVV=Native Village of Venetie, RN=Research North, RW=Robert Wolfe and Associations, SVNRC= Stevens Village, SZ=Stan Zuray, TCC=Tanana Chiefs Conference, TTC=Tanana Tribal Council, UAF=University of Alaska Fairbanks, USFWS=U.S. Fish and Wildlife Service, USGS=U.S. Geological Survey, UW=University of Washington, and YRDFA=Yukon River Drainage Fisheries Association.

Project Number	Project Title	Investigators
	Yukon River Salmon Projects	
00-003	Effects of *Ichthyophonus* on Chinook Salmon	UW
00-005	Tanana Upper Kantishna River Fish Wheel	NPS
00-018	Pilot Station Sonar Upgrade	ADFG
00-022	Hooper Bay Test Fishing	ADFG, NVHB
00-024	Pilot Station Sonar Technician Support	AVCP
00-025	Henshaw Creek Salmon Weir	USFWS
00-026	Circle and Eagle Salmon and Other Fish TEK	NVE
01-014	Yukon River Salmon Management Teleconferences	YRDFA
01-015	Yukon River Salmon TEK	YRDFA
01-018	Pilot Station Sonar Technician Support	AVCP
01-026	East Fork Andreafski River Salmon Weir	BSFA
01-029	Nulato River Salmon Weir	BSFA
01-032	Rampart Rapids Tagging Study	USFWS
01-038	Kateel River Salmon Weir	USFWS
01-048	Innoko River Drainage Weir Survey	USFWS
01-050	Kaltag Chinook Salmon Age-Sex-Length Sampling	COK
01-058	East Fork Andreafsky Weir Panel Replacement	USFWS
01-122	Lower Yukon River Salmon Drift Test Fishing	ADFG, EMV
01-177	Rampart Rapids Extension	USFWS
01-197	Rampart Rapids Summer CPUE Video	SZ
01-199	Tanana Fisheries Conservation Outreach	TTC
01-200	Effects of *Ichthyophonus* on Chinook Salmon	USGS
01-211	Upper Yukon, Porcupine, & Black River Salmon TEK	CATG
02-009	Pilot Station Sonar Technician Support	AVCP
02-011	Rampart Rapids Fall Chum Handling/mortality	USFWS
02-097	Kuskokwim & Yukon Rivers Sex-ratios of Juvenile & Adult Chinook	USFWS
02-121	Yukon River Chinook Salmon Genetics	USFWS, ADFG, DFO
02-122	Yukon River Chinook & Chum Salmon In-season Subsistence	USFWS
03-009	Tozitna River Salmon Weir	BLM
03-013	Gisasa River Salmon Weir	USFWS
03-015	Phenotypic Characterization of Chinook Salmon Subsistence Harvests	YRDFA, USFWS
03-034	East Fork Andreafsky River Salmon Weir	USFWS
03-038	Yukon River Sub-district 5-A Test Fishwheel	BF
04-206	Tozitna River Salmon Weir	BLM
04-208	East Fork Andreafsky River Salmon Weir	USFWS
04-209	Gisasa River Salmon Weir	USFWS
04-211	Henshaw Creek Salmon Weir	USFWS

Table 1. continued.

Project Number		Project Title	Investigators
		Yukon River Salmon Projects (continued)	
04-217		Rampart Rapids Fall Chum Salmon Abundance	USFWS
04-228		Yukon River Chum Salmon Genetic Stock Identification	USFWS
04-229		Lower Yukon River Salmon Drift Test Fishing	ADFG
04-231		Yukon River Chinook Salmon Telemetry	ADFG
04-234		Kaltag Chinook Salmon Age-Sex-Length Sampling	COK
04-251		Fort Yukon Traditional Ecological Knowledge Camp	TCC,CATG, ADFG
04-255	[a]	Yukon River Salmon Fishery Traditional Ecological Knowledge	NPS
04-256		Tanana Conservation Outreach	TTC, USFWS
04-263		Yukon River Salmon Management Teleconferences	YRDFA
04-265		Yukon River TEK of Customary Trade of Subsistence Fish	YRDFA
04-268		Hooper Bay Subsistence Monitoring	ADFG, HBTC
05-203		Yukon River Coho Salmon Genetics	USFWS
05-208		Anvik River Salmon Sonar Enumeration	ADFG
05-210		Tanana River Fall Chum Salmon Abundance	ADFG
05-211		Henshaw Creek Salmon Weir	TCC, USFWS
05-254		Yukon River Salmon Inseason Subsistence Harvest Monitoring	USFWS
06-205		Yukon River Chum Salmon Mixed Stock Analysis	USFWS
07-202		East Fork Andreafsky River Salmon Weir	USFWS
07-204		Lower Yukon River Salmon Drift Test Fishing	ADFG
07-207		Gisasa River Salmon Weir	USFWS
07-208		Tozitna River Salmon Weir	BLM
07-209		Yukon River Salmon Management Teleconferences	YRDFA
07-210		Validation of DNA Gender Test Chinook Salmon	USFWS
07-211		Kaltag Chinook Salmon Age-Sex-Length Sampling	COK
07-253		Yukon River Salmon Harvest Patterns	RWA, AC
08-200	[a]	Kaltag Chinook Salmon Age-Sex-Length Sampling	COK
08-201	[a]	Henshaw Creek Salmon Weir	TCC
08-202	[a]	Anvik River Chum Salmon Sonar Enumeration	ADFG
08-253	[a]	Yukon River Teleconferences and Inseason Management	YRDFA
10-206		Nulato River Salmon Assessment	TCC
		Yukon River Non-Salmon Projects	
00-004		Humpback Whitefish/Beaver Interactions	USFWS, CATG
00-006		Traditional Ecological Knowledge Beaver/Whitefish Interactions	ADFG, CATG
00-021		Dall River Northern Pike	ADFG, SV
00-023		Upper Tanana River Humpback Whitefish	USFWS
01-003		Old John Lake TEK of Subsistence Harvests and Fish	ADFG, AV, USFWS
01-011		Arctic Village Freshwater Fish Subsistence Survey	ADFG, AV, USFWS
01-100		Koyukuk Non-salmon Fish TEK and Subsistence Uses	ADFG, TCC
01-140		Yukon Flats Northern Pike	ADFG, SV
01-238		GASH Working Group	USFWS
02-006		Arctic Village Freshwater Fish Subsistence	ADFG, NVV
02-037		Lower Yukon River Non-salmon Harvest Monitoring	ADFG, TCC
02-084		Old John Lake Oral History and TEK of Subsistence	USFWS, AV, ADFG
04-253		Upper Tanana Subsistence Fisheries Traditional Ecological Knowledge	USFWS,UAF, ADFG
04-269		Kanuti NWR Whitefish TEK and Radio Telemetry	USFWS, RN

Table 1. continued.

Project Number		Project Title	Investigators
		Yukon River Non-Salmon Projects	
06-252		Yukon Flats Non-salmon Traditional Ecological Knowledge	ADFG, BLM, USFWS, CATG
06-253		Middle Yukon River Non-salmon TEK and Harvest	ADFG, LTC
07-206	[a]	Innoko River Inconnu Radio Telemetry	USFWS, ADFG
08-206		Yukon and Kuskokwim Coregonid Strategic Plan	USFWS, ADFG
08-250		Use of Subsistence Fish to Feed Sled Dogs	RN, AC

[a] Final Report in preparation.

Table 2. Summary of ongoing 2012 projects funded under the Fisheries Resource Monitoring Program in the Yukon Region. Abbreviations used for investigators are: BC=Bue Consulting, RN=Research North, USFWS=U.S.Fish Wildlife Service, and YRDFA=Yukon River Drainage Fisheries Association.

Project Number	Data Project Title	Investigators	Budget 2012	Budget 2013
	Yukon River Salmon			
10-200	Yukon River Chinook Salmon Run Reconstruction	BC	$6.9	$0.0
10-201	Yukon River Chinook Salmon ASL Data	YRDFA	$16.7	$16.8
10-202	East Fork Andreafsky River Salmon Assessment	USFWS	$156.1	$149.6
10-205	Yukon River Chum Salmon Mixed-Stock Analysis	USFWS	$124.8	$124.8
10-207	Gisasa River Chinook and Summer Chum Salmon Assessment	USFWS	$135.1	$141.9
	Yukon River Non-Salmon			
10-209	Yukon Delta Bering Cisco Mixed-Stock Analysis	USFWS	$22.2	$13.9
	Harvest Monitoring and Traditional Ecological Knowledge			
10-250	Yukon Climate Change Impacts on Subsistence Fisheries	RN	$31.9	$0.0
	Total Yukon Monitoring Program		$493.7	$447.0

Table 3. Yukon project costs, by organization (Alaska Native, State, Federal, other), for investigation plans submitted to the Fisheries Resource Monitoring Program for funding consideration in 2012.

Project Number	Title	Budget ($000s) Alaska Native	State	Federal	Other
	Stock Status and Trends Projects				
12-200	Alatna River Inconnu Population Structure	$32.5			
12-202	Henshaw Creek Salmon Weir	$137.0			
12-203	Chinook Salmon Untrasound Evaluation of Reproductoin Biology	$50.8			$80.5
12-204	Avnik River Sonar		$93.4		
12-205	Kaltag Chinook Salmon Sampling				$4.0
12-207	Yukon river Bering Cisco Spawning Origins Telemetry Investigation			$66.1	$5.0
	Harvest Monitoring and Traditional Ecological Knowledge Projects				
12-251	Inseason Salmon Harvest Teleconferences				$24.8

Table 4. Yukon local hire and matching funds for investigation plans submitted to the Fisheries Resource Monitoring Program for funding consideration in 2012. Abbreviations used are: ADFG= Alaska Department of FIsh and Game, COK=City of Kaltag, TCC=Tanana Chiefs Conference, USFWS=U.S. Fish and Wildlife Servce, and YRDFA=Yukon River Drainage Fisheries Association.

Project Number	Lead Organization	Title	Funding ($000s) Local Hire	Matching
		Stock Status and Trends Projects		
12-200	TCC	Alatna River Inconnu Population Structure	$0.0	$11.0
12-202	TCC	Henshaw Creek Salmon Weir	$0.0	$6.8
12-203	TCC	Chinook Salmon Untrasound Evaluation of Reproductoin Biology	$0.0	$0.0
12-204	ADFG	Avnik River Sonar	$0.0	$100.7
12-205	COK	Kaltag Chinook Salmon Sampling	$2.3	$1.5
12-207	USFWS	Yukon river Bering Cisco Spawning Origins Telemetry Investigation	$0.0	$148.0
		Harvest Monitoring and Traditional Ecological Knowledge Projects		
12-251	YRDFA	Inseason Salmon Harvest Teleconferences	$6.2	$0.0

Table 5. Funding recommendations by the Technical Review Committee (TRC) for the Yukon 2012 Fisheries Resource Monitoring Program.

Project Number	Title	TRC	Requested Budget ($000) 2012	2013	2014	2015
	Stock Status and Trends Projects					
12-200	Alatna River Inconnu Population Structure	Yes	$32.5	$0.0	$0.0	$0.0
12-202	Henshaw Creek Salmon Weir	Yes	$137.0	$131.4	$0.0	$0.0
12-203	Chinook Salmon Untrasound Evaluation of Reproductoin Biology	No	$131.3	$133.6	$77.1	$0.0
12-204	Avnik River Sonar	Yes	$93.4	$97.0	$0.0	$0.0
12-205	Kaltag Chinook Salmon Sampling	Yes	$4.0	$4.0	$4.0	$4.0
12-207	Yukon river Bering Cisco Spawning Origins Telemetry Investigation	Yes	$71.1	$77.6	$10.0	$0.0
	Harvest Monitoring and Traditional Ecological Knowledge Projects					
12-251	Inseason Salmon Harvest Teleconferences	Yes	$24.9	$72.5	$72.9	$54.7
	Total		$494.2	$516.1	$164.0	$58.7
	Funding Guideline		$783.0			
	TRC Rcommendation		$362.9	$382.5	$86.9	$58.7

Project Number: 12-200
Project Title: Alatna River Inconnu Population Structure
Geographic Region: Yukon
Information Type: Stock Status and Trends
Principal Investigator: Aaron Dupuis, Tanana Chiefs Conference
Co-Investigator(s): Randy Brown, U.S. Fish and Wildlife Service
Jeffrey Olsen, U.S. Fish and Wildlife Service

Project Cost:* **2012:** $32,547

*Tanana Chiefs Conference has applied for continuation of the Office of Subsistence Management's Partner in Fisheries Program to fund a fishery biologist through 2015. Should Tanana Chiefs Conference receive this award, the salary of the fishery biologist (plus 33.2% indirect) requested in this proposal will be returned to the Office of Subsistence Management.

Recommendation: Fund

Issue

Five species of whitefish are present in the Koyukuk River drainage and are routinely harvested in local subsistence fisheries. Local residents rely heavily on whitefish which are taken in currently unmonitored fisheries. Inconnu *Stenodus leucichthys*, a large, long-lived, piscivorous whitefish, represent an important component of this subsistence harvest. The Alatna River is the only documented spawning tributary for inconnu in the Koyukuk River drainage and has been identified as the second largest spawning stock for inconnu in the Yukon River system. Despite the obvious importance of the Alatna River spawning population, there is currently no biological information available describing the age, sex, and length structure, and there have been no genetic collections for baseline development. Development of genetic baselines from known spawning stocks and the collection of stock and sex specific age and length data were cited as high priorities for inconnu throughout Alaska. Genetic baseline samples have been collected from the Yukon Flats and Sulukna River populations and samples from the Alatna River will be extremely useful in the future determination of stock compositions of inconnu taken in mixed-stock subsistence fisheries in the Yukon River drainage. Information describing the maturity of whitefishes is also important when describing the demography of a population. The gonadosomatic index can be used to assess the maturity of whitefishes. In addition, sex-specific age and length data can be used to monitor responses to changes in future management decisions and harvest activities. Given the importance of the Alatna River spawning stock to local subsistence fisheries and its contribution to the Yukon River system, it is appropriate to support this tissue and data collection activity.

Objectives

1. Collect 200 tissue samples from inconnu spawning in the Alatna River for population specific genetics baseline development.
2. Describe the demographic composition (age, sex, length, gonadosomatic index) of the Alatna River inconnu population.

Methods

Inconnu will be captured in cooperation with subsistence fishers from the local community of Alatna. Fish sampling will occur when subsistence fishers target fishing efforts near the putative spawning area in the

Alatna River in the month of September. In order to sample fish over the entire run in the Alatna River, weekly sampling trips will be made during the month of September. Each week will be treated as separate strata for subsequent analyses. During each trip, 50 fish will be randomly sampled, for a total sample size of 200 inconnu. This sample size is consistent with similar studies describing the demographic composition of whitefishes in Alaska.

To address objective 1, a small piece of the pelvic fin will be removed from each fish, placed in a labeled genetic sample vial, and preserved in ethanol for genetic analyses. To address **objective 2**, all captured fish will be individually numbered, measured (fork length to the nearest 1 mm), weighed (wet weight to the nearest 1 g), sexed (by gross examination), and otoliths will be removed for aging. Removed otoliths will be placed in a labeled centrifuge tube. Female fish will have their ovaries removed and each ovary will be weighed separately. The gonadosomatic index (GSI) for female fish will be determined as: GSI = (total ovary weight/wet weight) x 100.

The U.S. Fish and Wildlife Service, Genetics Laboratory will archive the genetic samples with those from the Yukon Flats and Sulukna River populations until they are ready to proceed with baseline development and analysis (J. Olson, U.S. Fish and Wildlife Service, personal communication). All otoliths will be returned to the U. S. Fish and Wildlife Service, Fairbanks Fish and Wildlife Field Office for age analysis (R. Brown, U.S. Fish and Wildlife Service, personal communication).

All genetic analyses will be the responsibility of the U. S. Fish and Wildlife Service, Genetics Laboratory. Age determination will be completed by U. S. Fish and Wildlife Service, Fairbanks Fish and Wildlife Field Office personnel. To describe the demographics of the Alatna River inconnu population ordinary least squares regression will be used to describe the relationships between age, length, weight, and GSI. Logarithmic transformations of data will be used if variances need to be stabilized. A paired t-test will be used to compare the length and weight for male and female inconnu. A Kruskal-Wallis one-way analysis of variance will be used to determine if significant differences in length and weight exist among the sampling strata (weeks). If differences are found, a Dunn's multiple comparisons test will be used to identify when differences occurred.

Partnerships and Capacity Building

This project represents collaboration among Tanana Chiefs Conference, U. S. Fish and Wildlife Service's Fairbanks Fish and Wildlife Field Office, U. S. Fish and Wildlife Service's Genetics Lab, and local subsistence fishers from Allakaket. The principal investigator will hire local fishers to coordinate sampling with subsistence fishing of inconnu on the Alatna River. This project will serve to build capacity among the residents of Allakaket by giving them a role in the future management and conservation of this resource. Additionally, this project will build the capacity of the Tanana Chiefs Conference fisheries program by involving the Office of Subsistence Management's Partners Program fishery biologist, and by strengthening professional relationships with the U. S. Fish and Wildlife Service, Fairbanks Fish and Wildlife Field Office and the subsistence fishers from Allakaket.

Justification

The proposed work addresses a priority information need supporting monitoring and management of Federal subsistence fisheries resources. The study outline is achievable and investigators are fully capable of successfully completing the work. The project would build capacity in a regional Tribal organization for conducting meaningful fisheries research supporting Federal subsistence management.

Project Number: 12-202
Project Title: Abundance and Run Timing of Adult Salmon in Henshaw Creek, Alaska
Geographic Region: Yukon
Information Type: Stock Status and Trends
Principal Investigator: Aaron Dupuis, Tanana Chiefs Conference
Co-Investigator(s): Aaron Martin, U.S. Fish and Wildlife Service

Project Cost:* **2012:** $136,990 **2013:** $131,369

*Tanana Chiefs Conference has applied for continuation of the Office of Subsistence Management's Partners in Fisheries Program to fund a fishery biologist and a fishery intern through 2015. Should Tanana Chiefs Conference receive this award, the salary of the fishery biologist and the fishery technician crew leader (plus 33.2% indirect) requested in this proposal will be returned to the Office of Subsistence Management. The savings to this project would be substantial, totaling $115,450 over the two year period which would reduce the total cost of the project to $152,909. Expected notice of the availability of these funds will be in fall 2011.

Recommendation: Fund

Issue

Management of the Koyukuk River salmon fishery is complex. This is due, in part, to a limited number of salmon escapement studies within the system and the mixed stock nature of the Yukon River salmon fishery. The Alaska Department of Fish and Game, Division of Commercial Fisheries has conducted aerial surveys within the Koyukuk River drainage since 1960, but the usefulness and reliability of that information is limited. Both Chinook salmon *Oncorhyncus tshawytscha* and chum salmon *O. keta* from Henshaw Creek contribute to the harvests occurring in the Koyukuk and Yukon rivers, and the information collected at Henshaw Creek is vital to the difficult task of managing the complex mixed-stock subsistence and commercial salmon fisheries in the Yukon River. In-season management and post-season evaluations of management actions are enhanced by the data from this project as well. Further, the Henshaw Creek weir is the only Upper Koyukuk River drainage salmon escapement monitoring project and its information can facilitate comparisons with lower drainage escapement projects. Furthermore, in recent years subsistence and commercial harvesters have identified a concern with the apparent decrease in the size of Chinook salmon in the Yukon River. The continuation of reliable escapement estimates and the collection of age, sex, and length (ASL) data at Henshaw Creek will assist in future analyses of trends in Chinook salmon and summer chum salmon run timing, escapements, gender composition, and size and age structure over time. In addition, this project aids the Kanuti National Wildlife Refuge in meeting objectives outlined in the 1993 Kanuti National Wildlife Refuge Fishery Management Plan, and addresses the priority information needs outlined for Yukon Region salmon by providing reliable estimates of Chinook and chum salmon escapements. With Tanana Chiefs Conference as the primary investigator and through the hire of local residents, this project will help to facilitate capacity building within Tanana Chiefs Conference and will give local communities a continued role in the management of this resource.

Objectives

1. Determine daily escapement and run timing of adult salmon
2. Determine age, sex and length (ASL) composition of adult salmon
3. Determine the number of resident fish passing the weir

4. Serve as an outreach platform for Kanuti National Wildlife Refuge staff and Tanana Chiefs Conference Partners Program fisheries biologist to conduct an onsite science camp

Methods

The Henshaw Creek weir project will provide involvement, education, and employment opportunities within local communities, as well as provide Federal and state managers with necessary information. The first component of this project will be to record abundance and run timing of Chinook and summer chum salmon returning to Henshaw Creek using a resistance board weir. The weir will be operational from approximately the last week of June until the middle of August. The second component will be to collect biological data from adult salmon migrating through the weir. A fish trap will be used to collect and sample salmon for ASL information, and also to document the movement and presence of resident fishes. Data will be collected using established sampling protocols. Daily escapement counts will be provided to Federal and state managers for in-season management needs. All data will be sent to the PI to collaborate with the co-investigator in organizing, editing, and ensuring data quality. The principal investigator will forward pertinent data to the proper laboratory for analysis. Biological samples will be prepared, processed, compiled, analyzed, and summarized by Alaska Department of Fish and Game laboratories. ASL data will be handled by the Stock Biology Laboratory (Anchorage). Any Chinook and chum genetic samples will be sent to Alaska Department of Fish and Game and U.S. Fish and Wildlife Service laboratories, respectively. The third component will be to serve as a platform for a one week science camp conducted in cooperation with Kanuti National Wildlife Refuge staff and local community members and funded by a Challenge Cost Share grant through the refuge.

Partnerships and Capacity Building

The Henshaw Creek weir project represents collaboration among the Tanana Chiefs Conference, the U.S. Fish and Wildlife Service, Fairbanks Fish and Wildlife Field Office, the Kanuti National Wildlife Refuge, and the local communities of the Koyukuk River drainage. This project has consulted with the U.S. Fish and Wildlife Service, Fairbanks Fish and Wildlife Field Office to provide logistical support for field operations, training of field technicians, and support with post-season data analyses and report writing. Consultations have been made with Kanuti National Wildlife Refuge in providing the project with overwintering storage facilities for gear and annually being a participant in a science camp hosted at Henshaw Creek weir through a Challenge Cost Share Grant. Additionally, Larry DuBois, Alaska Department of Fish and Game AYK Stock Biologist provided input and will continue to support this project through in-kind support by analyzing ASL data. Tanana Chiefs Conference will continue to work with Kanuti National Wildlife Refuge staff, the Western Regional Advisory Council, Allakaket, Alatna, Hughes, and Evansville traditional councils to recruit local residents.

Justification

The Henshaw Creek weir provides run timing and escapement information for Chinook and summer chum salmon in a stream located in the upper Koyukuk River. Data collected at the Henshaw Creek weir is used as an index for salmon populations in the upper Koyukuk River drainage; these stocks support subsistence fisheries in the Koyukuk River and lower Yukon River drainage. Project objectives are clear and have been achieved. The capacity building portion of this study is excellent, with Tanana Chiefs Conference assuming more responsibility for the Henshaw Creek weir. Support has been voiced by Tribal, State and Federal stakeholders. The continuation of reliable escapement estimates and the collection of age-sex-length data at Henshaw Creek will enable future analyses of trends in Chinook and summer chum salmon run timing, escapements, gender composition, and size and age structure over time. Funding beyond 2013 could be considered in response to the 2014 Request for Proposals; but given competing

priorities and budget limitations, investigators should begin seeking other funding sources. The overall long term priority of this project to address Federal subsistence management issues may not be sufficient to justify longer term support.

Project Number: 12-203
Project Title: Ultrasound Evaluation of the Reproductive Biology of Chinook Salmon
Geographic Region: Yukon
Information Type: Stock Status and Trends
Principal Investigator: Aaron Dupuis, Tanana Chiefs Conference
Co-Investigator(s): Dr. Trent Sutton, University of Alaska Fairbanks
Dr. Andrew Seitz, University of Alaska Fairbanks

Project Cost:* **2012:** $131,296 **2013:** $133,602 **2014:** 77,111

*Tanana Chiefs Conference has applied for continuation of the Office of Subsistence Management's Partners in Fisheries Program to fund a fishery biologist through 2015. Should Tanana Chiefs Conference receive this award, the salary of the fishery biologist (plus 33.2% indirect) requested in this proposal would be returned to Office of Subsistence Management.

Recommendation: Do Not Fund

Issue

In 2000, the Alaska Board of Fisheries classified Yukon River Chinook salmon *Oncorhynchus tshawytscha* as a stock of yield concern in response to poor returns and low harvests. The management of this resource is complex and utilizes information from several escapement monitoring projects located throughout the drainage which collect data on abundance, and age, sex, and length (ASL) composition from returning Chinook salmon to develop management strategies. Data describing the reproductive capacity of a spawning stock are also important when considering management strategies, but can be difficult to obtain and incorporate into monitoring programs. Fecundity influences the reproductive capacity of spawning stocks (i.e., egg deposition), and can have significant spatial, temporal, and intra-population variation. Because the fecundity of female fish is related to size, a decline in mean length or weight could also result in declining reproductive capacity for spawning stocks. To estimate the reproductive capacity of a spawning stock, information on abundance, ASL, and the fecundity-size relationship is needed. Traditional methods for estimating fecundity require that fish be sacrificed; however, ultrasound technology has been shown to be an effective non-lethal method for sexing Chinook salmon and has been used to estimate fecundity, gonad volume, and egg size in other fish species. Additionally, this project will also be able to evaluate the use of ultrasound for sex determination of Chinook salmon, which will be important in lower Yukon River monitoring projects. The goal of this project is to develop the use of ultrasound as a viable method for determining the fecundity and sex of Chinook salmon in the Yukon River drainage. The proposed project would develop readily-transferable methods for the use of ultrasound technology to estimate reproductive biology parameters in Chinook salmon; therefore, it would be possible to begin incorporating fecundity monitoring into escapement monitoring projects and to accurately determine sex in lower river test fisheries. This would allow managers to make informed in-season management decisions and post-season evaluations, as well as aid in the development of conservation and harvest strategies.

Objectives

1. Evaluate the use of ultrasound technology as a non-lethal method for determining the sex of Chinook salmon in the Yukon River drainage;

2. Evaluate the use of ultrasound technology as a non-lethal method for determining the fecundity of female Chinook salmon in the Yukon River drainage.

Methods

Female Chinook salmon will be collected in cooperation with locally hired subsistence fishers from Pilot Station, Holy Cross, Koyukuk, Nenana, and Eagle, Alaska. To determine the sex of Chinook salmon, at least 60 fish (30 female fish must be identified) will be randomly selected from the subsistence catch from each sampling location in each year. To determine the fecundity of Chinook salmon, of the fish identified as female, 30 will be randomly selected at each sampling location each year. These sample sizes are consistent with similar studies conducted to evaluate estimations of sex and fecundity using ultrasound technology. All captured fish will be measured (mid-eye to fork length) to the nearest 1 mm and weighed to the nearest 1 g, and scales will be removed for aging. Scales will be aged in the University of Alaska Fairbanks, School of Fisheries and Ocean Sciences aging laboratory.

A NanoMaxx portable ultrasound device with an L38n transducer (SonoSite; Bothell, WA) will be used to identify sex and estimate three ovarian characteristics: fecundity, egg diameter, and gonad volume. For sex determination, fish will be scanned and the resulting image will be used to estimate sex. For fecundity estimation, female fish will be scanned to identify the posterior and anterior points of the ovary; a transverse cross section of the ovary will then be captured using the ultrasound at three equidistant points along the gonad. Ultrasound images will be analyzed using image analysis software. Diameters of clearly defined eggs will be measured from each cross-sectional image, and a random sub-sample of egg diameters will be taken from each cross-section. Total gonad volume will be estimated by incorporating the cross-sectional images and length measurements into a cylindrical shape that is representative of the ovaries. Fecundity will be estimated for individual females by dividing mean egg volume (derived from egg diameter) by total ovary volume. This project will require a validation of the ultrasound estimates by also estimating fecundity, egg diameter, and gonad volume using standard methods to allow for a direct comparison of estimates between the ultrasound and standard methods.

Partnerships and Capacity Building

This project represents collaboration among Tanana Chiefs Conference; University of Alaska Fairbanks, School of Fisheries and Ocean Sciences; Alaska Department of Fish and Game, Division of Commercial Fisheries; and subsistence fishers of the Yukon River. Project personnel will work with Tanana Chiefs Conference, the Western and Eastern Regional Advisory Councils, and local traditional councils to identify subsistence fishers who would be willing to provide the samples necessary to satisfy the project objectives. This project will provide an opportunity for interns hired through the Partner's in Fisheries Program at Tanana Chiefs Conference (if funded) to be exposed to different types of research and to learn about the educational opportunities in fisheries available at the University of Alaska. This project will provide opportunities for local communities to participate in the management of fishery resources, and will help to build the capacity of the Tanana Chiefs Conference fisheries program by developing a professional relationship with the University of Alaska Fairbanks, School of Fisheries and Ocean Sciences and with Alaska Department of Fish and Game, Division of Commercial Fisheries.

Justification

The Technical Review Committee proposal review specifically requested that the investigation plan be focused on sex determination at a substantially reduced cost rather than fecundity measurements. Fecundity measurements were viewed as a low priority since existing projects already include routine measurement of Chinook salmon size (length and/or girth), which is a good indicator of fecundity. While

the investigation plan addressed sex determination as an objective and included sampling at the lower river test net project, the investigators chose to include measurement of fecundity with ultrasound as a primary objective and increased the level of funding. The Technical Review Committee considered the investigators' arguments concerning the need to further examine fecundity, but unanimously determined that the cost of the project given the limited utility of results could not be justified. Concept feasibility could be tested with hatchery fish for a fraction of the cost. In addition, some Technical Review Committee members felt that the project cost might be more reasonable if a feasibility study was combined with an actual application of the methods for selected spawning stocks.

Project Number: 12-204
Project Title: Anvik River Sonar Project
Geographic Region: Yukon
Information Type: Stock Status and Trends
Principal Investigator: Carl T. Pfisterer, Alaska Department of Fish and Game
Co-Investigator(s): Malcolm McEwen, Alaska Department of Fish and Game

Project Cost: **2012:** $93,366 **2013:** $97,043

Recommendation: Fund

Issue

The Anvik River contributes to the subsistence chum salmon fishery in the lower Yukon River, which is part of the Yukon Delta National Wildlife Refuge. The subsistence summer chum fishery occurs in the Yukon Delta National Wildlife Refuge from approximately June 10 through July 15. The Anvik River sonar project is a continuing project that directly addresses the identified Yukon Region priority need "reliable estimates of Chinook and chum salmon escapements (e.g., weir and sonar projects)".

The Anvik River sonar project has provided reliable estimates of chum salmon escapement to the Anvik River since 1979 and is one of only two projects in the Yukon River drainage with an established Biological Escapement Goal for summer chum salmon. A Biological Escapement Goal is the escapement that provides the greatest potential for maximum sustained yield and is the primary management objective for escapement. The Anvik River sonar project's longevity and history of being one of the largest producers of summer chum salmon in the Yukon River drainage combine to make this one of the most important projects for escapement monitoring and management of chum salmon in the Yukon Region. Daily estimates of chum salmon passage are provided to Federal and State fishery managers daily for consideration in management actions that can directly affect subsistence harvest in the Yukon Delta National Wildlife Refuge and the rest of the Yukon River drainage.

Objectives

1. Estimate chum salmon fish abundance in the Anvik River using DIDSON sonar from approximately June 16 through July 26.
2. Collect between 162–210 chum salmon samples during each of 3 to 4 stratum throughout the season to estimate the age, sex, and length (ASL) composition of the Anvik River chum salmon passage, such that simultaneous 95% confidence intervals of age composition in each sample are no wider than 0.20 ($\alpha = 0.05$ and $d = 0.10$).
3. Monitor selected climatic and hydrological parameters daily at the project site for use as baseline data.

Methods

The Anvik River sonar project will be operated from its customary location approximately 76 km upstream of the confluence of the Anvik and Yukon Rivers, 5 km below Theodore Creek (Figure 2) in Sections 34 and 35, Township 31 North, Range 61 West, Seward Meridian, at latitude/longitude 62° 44.208" N 160° 40.724" W.

Dual Frequency Identification Sonar (DIDSON) will be used to count salmon migrating past the site. The DIDSON sonar is a state-of-the-art imaging sonar that produces video like images making it easy to identify fish, the direction of travel, and even limited ability to estimate size. Sonar will be deployed on each bank of the Anvik River and data will be collected 30 minutes of each hour, 24-hours per day, and seven days a week for the duration of the study. This will provide a total of 12 hours of data per day per bank. Counts will be expanded for the fraction of the day sampled to estimate daily passage. The only fish species present in large numbers during the chum salmon run is pink salmon. When pink salmon are present a tower will be used to estimate the relative proportion of chum and pink salmon. These proportions will be used to apportion the sonar counts to species.

Region wide standards have been set for the sample size needed to describe age composition of a salmon population. These would apply to the time period or stratum in which the sample is collected. Sample size goals are based on accuracy (d) and precision (a) objectives of d = 0.10 and a = 0.05 for a rejection rate of 10%. Sample sizes will be based on obtaining 162 summer chum salmon for each of the following time strata: June 17–30; July 1–7; July 8–14; and July 15–30.

Climatic and hydrologic data will be collected at approximately 1800 hours each day at the sonar site. River depth is monitored using a staff gauge marked in 1 cm increments. Change in water depth will be presented as negative or positive increments from the initial reading of 0.0 cm. Water and air temperature will be measured using a HOBO temperature logger, which will electronically recorded the temperature every hour. Subjective notes on wind speed and direction, cloud cover and precipitation will be recorded.

Partnerships/Capacity Building

Due to the technical nature of the work, limited opportunities exist to develop partnerships and build local capacity. During the fishing season information is presented during the weekly Yukon River Drainage Fisheries Association teleconference. Currently we have a technician working on the project from a village downriver of Anvik. When there is a vacancy with the crew we are trying to hire from the local villages.

Justification

The Anvik River is one of the top producers of summer chum salmon in the Yukon River currently accounting for approximately one third of total production. Approximately 70% of the total subsistence harvest of summer chum salmon occurs below the Anvik River. The Anvik River Sonar project is an important monitoring project for summer chum salmon to assess run strength and meet biological escapement goals. The project primarily supports the management of commercial fisheries directed at summer chum salmon. Consistent with policy for ongoing base projects, the proposal includes a 56% match with State funds. However, the overall long term priority of this project to address Federal subsistence management issues may not be sufficient to justify longer term support. Therefore, it is recommended that the project be funded for only an additional two years. Funding beyond 2013 could be considered in response to the 2014 Request for Proposals; but given competing priorities and budget limitations, investigators should begin seeking other funding sources.

Project Number: 12-205
Project Title: Kaltag Chinook Salmon Sampling Project
Geographic Region: Yukon
Information Type: Stock Status and Trends
Principal Investigator: Richard Burnham, City of Kaltag

Project Cost: **2012:** $4,000 **2013:** $4,000 **2014:** 4,000 **2015:** $4,000

Recommendation: Fund

Issue

Knowledge of Chinook salmon mixed stock harvests are a prerequisite to understanding and evaluating changes to stock-specific production. Current sampling programs are designed to fulfill the U.S.-Canada Treaty Agreement by assessing the number of Yukon River Chinook salmon harvested and estimating this harvest by age, sex, length (ASL), and stock composition. A lack of data from the District 4 harvest, which includes Kaltag, has contributed to uncertainty in previous stock specific harvest estimates.
In 2005, subsistence harvest samples from Kaltag and Nulato will be used to estimate the ASL and stock composition of the Yukon River Subdistrict 4-A subsistence harvest. In some years, with no or limited sampling, the nearest commercial harvest samples were used for estimating subsistence harvest composition. However, the subsistence harvest is greater than the commercial harvest in some districts, and the gear types may be different. Further, as subsistence harvests increase in relation to other harvests, these samples will become increasingly important to the composite database.

Federal and State managers rate this project as a high strategic priority. This project helps fulfill the US-Canada Treaty Agreement by estimating the age, sex, length (ASL), and stock composition for the fishery in Subdistrict 4-A. The Office of Subsistence Management supported this project in 2001 (01-050).

Objectives

Collect biological data from 250 Chinook salmon harvested by Kaltag subsistence fishers. These data include scales, sex, length, and an axillary process clip.

Record associated data such as date, harvest location, gear type, and mesh size.

Methods

Chinook salmon will be sampled in the round as soon after capture as practical. Sampling will occur throughout the duration of the run in proportion to abundance as much as possible. During sampling, all available fish will be sampled for an axillary process clip, scales, sex, and length. Capture method, mesh size, location, date, fish number, scale card number, and genetic vial number will be recorded.

Alaska Department of Fish and Game will send sampling supplies to Kaltag before the field season begins in late May. Sampling technicians will be hired before the field season. Sample collection will begin as soon as subsistence fishers start harvesting salmon, usually early to mid-June.

Three scales are collected from the preferred area on the left side of the fish and mounted on pre-printed gum cards. Length will be measured from mid-eye to fork of tail to the nearest five mm. Sex will be visually determined from external morphological characteristics or from internal examination of the

gonads. Approximately ¾-inch of the axillary process is clipped, placed in individually numbered vials, and the vial filled with ethanol. Associated data are recorded in field logbooks and later transferred to Opscan forms. After the majority of the Chinook salmon subsistence harvest has occurred, samples and associated data will be will be sent to the Alaska Department of Fish and Game, Anchorage office.

From August through December, samples will be processed, analyzed and summarized by Alaska Department of Fish and Game. ASL data will be compiled by the Stock Biology Laboratory and the axillary process clips will be compiled by the Genetics Laboratory to estimate stock composition for Canadian- and U.S.-origin fish. Upon completion of sample processing and analysis, Alaska Department of Fish and Game will forward preliminary results to the principal investigator for inclusion in performance, annual, and final reports. Alaska Department of Fish and Game final reports, which include data collected by the principal investigator, will be forwarded to the principal investigator when available.

Partnership/Capacity Building

The project directly involves Kaltag residents collecting inseason fisheries data from the subsistence Chinook salmon harvest. Technical consultations were completed with Alaska Department of Fish and Game, Division of Commercial Fisheries, Larry Dubois, Summer Season Area Research Biologist.

Justification

The project supplements the commercial age, sex, and length database providing 250 samples from subsistence caught Chinook salmon in Subdistrict 4A. The project provides for direct involvement of a local community in the collection of fisheries data from the subsistence harvest. The project is reasonably budgeted and the information collected benefits the post-season evaluation of Chinook salmon harvest. Two local technicians would be hired to collect age, sex, and length and scale samples. The Office of Subsistence Management has supported this work since 2001.

Project Number: 12-207
Project Title: Yukon River Bering Cisco Spawning Origins Telemetry Investigation
Geographic Region: Yukon
Information Type: Stock Status and Trends
Principal Investigator: David Daum, U.S. Fish and Wildlife Service
Co-Investigator(s): Randy Brown, U.S. Fish and Wildlife Service

Project Cost: **2012:** $71,050 **2013:** $77,550 **2014:** $9,500

Recommendation: Fund

Issue

The Bering cisco *Coregonus laurettae* population in the Yukon River is thought to spawn in main-stem reaches of the upper Yukon Flats and rear in coastal lagoons of western and northern Alaska, though a comprehensive study defining spawning and rearing extent has not been attempted to date. Subsistence fishers harvest Bering cisco throughout their range and the species is particularly favored in most coastal communities of western Alaska. Annual subsistence harvest data specific to Bering cisco have not been collected (harvest surveys combine all Coregonid species under a "whitefish" category); however, harvest is assumed to be substantial. A commercial fishery for whitefish was initiated in the lower Yukon River in the fall of 2005 and the product is being marketed as a smoked fish product in New York City. Initially, all coregonid species were targeted in the fishery, but Bering cisco is now the preferred commercial species. The fishery has been limited to an annual cisco harvest of about 4,500 kg (10,000 lb) until 2010, when the allocation was increased to 6,800 kg (15,000 lb). This amount has been considered by fishery managers to be conservative, but there are no population abundance estimates to support this view. On numerous occasions, the commercial buyer has requested substantial increases in the annual allocation, but without additional population-specific data, managers have been reluctant to grant an additional allocation. Some coastal subsistence users are concerned about the developing commercial fishery and its potential impact on their harvest. There is also a biological concern for the potential over-harvest of Yukon River Bering cisco since the species is demographically distributed over a very large geographic region.

This proposed study will define the geographic spawning distribution of the Yukon River Bering cisco population. A spawning aggregate has been documented in the Yukon River main stem, upper Yukon Flats, though upper and lower limits of spawning have not been described. Also, additional spawning aggregates may exist that have not been identified. Defining the spawning locations of Yukon River Bering cisco is the next step in the sequential process leading to the ability to manage this important fishery. As outlined in the Preliminary Strategic Plan for Research of Whitefish Species in the Yukon and Kuskokwim River Drainages in Alaska, run timing and demography of the spawning run past Rampart Rapids (1,200 km upstream from the Yukon River mouth) have been described, genetic stock composition and demographic description of the commercial harvest are ongoing; spawning locations identified (this proposal); stock composition of the subsistence catch quantified; and a population monitoring program established. Data from this project will also be useful for ensuring protection of these important freshwater habitats from potential disruptive development, such as, streambed gravel extraction for rural village infrastructure upgrades. This proposal addresses the Yukon Region Priority Information Needs described in Office of Subsistence Management's 2012 Request for Proposals, specifically, location of Bering cisco spawning habitat and timing of spawning in the Yukon River drainage. This proposal also addresses the Whitefish Strategic Plan general issues of concern #4, spawning origins of priority species

must be located to identify populations; and Bering cisco research priority #3, delineation of the spawning distributions of Bering cisco in the Yukon and Kuskokwim River drainages.

Objectives

1. Deploy 100 radio transmitters per year (2012 and 2013) at Rampart Rapids during the Bering cisco summer/fall spawning migration;
2. Locate spawning destinations for Bering cisco using remote station and aerial telemetry techniques;
3. Analyze telemetry data to determine geographic spawning distribution, timing of spawning, and post-spawning downstream migration; and
4. Nominate spawning areas for inclusion into the Alaska Anadromous Waters Catalog and other appropriate habitat protection vehicles.

Partnership/Capacity Building

A large part of this project (fish tagging) is directly dependent on the partnership with Rapids Research Center, the director Stan Zuray, and the local individuals (mostly students) who work at the Student Educational Camp during the summer months. The Rapids video fish wheel project (funded by Restoration and Enhancement Funds) will be the platform used for capturing, tagging, and releasing fish. This fish wheel has been designed to capture and release fish unharmed, which is not the case for most subsistence and commercial fish wheels operating in the Yukon River drainage. Local students, workers, fisherman, and camp instructors will all witness the Bering cisco tagging project first hand; becoming acquainted with all aspects of the project through discussions, hands on demonstrations, scientific interactions, and direct participation when work schedules allow. The Rapids Research Center will also provide housing and logistics for the project during the summer/fall tagging seasons in 2012 and 2013.

Justification

The proposal specifically addresses a priority information need established in the 2012 Request for Proposals and Strategic Whitefish Research Plan. Strategic priority, technical merit and investigator ability are rated high. The project design and sampling described in the investigation plan should ensure that the project objectives are achievable. The association and participation of the Rapids Research Center in this project provide enhanced opportunities for capacity building with local stake holders and communities. Given the importance of Bering cisco to Yukon River subsistence fisheries, detailed mapping and documentation of this species spawning areas will assist management agencies to protect their habitat as well as design future work to monitor the status of the Yukon River Bering cisco stock. This work should be viewed as an important and necessary step leading to development of effective management strategies to ensure long term conservation.

Project Number: 12-251
Project Title: In-season Salmon Management Teleconferences and Harvest Interviews
Geographic Region: Yukon
Information Type: Harvest Monitoring and Traditional Ecological Knowledge
Principal Investigator: Jason Hale, Yukon River Drainage Fisheries Association
Co-Investigator(s): Catherine Moncrieff, Yukon River Drainage Fisheries Association

Project Cost: **2012:** $24,886 **2013:** $72,472 **2014:** $72,940 **2015:** $54,722

Recommendation: Fund

Issue

This project addresses the need for inclusive management in-season for Chinook, chum, and coho salmon fisheries on the Yukon River. Salmon are a critical resource for subsistence and commercial users in this region, which includes numerous Federal conservation units, and fisheries managers must have a means to gather input, assess harvests, and share information with these fishermen and fisheries stakeholders throughout the fishing season.

Yukon River Drainage Fisheries Association will host public in-season salmon management teleconferences throughout the salmon fishing season to foster communications between managers and fishermen in Yukon River. The Alaska Department of Fish and Game and the U.S. Fish and Wildlife Service fisheries managers monitor salmon fisheries and make in-season management decisions that need to be conveyed to approximately 55 communities in the Alaskan and Canadian portions of the Yukon River. The in-season management teleconferences give fishermen a reliable and consistent forum to access current information and also provide a direct link to communicate with fisheries managers. During the calls each week, fisheries reports are given up and down the river, including from 10 villages where Yukon River Drainage Fisheries Association will coordinate gathering qualitative in-season salmon harvest data. This enables fisheries managers to hear from fishermen, and community members from many locations along the Yukon River about fishing effort, harvest levels, and fishing conditions that impact their ability to harvest salmon. The calls aim to focus on in-season salmon management to ensure a maximum number of people can participate in the 90 minute time frame allotted to the calls. This project addresses the need for Alaskans and Canadians to participate first hand in fisheries management decision-making, especially during times of low salmon abundance and builds understanding regarding the management, use, and status of their shared salmon resource. The information shared helps fishing families prepare for the fishing season and builds relationships among diverse stakeholders that are needed for resource decision-making. Due to the need for consistent

The in-season harvest survey is an important assessment tool in that it qualitatively informs managers how fishers in key locations throughout the drainage are doing in-season, enabling managers to make timely decisions allowing the maximum of fishers to meet their subsistence needs. The in-season harvest survey will compliment the quantitative post-season survey by providing an explanation of fishing success such as high water, debris and other adverse effects that influence fishing success. In addition, a new question will be added to gather total harvest goals allowing for a secondary analysis of subsistence needs met as compared to harvest goal size.

Objectives

Provide an in-season forum for sharing information, facilitating discussion, building understanding among all stakeholder and user groups in the Yukon River drainage;

Collect qualitative harvest data information from 10 communities in the Alaskan portion of the Yukon River drainage during the Chinook salmon season.

Methods

Yukon River Drainage Fisheries Association will work with Alaska Department of Fish and Game and U.S. Fish and Wildlife Service annually to plan for the project by reviewing past performance and refining methods to meet project objectives. Yukon River Drainage Fisheries Association will implement pre-season promotions through direct mail, e-mail, social media, letters, posters, and newspaper advertisements to increase participation. Yukon River Drainage Fisheries Association will reserve a toll free phone line for every Tuesday at 1 p.m. AK time from the first week in June to the last week in August. During the first teleconference of the season Yukon River Drainage Fisheries Association will review the agenda and meeting protocols and Yukon River Drainage Fisheries Association staff will facilitate each teleconference that will include subsistence and management reports, as well as discussion. Yukon River Drainage Fisheries Association will summarize each call, which will be reviewed by agency managers and distributed through email and Yukon River Drainage Fisheries Association's website.

In-season harvest interviews will take place during the summer Chinook salmon season in 10 villages (Marshall, Russian Mission, Holy Cross, Kaltag, Nulato, Huslia, Galena, Nenana, Fort Yukon, and Eagle). The interview methodology will follow the *Principles for Conduct of Research in the Arctic*. The Yukon River Drainage Fisheries Association anthropologist will review the interview methodology and survey instrument will be reviewed and revised annually to ensure the recording and reporting formats are useful for managers and fishermen; she will identify any limitations from the previous year and will update data collection forms, interviewer training and protocols, and reporting.

Feedback from the state and federal managers in 2011 led to changes in the interview form and reports. Both the Yukon River post-season survey and the Kuskokwim River In-season survey have been reviewed and staff consulted on revisions. The in-season harvest survey methodology focuses on interviewing fishers weekly to collect qualitative information to provide managers with a real time assessment of the run. Quantitative information is not collected through this survey because of the nature of the design, surveyors do not always interview the same fishers every week but opportunistically interview all fishers they are able to contact, would make it difficult to collect extensive quantitative information, as in the post-season survey. But a secondary analysis that can link the post-season survey will include a question inquiring about each fisher's harvest goals at the beginning of the season and followed up weekly with a report on their progress towards their harvest goals.

In addition to collecting information from fishers, interviewers will disseminate relevant information to fishers as it becomes available. This will give fishers another link to management and keep them informed in-season regarding the fishery.

Partnerships/Capacity Building

This project will build the capability and expertise of Yukon River Drainage Fisheries Association, local interviewers, tribal councils and the fishing families participating in the interviews. Yukon River Drainage Fisheries Association will contract with tribal councils and train interviewers on information

gathering and reporting to include interview techniques, informed consent, protection of privacy, and how to report results in weekly teleconferences. The survey portion of the project will also build the capacity of the fishers being interviewed by informing them of current fisheries news and involving them in management. This project will promote interaction among rural residents through participation in the teleconferences and interaction within their villages on fisheries management. By engaging the resource users in the process of data gathering and including them in weekly discussions, they will be building their capacity in resource decision-making. Yukon River Drainage Fisheries Association will also build capacity in working with tribal councils on program implementation, oversight and delivery of services.

Justification

The project has a high strategic priority with high investigator ability and will continue to promote in-season information sharing, partnerships and capacity building, and management efforts on the Yukon River. In-season teleconferences have facilitated and improved communication and information sharing; the current proposal continues that effort. The budget is adequate for the proposed work.

MULTI-REGIONAL OVERVIEW

Issues and Information Needs

For the Multi-regional category, the 2012 Request for Proposals was focused on four priority information needs:

- Changes in subsistence fishery resources and uses, in the context of climate change where relevant, including but not limited to fishing seasons, species targeted, fishing locations, fish quality, harvest methods and means, and methods of preservation. Include management implications.
- Develop models based on long-term relationships between ocean conditions and production for Bering Sea and Gulf of Alaska Chinook salmon stocks to better understand and respond to changes in run abundance.
- An indexing method for estimating species-specific whitefish harvests on an annual basis for the Kuskokwim and Yukon drainages. Researchers should explore and evaluate an approach where sub-regional clusters of community harvests can be evaluated for regular surveying with results being extrapolated to the rest of the cluster, contributing to drainage-wide harvest estimates.
- Evaluation of conversion factors used to estimate edible pounds from individual fish, and from unorthodox units such as tubs, sacks, or buckets.

Projects Funded Under the Fisheries Resource Monitoring Program

Since the inception of the Monitoring Program in 2000, 14 projects have been funded in the Multi-regional category, and one of these projects is ongoing during 2012 (Tables 1 and 2). The ongoing project (08-701) provides for monitoring water temperature at many of the field project sites funded by the Fisheries Resource Monitoring Program, as an information baseline for multiple applications, including climate change assessment.

Projects Forwarded for Investigation Plan Development

Three proposals for research in the Multi-Regional category were submitted to the Office of Subsistence Management for funding consideration in 2012. In March 2011, the Technical Review Committee reviewed these proposals and recommended two for development of investigation plans. One of these was subsequently withdrawn by the investigator, while investigators for the other one used comments from the Technical Review Committee review of their proposal to develop an investigation plan. The detailed budget submitted with that investigation plan allowed identification of funds requested by Alaska Native, State, Federal, and other organizations; funds that would be used to hire local residents; and matching funds from investigators (Tables 3 and 4).

Available Funds

Federal Subsistence Board guidelines direct initial distribution of funds among regions and data types. While regional budget guidelines provide an initial target for planning, they are not rigid allocations. Upon review and evaluation, the Technical Review Committee, Regional Advisory Councils, Interagency Staff Committee and Federal Subsistence Board have the opportunity to address the highest priority projects across regions. For 2012, approximately $135,000 is available for funding new projects in the Multi-regional category.

Recommendations for Funding

The mission of the Monitoring Program is to identify and provide information needed to sustain subsistence fisheries on Federal public lands for rural Alaskans through a multidisciplinary, collaborative program. It is the responsibility of the Technical Review Committee to develop the strongest possible monitoring plan for each region and across the entire state. After reviewing the investigation plan, the Technical Review Committee recommended funding the proposed project (Table 5):

12-700	Yukon and Kuskokwim Inconnu Genetic Baseline	$16,788

The project recommended for funding in the Multi-regional category in 2012 is summarized below (see Executive Summary for more details on this project).

12-700 Yukon and Kuskokwim Inconnu Genetic Baseline. This three-year project would assess the genetic population structure and develop and evaluate a genetic baseline for inconnu (also referred to as sheefish) from the Yukon and Kuskokwim rivers. Inconnu is one of four important whitefish species harvested in subsistence fisheries in the Yukon and Kuskokwim River drainages and is a very valuable subsistence resource because of its year-round availability. This project would analyze samples from three to seven populations of inconnu collected through other efforts. Samples from three populations (upper Yukon Flats, Sulukna River, and Big River) are currently available for analysis, while samples from four others (Alatna River, Tanana River, upper Innoko River, and Highpower Creek) have not yet been collected. Availability of samples from these four populations would depend on whether Monitoring Program projects 12-200 (Alatna River) and 12-312 (Highpower Creek) are funded, and whether joint efforts by U.S. Fish and Wildlife Service and Alaska Department of Fish and Game being planned for the upper Innoko and Tanana rivers are successful. Additionally, data from project 10-104 (Hotham Inlet and Selawik Lake) would be used to examine inconnu population structure across western Alaska. This project would address a priority information need identified in the 2012 Request for Proposals and the Whitefish Strategic Plan.

Table 1. Summary of projects previously funded under the Fisheries Resource Monitoring Program in Multi-regional Alaska since 2000. Abbreviations used for investigators were: ADFG=Alaska Department of Fish and Game, AITC=Alaska Inter-Tribal Council, EA=Elizabeth Andrews, NPS=National Park Service, USFWS=U.S. Fish and Wildlife Service.

Project Number		Project Title	Investigators
00-016		Information Access of AYK Fish Data	ADFG
00-017		Statewide Subsistence Harvest Strategy	ADFG, AITC
01-010		Regulatory History of Alaska Salmon Regulations	ADFG, EA
01-106		Validity and Reliability of Fisheries Harvest	ADFG, AITC, NPS
01-107		Implementation of Statewide Fisheries Harvest Strategy	ADFG, AITC
01-154		Project Information and Access System	ADFG
02-043		Alaska Subsistence Fisheries Database GIS Integration	ADFG
02-069		Shared Fishery Database	ADFG
04-701		Develop Shared Fishery Database	ADFG
04-703	[a]	Hatching Success of Eulachon Eggs	USFS
04-751		Subsistence Harvest Database Update and Report	ADFG
05-702		Whitefish Genetic Species Markers	USFWS
06-701	[a]	Dolly Varden Stock Composition	USFWS

[a] Final Report in preparation.

Table 2. Summary of ongoing 2012 projects funded under the Fisheries Resource Monitoring Program in Multi-regional Alaska. Abbreviations for investigator is: ARRI=Aquatic Restoration and Research Institute.

Project Number	Project Title	Investigators	Budget ($000) 2012	2013
08-701	Temperature Monitoring	ARRI	$23.7	$0.0

Table 3. Mult-regional project costs, by organization (Alaska Native, State, Federal, other), for investigation plans submitted to the Fisheries Resource Monitoring Program for funding consideration in 2012.

Project Number	Title	Budget ($000s) Alaska Native	State	Federal	Other
	Stock Status and Trends Projects				
12-700	Yukon and Kuskokwim Inconnu Genetic Baseline			$16.8	

Table 4. Multi-regional local hire and matching funds for investigation plans submitted to the Fisheries Resource Monitoring Program for funding consideration in 2012. Abbreviations used are: USFWS=U.S. Fish and Wildlife Service.

Project Number	Lead Organization	Title	Funding ($000s) Local Hire	Matching
		Stock Status and Trends Projects		
12-700	USFWS	Yukon and Kuskokwim Inconnu Genetic Baseline	$0.0	$0.0

Table 5. Funding recommendations by the Technical Review Committee (TRC) for Multi-regional category, 2012 Fisheries Resource Monitoring Program.

Project Number	Title	TRC	Requested Budget ($000) 2012	2013	2014	2015
	Stock Status and Trends Projects					
12-700	Yukon and Kuskokwim Inconnu Genetic Baseline	Yes	$16.8	$49.9	$23.3	$0.0
	Total		$16.8	$49.9	$23.3	$0.0
	Guideline		$135.0			
	TRC Recommendation		$16.8	$49.9	$23.3	$0.0

Project Number:	12-700
Project Title:	A Genetic Baseline for Inconnu from the Yukon and Kuskokwim Rivers
Geographic Region:	Multi-Regional
Information Type:	Stock Status and Trends
Principal Investigator:	Jeffrey B. Olsen, U.S. Fish and Wildlife
Co-Investigator(s):	Randy J. Brown, U.S. Fish and Wildlife Service John K. Wenburg, U.S. Fish and Wildlife Service Ray Hander, U.S. Fish and Wildlife Service Lisa Stuby, Alaska Department of Fish and Game, Aaron Dupuis, Tanana Chiefs Conference

Project Cost: **2012:** $16,788 **2013:** $49,896 **2014:** $23,316

Recommendation: Fund

Issue

Inconnu (sheefish) *Stenodus leucichthys* contribute to subsistence fisheries in both the Yukon and Kuskokwim rivers. Despite the importance of inconnu as a subsistence resource in both rivers, relatively little information is available on the number and spatial distribution of discrete populations (population structure) and the impact of subsistence harvest on those populations. In this regard, genetic data is useful for not only describing population structure but also as a baseline for estimating population-specific harvest rates in a mixed-stock fishery. There are seven locations presently thought to be spawning sites for the majority of inconnu in both the Yukon and Kuskowim rivers. These sites include the upper Yukon Flats, the Sulukna, Alatna, and Tanana, upper Innoko rivers in the Yukon River drainage and Big River and High Power Creek in the Kuskokwim River drainage. It is not clear however if inconnu exhibit natal site fidelity to these spawning sites, although radio telemetry data suggests adults return multiple times to the same location to spawn. If distinct spawning populations exist the extent to which each population is available to, and impacted by, the fishery will likely vary depending the timing and location of the fishery. This study would assess genetic population structure of inconnu in the Yukon and Kuskokwim rivers and develop and evaluate a genetic baseline for monitoring the harvest of Yukon/Kuskokwim inconnu.

Objectives

1. Develop and test genetic markers for inconnu.
2. Describe and evaluate population structure of inconnu from the Yukon and Kuskokwim rivers. The data from this region will also be combined with data from the Kobuk and Selawik rivers (Monitoring Program project10-104) to describe population structure across western Alaska
3. Develop and test a genetic baseline for estimating the population composition in a mixed population sample of inconnu in the Yukon and Kuskokwim rivers.

Methods

Objective 1: Over 30 microsatellite markers have been identified from inconnu. Eight microsatellites have been tested and at least 10 more will be tested for Project 10-104. All microsatellites used for project 10-104 would be applied to populations in this study. In addition, the 12 microsatellites not tested in project 10-104 may be examined here if more loci are needed to provide adequate genetic variation.

Objective 2: Microsatellites would be used to describe and evaluate population structure among collections from putative spawning populations in the Yukon and Kuskokwim rivers. The goal is to examine population structure by sampling the seven locations thought to support the majority of inconnu spawners. These locations include the upper Yukon Flats, the Sulukna, Alatna, Tanana, and upper Innoko rivers in the Yukon River drainage and Big River and High Power Creek in the Kuskokwim River drainage. We presently have samples from the upper Yukon Flats (N=142), Sulukna River (N=177) and Big River (N=80). We anticipate receiving collections from at least some of the remaining four locations in the summer and fall of 2011 and 2012. Assuming a target sample size of 200 for the remaining collections, approximately 1,200 samples would be used to estimate and evaluate population structure. In addition, the data from Project 10-104 would be incorporated with data collected in this study to examine inconnu population structure across western Alaska.

In the event that we do not acquire samples from all seven locations, we would reduce the scope and cost of the project accordingly. We feel the most likely alternative is that we receive some samples from all but the Tanana River. However, at the very least this project would examine inconnu population structure using the collections currently on hand (Sulukna River, upper Yukon Flats, and Big River). These three collections would help reveal the extent of population structure in western Alaska when combined with the samples from Project 10-104, Genetic Mixed-Stock Analysis and Composition of Inconnu from the Hotham Inlet and Selawik Lake Winter Subsistence Gillnet Fishery.

Objective 3: The genetic data derived from objective 2 would be evaluated for mixed-stock fishery analysis in the Yukon and Kuskokwim rivers using computer simulation.

Partnerships and Capacity Building

We have discussed the project with John Burr (Alaska Department of Fish and Game, Yukon Area sport fish management biologist) who has expressed support for the conceptual proposal and currently plans to participate in collecting samples from the upper Innoko River in 2011. This project would build capacity within the Tanana Chiefs Conference by strengthening relationships between them and the U.S. Fish and Wildlife Service. Also, the proposed Alatna River inconnu Monitoring Program project (Project12-200) includes the involvement of subsistence fishers from Alatna to sample fish and collect fin tissue for genetic analysis. The results of this study would contribute to a better understanding of the population structure of western Alaska inconnu and the genetic baseline would help subsistence fishery managers better assess the population-specific impacts of a mixed-stock subsistence fishery.

Justification

This project directly addresses a priority information need in the 2012 Request for Proposals. Data from this project would be used with data from Hotham Inlet and Selawik Lake, collected as part of Monitoring Program project 10-104, to examine inconnu population structure across western Alaska. All the investigators are well-qualified. The Conservation Genetics Laboratory investigators are currently conducting a similar Monitoring Program project on cisco (project 10-209, Genetic Stock Assessment of Yukon Delta Bering Cisco Commercial Harvest). Project objectives should be achievable with the proposed budget, and the methods used would be technically sound.

UPDATE ON BERING SEA/ALEUTIAN ISLANDS CHUM SALMON BYCATCH

In May 2011, the Federal Subsistence Board sent a letter to the North Pacific Fishery Management Council recommending that a hard cap of 50,000 (the lowest hard cap amount among the range of alternatives under consideration), with a trigger cap of 25,000 be adopted.

During its June 2011 meeting in Nome, the North Pacific Fishery Management Council (Council) held its initial review of the analysis of proposed management measures to minimize chum salmon bycatch in the Bering Sea pollock fishery. Representatives from the Seward Peninsula, Yukon-Kuskokwim Delta, Western Interior and Eastern Interior Regional Advisory Councils attended, and provided testimony. The proposed measures included hard caps on the pollock fishery; triggered time and area closures; and participation in the Rolling Hotspot Program, a fleet-managed program for real-time bycatch area closures on 4–7 day time frames. The Council revised and restructured the suite of alternatives and options, and requested new information. Some of the changes include the following:

- An additional option for a separate hard cap for June and July when western Alaskan chum stocks are more prevalent in the bycatch. If reached, this cap would close all fishing for Bering Sea Pollock until August 1.

- Removal from consideration complicated monthly area management options and triggers (formerly Alternative 3).

- Additional provisions to the Rolling Hotspot program for area closures based on historical bycatch proportions (80% and 60%) to which the fleet would be subject regardless of Rolling Hot Spot program participation.

- Analysis of additional parameters of the Rolling Hotspot program that could be adjusted by the Council to improve program performance.

The full Council motion is posted on the website (see http://www.fakr.noaa.gov/npfmc/current_issues/bycatch/ChumBycatchMotion611.pdf).

A revised set of alternatives based upon the Council's motion will be posted in the near future.

The Council further requested that the analysis be revised per its requests and be brought back to the Council for review in early 2012. The decision to schedule a review for 2012 was made, at least in part, since the October 2011 meeting is in Dutch Harbor, which is difficult place for rural western Alaska residents to access, and the December 2012 meeting is focused on groundfish stock assessments, so staff are focused on preparing assessments for several months prior to this meeting. Once the Council reviews the chum salmon bycatch analysis in early 2012, it will need to provide time for the public to comment on the analysis and proposed alternatives. It is unlikely the Council will make a final decision until its April 2012 meeting.

Federal Subsistence Board
1011 E. Tudor Rd., MS 121
Anchorage, Alaska 99503-6199

U.S. FISH and WILDLIFE SERVICE
BUREAU of LAND MANAGEMENT
NATIONAL PARK SERVICE
BUREAU of INDIAN AFFAIRS

U.S. FOREST SERVICE

FWS/OSM11056/TT

Eric Olson, Chair
North Pacific Fishery Management Council
605 W. 4th Avenue, Suite 306
Anchorage, Alaska 99501-2252

MAY 20

Dear Mr. Olson:

The Federal Subsistence Board (Board) is taking this opportunity to provide its comments and recommendation on chum salmon bycatch in the Bering Sea/Aleutian Islands (BSAI) commercial pollock fishery as the North Pacific Fishery Management Council (NPFMC) prepares to select a preliminary preferred alternative at its June 2011 meeting in Nome, Alaska. The Board, comprised of the Regional Directors of the U.S. Fish and Wildlife Service, the Bureau of Indian Affairs, the National Park Service, the Bureau of Land Management and the USDA Forest Service, and a Chair appointed by the Secretaries of the Interior and Agriculture, provides subsistence fishing opportunities in Federal public waters in Alaska under Title VIII of the Alaska National Interest Lands Conservation Act (ANILCA).

Bycatch is of concern to the Board and the affected Regional Advisory Councils because Western Alaska chum salmon stocks are important subsistence resources for Federally-qualified subsistence users in the Norton Sound, Yukon, Kuskokwim, and Bristol Bay areas. Along the Yukon and Kuskokwim rivers alone, there are 6,800 households in 80 villages. Chum salmon make a significant contribution to the way of life of western and interior Alaska's subsistence users, families and communities. The recent fall chum salmon runs in the Yukon River are of particular concern. In both 2009 and 2010, subsistence harvest was restricted due to poor, lower than average size runs and/or to ensure passage into Canada to meet escapement goals.

At its May 2011 public meeting the Board reviewed, discussed and heard public testimony on the various alternatives under consideration in the NPFMC's revised *Bering Sea non-Chinook (Chum) Salmon Bycatch Management Measures*, dated February 2011. **The Board recommends that a hard cap of 50,000, with a trigger cap of 25,000 chum salmon be adopted**. Once the trigger cap is reached, conservation measures would be implemented to assist the pollock fishery fleet to avoid reaching the hard cap. This alternative would provide a better opportunity for increased numbers of chum salmon to reach Western and Interior Alaska rivers to meet spawning escapement and provide for subsistence uses.

It also comes closest to the stipulation in the U.S./Canada Yukon River Salmon Agreement, signed in 2002, which requires the United States to increase in-river returns of Yukon River origin salmon by reducing marine catches and bycatches of Yukon River salmon. The 50,000 level represents a meaningful reduction in the 1997-2001 average of 58,000 chum salmon bycatch, just prior to the signing of the U.S./Canada Yukon River Salmon Agreement. This five-year period is also the same period utilized by the Board for its recommendation to the NPFMC on BSAI Chinook salmon bycatch in April 2009.

The Board appreciates the outreach efforts that NPFMC members and staff conducted on this issue by attending the February/March 2011 meetings of the Yukon-Kuskokwim Delta, Western Interior, Eastern Interior and Bristol Bay Subsistence Regional Advisory Councils. If the Board can be of further assistance, please contact Peter J. Probasco, Assistant Regional Director, Office of Subsistence Management, at (907) 786-3888. The Board will continue to monitor developments on this important issue and looks forward to the results of your efforts to significantly reduce chum salmon bycatch in the BSAI pollock fishery.

Sincerely,

/S/

Tim Towarak
Chair, Federal Subsistence Board

cc: Federal Subsistence Board members
Gene Virden, Acting Regional Director - Bureau of Indian Affairs
Bud Cribley, State Director - Bureau of Land Management
Sue Masica, Regional Director - National Park Service
Geoff Haskett, Regional Director - U.S. Fish and Wildlife Service
Beth Pendleton, Regional Forester - USDA Forest Service
Pat Pourchot, Department of the Interior, Alaska
Peter J. Probasco, Office of Subsistence Management
Lester Wilde, Chair, Yukon-Kuskokwim Delta Regional Advisory Council
Jack Reakoff, Chair, Western Interior Alaska Regional Advisory Council
Sue Entsminger, Chair, Eastern Interior Alaska Regional Advisory Council
Molly Chythlook, Chair, Bristol Bay Regional Advisory Council
Weaver Ivanoff, Chair, Seward Peninsula Regional Advisory Council
Cora J. Campbell, Commissioner, Alaska Department of Fish and Game
James W. Balsiger, Administrator, Alaska Region, National Marine Fisheries Service
David Balton, Deputy Assistant Secretary, Oceans and Fisheries, U.S. Department of State

TRI-RAC CUSTOMARY TRADE SUBCOMMITTEE STATUS REPORT

The Tri-RAC subcommittee on customary trade is composed of members from the Yukon-Kuskokwim Delta Subsistence Regional Advisory Council, the Western Interior Subsistence Regional Advisory Council, and the Eastern Interior Subsistence Regional Advisory Council.

The Tri-RAC subcommittee met on May 18-19 and again on August 23-24 to address a river-wide solution to the issue of customary trade of Yukon River Chinook salmon. At both meetings, the subcommittee agreed that low runs of Chinook salmon require conservation efforts to extend to customary trade practices. In the event Chinook salmon runs return to prior levels, limits to customary trade may no longer be warranted.

Subcommittee members present at the May meeting included: Raymond Oney, Harry Wilde Sr., and Aloysius Unok (YKDSRAC); Ray Collins, Robert Walker and Jenny Pelkola (WISRAC); Andy Bassich, Andrew Firmin, and Bill Glanz (EISRAC). Subcommittee members present at the August meeting included: Raymond Oney, Harry Wilde Sr., and Aloysius Unok (YKDSRAC); Ray Collins and Don Honea, Jr. (WISRAC); Andy Bassich, Andrew Firmin, and Bill Glanz (EISRAC).

At its May meeting, the subcommittee suggested three broad customary trade regulatory changes. These changes were motivated by many years of low Yukon River Chinook returns and concern over the continued viability of Chinook populations. The subcommittee's ideas for proposed regulatory changes were sent out for public review and comment.

At its August meeting, the subcommittee discussed the public response to the proposed regulatory changes. Based on those discussions, the subcommittee developed the following recommendation.

Because of declining Chinook salmon runs, the Tri-RAC recommends the following regulation to govern customary trade of Yukon River Chinook salmon:

Customary trade of Yukon River Chinook salmon may only occur between Federally qualified rural residents with a current customary and traditional use determination.

Justification

- By allowing customary trade only between federally qualified rural residents with a customary and traditional use determination for Yukon River Chinook salmon, the subcommittee hopes to curtail large customary trade exchanges involving Chinook salmon which are reported to occur in urban areas of Alaska and may rise to the level of a significant commercial enterprise.

- In times of low abundance, Yukon River Chinook salmon should remain within the Yukon River drainage for subsistence uses.

- Reduces overall Chinook salmon harvest, which may allow fisheries managers to minimize subsistence fishing restrictions.

- Provides fisheries managers additional fish to meet drainage-wide escapement goals, which has the potential of improving future returns.

- Allows fishers to recover reasonable expenses for traditional subsistence activities, which was the original intent of customary trade.

The subcommittee also developed an alternative proposal. This proposal was developed for RAC discussion, but is not the subcommittee's preferred option.

Alternative Proposal

Preclude customary trade of Yukon River Chinook salmon between rural residents and others.

a) Establish a $750 limit per calendar year per qualified household;

b) Require customary trade recordkeeping and receipt form.

Justification

- Establishes an enforceable dollar amount for customary trade of Yukon River Chinook salmon.
- Addresses problem by limiting potential for large volume sales.
- By allowing customary trade only between federally qualified rural residents, and not between rural residents and others, the subcommittee hopes to curtail large customary trade exchanges involving Chinook salmon, which are reported to occur in urban areas of Alaska and may rise to the level of a significant commercial enterprise.
- Reduces overall harvest, which may allow fisheries managers to minimize subsistence fishing restrictions.
- Provides fisheries managers additional fish to meet drainage-wide escapement goals, which has the potential of improving future returns.
- Provides law enforcement necessary information to curtail illegal cash sales by identifying harvest sources and quantities.

Because of declining Yukon River Chinook runs, the subcommittee also recommends that a required Chinook salmon harvest calendar be implemented for Federally qualified subsistence users.

Justification

- Accurate harvest reporting would facilitate Yukon River Chinook salmon management by providing an account of day-to-day harvest levels. This information would be used to support post-season household survey data, and would not replace such data.
- A harvest calendar would also be part of educating people toward greater conservation awareness.

Next Steps:

- Council and public comments compiled and taken back to the subcommittee
- Subcommittee decides on a proposal to submit
- Proposal goes through the Federal regulatory process for fish beginning with the publication of the proposed rule and call to change regulations
- Councils provide recommendations on the proposal during the 2012 fall meetings
- Federal Subsistence Board action in January 2013

STATUS REPORT ON THE SECRETARIAL RECOMMENDATIONS TO THE FEDERAL SUBSISTENCE MANAGEMENT PROGRAM

"Subsistence is of critical cultural as well as nutritional importance to rural Alaskans, and I take seriously the responsibility for carrying out the mandate of Title VIII of ANILCA to provide opportunities and priority for subsistence uses on Federal lands and waters."

Secretary Salazar, December 2010

Implementation of a subsistence program that fulfills the obligations of the U.S. Government to rural families is important to me. The Federal Subsistence Management Program in Alaska aligns closely with the mission of the U.S. Department of Agriculture's (USDA) mission and embodies key priorities that include sustaining the livelihood of rural families, ensuring access to healthy and affordable food, providing jobs in rural communities, sustaining cultural and traditional ways of life, and strengthening relationships with Alaska Native tribes.

Secretary Vilsack, April 2011

In 2009, the Secretaries of Interior and Agriculture announced a review of the Federal Subsistence Management Program, acknowledging that it was no longer temporary, and stating that there was value in examining the program. Their stated goals were to look ahead to plan for the future of the program to ensure that it is best serving rural Alaskans and that the letter and spirit of Title VIII of ANILCA are being met. The review began in November 2009, and preliminary recommendations were released in August 2010.

In December 2010 the Secretary of Interior with concurrence from the Secretary of Agriculture announced the results of their review and provided several recommendations to the Federal Subsistence Board towards the purpose of providing a more responsive, effective program.

All of these recommendations can be implemented by the Secretary of the Interior or by the Secretary with concurrence of the Secretary of Agriculture, or by the Federal Subsistence Board. Most can be accomplished as a matter of Secretarial directive or policy. However, some would be regulatory changes requiring a formal rule-making process. The Federal Board prioritized the recommendations and began working on a subset in December 2010. Work is proceeding as follows:

1. Develop a proposed regulation to increase the membership on the Federal Subsistence Board to include two additional public members representing subsistence users.

    - **Status**: A Final Rule has been published in the Federal Register. The language adopted by the Secretaries is as follows:

      "(1) The voting members of the Board are: … two public members representing rural Alaskan subsistence users who possess personal knowledge of and direct experience with subsistence uses in rural Alaska to be appointed by the Secretary of the Interior with the concurrence of the Secretary of Agriculture."

    - The Secretaries will be seeking applications/nominations for the two seats and are hoping to have the two positions seated by January 2012.

2. As a matter of policy, expand deference to appropriate RAC recommendations in addition to the "takings" decisions of the Board provided for under Section 805(c) of ANILCA, subject to the three exceptions found in that Section.

    - **Status:** The Board is still in the process of considering expanding its deference to Regional Advisory Council recommendations to matters beyond take. The Board is generally supportive of expanding deference to Councils on C&T and has yet to determine whether or not it is sufficient to reflect this perspective in policy or if rulemaking needs to be pursued. With regard to deference on rural determinations, the Board is continuing to learn the intricacies of the regulations and the process, and is exploring whether or not deference regarding rural determinations is appropriate given Court findings. Finally, with regard to deference on in-season management decisions, the Board understands that because in-season management decisions often must be made quickly in response to newly obtained information, deference to Council recommendations will occur only when time and conservation allow.

3. Review, with RAC input, the December 2008 Memorandum of Understanding (MOU) with the State to determine either the need for the MOU or the need for potential changes to clarify federal authorities in regard to the subsistence program.

    - **Status:** The MOU was provided to all ten Regional Advisory Councils for comment during winter 2011 meeting cycle. Council comments were summarized and reviewed by the Board in summer 2011. The Board has directed that the changes recommended by the Councils be examined by a work group comprised of both state and federal members, with a report back to the Board and final action on proposed changes by December 2011.

4. Review, with RAC input, the customary and traditional use determination process and present recommendations for regulatory changes.

    - **Status**: All ten Regional Advisory Councils were asked for their perspectives on the existing process during the Winter 2011 meeting cycle. These comments were summarized and reviewed by the Board in May 2011. Because most comments were generally supportive of the existing process, the Board is focusing its energies on other action items at this point in time.

5. Review, with RAC input, rural/nonrural determination process and present recommendations for regulatory changes.

    - **Status:** The Board held a work session in April to learn about rural process, and is continuing to learn the intricacies of the regulations and the process. In response to the Secretarial Review, the Board is exploring whether or not it can delay the implementation date for the communities or areas which were rural and were determined to be nonrural during the 2000 review process. The Board is evaluating how best to proceed in conducting the 2010 rural determination process.

6. Review the Board's written policy on executive sessions and minimize the use of executive sessions to those cases specifically prescribed.

- **Status:** The Board has revised its Executive Session policy to reflect that it intends to keep its business transparent, and will provide a summary of Executive Sessions as and when they occur. The Board adopted its revised policy at its May 2011 meeting.

7. At the request of the Director of the US Fish and Wildlife Service and under Departmental procedures, review and submit recommendations for Departmental consideration of the annual budget for the Federal subsistence program. Under this directive, the following elements (gleaned from the Secretarial Review comments) are recommended as a focus:

   a. Hold Federal Subsistence Board meetings in rural areas

      - **Status**: Pending Additional funding

   b. Increase Training and support to Regional Advisory Councils

      - **Status**: Implement when funding and staffing allow.

   c. Implement Wildlife Monitoring Studies

      - **Status:** Pending additional funding

   d. Increase Tribal Consultation

      - **Status:** In Progress (see written briefing)

   e. Increase capacity within Office of Subsistence Management for research and implementation

      - **Status:** Pending additional funding

   f. Reinstate the annual regulatory cycle

      - **Status:** The Board sees the value of every other year cycle, but may be open to reinstating the annual cycle should funding allow.

The Federal Board has not yet begun work on the following directives:

8. Review, with RAC input, and present recommendations for changes to Federal subsistence procedural and structural regulations (Parts A&B of the CFRs) adopted from the State in order to ensure Federal authorities are fully reflected and in accord with subsistence priorities provided for in Title VIII.

9. Ensure the Secretaries are informed when non-Department rule-making entities develop regulations that may adversely affect subsistence users.

10. To the extent practicable, utilize contracting and use of ANILCA Section 809 cooperative agreements with local tribes and other entities in the Board's review and approval of proposals for fulfilling subsistence program elements.

BUDGET IMPLICATIONS

The Secretary's 2010 Report recognizes that the Federal program will be in place for the foreseeable future and as such, it must fulfill the commitments made in ANILCA relative to providing for the rural subsistence priority. In light of the Secretary's emphasis on the Federal Subsistence Management Program and resultant heightened expectations of rural Alaskans, additional funding is needed for the Federal Subsistence Management Program to implement many of the Secretarial Recommendations. Unfortunately, funding in 2012 and beyond is likely to be flat or reduced; this will affect the ability of both the Board and the Program to deliver on certain of these recommendations.

BRIEFING ON TRIBAL CONSULTATION

As discussed with the Regional Advisory Councils at the Winter 2011 meetings, the Federal Subsistence Board has been taking steps to formally incorporate tribal consultation into the Federal Subsistence Management Program, while maintaining the established role of the Councils. This action is consistent with the Secretaries of the Interior and Agriculture's renewed emphasis on respectful relationships with tribes.

Towards this end, Tribes were invited to participate in the January 18–21, 2011 Federal Board meeting. Invitations were sent to all Federally recognized Tribes in Alaska, as well as ANCSA corporations[1]. The invitations were twofold: Tribes and ANCSA Corporations were invited to provide comments on the fisheries proposals and they were also invited to a meeting on the 21st to discuss development of a consultation protocol for the overall Federal Subsistence Management Program. The meeting on the 21st was generally a listening session, and the Board recognized that development of specific consultation mechanisms would require further meetings between the Federal Subsistence Board and Tribes and ANCSA Corporations. The Board's goal is to work with Tribes and ANCSA Corporations to develop a consultation policy for the subsistence management program, consistent with Departmental policies.

At its May 4–5, 2011 meeting, the Federal Subsistence Board reviewed the summary of comments from the January 21st meeting, and directed that a workgroup comprised of a small number of Federal and tribal representatives be formed to develop a draft protocol(s) on consultation for the Board's review. The workgroup held an initial meeting in June 2011 to begin developing interim protocols to guide consultation between the Federal Subsistence Board and Tribes and ANCSA corporations.

In July 2012, the Board approved two interim protocols, one for Tribes and one for ANCSA Corporations; these will guide consultation efforts through the wildlife cycle. The interim protocols (included in the Council books), and an accompanying letter, were sent out to all Tribes and ANCSA Corporations in July. The Workgroup is continuing to work on drafting the final protocols, and multiple opportunities will be provided for Tribal and ANCSA Corporation involvement and review of the draft documents. It is hoped that the final protocols will be ready in time for the Board to adopt at its May 2012 meeting. A few key dates and events in the development of final protocols are as follows:

- October 20, 2011—Consultation with ANCSA Corporations at AFN
- December 1, 2011—Consultation with Federally recognized Tribes at the BIA Tribal Service Providers Conference
- January 17–19, 2012—Federal Subsistence Board meeting in Anchorage, discussion of draft protocols on the agenda

[1]Consultation with Alaska Native corporations is based on Public Law 108–199, div. H, Sec. 161, Jan. 23, 2004, 118 Stat. 452, as amended by Public Law 108–447, div. H, title V, Sec. 518, Dec. 8, 2004, 118 Stat. 3267, which provides that: "The Director of the Office of Management and Budget and all Federal agencies shall hereafter consult with Alaska Native corporations on the same basis as Indian tribes under Executive Order No. 13175." See also 25 USC Section 450, note.

Final as adopted by Federal Subsistence Board: July 12, 2011

U. S. Department of Interior

& U.S. Department of Agriculture

FEDERAL SUBSISTENCE BOARD

INTERIM PROTOCOL

FOR

GOVERNMENT-TO-GOVERNMENT CONSULTATION

The United States Government has a unique relationship with American Indian governments as set forth in the Constitution of the United States, treaties, statutes, court decisions, executive orders and policies. In recognition of that special relationship, on November 6, 2000, the President issued Executive Order 13175 (Consultation & Coordination with Indian Tribal Governments), which provided guidelines to all Federal agencies for establishing regular and meaningful consultation with Tribal officials in decision-making processes that may have Tribal implications. On November 5, 2009, a Presidential Memorandum was issued pursuant to Executive Order 13175, reaffirming the Federal government's commitment to operate within a government-to-government relationship with federally recognized tribes. Pursuant to the direction provided by the Secretaries of Interior and Agriculture, this document lays out an interim protocol for consultation between the Federal Government and Federally recognized Tribal Governments located in Alaska for the Federal Subsistence Board process.

The following **interim** protocol sets out a framework for consultation during the 2011 cycle of the Federal Subsistence Management Program with respect to: 1) the 2012-2014 wildlife regulatory proposals and 2) the Government-to-Government Subsistence Consultation Protocol.

1. Each federally recognized Tribe will be sent a letter from the Federal Subsistence Board inviting consultation on all 2012-2014 wildlife regulatory proposals. The letter will:
    a. Explain the interim consultation process and the need for this interim consultation effort regarding the 2012-2014 wildlife regulatory proposals.
    b. Explain that the final consultation protocol is expected to be in place by May 2012 in time to be implemented for the fisheries regulatory cycle process.
    c. Inform the Tribes of the face-to-face consultation opportunity focusing on the consultation protocol during the Tribal Service Providers Conference on the afternoon of December 1, 2011 in Anchorage.
2. Government-to-government consultation will take place regarding the 2012-2014 wildlife regulatory proposals during the August 15 through September16, 2011, timeframe.
    a. Conduct a consultation via teleconference for each Federal Subsistence Regional Advisory Council area prior to the Regional Advisory Council meeting.
        i. At least four Federal Subsistence Board members or their designees will participate in each teleconference.

ii. Federal officials will receive training on principles and practices of government-to-government consultation prior to participating in the teleconferences.
iii. A Tribal official and Federal official will be selected during the consultation to jointly report the results of the consultation to the Federal Subsistence Regional Advisory Council.

3. An in-person government-to-government consultation will be held the day prior to the January Federal Subsistence Board meeting regarding wildlife regulatory proposals and the May Board meeting regarding the consultation protocol.

Final as adopted by Federal Subsistence Board: July 12, 2011

FEDERAL SUBSISTENCE BOARD

INTERIM PROTOCOL

FOR

GOVERNMENT-TO-ANCSA-CORPORATIONS CONSULTATION

Pursuant to the direction provided by the Secretaries of Interior and Agriculture, this document lays out an interim protocol for consultation between the Federal Government and Alaska Native Claims Settlement Act (ANCSA) Corporations.

ANCSA Corporations, by mandate of the 25 USC §450 note (Consultation with Alaska Native corporations), must be consulted with by the Federal Subsistence Board with respect to: 1) the 2012-2014 wildlife regulatory proposals and 2) the Government-to-ANCSA-Corporations Subsistence Consultation Protocol.

Interim Consultation Protocol:

1. Each ANCSA corporation will be sent a letter from the Federal Subsistence Board inviting consultation on all 2012-2014 wildlife regulatory proposals.
   The letter will:
   a. Explain the interim consultation process and the need for this interim consultation effort regarding the 2012-2014 wildlife regulatory proposals.
   b. Explain that a final protocol is expected to be in place by May 2012, in time to be implemented for the fisheries regulatory cycle process.
   c. Mention the Board's interest in having a presentation made about the consultation protocol at the AFN convention.
2. Two dates will be scheduled for a government-to-ANCSA-corporations consultation teleconference opportunity prior to August 22, 2011.
   a. ANCSA corporations can choose to consult at either or both teleconferences.
   b. At least four Federal Subsistence Board members or their designees will participate at each consultation.
   c. ANCSA corporations and Federal agencies will each appoint a representative to report the results of consultation to each of the 10 Federal Subsistence Regional Advisory Councils during the fall 2011 Regional Advisory Council meetings.

Winter 2012 Regional Advisory Council Meeting Calendar

February–March 2012 current as of 03/28/11

Meeting dates and locations are subject to change.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Feb. 12	*Feb. 13* *Window Opens*	*Feb. 14*	*Feb. 15*	*Feb. 16*	*Feb. 17*	*Feb. 18*
		SP—Nome	**NS—Barrow**			
Feb. 19	*Feb. 20* ***HOLIDAY***	*Feb. 21*	*Feb. 22*	*Feb. 23*	*Feb. 24*	*Feb. 25*
				YKD—Emmonak		
Feb. 26	*Feb. 27*	*Feb. 28*	*Feb. 29*	*Mar. 1*	*Mar. 2*	*Mar. 3*
		WI—McGrath			**EI—Central**	
Mar. 4	*Mar. 5*	*Mar. 6*	*Mar. 7*	*Mar. 8*	*Mar. 9*	*Mar. 10*
	BB—Naknek		**NWA—Kotzebue**			
Mar. 11	*Mar. 12*	*Mar. 13*	*Mar. 14*	*Mar. 15*	*Mar. 16*	*Mar. 17*
	SE—Sitka					
		SC—Anchorage				
Mar. 18	*Mar. 19*	*Mar. 20*	*Mar. 21*	*Mar. 22*	*Mar. 23* *Window Closes*	*Mar. 24*
			K/A—Old Harbor			

Fall 2012 Regional Advisory Council Meeting Calendar

August 20–October 12, 2012 current as of 07/20/11

Meeting dates and locations are subject to change.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Aug. 19	*Aug. 20* *WINDOW OPENS*	*Aug. 21*	*Aug. 22*	*Aug. 23*	*Aug. 24*	*Aug. 25*
Aug. 26	*Aug. 27*	*Aug. 28*	*Aug. 29*	*Aug. 30*	*Aug. 31*	*Sept. 1*
Sept. 2	*Sept. 3* ***HOLIDAY***	*Sept. 4*	*Sept. 5*	*Sept. 6*	*Sept. 7*	*Sept. 8*
Sept. 9	*Sept. 10*	*Sept. 11*	*Sept. 12*	*Sept. 13*	*Sept. 14*	*Sept. 15*
Sept. 16	*Sept. 17*	*Sept. 18*	*Sept. 19*	*Sept. 20*	*Sept. 21*	*Sept. 22*
Sept. 23	*Sept. 24*	*Sept. 25*	*Sept. 26*	*Sept. 27*	*Sept. 28*	*Sept. 29*
Sept. 30 *END OF FY2012*	*Oct. 1*	*Oct. 2*	*Oct. 3*	*Oct. 4*	*Oct. 5*	*Oct. 6*
Oct. 7	*Oct. 8* ***HOLIDAY***	*Oct. 9*	*Oct. 10*	*Oct. 11*	*Oct. 12* *WINDOW CLOSES*	*Oct. 13*